County of Los Angeles

All-Hazard Mitigation Plan

Version 1.1

June 2005

APPENDIX 1 to SECTION 1

Plan Adoption

Prepared by Dimensions Unlimited, Inc.

COUNTY OF LOS ANGELES
Office of Emergency Management
1275 North Eastern Avenue
Los Angeles, California 90063
(323) 980-2260

David E. Janssen
Chief Administrative Officer

Constance Perett
Administrator

November 3, 2004

Henry Renteria
Director
Governor's Office of Emergency Services
P.O. Box 419047
Rancho Cordova, CA 95741-9047

Dear Director Renteria:

MULTI-HAZARD MITIGATION PLAN

I am enclosing the County of Los Angeles Multi-Hazard Mitigation Plan, which complies with the Federal DMA 2000 legislation. I am also enclosing the plan crosswalk, as requested by your staff. This is a complex and lengthy plan, which reflects the array of disasters that threaten our county. Our plan has been approved by our Board of Supervisors, and we have made it available to our local cities to assist in their mitigation planning processes. The plan is also available to County departments and our local governments as a resource as they develop hazard mitigation projects and apply for Federal grant assistance.

We are requesting your help in expediting the State and Federal review processes. Because of the many hazards that threaten our county's residents, hazard mitigation projects are an ongoing part of County government. We need the ability to apply for hazard mitigation grants, and some of these are dependent on plan approval. We could be subject to a major disaster at any time, and successful post-disaster mitigation projects will certainly depend on federal funding through the Post-Disaster Hazard Mitigation Program.

If your staff have questions, please ask them to contact Bill Butler, Assistant Administrator, at (323) 980-2258 or bbutler@lacoeoc.org.

Very truly yours,

CONSTANCE PERETT, CEM

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County of Los Angeles
CHIEF ADMINISTRATIVE OFFICE
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DAVID E. JANSSEN
Chief Administrative Officer

October 13, 2004

ADOPTED
BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES

6 5-D OCT 19 2004

Violet Varona-Lukens
VIOLET VARONA-LUKENS
EXECUTIVE OFFICER

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

Dear Supervisors:

LOS ANGELES COUNTY ALL-HAZARD-MITIGATION PLAN (ALL AFFECTED)
(3 VOTES)

IT IS RECOMMENDED THAT YOUR BOARD:

1. Approve the County of Los Angeles All-Hazard Mitigation Plan.
2. Instruct the Chief Administrative Officer's (CAO's) Office of Emergency Management (OEM) to forward the plan to the California Office of Emergency Services (OES), requesting an expedited review and that they forward the plan to the Federal Emergency Management Agency (FEMA) for approval;
3. Delegate authority to the CAO to approve changes to the plan which may be requested by OES or FEMA and to approve future changes to mitigation strategies within the plan.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

FEMA is authorized through Federal legislation to provide funding for disaster relief, recovery, and some hazard mitigation planning. The Disaster Mitigation Act of 2000 (DMA 2000), authorized in Public Law 106-390, is the latest legislation intended to strengthen hazard mitigation planning.

This plan was developed to comply with the new law and to demonstrate the County's high level of commitment to pre-disaster hazard mitigation programs. This is the first Countywide mitigation plan, and OEM is committed to keeping the plan up-to-date through an annual review beginning January 2006. The plan provides a valuable repository of information for departments preparing applications for mitigation grants.

DMA 2000 adds a new requirement that beginning on November 4, 2004, states and local governments must have an OES- and FEMA-approved mitigation plan in place prior to receiving Hazard Mitigation Grant Program (HMGP) funds. The most significant impact is on post-disaster HMPG. After the 1994 Northridge Earthquake, communities in Los Angeles County received over $600 million in post-disaster HMPG funds. Much of this money went to schools and hospitals, based on State and FEMA HMPG priorities, but in a future disaster, County programs could stand to lose HMPG funds, depending on the HMPG priorities established by OES and FEMA.

It is apparent that plan reviews at OES and FEMA will take a significant length of time, given that every local government in the nation is required to complete a plan. According to OES, if there is a major disaster affecting Los Angeles County before our plan is approved, FEMA will accelerate their plan review and work with the County and other affected local governments to ensure that the plan is approved in time to establish HMPG eligibility. The HMPG program does not become available until six to nine months after a major disaster.

Los Angeles County and most other governments in California, including the largest cities in Los Angeles County, were not able to comply with the November 4 deadline because of the complex requirements for these plans. The only local government in California with an approved plan is the city of Berkeley. The four largest cities in Los Angeles County are on about the same schedule as the County in their planning process and expect to submit their plans during the first week of November. The County Office of Education is on the same planning timeline as the County.

The FEMA rule required an extensive and complex planning process, which we began in September 2003, shortly after Federal and State guidance was received. The FEMA rule implementing this law requires that the plan meet specific requirements, including a public comment process, a review of existing plans, and extensive descriptions of all of the hazards that could affect the County. In order to comply with the extensive FEMA requirements, our plan is over 2000 pages long, and required a sustained twelve-month effort by our contractor and affected County departments. Mitigation programs in disaster-prone Los Angeles County are complex, and by the nature of our government services, the County plan is much longer and more complex than any other local government plan in California.

We are requesting that that your Board delegate approval for future plan updates to the CAO. This will ensure that we can keep the plan current as County mitigation programs are implemented. Although we expect OES and FEMA to approve this plan in this submission, either agency may request changes, and this delegated authority will ensure that we can make any required changes promptly.

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Honorable Board of Supervisors
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Implementation of Strategic Plan Goals

This plan supports the following goals in the County Strategic Plan:

- Goal 1, "Service Excellence," and Goal 6, "Community Services," by supporting mitigation programs that will benefit our communities;
- Goal 3, "Organizational Effectiveness," by providing supporting materials for mitigation grant applications; and
- Goal 4, "Fiscal Responsibility," and Goal 8, "Public Safety," by establishing goals and priorities for mitigation projects, and ensuring eligibility for Federal hazard mitigation grants.

FISCAL IMPACT/FINANCING

This plan development was funded through Federal grants to support hazard mitigation planning and terrorism preparedness planning. OEM spent $178,000 in grant funds to develop the plan through contracts with Dimension Unlimited, Inc., a company which specializes in hazard mitigation planning and grant writing.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

DMA 2000, Section 322, authorized in Public Law 106-390, requires that states and local governments must have a FEMA-approved mitigation plan in place in order to be eligible for HMGP funds.

IMPACT ON CURRENT SERVICES (OR PROJECTS)

This plan has no impact on current services or projects, but will provide a repository of information to assist departments in applying for future hazard mitigation grants.

CONCLUSION

This plan was developed expressly for County government. Because of the short planning timeframe, the political complexity of the County, and the complexity of the planning process, we determined that it was not feasible to do a multi- jurisdictional plan. All other local governments must develop their own plans and submit them to OES and FEMA for approval.

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OEM notified local cities, school districts, and special districts of this requirement and has provided resources to assist in the development of local plans. In addition, OEM coordinated OES training for local governments. County departments that provide contracted services to cities are supporting contract city mitigation planning efforts. OEM has provided information and tools to local governments.

An executive summary of the plan is attached to this letter. Questions regarding the Los Angeles County Multi-Hazard Mitigation Plan should be directed to Constance Perett, OEM Administrator at (323) 980-2261 or cperett@lacoeoc.org.

Respectfully submitted,

DAVID E. JANSSEN
Chief Administrative Officer

DEJ:CP
BB:jl

Attachments

c: County Counsel
Emergency Management Council
Emergency Management Council Steering Committee
Emergency Management Council Subcommittee
Multi-Hazard Mitigation Advisory Committee

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County of Los Angeles

All-Hazard Mitigation Plan

Version 1.1

June 2005

SECTION 1

Introduction

SECTION 2

Hazard Mitigation Planning Process

Prepared by Dimensions Unlimited, Inc.

Table of Contents

Section 1 – Introduction

Executive Summary- Los Angeles County All-Hazard Mitigation Plan

Introduction and Purpose

This is the first edition of the Los Angeles County All-Hazard Mitigation Plan, and through completion of this plan the County continues many years of commitment to the reduction of risks through hazard mitigation planning. Los Angeles County has long been a nationwide leader in emergency planning and preparedness. In particular, the key public safety and emergency management departments -Sheriff, Fire, Health Services, Public Works, and the Chief Administrative Office (CAO) Office of Emergency Management - have been proactive in planning to reduce potential damage and losses from disasters. The County Board of Supervisors has supported innumerable major mitigation programs such as: the multi-million dollar County Emergency Operations Center which opened in 1995; the Emergency Survival Program (an innovative and effective program which provides disaster preparedness community education); a recent commitment to Countywide Business Continuity Planning; and strong support for terrorism preparedness programs.

Los Angeles County is subject to a wide range of destructive disasters, from earthquakes, floods, and wildfires, and human-caused disasters, such as terrorist acts and civil disturbances. In the disaster-rich decade of the 1990s, the County was named in nine federal disaster declarations, including the 1994 Northridge Earthquake, which caused more than $20 billion in damage. With a large urban population and vulnerability to a wide range of disasters, the County's long-standing commitment to all-hazard mitigation programs plays a significant role in loss reduction and public safety.

Section 203 of the Robert T. Stafford Disaster Assistance and Emergency Relief Act (Stafford Act), 42 USC, as amended by Section 102 of the Disaster Mitigation Act of 2000, requires all state and local governments to develop comprehensive mitigation plans as a condition of eligibility for future post-disaster mitigation grants after November 4, 2004. This plan complies with this law, subject to receipt and approval by the California Office of Emergency Services (OES) and the Federal Emergency Management Agency (FEMA). The disasters of the 1990s created eligibility for $600 million in post-disaster hazard mitigation grants for communities within the Operational Area. The County also can lose eligibility for Federal pre-disaster mitigation grants. As one example of mitigation grant funding, Public Works received $1.8 million in funding in 2002 from FEMA's Hazard Mitigation Grant Program to elevate flood prone structures located near Malibou Lake in the unincorporated community of Agoura.

This plan is the first Countywide compilation of future mitigation strategies and programs. Information contained in the plan will provide a framework and a rich repository of resource information to support future mitigation grant applications from any County department.

The plan will be shared in electronic format with all local governments within the Los Angeles County Operational Area to encourage and assist them in their mitigation planning activities.

Scope

FEMA implemented the Disaster Mitigation Act of 2000 and published their requirements for all future hazard mitigation planning in February 2002. The State of California implemented the program in California in the summer and fall of 2003 with guidelines and training sessions. The law requires extensive documentation of the community, the region, its hazards, history and future plans. Some examples include:

- Formation of a Hazard Mitigation Advisory Committee with by-laws, regular meetings, records of the agendas and minutes, subcommittees, and action plans. This group was tasked with prioritizing the hazards, collecting the history and documentation, and formulating future mitigation strategies. The planning committee was headed by the CAO's Office of Emergency Management (OEM) and included public safety and human services county departments, local cities, County Office of Education, and special districts.

- A complete disaster risk analysis with historic reviews of disasters in the County and an analysis of damage projections for future disasters. This risk analysis also prioritized risks that in high, moderate and low risk categories. The mitigation strategies are primarily for high-risk disasters.

- The law included specific requirements for:

    - documentation of the process the County has implemented to prioritize and study the hazards and to prepare the plan and conduct the analysis required;

    - extensive outreach to the public and to other political jurisdictions in the County, inviting comment and input into the plan on both the risk prioritization and hazard mitigation strategies;

    - setting future goals and tasks to carry out the overall mitigation plan;

    - review and incorporation of existing plans, studies, reports and technical information;

    - a listing of local ordinances which affect or promote disaster mitigation;

    - details of ongoing mitigation projects.

- This plan is for the County of Los Angeles and covers mitigation responsibilities of County departments. Because of the complex array of local governments, the plan could not reasonably address mitigation planning for each of the 88 cities and 94 school districts and over 100 other special districts covered by the law. The plan addresses all major natural and human-caused disasters that fall within the responsibilities of County departments within the geographic County.

- County unincorporated areas have a population of more than one million. This plan addresses issues related to unincorporated areas, but also to residents in the cities within Los Angeles County, since the County provides many services to all residents. In addition, Sheriff, Fire, and Public Works provide contracted services to many of the 88 cities in Los Angeles County. Each of those cities is responsible for completion of their own mitigation plans, but the County plan addresses many mitigation goals and strategies that cross political boundaries.

Plan Overview

The plan has been formulated to meet the Federal Law requirements and to serve as a reference document and basis for hazard mitigation projects and grant applications for countywide hazard mitigation programs. This document will assist all jurisdictions in the County in providing the base information and hazard and geographic descriptions required in reference to all related disaster grant and planning programs.

The plan is divided into seven sections:

Section 1 – Introduction

This section contains the formal language outlining the purpose, mission statement, legal authorities and constraints to strategy implementation. The constraints are those circumstances that the County has no control over that would keep the County from implementing mitigation measures for a disaster risk. The constraints most often cited are economic constraints, manpower constraints and lack of legal authority to respond to a risk with mitigation measures.

Section 2 – Hazard Mitigation Planning Process

This section explains the process the Los Angeles County Hazard Mitigation Planning Advisory Committee used in sharing data, developing strategies, and devising implementation programs. It details the processes used to inform citizens, businesses, and adjacent jurisdictions of the planning project and the methods used to solicit public input. This section lists the Hazard Mitigation Planning Advisory Committee by-laws, goals, objectives and tasks. It also contains copies of the minutes of meetings of the Hazard Mitigation Planning Advisory Committee and the Fire, GIS and Public Works Sub-committees.

Section 3 – Demographics and Statistics

This section is an in-depth "encyclopedia" of Los Angeles County which will be used in grant application preparation. It contains detailed lists of assets owned by the County as well as those assets determined to be critical to fulfilling the requirements of the County's mission in times of emergency or disaster. The Planning process requires a description with replacement costs for critical County assets. This information helps in the development of the Hazard Vulnerability Analysis. The CAO's Risk Management Division contributed extensively to this section to assure the data included was complete, current, and reliable.

Section 4 – Hazard Vulnerability Analysis

This section is divided into Natural and Technological/Human-caused Hazards and gives a detailed analysis of each of the risks cited by the Hazard Mitigation Planning Advisory Committee in preparation of the plan. Past hazard-specific mitigation projects are discussed as well as specific vulnerabilities and impacts. Projections of damage (dollars, facilities and people) are listed for the high risk priority hazards. FEMA requires that the County demonstrate an in-depth analysis of vulnerability in relationship to population, geographic area, jurisdictional relationships, resources, and disaster mitigation options for future actions.

Section 4: Natural, Technological, and Human-caused Hazards

Los Angeles County is at risk for a variety of natural and human-caused disasters, and the Hazard Mitigation Planning Advisory Committee established priorities for these risks, taking into account the concerns of the public as expressed in the public input process. The priorities were determined based on the probable effects of each disaster risk, including potential magnitude (including economic impact), frequency, distribution of damage, demographics of areas potentially affected, and the degree of vulnerability. Priorities

established for each hazard will guide mitigation planning, with the highest risk hazards receiving the highest level of attention.

The natural hazards and their relative priority are summarized in the chart below:

High Risk Priority Hazards	Moderate Risk Priority Hazards	Low Risk Priority Hazards
• Earthquake • Wildland Urban Interface Fire • WMD Terrorism • Utility Loss • Flood • Drought • Biological/Health • Waste Water and Water • Economic Disruption • Data/Telecommunications • Civil Unrest	• Large Venue Fires • Transportation Incidents, rail /air/pipeline/ • Hazardous Materials • Radiological Incident/Accident • Special Events • Dam Failure • Landslides • Transportation/loss of ability • Explosion • Severe Weather	• Biological/Agriculture • Tsunami • Sinkholes/subsidence • Rise in Ground Water • Mine Safety • Volcano • Tornados

This report also includes a history of disasters in Los Angeles County since 1950, including the costs and number of deaths and injuries caused by each disaster. This information validated the priority ranking of disasters.

In recent years, particularly since the September 11, 2001 terrorist attacks, American society has become much more concerned about human-caused disasters. In recent history, Los Angeles County has experienced two of the most costly and disruptive civil disturbance emergencies in American history – the 1965 Watts Riot and the 1992 Rodney King Riot.

Section 4B of the plan includes a comprehensive history and discussion of these types of human-caused disasters. The section also includes discussions of other hazards associated with human progress and urban development, such as economic disruption, water and power emergencies, and data/telecommunications disruptions.

This information will be invaluable in assisting in the preparation of future hazard mitigation projects and in the development of County emergency management plans. The information will also assist in public education campaigns and other public information outreach.

Section 5 – Strategies

This section is a catalog of strategies for mitigation of each of the High Risk and Moderate Risk Priority Hazards detailed in Section 4.

The strategies listed include the general description of the strategy, the organization/department responsible for the strategy, implementation time line, the cost, and the goal and hazard addressed. All of the strategies listed for High Risk Priority Hazards are considered Priority One hazard mitigation strategies; those strategies listed for Moderate Risk Priority Hazards are considered Priority Two hazard mitigation strategies. Typical strategies include: seismic protection projects, flood hazard reduction projects, security projects, technological protection, economic loss protection projects, public information projects, medical and biological preparedness and identification through feasibility studies for other potential projects.

Section 6 – Goals

This section lists Primary Specific Goals and Actions and Long-term Goals, Objectives and Actions regarding this new Hazard Mitigation Planning program. The implementation of these goals and objectives will be based on the County's fiscal and operational capabilities; this part of the plan is a roadmap for the County to follow where feasible, not a commitment to take specific actions.

Section 7 – Plan Maintenance

This section is the detailed guidelines to be employed to keep the plan current, circulated, and to maintain continuity in the public input process. It also lists what needs to be done to prepare the plan for its five-year approval submission to FEMA.

Any disaster plan must be periodically reviewed and kept up-to-date. The Office of Emergency Management will maintain the plan through annual updates, completed in collaboration with key County departments and agencies. FEMA requires the plan to be submitted every five years for re-approval, which must include a progress report on the implementation of the disaster strategies. This maintenance process will ensure that the plan, when re-submitted every five years, reflects the status of the up-to-the-minute hazard mitigation program for Los Angeles County. The plan will need to be updated following a major disaster in the County in order to include any new mitigation strategies the County may consider implementing with post-disaster grants.

Plan Contents

This document contains:

- The Los Angeles County Hazard Vulnerability Analysis;
- Prioritization of Los Angeles County Hazards for mitigation activities;
- Hazard Mitigation Strategy Goals and Objectives;
- County-wide Hazard Mitigation efforts and plan input;
- Coordination with local interest groups and citizens;
- Proposed strategies and actions to reduce short and long term vulnerability to the identified hazards; as recommended by the Los Angeles County Multi-Hazard Mitigation Planning Advisory Committee, its sub-committees and the general public;
- Methods of implementing, monitoring, evaluating, and updating this DMA 2000 Hazard Mitigation Plan;
- Constraints to implementing Hazard Mitigation strategies and recommendations;
- The establishment of the Los Angeles County Multi-Hazard Mitigation Planning Advisory Committee to assist in the further development, prioritization and implementation of the recommended Hazard Mitigation strategies.

This document also provides a framework for the identification and coordination of Hazard Mitigation strategies developed in Los Angeles County with other plans; especially those developed by County departments, agencies and organizations as well as those plans developed in order to file for Federal disaster assistance, as required by P.L. 106-390 (as amended) of the Disaster Mitigation Act of 2000.

Definition of Hazard Mitigation

Hazard Mitigation is any sustained action taken to eliminate or reduce long term risk to human life, property and the environment posed by a hazard.

Hazard Mitigation Planning is the process of developing a sustained course of action taken to reduce or eliminate long-term risk to people and property from both natural and technological hazards and their effects. The planning process includes establishing goals and recommendations for mitigation strategies.

Hazard Mitigation may occur during any phase of a threat, emergency or disaster. Mitigation can and may take place during the *preparedness* (before), *response* (during), and *recovery* (after) phases.

The process of hazard mitigation involves evaluating a hazard's impact and identifying and implementing actions to minimize or eliminate the impact.

Purpose of the Plan

The purpose of this plan is to integrate Hazard Mitigation strategies into the day-to-day activities and programs of Los Angeles County.

This plan identifies and evaluates specific strategies to be considered by Los Angeles County and its agencies. It offers a County-wide support document as well as a planning support tool for those strategies developed by the County's political subdivisions, agencies, departments, special districts and organizations.

The strategies presented are deemed appropriate and effective by recommendation of the Los Angeles County Multi-Hazard Mitigation Planning Advisory Committee, the Los Angeles County Office of Emergency Management, and the County's agencies, departments and private groups.

Upon acceptance by the California Governor's Office of Emergency Services (OES) and the Federal Emergency Management Agency (FEMA), selected strategies will be further developed for funding and implementation by the lead County agencies and departments. This plan describes the potential sources of Hazard Mitigation Strategy funding, and general procedures to obtain that funding.

This plan is based upon the Los Angeles County Hazard Vulnerability Analysis (HVA) that considers natural, technological, and human-caused risks to which the County and its political subdivisions are vulnerable. The plan describes strategies that government and private sector organizations may utilize to develop their capabilities to mitigate those hazards.

It is understood that the mitigation strategies adopted in this plan are recommendations only, and they must be approved by the Los Angeles County Board of Supervisors and funded in order to be implemented as official Hazard Mitigation Strategies.

Mission Statement

The December 2002 revisions to the County Strategic Plan are the result of broad participation of County executives, including Board chief deputies/chiefs of staff, department heads, and department chief deputies, as well as other support staff from numerous departments. The work was accomplished in two Executive Strategic Planning Conferences, sponsored by the Guiding Coalition of County executives, and numerous follow-up meetings by "cluster groups" to refine strategic issues identified during the conferences. The process was an outstanding example of collaboration and unity of purpose.

The following mission statement, which was unanimously endorsed by every County department head and approved by the Board in conjunction with the other plan revisions, was developed through the collaborative process.

"To enrich lives through effective and caring service."

The mission statement clearly defines the noblest purpose of public service – to enrich lives – and how the County of Los Angeles, a public service organization, intends to provide services – through effective and caring service. With adoption of the mission statement and the plan revisions, the County's Strategic Plan appropriately focuses on current programmatic and organizational issues and concerns.

Review & Incorporation of Existing Information

Section 6 contains a detailed listing (Plan Development Resource List) of documentation used to develop this plan. Each of the 287 documents listed in the Plan Development Resource List was reviewed. Incorporation of information from these existing plans, studies, reports and technical documents was based on its applicability and timeliness. The incorporation of information from existing specific mitigation plans and studies was used to enhance the relevance of sections of this plan. Selected documents have been footnoted throughout the plan where specific reference is incorporated.

The Plan Development and Adoption Timeline on the next page is a chronicle of the intensive activities involved in developing the plan.

Plan Development & Adoption Timeline

Task Statements	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Hazard Identification, Analysis and Risk Assessment												
1. Hazard Mitigation Advisory Committee Meetings												
2. Hazard Identification & Prioritization Process												
3. Hazard Events Profile and Vulnerability Analysis												
4. County Asset Inventory/Overlay risk and inventory												
5. Risk Assessment and Loss Estimation												
6. Public Input – Gathered as available throughout												
Capability Assessment												
1. Plans, Policies, and Programs documentation review												
2. Assessment of Previous Mitigation Activities												
3. Identification and Evaluations of Resources												
Assessment of Feasible Hazard Mitigation Measures and Needs												
1. Develop Goals and Objectives												
2. Develop, Evaluate and Prioritize Feasible Mitigation Strategies												
Development of Plan and Implementation Strategy												
1. Develop Plan Draft for Review by Task Force												
2. Enter Review Input & Develop Final Plan												
3. Adoption of plan by Planning Task Force												
4. Submission for OES/FEMA Review & Approval												
5. Adoption of plan by County Board of Supervisors												
Ongoing Activities												
1. Plan Evaluations and Maintenance												
2. Coordination with City and County Mitigation Committees												
Plan Updates and Incorporate changes into plan												
1. Required every 5 years, recommended Annually												

Adoption will take place AFTER plan approval

Red Lines are Projected Time Lines

Blue Lines are Ongoing Activities

Plan Adoption

SEE APPENDIX 1 FOR PLAN ADOPTION DOCUMENTATION

Legal Authority

Federal Laws

Federal legislation has historically provided funding for disaster relief, recovery, and some hazard mitigation planning. The Disaster Mitigation Act of 2000 (DMA 2000) is the latest legislation to improve this planning process (Public Law 106-390). The new legislation reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur. As such, DMA 2000 establishes a pre-disaster hazard mitigation program and new requirements for the national post-disaster Hazard Mitigation Grant Program (HMGP).

Section 322 of DMA 2000 specifically addresses mitigation planning at the state and local levels. It identifies new requirements that allow HMGP funds to be used for planning activities, and increases the amount of HMGP funds available to states that have developed a comprehensive, enhanced mitigation plan prior to a disaster. States and communities must have an approved mitigation plan in place prior to receiving post-disaster HMGP funds. Local and tribal mitigation plans must demonstrate that their proposed mitigation measures are based on a sound planning process that accounts for the risk to and the capabilities of the individual communities.

FEMA prepared an Interim Final Rule, published in the Federal Register on February 26, 2002 (44 CFR Parts 201 and 206), which establishes planning and funding criteria for states and local communities.

The Plan has been prepared to meet FEMA and COESS requirements thus making the County eligible for funding and technical assistance from state and federal hazard mitigation programs.

State Laws

California has many laws and programs relating to hazard mitigation, the most effective of which include:

California Earthquake Hazards Reduction Act of 1986

Caltrans Seismic Retrofit Program

California Fire Alliance

California Earthquake Authority's Seismic Retrofit Program

NFIP, administered by the DWR

State planning law and OPR's general plan guidance documents

CDI Residential Retrofit Program

The following are state laws and executive orders related to hazard mitigation:

Executive Order W-18-19

Executive Order W-9-91

Health & Safety Code §19211

Health & Safety Code §19181

Public Resources Code §2621, et seq. (the Alquist-Priolo Earthquake Fault Zoning Act)

Los Angeles County Identified Mitigation Constraints

The committee identified a list of issues that exist in Los Angeles County that can be considered constraints to mitigation planning implementation (perspective of the participating advisory committee members):

- Legal
  - ✓ A legal constraint has already been identified in the restrictions imposed by the GIS Data licenses that may prevent sharing mapping and data exchange throughout the County with all jurisdictions included under this law.
- Economic Constraints…fee based agencies may be restrained from participating in the planning process due to lack of funds to pay for their involvement.
- Budget Constraints
- Land Ownership Constraints
- State and Federal Influences
- Enormity of population and area served
- Sensitivity of information needed to complete the Plan.
  - ✓ How to utilize the information and still fulfill planning requirements.
  - ✓ Any data that brought before the committee that is sensitive must be presented as sensitive data and marked not to be shared outside of the committee. (It is the responsibility the committee to be sure the data is identified as sensitive.)
- Building and Codes restrictions
- Cultural demands and barriers
- Interpretation of law

Section 2 – Hazard Mitigation Planning Process

Hazard Mitigation Planning Participation

Los Angeles County Multi-Hazard Mitigation Planning Advisory Committee Members

Name	Title	Department
Yolanda Pahua	Chairperson/Program Manager	Office of Emergency Management
Scott Brewer	Emergency Services Coordinator	State of California
Carol Gunter	Acting Director	Dept. of Health Services
Bob Gillis	Division Manager	Internal Services Department
Johnny Jee	Assistant Fire Chief/Fire Marshal	Fire Dept.
Ben Martinez	Manager	Community Development Commission
John McIntire	Associate CIO	Chief Information Office
Steve Nyblom	Risk Management	Chief Administration Office
Mark Benthien	Dir. Communication Education & Outreach	So. California Earthquake Center/ USC
Marianne Reich	Administrative Deputy	Auditor Controller's Office
Bob Garrott	Assistant Manager	Office of Emergency Management
Mike Shatynski	Senior Engineer	Sanitation District
Eva Snider	Assistant Ad. Off. to Div. Chief	CAO/Budget & Operations, Management Branch
Bob Spears	Asst. Director Emergency Services	LAUSD
Luis Gomez	Fiscal Officer	Department of Health Services
Robert Miletich	Departmental Emergency Coordinator	LACO Dept. of Pub. Social Services
Frank Vidales	Assistant Chief	Fire Department/Forestry
Robert Cook	Battalion Chief	Fire Department/Prevention
Edgar Vega	Captain	Fire Department/Prevention
Linda Hopkins	CF, Special Operations	Human Resources
Barbara Jackson	Emergency Coordinator	Community Development Commission Outreach
Roshyl Robbie Miller	Personnel Assistant	County Counsel
Boyd Horan	Personnel Officer	Parks & Recreation
John Anderson	GIS	Public Works

Name	Title	Department
Larry Meyerhofer	Emergency Preparedness Coordinator	EPD City of Los Angeles
Dai Bui	GIS	Public Works
Milan Svitek	GIS Manager	Regional Planning
Kandy Hays	Disaster Emergency Coordinator	Office of Public Safety
Thomas Browne	Licensing Division	Public Works
Vinnie Chin	IT Manager	Office of Public Safety
Rob Sneckenberg	Community Development Division	Public Works
Margaret Carlin	GIS	Office of Emergency Management
Pete Fonda-Bonardi	DP Specialist 1	CAO Urban Research
Celina Ortiz	Administrative Assistant	Internal Services Department
Grover Hampton	ASMI Facilities Manager	Registrar-Recorder/County Clerk
Brenda Williams	ASMI	Registrar-Recorder/County Clerk
Mark Greninger	GIS Analyst	CAO Urban Research
Fan Abel	DMAC	Area E
Jay Schickel	Sgt.	Office of Public Safety
Michael Martinet	DMAC	Area G
Leslie Foxvag	Budget & Fiscal Services	Auditor Controller's Office
Kristin Cook	Disaster Emergency Coordinator	City of West Hollywood
Paul Weinberg	Emergency Services Coordinator	City of Santa Monica
Gertha Benson	DMAC	Area B & C
Robert Berg	Disaster Emergency Coordinator	Long Beach Water District
Robert Parra	Administrative Analyst/Codes Ordinances	Fire Department
Larry Smith	Administrative Assistant to Carol Gunter	Department of Health Services
Bill McIntire	Assistant Director	Office of Education
Roger Chang	Regionalized Business Services Coordinator	Office of Education
Daniel Villanueva		Office of Education
Janet Workman	Emergency Planning	Southern California Edison
Sheila Williams	Analyst	CAO
Andrew Lowkis	Emergency Preparedness Coordinator	EPD City of Los Angeles
Rogelio Stone	Disaster Preparedness Coordinator	Department of Health Services
Susana Fernandez-Jacomet	Public Health Bio Terrorism Planning Director	Department of Health Services
Iris Salby	Emergency Preparedness Analyst	Department of Health Services
Denise Shelton-Hall	Administrative Assistant	Department of Health Services
Keith Crafton	Administrative Services Officer	Office of Education
Kelly Shivertaker	Emergency Planning	Southern California Edison

Name	Title	Department
Jan Rogala	President	Dimensions Unlimited, Inc
Rich Rogala	Chief Financial Officer	Dimensions Unlimited, Inc.
Theresa Hayes	Director of Operations	Dimensions Unlimited, Inc.
Carolann Moore	Consultant	Dimensions Unlimited, Inc.
Sue Warner	Data Specialist	Dimensions Unlimited, Inc.
Yushan Tong	RA	Department of Health Services
Thomas Brown	Asset Manager	Fire Department/Support Services
Gilbert Garcia	Administrative Assistant	Fire Department/Support Services
Paul Hanley	Sergeant	Sheriff's Department
Casey Chel	Emergency Manager / Area F Coordinator	Long Beach Fire Department Area F
Beth Drummond	Intern Bio Terrorism	Department of Health Services
Sam Daleo	Sr. Civil Engineer Associate	Public Works/Community Development
Eric Batman	Associate Civil Engineer	Public Works/Community Development
Rich Brandt	Natural Hazard Mitigation Coordinator	Long Beach Fire Department
Leon Reynolds	Sergeant	Office of Public Safety

Hazard Mitigation Planning Advisory Committee Functions

In November of 2003, the Los Angeles County Office of Emergency Management formed a Hazard Mitigation Planning Advisory Committee that was drawn from County Agencies, representatives from Los Angeles County jurisdictions, State and Federal representatives and members from the community at large.

It was recognized when forming this committee that the Hazard Mitigation Planning Advisory Committee would need to be more active in the future for mitigation strategy identification and implementation.

In accordance with Local and State Laws, the Los Angeles County Office of Emergency Management is the lead agency and chair responsible for coordinating the efforts of the Los Angeles County Hazard Mitigation Planning Advisory Committee and the Los Angeles County Office of Emergency Management Planning Team in formulating and supporting the Los Angeles County Hazard Mitigation Strategy Identification and Plan promulgation and maintenance.

Operationally the Advisory Committee met as a group discussed the information and mitigation strategies with the departments separately.

Hazard Mitigation Planning Advisory Committee By-Laws

The following are the By-Laws of the Los Angeles County Hazard Mitigation Planning Advisory Committee (LACHMPAC):

Organized in November 2003, the members of LACHMPAC shall agree to meet monthly to identify and review hazard vulnerabilities, priorities, and identify feasible hazard mitigation strategy recommendations.

Members of the Committee shall select a chair.

The Committee agrees to make and pass policy recommendations by a vote of a simple majority of those members present at the scheduled meeting. Any single Committee team member may request, at a scheduled committee meeting, an adoption of, or amendment to the plan or process.

This Committee may form subcommittees to review identified hazards and to develop feasible hazard mitigation strategy recommendations. These recommendations will then be reviewed by the Los Angeles County Hazard Mitigation Planning Advisory Committee as a whole.

The sub-committees will identify and bring forward hazard mitigation strategies from existing recommendations contained in plans and documents, and from the input of regional jurisdictions and the input of private citizens and organizations.

The Committee will identify constraints to mitigation strategies that affect Los Angeles County's ability, authority and responsibility to implement those strategies.

Public Input will be implemented in the following manner: Citizen Questionnaires, Public Meetings.

Hazard Mitigation Planning Advisory Committee Tasks

Coordinate multi-hazard mitigation planning tasks and activities with Office of Emergency Management to develop an all-hazards disaster mitigation plan and support the County Office of Emergency Management's oversight of the planning process.

Prioritize tasks and risks for implementing mitigation strategies.

Select designated Critical Facilities and ascertain a risk exposure analysis for those facilities.

Select highest and best mitigation recommendations and develop those recommendations for further action by the County of Los Angeles.

Review mitigation planning drafts, recommendations and updates.

Develop and implement long and short term goals.

Integrate the plan with all phases of Comprehensive Emergency Management Planning.

Provide for the implementation of Advisory Committee decisions.

Prioritize tasks and risks for implementing mitigation strategies.

Select designated Critical Facilities and ascertain a risk exposure analysis for those facilities.

Select highest and best mitigation recommendations and develop those recommendations for further action by the County of Los Angeles.

Review mitigation planning drafts, recommendations and updates.

Develop and implement long and short term goals.

Integrate the plan with all phases of Comprehensive Emergency Management Planning.

Provide for the implementation of Advisory Committee decisions.

Encourage, coordinate and provide a methodology for the implementation of public input and provide guidance and training for local governments seeking to develop a DMA 2000 Plan as required.

Establish Hazard Mitigation Advisory Committee Tasks to include but not be limited to the following:

Determine implementation ability and constraints for proposed hazard mitigation planning steps and development of strategies.

Bring forward community concerns through private and public input.

Identify implementation resources.

Provide for the update of the Hazard Mitigation Plan on a scheduled basis.

Evaluate and provide the guidance to carry out mitigation activities.

Assist in implementation of funding identification and procurement of mitigation reduction resources.

Hazard Mitigation Planning Advisory Committee Goals

Support the priorities of Los Angeles County, its mandate, employees, citizens and the business community.

Promote economic development consistent with seismic, floodplain and risk management guidance as developed by Los Angeles County and its agencies and organizations.

Provide for an effective public awareness program for natural and technological hazards present in Los Angeles County.

Encourage scientific study and the development of data to support mitigation strategies for those hazards that are a threat to Los Angeles County.

Promote the recognition of the real value of hazard mitigation to public facilities, public safety and welfare of all citizens of Los Angeles County.

Support the mitigation efforts of local governments, private citizens, non-profit organizations and private businesses throughout.

Hazard Mitigation Planning Advisory Committee Objectives

Identify mitigation actions to reduce loss of lives and property.

Implement mitigation actions to reduce loss of lives and property.

Identify mitigation strategies that will allow Los Angeles County to perform its primary mission and goals.

Identify mitigation opportunities for short- and long-range planning considerations.

Adopt safe building and zoning codes that support scientific findings of a known risk.

Identify lead Los Angeles County Departments that have an interest in mitigation of specific hazards.

Develop a standard mitigation program utilizing authorities, policies and programs of each Los Angeles County Department

Organize, train and maintain an ongoing and effective Los Angeles County Hazard Mitigation Planning Advisory Committee that will facilitate implementation of the Los Angeles County Hazard Mitigation Plan.

Review and update other Los Angeles County programs to identify current and future mitigation goals and objectives in compliance with all county, state and Federal requirements.

Gain support of Los Angeles County's administration for the Los Angeles County All-Hazard Mitigation Program implementation.

Achieve the overall goal of developing a comprehensive mitigation program with Federal, State, Los Angeles County and appropriate local jurisdictions.

Support and expand identified hazard mitigation strategies as set forth in the Safety Element of the Los Angeles County General Plan and all other Los Angeles County plans that contain Hazard Mitigation Strategies.

Hazard Mitigation Planning Advisory Committee Meeting Minutes

Los Angeles County Multi-Hazard Advisory Committee - Meeting Minutes
November 2003

Los Angeles County Multi-Hazard Advisory Committee Meetings
Office of Emergency Management
1275 N. Eastern Ave.
Los Angeles, California 90063
A&B Conference Room, Ist Floor

November 5, 2003

Time: 9:00 AM – 12:00 PM

Attendees:

Committee Chairperson: Yolanda Pahua, Office of Emergency Mgmt	YPAHUA@LACOEOC.0rg
Fan Abel, Disaster Management Area E	areae@earthlink.net
Mark Benthien, University of Southern California	benthiern @USCedu
Dai Bui, Department of Public Works	Dbui@ladpw.org
Milan Svitek	svitec@planning.co.la.ca.us
Bob Gillis, Internal Services Divisions	rgillis@co.la.ca.us
Carol Gunter, Department of Health Services	cgunter@dhs.co.la.ca.us
Linda Hopkins, Department of Human Resources	lhopkins@dhr.co.la.ca.us
Jay Schnickel, Sheriff's Department	
Jonney Jee, Fire Department	jjee@lacofd incomplete
Eva Snider, CAO Budget and Operations	esnider@cao.co.la.ca.us
Michael Martinet, Disaster Management Area G	areag@earthlink.net
Ben Martenez, Community Develop Commission	ben.martinez@laco.org
John McIntire, Chief Information Office	jmcintire@cio.co.la.ca.us
Robbie Roshyl, County Council	rmiller@co.la.ca.us
Steve Nyblom, Risk Management	snysblom@cao.co.la.ca.us
Kandy Hayes, Office of Public safety	Khayes@ops.co.la.ca.ur
Marienne Reich, Auditor Controller's Office	Mreich@auditor.co.la.ca.us
Leslie Foxvag, Budget and Fiscal Services	lfoxvag@auditor.co.la.ca.us
Mike Shatynski, Sanitation District	mshatynski@lacsd.org
Boyd Horan, Parks and Recreation	Bhorancoo@co.la.ca.us
Thomas Brown, Department of Public Works	TBrowne@ladpw.org
John Anderson, Department of Public Works	Janders@ladpw.org
Vinne Chin, Office of Public Safety	vchin@ops.co.la.ca.us
Rob Sneckerberg, Department of Public Works	rsneckenberg@ladpw.org
Paul Weinberg, Santa Monica Fire Department	Paul-Weinberg@Santa-Monica.org (check email)
Margaret Carlin, Office of Emergency Management	mcarlin@lacoeoc.org
Peter Fonda-Bonardi, Urban Research	Pfondabo@cao.co.la.ca.us
Bob Garrott, Office of Emergency Management	RGARROTT@LACOEOC.org
Kristin Cook, City of West Hollywood	KCook@Weho.org
Gertha Benson, Disaster Management Area B&C	Gbenson@LACOEOC.org
Celina Ortiz, Internal Services Department	ceortiz@co.la.ca.us
Grover Hampton, Register Recorder/County Clerk	ghampton@rrcc.co.la.ca.us
Brenda Williams, Register Recorder/County Clerk	bwilliams@rrcc.co.la.ca.us
Mark Greninger, CAO-OR	Mgrening@cao.co.la.ca.us
Barbara Jackson, Community Development	Barbara.jackson@lacdc.org
Capt. Edgar Vega, Fire District	Incomplete
Cook, Fire District	Incomplete
Jan Rogala, Dimensions Unlimited Inc.	Janrogala@aol.com
Theresa Hayes, Dimensions Unlimited Inc.	Dimensions@lacoeoc.org
Sue Warner, Dimensions Unlimited Inc.	Dimensions@lacoeoc.org

Los Angeles County Multi-Hazard Advisory Committee - Meeting Minutes
November 2003

Meeting Materials Provided to the Advisory Committee:
Binder: *"Los Angeles County Multi-Hazard Mitigation Advisory Committee Workbook"* – including:

- Agenda
- Sample Table of Contents
- Hazard Risk Analysis Rating Form (instructions and matrix)
- "Strategies from the 1990 Fires (sample hazard mitigation recommendations section)
- Presentation Slides – notes format

The Committee members are requested to bring their Mitigation Planning note books to future meetings for reference and addition of more materials.

Yolanda Pahua Opened the meeting with the Introduction of attendees and the introduction of the Mitigation Plan Contractor representatives from Dimensions Unlimited Inc. Yolanda further described the purpose of the Muli-Hazard Mitigation Advisory Committee.

Yolanda explained that the purpose of this meeting would be to introduce the Committee to the FEMA Federal Disaster Mitigation Act of 2000 (DMA 2000) planning requirements and the Advisory Committees role in promulgating that plan.

It was explained that the State of California is about one year behind many other States in development of information and support for the local hazard mitigation planning process. For that reason many of the jurisdictions have only recently heard about the Law and interim/final rules that were issued on February 26, 2002 in the Federal Register. Two changes have taken place since those rules were issued. The option of doing an enhanced Hazard Mitigation Plan and receiving post disaster hazard mitigation funds of 20% of the entire Federal disaster costs has been reduced to 7.5% for both an enhanced and standard plan(LACO is doing a Standard Hazard Mitigation Plan) and the timeline for States to submit their DMA 2000 Hazard Mitigation Plans has been extended until November 4, 2004. Local governments can only apply for hazard mitigation planning money until they submit an approved plan in November 2004, and not capital or hard projects.

The County is required to write and adopt a Hazard Mitigation Plan that is reviewed and approved by both the State of California and FEMA by November 4, 2004. The County and its jurisdictions have received over $500,000,000.00 in post disaster hazard mitigation funds in the past and if the County does not complete this project it could loose eligibility for this type funding in the future as well as some other program availability. All local jurisdictions in the County are covered by the law. FEMA describes local governments as follows:

Under the DMA 2000 Section 201.2 Definitions "A Local Government is any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity."

Janice Rogala, Facilitator – Advisory Committee
Jan presented *"DMA 2000"* PowerPoint presentation, *"LACOHMGP2000 e Planning Overview and Committee Tasks.*

Each attendee received a copy of the DMA 2000 presentation as well as the WWW.FEMA.org website reference to find the FEMA Hazard Mitigation 386 Planning Series Guidelines for the DMA 2000 Hazard Mitigation Planning Effort. For those of you who want to see the interim guidelines they were published in the February 26, 2002 Federal Register and are available for download or viewing.

Jan Rogala emphasized that this is a process and data intensive program that requires a broad based participation from the community as a whole as well as prioritization of risks and mitigation strategies for future funding consideration. The process needs to take into consideration past disaster and mitigation practices.

Los Angeles County Multi-Hazard Advisory Committee - Meeting Minutes November 2003

current conditions and ongoing mitigation actions as well as projecting growth, economic impact of the risks and future mitigation actions.

Jan Rogala discussed the three ongoing projects for the Office of Emergency Management and how they all lead into and support this planning effort and other projects.

Disaster Mitigation Act: Overview

In the past the FEMA Hazard Mitigation Post Disaster Grant program has been very beneficial to LA County as a recovery and prevention tool.

- The County jurisdictions have received post-disaster mitigation funds of +$500,000,000.00.
- We don't yet have how much has come in form of pre-disaster mitigation grants i.e., flood control measures but FEMA is estimating over 100 million dollars.
- Should the County not comply with the law and not have an approved DMA 2000 Plan by November 4, 2004 as the law currently stands, the County would not be eligible for Hazard Mitigation Funds until the November of the year the plan was formulated and approved. The earliest being Nov. 2005.
- It should noted that if The State of California does not have their plan approved by FEMA, on November 2004 it is possible the post disaster public assistance permanent repair disaster funds would not be available to State jurisdictions including L.A. County, as well as Hazard Mitigation funding across the State. It is important to the County that the State finish their plan and that this advisory committee support their efforts in everyway possible. The total risk for the loss of Disaster recovery money to Los Angeles County is in the Billions.
- As working body we can support State of California's efforts – meaning going to add our support to their plan by providing them our input/data. (FEMA may give the State some extensions, but FEMA has already extended the deadline by one year. So its not a sure thing)
- LA County is at risk for loosing some other funds without this plan because of repetitive damage communities in the County and some flood insurance availability for homeowners in repetitive damage areas could be affected as well.
- California Office of Emergency Management just started doing training and planning support for the program in the summer of 2003.. Normally writing plan for large jurisdiction such as L.A. County would take an 18 months. This Advisory Committee is going to accomplish this effort in 10 to 11 months. We can do this by combining the knowledge and expertise of the individual Advisory Committee participants and with the support of a contractor that has worked with LA County on numerous disasters and other projects (floods, riots, earthquakes, WMD, terrorism), and is very experienced in hazard mitigation planning. The short planning timeline means the data collection team is being relentless in their search for and obtaining the needed information. The Advisory Committee is asked to please help the process by doing your best to provide the information your agency or group has available.

The group meeting here today and others who could not be here do comprise the Los Angeles County Hazard Mitigation Advisory Committee and this Committee's work will be starting today. Members will be asked to adopt some operating procedures and begin prioritizing risks. You are also asked to start formulating those hazard mitigation strategies that you recommend Los Angeles County pursue funding for, develop, prioritize and implement in the short, moderate and long term.

- This Committee exists primarily of Los Angeles County Department/Agency representatives: In addition there will be two representatives from the Cities, two representatives from the DMACs, the University, and other adjunct members as their input and expertise is needed ie. power companies, business & industry, citizen group representative and State and Federal members. As a committee, you have the ability to recommend and bring in adjunct members as needed. We will also be reaching out to members of the public for their input during this process. Public input is a requirement of the law and an important part of the process.

Los Angeles County Multi-Hazard Advisory Committee - Meeting Minutes November 2003

Planning Process (Proposed Plan Language)

Lead Agency and Advisory Committee Participation

In November of 2003, the Los Angeles County Office of Emergency Management formed a Multi-Hazard Mitigation Advisory Committee that was drawn from County Agencies, representatives from Los Angeles County jurisdictions, State and Federal representatives and members from the community at large.

It was recognized when forming this committee that the Multi-Hazard Advisory Committee would need to be more active in the future for mitigation strategy identification and implementation.

In accordance with: (Local and State Laws), the Los Angeles County Office of Emergency Management shall be the lead agency and chair in coordinating the efforts of the Los Angeles County Multi-Hazard Advisory Committee and the Los Angeles County Office of Emergency Management Planning Team in formulating and supporting the Los Angeles County Hazard Mitigation Strategy Identification and Plan promulgation and maintenance.

Advisory Committee Functions:

Operationally the Advisory Committee will be meeting as a group and contacting and discussing the information and mitigation strategies with the departments separately. Proposed Advisory Committee Tasks are as follows:

Hazard Mitigation Advisory Committee Tasks

1. Coordinate multi-hazard mitigation planning tasks and activities with Office of Emergency Management to develop an all-hazards disaster mitigation plan and support the County Office of Emergency Management's oversight of the planning process.
2. Assist in carrying out the goals and objectives of the Los Angels County Multi-Hazard Mitigation Plan in compliance with FEMA DMA 2000 Hazard Mitigation Act.
3. Prioritize Risks for implementing mitigation strategies.
4. Select designated Critical Facilities and ascertain a risk exposure analysis for those facilities.
5. Select highest and best mitigation recommendations and develop those recommendations for further action by the County of Los Angeles.
6. Review mitigation planning drafts, recommendations and updates.
7. Develop and implement long and short term goals.
8. Integrate the plan with all phases of Comprehensive Emergency Management Planning.
9. Provide for the implementation of Advisory Committee decisions.
10. Encourage, coordinate and provide a methodology for the implementation of public input.
11. Provide guidance and training for local governments seeking to develop a DMA 2000 Plan as required.
12. Establish Hazard Mitigation Advisory Committee Tasks to include but not be limited to the following:

Los Angeles County Multi-Hazard Advisory Committee - Meeting Minutes November 2003

- Determine implementation ability and constraints for proposed hazard mitigation planning steps and development of strategies
- Bring forward community concerns through private and public input
- Identify implementation resources
- Provide for the update of the Hazard Mitigation Plan on a scheduled basis
- Evaluate and provide the guidance to carry out mitigation activities
- Assist in implementation of funding identification and procurement of mitigation reduction resources.

The planning process will require the Advisory Committee to utilize collaboration and consensus building to prioritize the county strategies and in accomplishing this process reaching a Community-wide audience and will include input from:

- Public
- Government
- Business
- Industry
- Education
- Cities and special districts

The Advisory Committee is tasked to make recommendations for a political process implementation that will be reviewed by an executive committee and several approving groups ending with adoption by the County Council.

A recommendation was placed before the Committee to adopt by a majority vote of the members present the Business Continuity Planning Priorities(BCP) as part of the Hazard Mitigation Planning Goals and Objectives. The recommendation was accepted by majority vote of those present and the adopted those BCP priorities will be supported in the Hazard Mitigation Plan.

Addressing Constraints to Mitigation

The committee will need to identify the constraints that exist in Los Angeles County that can be considered constraints to mitigation planning implementation:

- Legal
- A legal constraint has already been identified in the restrictions imposed by the GIS Data licenses that may prevent sharing mapping and data exchange throughout the County with all jurisdictions included under this law.
- Economic Constraints...fee based agencies may be restrained from participating in the planning process due to lack of funds to pay for their involvement.
- Budget Constraints
- Land Ownership Constraints
- State and Federal Influences
- Enormity of population and area served
- Sensitivity of information needed to complete the Plan. How do utilize the information and still fulfill our planning requirements.
- Building and Codes restrictions
- Cultural demands and barriers
- How laws are currently written
- We need to identify what the CONSTRAINTS are to mitigation from the perspective of the participating advisory committee members

Los Angeles County Multi-Hazard Advisory Committee - Meeting Minutes November 2003

- If there is known risk that the County can't mitigate, we need to document the reasons why it can't be mitigated and what some alternatives may be.
- Any data that is brought before this committee that is sensitive needs to be presented as sensitive data and marked not to be shared outside of the committee.
- *It is the responsibility the committee members to be sure the data is identified as sensitive.*

Where does the Hazard Mitigation Advisory Committee begin?

- The following areas need to be addressed simultaneously
- Planning and procedures
- Risk Assessment and asset analysis
- Hazard Mitigation Strategy Identification
- Bring the strategies forward
- GIS Project Report – help process
- Open Public Involvement
- Ongoing approval of planning elements

Data Collection

The contractor and Committee will be asking you as members and agencies to go as far back as possible (at least into the 1990's) and identify where there are mitigation plans, documentation, capital projects, including normal maintenance that has a hazard reduction role and mitigates a potential disaster damage. Examples would be

- Public meetings held where risks were addressed
- cleaning out the drainage basins
- maintaining the floodway channels
- Capital seismic safety or flood proofing projects
- Maintenance and upgrade of the flood control system
- Building Seismic safety retrofits and interior mitigation.
- Securing equipment and internal structures
- Moving water storage from roof tops
- Securing objects that fall on people
- Posting danger and warning signs for flood prone areas
- Educating the public on disaster prevention methods

The Advisory Committee needs to identify that the County and its departments are already proactive is hazardmitigation and have accomplished mitigation in the past and is accomplishing mitigation in the present.

Then the Committee needs to look for future mitigation strategy proposals.

- Future mitigation – plan to do now and in future – actually pay for most of mitigation/prevention yourself
- Looking for any plans, studies, tech info that would contribute to this process that we can include in plan, e.g.,
- Seismic survey done
- Liquefaction
- Is there a urban/wildfire plan that looked at fuels, wildfires, load of risk?
- Critical Facilities

Where does the Plan go for adoption after the County approves it?

- Prerequisite for review – State must first approve this plan
- Share as much information with them as possible
- State Plan cannot be multi-jurisdictional plan
- Only "formal Public" hearing needed is when Supervisors adopt the plan
- Remaining citizen interaction can be in accordance with your public meeting laws
- Can be part of when you go out to do earthquake safety – can take surveys with you
- Input from people in disaster centers

Los Angeles County Multi-Hazard Advisory Committee - Meeting Minutes
November 2003

- Invite citizens to meetings

The contractor will be taking meeting minutes at each meeting and distributing them prior to the next Advisory Committee meeting as part of the documentation process

The Advisory Committee by majority voted adopted a meeting schedule for the fourth Monday of every month from December 2003 – October 2004 – 1:30 PM to 4:30. The location and agenda for each meeting will be published prior to the meeting along with meeting minutes.

The question was asked if there will be ad hoc and sub-committees?

The answer is yes and the Committee will be asked to adopt a framework, sub-committee structure and membership, to act upon approval for those committees at the December meeting.

The GIS representatives at the meeting agreed to form a GIS mapping subcommittee and to support the planning efforts for the Advisory Committee:

Members of the GIS subcommittee are:
Margaret Carlin of Office of Emergency Management
Dai Bui of Public works
Milan Svitek, Regional Planning Commission
Peter Fonda-Bernardi, Urban Research
Tim Smith, Fire Department

The contractor will keep all records, record data received, log information calls and construct draft planning documents for the Advisory Committee's review, input and adoption.

Because this project may be covered by at 25% matching grant it is important to utilize the sign-in sheet. Your time can be applied as a 25% match of this grant each time we meet.
County employees who work on mitigation projects for the committee and on the subcommittees will need to keep a record of that time and bring it to each committee meeting. This includes other expenses related to the committee's work such as mileage, copies and expenses. You will not be reimbursed for these expenses, but they can be credited as match funds for upcoming grants.

A question was asked about the role of the DMACs
Mike Martinet described what the Disaster Management Area Coordinators were (DMAC)
Tasked with.: Going back to 1960-61 County subdivided into regions – Disaster Management Areas

- (Mike/Gertha described cities in each area)
- The areas were broken up to help distribute info/provide communication links
- Three areas have full-time coordinators and other coordinators have collateral assignments
- These are the DMACs "Disaster Management Area Coordinators" and the are an incredible help and support to get work with the cities to organize/distribute information

The contractor has requested and received post-disaster reports on all of the more recent disaster from FEMA and OES have occurred in LA County.
- In the back of handout book – sample "Hazard Mitigation Recommendations from the Southern California fires of 1990" – example of documentation

DMA 2000 Hazard Mitigation Plans have to be updated every 5 years for local governments and every 3 years for the State. The update process will be written into the plan. The State of California is requesting an annual review of local plans.

Yolanda explained that a letter was sent out from David Janssen to all dept heads to enlist their cooperation in the process. It is recognized that everyone here already has their plate full of work and some are having

Los Angeles County Multi-Hazard Advisory Committee - Meeting Minutes
November 2003

difficulty compiling the data, however, when departments have been contacted they have made a real effort to support.

Yolanda advised that the contractors would be available to meet with you and your department representatives to assist in identifying potential hazard mitigation projects and data. Hazard Mitigation Grant opportunities are out there and the Committee serve as a clearing house for what is available. It will be the responsibility of the individual agencies to make those grant applications/.

There was discussion about the HAZUS Risk identification program that FEMA supports and whether or not it is currently available as HAZUS user groups in the County. Further research needs to be done to identify its availability and capabilities.

- HAZUS – FEMA-sponsored program that helps us do cost-beneift analysis on hazards Local governments are waiting for most recent version to come out
- What agencies are in charge?
- What is funding time frame?
  - The Advisory Committee will need to do cost-benefit analysis on projects that the County will be applying for immediate federal funds to support

Questions from Committee Members/Reps:

Parks & Recreation: (130 facilities) Expressed concerns that they would not have the manpower to provide the data.

A question was asked if there is any push or ability of assisting smaller departments?
Yolanda replied: The departments may want to bring a mitigation strategy forward for funding to assist them, but there is currently are no funds for individual department assistance in this program. This project does not consist of applying for funding for Departments, only identifying strategies and potential resources.

Parks and Recreation: asked is it was important to track their trees as assets. The answer is really up to the Department and whether or not they would need to replace those assets after a disaster occurrence. An example would be the winter storms in Northern California that damaged 2,000 trees in Golden Gate Park. The trees were documented and evaluated and they were given a portion of the replacement costs from FEMA. Each Department will have the opportunity to identify and prioritize their own mitigation needs to be included in the plan.

Discussion was held on filling out and returning the Risk Prioritization Matrix included in the handouts.

The Committee was asked to approve the procedure of adopting actions and recommendation by a majority vote of those present and to reaffirm the actions previously taken.

Reviewed Actions

- Adopted majority vote procedure
- Initiated the GIS subcommittee
- Agree to prioritize hazards using the Risk Analysis Matrix
- Adopt business continuity priorities
- Adopted meeting schedule

Type of information to be provided by members at the next meeting.

Additional Goals & Objectives

Historic documentation of disasters
Identify mitigation strategies the departments have done in past, are doing now, and want the County to consider in the future.

Los Angeles County Multi-Hazard Advisory Committee - Meeting Minutes
November 2003

For next meeting:

- A draft Goals & Objectives will be presented
- Historic Information research summarized
- Master Plan Safety Element reviewed
- Start collecting mitigation strategies done in past and want to keep for future

Next Meeting:

- 12/22/03 1:30 – 4:30 PM Conference Rooms A & B, 1275 N. Eastern Ave

Thank you for your participation

Meeting adjourned at 11:45

LOS ANGELES COUNTY MULTI- HAZARD MITIGATION ADVISORY COMMITTEE
1275 N. EASTERN AVE.
LOS ANGLES, CALIFORNIA 90063
Committee Meeting Minutes
DECEMBER 22, 2003

Meeting called to order at 1330

DMA 2000 Advisory Committee Attendees

1.	Yolanda Pahua	OEM
2.	Janice Rogala	Consultant
3.	Rich Rogala	Consultant
4.	Robbie Roshyl Miller	County Council
5.	Bob Spears	Los Angeles Unified School District
6.	Paul Weinberg	Santa Monica Fire Department
7.	Vinnie Chin	LACOPS, Office of Public Safety
8.	Robert Berg	Long Beach Water
9.	Ben Martinez	Centers for Disease Control
10.	Bob Hook	LACO FD
11.	Edgar Vega	LACO FD
12.	Robert Parra	LACO FD
13.	Brenda Williams	Recorder/County Clerk
14.	Gertha Benson	DMAC
15.	Larry Smith	Public Health Service
16.	Margaret Carlin	OEM
17.	Milan Svitek	Regional Planning LACO
18.	Kristin Cook	City of West Hollywood
19.	Larry Meyerhofer	LA EPD
20.	Celina Ortiz	LAC-ISD
21.	Dai H Biu	LAC-Dept of Public Works
22.	Rob Sneckenberg	LAC-Dept of Public Works
23.	Bill McIntire	LACOE
24.	Mike Shatynski	Sanitation Districts
25.	Roger Chang	LA County Office of Education
26.	Daniel Villanueva	LA County Office of Education
27.	Janet Workman	Southern California Edison
28.	Steve Nyblom	County Administrator's Office

Old Business

Yolanda Pahua (Chair Person) opened the meeting and requested the Meeting Minutes from the last meeting be reviewed and considered for adoption.

November 2003 Meeting Minutes

The Advisory Committee reviewed the minutes and passed a resolution to adopt the minutes of the November Meeting with two email corrections. Yolanda Pahua noted the email changes to the mailing list.

LOS ANGELES COUNTY MULTI- HAZARD MITIGATION ADVISORY COMMITTEE
1275 N. EASTERN AVE.
LOS ANGLES, CALIFORNIA 90063
Committee Meeting Minutes
DECEMBER 22, 2003

Review of the Risk Assessment Matrix

The results of the Risk Assessment Matrix were distributed for review. The Matrix identified the priority of the risks considered. The Committee will consider the adoption of the County Risks only. The Matrix Risk Analysis shows County and City results. For the County's planning purposes, we will use the County results only.

Motion: The Advisory Committee made a motion to move the Telecommunications Risk up to High Level because it could easily be a county-wide situation. Motioned and approved by membership.

The adopted Risk Ratings are as follows:

High Priority Risks

Earthquake
Wildland Urban Interface Fire
WMD Terrorism
Utility Loss
Flood
Drought
Biological/Health
Waste Water and Water
Economic Disruption
Data Telecommunications

Moderate Priority Risks

Large Venue Fires
Transportation Incidents, rail/air/pipeline/
Hazardous Materials
Radiological Incident/Accident
Special Events
Dam Failure
Landslides
Transportation/loss of ability
Explosion
Severe Weather

Low Priority Risks

Biological/Agriculture
Tsunami
Sinkholes/subsidence
Rise in Ground Water
Mine Safety
Volcano
Tornados

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LA City (Larry Meyerhofer)-requested that Tsunamis be reconsidered for a higher risk rating as they are a risk to harbors and coastline areas. There may not be detailed studies on it. Yolanda recommended that the Consultants do an evaluation on tsunami risks and will report back at next meeting for action on whether or not to elevate the risk on the matrix.

Discussion was held on the option of making tsunamis a subset of earthquake. . LA City will look to see if they have information to bring to next meeting. We are waiting for inundation maps to complete the study. This issue will be revisited at next meeting. It was pointed out that funding was taken away before a tsunami study could be completed by the County. County and City were both involved in the Tsunamis Study Group. USC developed Floodplain Maps.

New Business

Consideration of Operating Procedures, Goals, Objectives and Committee Tasks
The membership was requested to review the goals, objectives and committee tasks presented at the meeting.

A motion was made and passed to adopt the Goals and Objectives statements with an additional objective to support the Terrorism Early Warning Group (TEW).

Discussion was held on what the specifics were of the Business Continuity Priorities were and it was agreed to present the list to the membership at the next meeting, or they will be emailed with the meeting minutes. Also we will add an objective to support the TEW and revisit the issue as we go along. DMA-2000 Law specifically covers natural disasters but encourages jurisdictions to do an all-hazard plan.

The Advisory Committee reviewed the tasks and adopted them with no additions or deletions.

Due to the time constraints, Federal laws and community rating system will be moved to items for the next meeting.

Homework assignment – look at mitigation strategies separately as published in Interagency Hazard Mitigation Team Report to see if any whole or part of the strategies have been implemented or adopted. Also consider modification of these strategies to best suit the county's needs.

The committee was asked to consider other committees and adjunct members to the committees.

A **Business and Industry Committee** was recommended and suggested the Advisory Committee look at Chamber of Commerce and other non-profit organizations as members. No one was appointed to form this committee at this time.

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A **Health and Human Resources Committee** was recommended and Larry Smith of the Public Health Service, Vinnie Chinn of the Office of Public Safety and Bob Martinez were requested to investigate forming this committee. A Biological Health expert with UCLA was recommended.

Natural Disaster Committee. Public Works will head this committee and add members as needed.

A **Fire Subcommittee** was formed and is chaired by Battalion Chief Robert Hook and is joined by Captain Edgar Vega, Robert Parra. They will add personnel to this committee as needed.

Education members of the Committee requested an **Education Committee**. It was suggested that an adjunct group be appointed to provide input into the committee. The Advisory Committee approved a motion for Public Education Committee. Roger Chang of the Los Angeles County Office of Education will Chair this Committee, members will include Daniel Villanueva, Bob Spears and others appointed by the committee chair.

A **Critical Facilities Committee** was formed with members including Janet Workman of Southern California Edison, Robert Berg of Long Beach Water, Mike Shatynski from Sanitation Districts, Celina Ortiz of ISD and Gertha Benson and Yolanda Pahua of Office of Emergency Management.

A motion was made that an **Economic Sub-Committee** be formed and that an additional **Infrastructure Committee** be created to consider issues with infrastructure loss and housing. The motion was adopted. Robbie Roshyle Miller of the County Council and Steve Nyblom of the County Administrator's Office will work to form this committee.

The next meeting will be held on January 26, 2004 at 1:30 P.M. in this room. The meetings are scheduled for the fourth Monday of every month in this room (Sheriff Dept Conference Rooms A & B) unless otherwise advised.

Meeting Adjourned at 2:45 PM.

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Attachment 1 – Los Angeles County Multi-Hazard Mitigation Advisory Committee Meeting Minutes

December 2004

Los Angeles County Business Continuity Program (BCP) Priorities

Departments will ensure that BCP planning is done for these programs, at a minimum. Departments may elect to complete planning for other programs, *but planning must be completed, for programs that fall into these priorities.*

BCP Priority programs and services:

Priority 1. Programs that provide for life-safety and protection of property, including critical police, fire, ***emergency*** medical services, coroner services, key dispatch services, including the 911 system, the County Emergency Operations Center, and Department Emergency Centers that support life-safety and "protection of property" programs and services.

Priority 2. Continuity of county governance, including support for the Board of Supervisors and key administrative bodies that support life safety and protection of property.

Priority 3. Emergency Public Information (EPI) programs and the infrastructure that supports these programs. EPI is formed by messages that *alert, inform, and reassure* the public and County employees, including public information programs managed primarily by Sheriff, Fire, Health Services, and Mental Health, with the involvement of the Board of Supervisors. This priority also includes EPI programs that facilitate coordination with other governments, such as Joint Information Centers.

Priority 4. Non-public-safety emergency communications systems that enable emergency communications between county departments, cities and school districts, the County Emergency Operations Center's communications with the State. (Note that communication systems, which are necessary for public safety, are included in priority 1.)

Priority 5. Public health and welfare systems that meet the emergency, short-term needs of people, such as emergency food and shelter and "safety-net" programs such as welfare programs.

Priority 6. Programs that support custodial and residential services where the residents are under county care and supervision. These include hospitals, jails, juvenile detention facilities and probation camps, persons dependent on critical Mental Health maintenance programs, County supervised group homes for children and dependent adults, and other similar facilities.

Priority 7. Programs that must be restored in order to protect the county from severe financial losses and lawsuits.

Priority 8. Criminal justice system programs that support criminal court activities.

Priority 9. County programs, including ad hoc programs, that directly projote county and community economic and social recovery including federal and state reimbursement programs for disaster losses, county recovery assistance centers, disaster mental health programs, and building repair and reconstruction permitting centers. In some departments this includes employee payroll systems that may be required to support proper federal and state reimbursement claims

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Approved by the Emergency Management Council August 20, 2003

Adopted for mitigation strategy support by the LACO Multi-Hazard Mitigation Advisory Committee November 5, 2003

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Meeting called to order at 1335

DMA 2000 Advisory Committee Attendees

1.	Yolanda Pahua	OEM
2.	Janice Rogala	Consultant
3.	Theresa Hayes	Consultant
4.	Roger Chang	LA County Education
5.	Robert Parra	County Fire Department
6.	Grover Hampton	Registrar-Recorder/County Clerk
7.	Vinnie Chin	Office of Public Safety
8.	Sheila Williams	Chief Administrator's Office
9.	Steve Nyblom	Chief Administrator's Office
10.	Rob Sneckenberg	LAC-Dept of Public Works
11.	Bob Gillis	Internal Services Department
12.	Fan Abel	DMAC
13.	Gertha Benson	DMAC
14.	Andrew Lowkis	LA City EPD
15.	Rogelio Stone	Public Health Service
16.	Susana Fernandez-Jacomet	Public Health Service
17.	Iris Salby	Public Health Service
18.	Denise Shelton	Public Health Service
19.	Mike Shatynski	Sanitation Districts
20.	Keith Crafton	County Office of Education
21.	Bill McIntire	County Office of Education
22.	Janet Workman	Southern California Edison
23.	Kelly Shivertaker	Southern California Edison
24.	Larry Smith	Department of Public Health
25.	Linda Hopkins	Department of Human Resources
26.	Barbara Jackson	Community Development Commission
27.	Bob Berg	Long Beach Water Department
28.	Milan Svitek	Regional Planning LACO
29.	Bob Spears	Los Angeles Unified School District
30.	CarolAnn Moore	Consultant

Old Business

Chairperson Yolanda Pahua opened the meeting and requested the Meeting Minutes from the last meeting be reviewed and considered for adoption.

December 2003 Meeting Minutes

Jan Rogala noted that the minutes listed CDC as Center for Disease Control instead of Community Development Commission and referred to CDC representative Ben Martinez as "Bob." The following changes in the committee assignments were noted:

- Ben Martinez has was reassigned to the Infrastructure Committee
- Gertha Benson requested be assigned to the Health and Human Resources and referred to as representing DMAC.
- In the Business Continuity Priorities on page 6 change "project" to "promote,".

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The Advisory Committee reviewed and adopted the minutes of the December Meeting with the above corrections.

Review of the Mitigation Strategies

Rob Sneckenberg stated that Public Works is still working on mitigation strategies, particularly as related to flooding. Public Works has set up a formal group to review all the public works actions and strategies. The meeting minutes were distributed at this meeting.

Committee Structure

The committee recommended not adding additional committees at this time due to the time constraints we are under.

Hazard Analysis Status

At the last meeting, Telecommunications was moved into the High Priority Risk area as reflected in those minutes. The consultants did an evaluation on Tsunami risk along the coastline and recommended that it be left as a low risk. .

Department Strategic Plans for Mitigation Goals and Objectives

Jan Rogala reported that the consultants have been looking at L.A. County departmental strategic plans that may include disaster mitigation recommendations. Each department representative was asked to confirm if such a plan existed for their department and to provide a copy for the committee.

Bob Gillis said that the ISD had a Business Continuity Plan with six objectives for the entire department that deal with emergency preparedness such as means of communicating with managers and continuity planning. All the objectives are attainable with little or no expense.

The Office of Emergency Management houses a copy of Departmental Plans for the County Agencies and those plans are being reviewed for information to be included in the Hazard Mitigation Plan. The agency emergency plan identifies each department's emergency responsibility and also the departmental strategic plans and goals for preventing damage or improving capability (mitigation).

Identify Government Accounting Standards Board (GASB) Asset Evaluation Data Source

Steve Nyblom said that he could provide a contact to identify the location of the Government Accounting Standards Board (GASB) data. The requirement of the hazard mitigation planning process is to assign values to the County's assets was discussed.

Once the values have been assigned, the planning guidelines ask an estimated risk dollar amount for the structures potentially at risk for each of the hazards.

New Business

Post-Mitigation Grants

Recent Fires – Yolanda Pahua reported that the Initial Damage Assessment for the recent fires affecting Los Angeles County is complete, and it is predicted there will be $14 million in post-hazard mitigation funds

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available. Of this, approximately $1 million has been set aside for DMA 2000 planning. Information on funding was passed out to interested agencies.

Earthquake in Paso Robles - Public law says that any jurisdiction in the State of California has the right to apply for earthquake money, but it may not be available outside the affected counties. The consultants will update the committee when more information is available.

Review of Business Continuity Planning Priorities

The business continuity planning priorities attached to the minutes of the December 22 meeting were adopted for support at the first meeting of this committee. The January 26 meeting provided an opportunity for the committee to review those priorities.

Summary of Federal Laws Pertaining

This item was deferred to the next meeting.

Summary of CRS Flood Plan Requirements Compared with DMA 2000

Consultants distributed a matrix detailing a comparison of the Community Rating System (CRS) for Flood Plan requirements with those of DMA 2000. The committee was reminded that CRS pubic input, such as public meetings, can be used in the Hazard Mitigation Plan.

Committee Reports

GIS Committee - Jan Rogala described the project tasks that were delivered to the County last week. It was part of a terrorism grant with the primary goal to take a study that had
been done two years ago and identified, but did not collect, all the GIS layers and existing data in the County. The GIS subcommittee's job was to go to the cities and county agencies and anywhere GIS data could be obtained. It was very rewarding once everyone understood what was needed and the purpose and that the data would not be made available without proper licensing agreements and permission of the contributing GIS Department. The Data will be used and stored within the Office of Emergency Management and is the backup system of the data collected and identified in the community.

Jan said the current committee was being asked to assist in planning on how the data could be updated annually.

Milan spoke about computer technology and advised that there is no chair for the Committee, and Jan said she would move forward with getting the committee to appoint a chair. Milan was asked to be the temporary chair until the sub-committee selected someone.

Public Works Committee - Rob Sneckenberg reported that Public Works held a meeting with all divisions regarding natural disasters and any previous mitigation or future mitigation planning, and he is waiting to hear back from the various divisions and will get the information to the consultants when he obtains it. He asked the consultants if, since the entire flood control system is built for flood control, they want to know every asset. The consultants will rely on the Committee to break it down so it would not be so much work but would still cover the major assets. They can simply reference that there are other flood control assets below the cutoff. Rob said they were referencing the dams going back to the 1940s, since everything branches off of those.

Minutes of the first of the Public Works meetings was distributed.

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Fire Committee - Robert Parra reported. In the initial Wildfire Urban Interface subcommittee meeting had identified that this committee needed Fire Forestry and Fire Hazardous Materials representatives. These representatives have been named and will hold their meeting on February 3. The Fire Department has provided some materials already to the consultants for the fire risk portion of the plan.

Utilities Committee - Bob Berg sent names for contacts with Metropolitan Water who may participate. Bob Gillis requested to be added to the present committee consisting of SCE, the Sanitation Districts, and Long Beach Water. The Gas Company was also recommended.

Infrastructure Committee - This committee sorts through the critical facilities and assets and gathers the data on the infrastructure values. Initially, the committee will identify the entire infrastructure information, putting a value to it, and deciding how to mitigate it.

Health and Human Resources Committee - The Public Health Service (PHS) was asked what type of committee structure they would like see: health and human services, disease, health services such as hospitals. Rogelio Stone reported that they were in the process of dividing responsibilities into sections: paramedics, response, and recovery, and emergency management system. They are also in the process of identifying the authorities. Public Health includes communicable diseases, environmental health, radiological health, food and water safety, and other issues. Eighty percent of the diseases are known to be zoonotic. They are also seeking money for grant writing and mitigating hospital structures. The Public Health Subcommittee plans to meet prior to the next Advisory Committee Meeting.

Education Committee - Roger Chang talked to the Colleges. Bob Shear pointed out that Roger would bring a lot of expertise, since he serves on two State committees. The committee held a meeting at the close of the advisory committee meeting.

Other New Business

A definition of critical facilities was requested

Jan stated that a definition of a critical facility is normally up to the jurisdiction to decide. Can the jurisdiction provide critical public services and function without this facility? What facilities are most important to protect lives and property in the event of an extraordinary event or disaster? Examples were discussed including the following:

- Governmental Services
- Hospitals
- Fire stations
- Police stations
- Payroll services employees
- Tax collection systems
- Flood control facilities
- Transportation routes
- Information Technology
- Schools and Universities
- Major Employers
- Important Private non-profit organizations

ISD protects a lot of information technology facilities; Public Works protects a lot of facilities that would be extremely costly with long-term effects if they went down and were not able to be used.

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SCE was commended for their ability to identify critical facilities and stated that although SCE does not share their critical facilities information, they need to state that they have an active mitigation program, that they have participated in the Hazard Mitigation Advisory Committee, and that they support its objectives. This lack of information to the committee would be considered a constraint.

Jan Rogala asked for comments on the mitigation strategies. There will be new ones next meeting from Fire and Infrastructure derived from the post-disaster mitigation reports.

Steve Nyblom will supply GASB.

The meeting was adjourned at 1445.

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FEBRUARY 23, 2004

Meeting called to order at 1330

DMA 2000 Advisory Committee Attendees

1.	Steve Nyblom	Chief Administrator's Office
2.	Margaret Carlin	Office of Emergency Management
3.	Luis Gomez	Department of Health Services
4.	Paul Weinberg	Santa Monica Fire Department
5.	Yushan Tong	Department of Health Services
6.	Iris Salby	Department of Health Services
7.	Susana F. Jacomet	Department of Health Services
8.	Denise Shelton-Hall	Department of Health Services
9.	Bob Parra	LA County Fire Department, Fire
10.	Edgar Vega	LA County Fire Department
11.	Frank Vidales	LA County Fire Department, Forestry
12.	Larry Smith	Department of Health Services
13.	Mike Shatynski	Sanitation Districts
14.	Barbara Jackson	Community Development Commission
15.	Vinnie Chin	Office of Public Safety
16.	Bill McIntire	LA County Office of Education
17.	Thomas Brown	LA County Fire Department
18.	Gilbert Garcia	LA County Fire Department
19.	Brenda Williams	Registrar-Recorder/County Clerk
20.	Celina Ortiz	LA County Internal Services Department
21.	Paul M. Hanley	LA County Sheriff
22.	Larry Meyerhofer	LA City EPD (spell out?)
23.	Rogelio Stone	Department of Health Services
24.	Rob Sneckenberg	LA County Public Works
25.	Casey Chel	Long Beach Fire Department Area F
26.	Janice Rogala	LACOEOC/Dimensions
27.	Theresa Hayes	LACOEOC/Dimensions
28.	CarolAnn Moore	LACOEOC/Dimensions

Old Business

In the absence of Chairperson Yolanda Pahua , Jan Rogala opened the meeting and requested the minutes from the last meeting be reviewed and considered for adoption.

January 2004 Meeting Minutes

Teresa Hayes noted that the minutes listed Larry Smith as representing "Public Health" instead of "Department of Health Services." The Advisory Committee reviewed and adopted the minutes of the January Meeting with the above correction.

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Evaluation of Past Disaster Mitigation Proposals

Jan asked Rob Sneckenberg if he had had a chance to go over the old Site Mitigation Proposals that came about post disasters, and he answered that they are still are going over them and have nothing to report yet. Jan is giving him the post-Northridge proposals and giving Fire all the fire proposals that came out post disaster. She asked if he had seen the FEMA Hazard Mitigation Post-Disaster Reports. The reason we go back and revisit them is that they were done as a group including state and local representatives. They were brought forward as potential mitigation strategies, and they may or may not have been implemented, but we need to bring them to the table and determine if we want to proceed or we don't have the funding or we've already done this. We need to take them off the unknown list. That's why we are going back through them. There is a report on each disaster that has affected the county with the exception of the Rodney King riots/civil insurrection.

Committee Reports

1. Critical Facilities

Celina Ortiz reported that the county is responsible for BCP (business continuity planning) but ISD is doing theirs in-house. There is a hold up right now with the countywide one. ISD has already established its critical facilities and will have Bob _____ forward it to Jan.

Jan asked if other departments have had a chance to look at which facilities are critical to them and they would need to be sure were functioning after a disaster. They would be your priorities. We are getting a little bit ahead in the business continuity planning because there are similar sorts of things. She asked that if the members have a list or a draft, she would appreciate having a copy of it: facilities are what are most important to the public, especially health services, fire, police, services, housing, etc.

Jan: We had some really good progress. Steve Nyblom said they had two lists of the county's properties. One has some valuations on it, primarily for the insured properties in the county for which has approximately $800 million worth of property insurance. Not all buildings are insured. The significant majority of them are probably not insured. The second list has square footage of each building. We are going to compare the two lists and make sure that our values are appropriate. The lists are available and contain addresses, etc.

Jan: This is probably one of the hardest and most arduous tasks that we have: to identify the properties you have, with square footage, and then come up with a workable amount to create an risk analysis for the county. We are getting very close. So, if you just have your critical facilities and the list of facilities, working off the list being developed here, we can help with your valuations of what each one is worth. I don't know how to tell whether they are insured or not, but the agencies can check with you (Steve) on that and find out.

Steve said that, as a general statement, the buildings that are insured are leased or financed by bond issue or have some sort of other financing mechanism behind them. A purely county-owned facility that has no financing attached to it or has not specific bond issue attached to it probably would not be insured. Steve has a list, if anyone is curious about their department's properties. It is broken down by department and address, so if a department asks for their department's properties, they can be given a list.

Jan reminded the members that they still need inputs from each department, not of what assets are (because we now have a list of all the buildings the county owns), but what you consider to be your critical facilities that would high on a hazard mitigation strategy list to keep functioning in the event of disaster.

Steve said that leased properties are included in his lists.

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Barbara Jackson asks if we were concerned only about what the county owns.

Jan answered that for the asset and the disaster analysis for critical facilities, we are looking further than what the county owns; we are looking at all the fire stations, all the hospitals, the Federal buildings, those facilities that serve the community as a whole. For many of them we will not have the ability to put any figures to, nor will we have any ability to mitigate them; we will only be able to identify them.

Barbara pointed out that there may be differences in what their agency thinks is critical compared to the other things. Comparatively speaking, CDC is way down, but internally, they take their responsibilities seriously. She is trying to put it into the context of what is really a great facility for government in general. She said that during the Y2K exercise, critical facilities were not identified, not that they were not important to her agency.

Jan said that hazard mitigation wants to look at services to the public such as what kind of sanitation would be a critical facility. The committee will each agency's judgment as to each department's facilities and then as a group decide priorities. The consultant will not make any decisions. If CDC has housing that houses huge amounts of people, and those resources are not available anywhere else, that may be need to be listed under the housing critical facilities. There is a certain level that cannot be gotten down to because of the time constraints.

Jan asked if everyone was clear regarding the difference between assets (property owned by the county and critical facilities (services to the community as a whole). She would like the lists as soon as possible, but there is probably a 30- to 60-day window to get it appropriately into the plan. She asked if that was a reasonable time frame.

1. GIS

Margaret Carlin reported that the committee had not been a formal meeting yet. She spoke with Dai Bui but did not have a formal report.

Jan showed some PowerPoint slides of some of the maps. The county has made a commitment when we collected all the GIS data to get risk information, risk maps, and data we could share with the entities participating and even entities that did not participate. How to supply that data gets really complicated, and the GIS committee will have to address that. Can we give it a PDF file? A PowerPoint allows manipulation and at add things to them, but they cannot be scaled. They can be overlaid. The maps could simply be printed. Some of the smaller cities could potentially make overlays as it fits over their boundaries and get a good idea of where the hazards are for their particular area.

Frank Vidales said that the Fire Department has updated all the different GIS maps for a wildland fire hazard analyses. He passed around printed copies of these maps and gave a compact disc to the consultants.

Jan said that the consultants need to get together with the Disaster Management Area Coordinators (DMACs) and the external jurisdictions that want to use the maps and get a feel for what they really need and what kind of licensing they have such as Thomas Bros. licensing. She asked Margaret Carlin to share some of this information. We do not want to be giving away data that is usually charged for and an income stream, because we agreed we would not do that.

Without taxing GIS departments too much, we can produce most of the data ourselves, as we produced the county maps based on the copies that we obtained coming into the project. We will make these available, brief the DMACs, have the DMACs go back and talk to their cities, talk with the individual agencies and see if they want any of this data and in what format, either PDF, PowerPoint, or other.

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We can click on the GIS layers, and it will take us to the building data as we have it; in PowerPoint format this ability is not available. If we do not have the ability to get the GIS layers out, because of licensing restrictions or cities that do not have a GIS capability that would handle this data, we can talk about it. We also have other information available. We have critical facilities maps and flood-related maps, and we have just started. We are probably 30% to 50% complete on the types of maps we can produce. Then for the more complicated maps we are going to have to come back and ask Margaret and Dai for help.

Bill McIntire asked if the offer to the DMACs also applied to the Office of Education. Jan asked if all his facilities were on the (assets) list, and Bill thought probably not. Jan said LAUSD has already done quite a bit of mapping and has schools and risk-related data. The State apparently made that district a "poster child" and did some work for them on mapping. Larry Meyerhofer said his agency GIS has mapped out LAUSD properties and has a layer of schools. Jan said that for county agencies that had facilities in the city, Larry Meyerhofer has an impressive set of maps. Larry said he would have to contact their GIS section to see if they could be given out. They have a web site that is available to the public _____ (navigatela.com?) and another version that is available only to city employees.

2. Fire

Chief Vidales reported about the Fire Hazard Mitigation Subcommittee Meeting on February 4, 2004. He was asked to present several wildland fire mitigation strategies and subsequent hazard mitigation plans for all-hazard wildland fire incidents. Teresa shared previous wildland fire data with him and hazard analysis data, and he compared it to what they currently have and updated it with additional information. The Forestry Division is tasked with identifying all wildland fire risks and hazard mitigation plans, and there is a GIS section within the division which does nothing but that. They are the gatekeeper for all wildland fire data.

He brought maps that showed that wildland fire hazard vary depending on what part of the county. He talked about identifying critical facilities, and he would like to have the consultants meet with the assistant fire chiefs. Jan said that there was a tentative meeting (February 25 or March 10?) with the Chief to bring him up to date on what the subcommittee is doing and what mitigation strategies the Fire District is looking toward. They will bring the information back to committee.

Chief Vidales said they also identified several other members of the department that could assist with data collection. Teresa Hayes said there was a meeting tomorrow, and that those folks will be at that meeting and pointed out that the minutes of the previous Fire Hazard subcommittee are in the paperwork, including who is involved and contact information.

Jan Rogala asked Chief Vidales if his information is readily available, and he said it was.

3. Utilities

Mike Shatynski was the only subcommittee member present. He stated that Janet Workman was taking the lead on the subcommittee, and they got together right after the last meeting, the first time as a group. They discussed the amount of hazard mitigation that the agencies had done in the past. The utilities have a lot emergency plans for events such as blackouts, etc. They cannot share some of the data. Edison and private companies cannot share data for liability reasons. His organization can share some data.

Jan Rogala said that Janet Workman had provided data on food distribution warehouses. It is not utility-related, but they were having trouble finding out where the major food warehouses and distribution centers were. Jan said that they would need whatever utility data was available with the committee and have it tell them what they

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can just leave to the Department of Emergency Management and what is available to go on to FEMA and theoretically to the public. Data on some of the problems that have happened in the past with utilities will be collected anyway; what the risks are, where the earthquakes overlap, etc. The utilities will have an opportunity to say whether or not they want that data published, and we will so note that in the plan.

She stated that this applied to every agency on the committee: If there is something in the plan that is confidential that the agency does not want published, it will be referenced in the copy that goes to FEMA. The Office of Emergency Management agrees that that would be appropriate. We obvious have to look at water, power, and sanitation as being major threats; and mitigation of those losses, whether they be public information or public works projects, needs to be considered. At least internally by the county. Restrictions on data are understandable, but they are a little bit difficult to work with.

4. Infrastructure

Jan Rogala said that critical facilities and structures had been well covered, except for bridges, roads, flood control, etc. These would come under Public Works.

Rob Sneckenberg said that he had information on flood control and roads. He believes the roads and bridges are in the GIS data that Dai Bui has already provided, but he will ask him about that. Rob has located all their past hazard mitigation programs to get that information.

5. Economic Loss

Steve Nyblom had no report.

6. Public Works/Natural Hazards

Rob Sneckenberg reported that they submitted five notices of interest, and three were approved to proceed to fill out the applications: Water tank retrofits and Palmer Canyon houses that were burned down.

Jan Rogala said the County EOC has also submitted a planning grant to support the DMA 2000, the fire department has submitted some applications for fire grants. Chief Vidales said there were three grants that were all approved for the next phase. One was for Tonner Canyon, one for Bradberry, one was for Whittier Narrows for fire mitigation-type work. Gil Garcia said it was split with earthquake retrofit.

Jan pointed out that the committee needed to vote to support applications for hazard mitigation grants. This support was approved by the committee.

Paul Hanley reported that the Sheriff's Department had no hazard mitigation grants. Jan asked if a Law Enforcement subcommittee was needed, but Paul said they would work through the existing subcommittees.

7. Public Health

Susana Jacomet said that her department was working on the information. Jan Rogala said that the Department of Health Services had an amazing amount of information, and they need to work closely with the hospitals. The committee is grateful that this department is on board.

Rogelio Stone introduced Luis Gomez , who asked about grants. He said that they currently four hazard mitigation grants that have been for facilities. Jan said that they need to directly address those; a summary of what they got, where they are, what is happening with the grants. The information should be given to Teresa or

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Jan at the EOC or to the subcommittee chairperson who will give it to them. The consultants will meet with the subcommittee fairly regularly and keep up with where they are and what they are doing.

8. Public Education

Bill McIntire reported on behalf of Roger Chang that Phase I DMA 2000 planning workshops were scheduled. Jan Rogala pointed out that the school districts are covered by the law and are trying to bring each school district on board. The county office of education is being (excluded?) from that. Jan asked Bill if he thought Roger would be able to chair that committee, and Bill said that he thought Roger's boss, Danny Villaneuva, would be more appropriate.

Government Accounting Standards Board (GASB)

Jan Rogala said that there had been a discussion of the valuations. She though that everyone now understood about identification of historic mitigation actions and was starting to get them together so they could be described in the plan.

Disaster Management Area Coordinators (DMACs)

Paul Weinberg, Emergency Services Coordinator from Santa Monica, reported that in January the DMACs hosted three training workshops for the individual cities and an executive briefing for mayors and city managers, and a template of a sample plan was distributed to help cities create their plans. Jan Rogala said they would work with the DMACs on how to provide risk assessment mapping, etc.

Identification of Strategic Plans

Jan Rogala asked if anyone had gone through a process of identifying department strategic goals and objectives, very similar to the continuity of business planning that is going on. She believed there was a partial one from Public Works and one from Emergency Management. The Fire Department probably has one as well. Those will bring a lot of data about what threat perspective is. Part of the process is looking to the future on where the county wants to go as an entity. Strategic plans include a lot of data we can use on that.

New Business

Hazard Map Preview

Preview of the maps was discussed earlier. The Fire maps were passed around to all attendees.

Grant Applications

Grant applications were discussed earlier.

Public Input Strategies & Survey

Jan Rogala said that the city's questionnaire had been plagiarized for the public and gave the committee the original questionnaire. Larry Meyerhofer reduced it in size down to three pages and posted it on their own web site. The EPD has their own web site for the hazard mitigation plan project. The original questionnaire was included in the attendees packets in its entirety. The consultants are recommending that the county post this on a web site and that it be given out at public meetings to get pubic input back.

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Jan asked attendees to look at it, then to look at the EPD questionnaire to see how Larry cut it down, then maybe plagiarize that as well. This is one of the way to get public input. We are gathering public input every time we discover a county agency is meeting with the public, such as the fire meetings, etc. We need attendee lists, and we need subjects of meetings, and we need public recommendations from those types of meetings. We need to reach the public on earthquakes, floods. Public works has already been through a series of public participation on public works projects, and this committee has to go further than the survey. Jan mentioned an annual seminar for the cities and counties of Los Angeles that could be utilized as a participation of the regional entities in the plan, if we could get some of our subjects on the agenda.

She asked the members to look for opportunities to collect public input as well as to utilize the OEM web site as well as any kind of commercials and outreach. She asked for ideas and/or upcoming public meetings where the questionnaire could be distributed and we could talk about the committee. She said there were probably five or six meeting so far, a lot dealing with fire and reconstruction, but we need more opportunities for the public to give input. We plan to schedule a large invitational meeting later in the year hosted by the OEM.

State Training

Jan Rogala said that state training was available. Larry Meyerhofer said he thought they were considering some new ones but people had to respond by Friday.

Not on Agenda

Jan Rogala announced that the consultants put together a report of where they are:

- Approximately 40% to 50% of the risk mapping
- Approximately 40% of the data in rough form in the plan. We are hoping to bring you a disc and hard copies next month, which would be right on target.

The next crucial step is to begin thinking about mitigation strategies. As we collect all the data we have talked about and have the public meetings and continue ongoing projects, the entire gist is to develop strategies to prevent/reduce loss in the future. Fire and Public Works are getting grants. All departments have the opportunity internally to look at mitigation and risk prevention and bring them forward. FEMA is not the only source for hazard mitigation funds. We can look to general budgets, other agencies that grant funds. If they are in the plan, if they are prioritized, the department has a place to start looking for ways to get them into your budget.

Jan asked the committee to start jotting down their ideas, a lot of thought and ideas to begin with and pare them down to what they feel is a high-priority list. The things that contribute to mitigation include things like Steve Nyblom is doing in putting together a list of and identifying buildings. That is actually a prevention strategy for financial recovery and for accountability within the county. This is how a cost/benefit analysis is done. She asked the committee to think away from the traditional things and think of public education, all the things we looked at in the first round; ways to defer hazards, avoid hazards, alter risks, do public education, withdraw from high hazard areas. Jot down any type of mitigation project that comes to mind. Public Health is considering educational facilities. The LAUSD had a lot of money for public schools post-Northridge - about $80 million for light fixtures.

This information is something to have on the table, in the plan, so that post-disaster agencies are not starting from scratch brainstorming these things. That is part of the reason we are looking at the old mitigation strategies. We will bring some more of those next meeting and maybe try to get them to the committee ahead of time. They will provide some ideas.

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Barbara Jackson asked for an explanation of the matrix on Commercial Access to Information in the attendees' packets. Jan explained that it is a guide put out by a market task force put together by risk management group on what laws apply to what kind of data. We keep talking about confidentiality of data, who has access to what. This is a guide that tells you who can get what, where, and when. It is certainly not a definitive legal answer; it is simply a guide to share the laws that affect what we are doing when we start producing this kind of data and information. The web site address was on the matrix.

The meeting was adjourned at 1421, moved by Luis Gomez.

Los Angeles County Multi-Hazard Mitigation Planning Advisory Committee
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COMMITTEE MEETING MINUTES
March 22, 2004

Meeting called to order at 2:30 P.M.

DMA 2000 Advisory Committee Attendees

1.	Bob Spears	LA Unified School District
2.	Roger Chang	LA County Office of Education
3.	Gilbert Garcia	LA County Fire Department, Support
4.	Thomas O Brown	LA County Fire Department, Construction
5.	Kristin Cook	City of West Hollywood
6.	Rob Sneckenberg	LA County Public Works
7.	Larry Smith	Department of Health Services
8.	Bob Gillis	LA County Internal Services Department
9.	Celina Ortiz	LA County Internal Services Department
10.	Larry Meyerhofer	LA City EPD
11.	Barbara Jackson	Community Development Commission
12.	Paul Hanley	LA County Sheriff Department
13.	Bill McIntire	LA County Office of Education
14.	Keith D. Crafton	LA County Office of Education
15.	Ed Vega	LA County Fire Department, Prevention
16.	Bob Parra	LA County Fire Department, Prevention
17.	Iris Salby	Department of Health Services
18.	Susana F. Jacomet	Department of Health Services
19.	Robbie Roshyl Miller	LA County Counsel
20.	Scott Brewer	State of California Office of Emergency Services
21.	Jan Rogala	LACOEOC/Dimensions
22.	Rich Rogala	LACOEOC/Dimensions
23.	Theresa Hayes	LACOEOC/Dimensions
24.	Yolanda Pahua	LA County Office of Emergency Management

Old Business

Chairperson Yolanda Pahua opened the meeting and requested the minutes from the last meeting be reviewed and considered for adoption.

February 2004 Meeting Minutes

The Advisory Committee reviewed and adopted the minutes of the February Meeting.

Status of Planning Grant

The FEMA Grant the Los Angeles County of Emergency Management has applied for came back for additional information. The County has used funds for all the individual and group training sessions out of their budget to assistance County departments and other cities with their DMA 2000 Plan process. Until the FEMA Grant has

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been approved or other funding resources are identified, the County will not be able to assist the individual cities in Los Angeles County.

Status of Mapping

The grant money will provide the funding for mapping. When the monies become available the county will be able to produce maps for the individual cities.

Committee Reports:

County Asset Report: Steve Nyblom

Steve was unable to attend the meeting. He reported, through Jan Rogala, that he is working on the economic values for the counties critical facilities. He will have the information ready next week. The departments will be able to review the report and prioritize their critical facilities by the next meeting.

Fire Committee: Gilbert Garcia

Gilbert reported that the presentation to Chief Freeman was positive. Chief Freeman asked that all fire divisions support the Advisory Committee's requests for information. Gil is identifying their infrastructure's assets and values. The deadline given by Chief Freeman by which to have all the information to the Fire Committee is April 30, 2004. The Fire Committee provided a matrix of contracted cities and services for the Advisory Committee.

Public Works Committee: Rob Sneckenberg

The Public Works Executive Committee met March 17, 2004. Rob provided historical mitigation data, Hazard Mitigation Grant Program Status Report, Flood Maintenance Facilities Summary Sheet, and Northridge Earthquake Disaster Hazard Mitigation Grant Program documents for the Advisory Committee to review.

Department of Health Services

Public Health Sub-Committee met with Dimensions on March 16, 2004. They were able to provide documents on their Bio-Terrorism Preparedness and Response Programs and Readiness Reports, Public Health Emergency Responsibilities form during an epidemic or outbreak, Health Services Emergency Plan, and West Nile Virus pamphlet. The committee is working on gathering historical data, future mitigation strategies, and a matrix of services provided to contract cities.

Larry Smith has been working on gathering and submitting information/data from county hospitals, medical centers, and health facilities.

GIS Committee

The members of the GIS committee were not in attendance. Jan Rogala and Margaret Carlin are working on identifying a methodology for the GIS database updates and use of data received.

DMAC Report

Kristin Cook of the City of West Hollywood reported that the cities are starting on their individual DMA 2000 Plans. Any information and assistance the county departments can provide would be appreciated at this time. The Los Angeles County Fire Department is contracted with 59 cities. The Los Angeles Sheriff's department provides service to 40 cities, plus service and security to schools and health providers. Los Angeles County Department of Health Services contracts services with 86 cities, and Los Angeles County Public Works also provides services to multiple cities.

Infrastructure

The Infrastructure Committee members were not in attendance.

Schools

Roger Chang, Los Angeles County Office of Education, reported that school districts met January 22, 2004. They are pooling their information into a database. The database is about 85% complete. They are sponsoring another DMA 2000 workshop on May 13, 2004. They have scheduled a meeting for all the Chiefs and Superintendents to hear a DMA 2000 Plan overview on May 12, 2004. Mike Martinet, DMAC Area G, will be speaking about the ramifications of not writing a DMA 2000 Plan. Chris Adams, from State of California Office of Emergency Services has agreed to provide GIS maps for any school district.

Los Angeles County Office of Education will share a list of school districts and any other data with the Advisory Committee.

Utilities

The Sub Committee members were not in attendance. There is not further information at this time.

Economic Loss

The Advisory members are still gathering information to bring to the Advisory Committee.

Status of Individual Departments Critical Facilities Reports

Los Angeles County Internal Services Department emailed a list of their critical facilities to the advisory committee.

Status of Identification of Strategic Plans

The Advisory committee has received Strategic Plans from three departments. If the individual departments do not have a current Strategic Plan they can bring what they have in the form of a Safety Element out of their General Plan.

New Business

A Program/Project form to list departmental capital projects/programs for mitigation strategies was handed out for all the department/districts to list each mitigation project.

Other Business

There was none at this time.

The meeting was adjourned at 3:30 P.M.

The Next meeting will be held at 2:30 P.M. in Conference Room A & B at the Emergency Operations Center, 1275 N. Eastern Ave., Los Angeles, California 90063 on Monday
April 26, 2004

Los Angeles County Multi-Hazard Mitigation Advisory Committee Meeting
1275 N. Eastern Ave.
Los Angeles, CA 90063

April 26, 2004

Meeting called to order at 2:32PM

DMA 2000 Advisory Committee Attendees

1.	Steve Nyblom	LA County CAO, Asst. Division Chief
2.	Mike Shatynski	LA County Sanitation, Section Head
3.	Ed Vega	LA County Fire Department, Prevention
4.	Bob Parra	LA County Fire Department, Prevention
5.	Denise Shelton-Hall	LA County Dept. of Health Services, Disaster Preparedness Coordinator
6.	Luis Gomez	LA County Dept. of Health Services, Fiscal Officer
7.	Beth A. Drummond	LA County Dept. of Health Services, Intern
8.	Susana F. Jocomet	LA County Dept. of Health Services, Bioterrorism Preparedness Program
9.	Iris Salby	LA County Dept. of Health Services, Bioterrorism Preparedness Program
10.	Gilbert Garcia	LA County Fire Department, Support Services
11.	Larry Meyerhofer	City of Los Angeles, EPD
12.	Barbara Jackson	Community Development Commission
13.	Sam Daleo	LA County Dept. of Public Works
14.	Eric Batman	LA County Dept. of Public Works
15.	Rogelio Stone	LA County Dept. of Health Services, Disaster Preparedness Coordinator
16.	Bill McIntire	LA County Office of Education
17.	Casey Chel	City of Long Beach, Disaster Management Officer
18.	Rich Brandt	City of Long Beach, Natural Hazard Mitigation Coordinator
19.	Keith Crafton	LA County Office of Education, Admin. Services Officer
20.	Brenda Williams	LA County Registrar-Recorder/County Clerk
21.	Robbie Roshyl Miller	LA County Counsel
22.	Paul M Hanley	LA County Sheriff's Department
23.	Leon E. Reynolds	LA County Office of Public Safety
24.	Jan Rogala	LACOEOC/Dimensions
25.	Yolanda Pahua	LA County Office of Emergency Management
26.	Rich Rogala	LACOEOC/Dimensions
27.	Theresa Hayes	LACOEOC/Dimensions

New Business

Chairperson Yolanda Pahua opened the meeting and requested the minutes form the last meeting be reviewed and considered for adoption. Consideration of minutes - moved and seconded to approve minutes as they stand. All ayes.

Topanga Canyon Emergency Management Steering Committee

Theresa Hayes was invited to the Topanga Canyon Emergency Management Steering Committee to give a presentation on the Los Angeles County's DMA 2000 Plan. The Topanga Canyon Emergency Management Steering Committee adopted the Los Angeles Multi-Hazard Mitigation Advisory Committee's Hazard Mitigation questionnaire. The Topanga Canyon Committee asked for a cover letter to explain the questionnaire to the Topanga Canyon residents. The Topanga Canyon Committee will mail out the questionnaire to all Topanga Canyon residents. The Committee will ask the residents to return the questionnaire to by June 10 2004.

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Jan requested to know if there is any specific mitigation projects that deal with Topanga Canyon because they are a special study target. Topanga Canyon is in a high risk Wildland/Urban Interface Fire area. The narrow roads in the canyon present an obstacle for fire response.

May Meeting Consideration

Jan suggested the committee not meet in May, so for the June meeting we will have the first draft of the plan. The committee membership agreed to cancel the May committee meeting. We still need to talk about strategies in the meantime.

Old Business

Mitigation Summary Forms from Departments

Jan asked department representatives for their mitigation summary forms. After November, FEMA will ask if the county has considered mitigating their identified hazard risks. If not they will have to come up with more mitigation strategies to reduce risk to Los Angeles County. There is $150million coming from the Federal government for Hazard Mitigation Projects next year.

Mitigation Spread Sheet from Departments

Mitigation spread sheets from departments not available because we haven't received mitigation strategies from departments.

Status of Planning Grant

The DMA 2000 Plan process was temporarily suspended for several weeks because of contracting, but is back on track. There are two grants in force now.

Status of Mapping

Due to the delay in contract grant funding, the committee has not been to aid and produce maps per requests. Many maps are available and offered for membership use on request.

Civil Unrest

Sgt Paul Hanley asked the committee to reconsider adding civil unrest to the hazard risk analysis again. The committee had previously dropped it from the analysis. The Sheriff's Department brought several documents concerning historical data on riots in Los Angeles County. Civil unrest impacts the county's residents personal safety and economically. There is a greater dollar loss due to civil unrest and riots than any other risk. Perhaps due to demographic changes and the ability of government to deal with it. Civil unrest usually ends up in a riot in one way or another. Historical data lists 83 different riots from 1965 until now. It has cost Los Angeles County billions of dollars in response and recovery. There is always a triggering event, but conditions are all the same. Due to the history, dollar loss, and loss of lives the committee made a motion to put civil unrest on the hazard risk analysis list. The motion was seconded and the committee voted to classify civil unrest as high risk priority.

Civil unrest affects the Los Angeles Sheriff's, Fire, and Health Services Departments. These departments are obligated to look into hazard mitigation for this risk. Solicited from Law Enforcement – Social programs that address changing demographics may mitigate. Census occurs every ten years is the basis for recognizing changing demographics. Cities recognition of changing demographics would be a great help and perhaps a mitigation strategy. – Develop a program to track the local demographics – Mitigation Strategy. Schools are a target here. Schools assess their population every year, therefore could be a conduit for mitigating civil unrest

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and tracking demographics. Research would reveal many causes based on studies. A lot has to do with changes in the world. Already showing signs of destabilizing based on changing views of current war situation. Jan requested that committee look at this issue and work through identifying mitigation strategies.

A question came up that when a risk is voted to be high by the committee, does that mean that all members need to come up with strategies. The answer is no, but it is to be looked at as an opportunity to focus on it and identify strategies to mitigate the risk.

City of LA is focusing on smaller type riots and civil unrest. Police affected lead, but is cause for many changes in the LAPD structure. City looks at large and small incidents. Policy changes within the PD and training and education for officers and other employees are strategies. Sheriff took a proactive approach and identified them as good things to do. Jan said we need to be sure to note this kind of activity in the plan. Historical documentation and suggested mitigation strategies have proven to be very important in the process of plan approval from FEMA.

City of LA is ranked #3 in having recurring civil unrest (#3 in the nation) beat out by Chicago and Miami.

Recognition of new Members – Keith Crafton of LA County Office of Education.

Committee Reports

County Asset Report-Steve Nyblom
Steve is still pulling together information on contract and leased facilities. There is 53 million square feet of county real estate at approximately $6 billion worth of building replacement costs; The County owns 30% of the identified buildings. The data is being reviewed by people in the Real Estate branch. Once reviewed, they will identify methodology for determining maximum foreseeable loss. The leased buildings should be looked at on a case-by-case basis. The list will be indexed based on occupancy and current LACO values. Steve expects this to be done in 2 weeks.

Fire Committee-Gil Garcia
The Fire Sub-committee has identified 85-90% of their essential facilities. Leased vs. owned – primarily for fire camps leased through the United States Forestry Service. Los Angeles County Fire Department leases the property but the building at built by LACOFD, so they will look at them as hard assets. The majority of information requested by the Advisory Committee has been identified and given to the committee. The fleet assets are in progress and should be ready soon. Still have to figure out some fleet identification variances. The LACOFD structures are easy because 3 styles of fire stations are copyrighted and can be determined right to the penny. The Fire Sub-Committee is meeting on May 4 –someone on the Sub committee will assist with ongoing membership and flow of information. HAZMAT division has provided the regional and area LEPC plans for LACO. High risk fire maps are available. Current mitigation projects have been provided. No future mitigation projects yet. They will be submitted through the executive staff meeting next week.
Some contracted entities are drafting a letter to the LACO Fire to identify them as stakeholders and need to have input into their hazard mitigation program planning process. Jan warned it's coming up from contracted cities. It has been recognized that the local station commander will most certainly be the person who can represent the stakeholder.

Department of Health Services
Public Health – They are working on gathering maps and a list of health control districts. The Department of Health Services is very fragmented but gathering documentation from all divisions. Jan said we need the descriptor of sub-agencies that fall under major departments within the county to put in the plan. Public Health has a strategic plan and emergency preparedness plan being worked on by a task force. Question was asked re: putting together a DOC for Public Health – equipment, layout, location etc. Jan said that this falls under the

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purview of being a hazard mitigation strategy. There are also grants available for these types of mitigation strategies.
Luis Gomez is now working on planning approval for consolidating 13 projects into 4. There is history on projects completed in the past too. Luis will work with consultant to get missing hospital data.

Public Works
Public Works is still gathering information. Sam and Eric are getting up to speed because they came in late to the process. They are working on getting information from divisions. The Public Works Sub-Committee may need to schedule another meeting. Theresa will work with Sam and Eric on gathering information and scheduling a meeting if necessary. Jan has identified many projects that fall under DPW. Theresa said we may need a rep from Road Maintenance Division as a result of the information she got from the Topanga Canyon meeting. There may be a description of high risk roads because of narrow ingress and egress. Jan thought that looking at the budget program might help identify those projects.

GIS Sub-Committee
GIS Sub-Committee is meeting tomorrow at DPW from 3-5 pm. The committee will be discussing mapping, licensing, update and maintenance of the GIS database. Jan solicited any questions or messages for the sub-committee.

DMAC
Most cities started process of finding data. Contract agencies are being asked to be prepared to help out.

Infrastructure
Infrastructure Committee – has not met. Jan asked for the each department's Strategic or Emergency Plans.

Utilities
Other members from private agencies have been absent in the process. There hasn't been anything major to report. Mike Shatynski is getting ready to address cities that are contacting them because of multiple boundary crossings. The Sanitation District has done a lot to mitigate past hazards.

Economic Loss – not represented

Sheriff's Department
Paul is gathering more information concerning mitigation strategies. He has provided documents on contract city matrices, personal and asset values. Paul brought historical data concerning riots to this meeting. The documents give the historical dates and economic loss of civil unrest/riots.

Office of Public Safety
Leon Reynolds and Lt. Mike O'Shea will be presenting the Office of Public Safety. They have provided several documents. They are continuing to gather information for the committee.

The Office of Public Safety was late in coming to the process because they are classified under Department of Human Resources.

Status of Individual Department Critical Facilities Reports
Critical facilities are based on value and use. There is something there to help identify essential and nonessential. Steve has a spreadsheet that lists location identifying high and low impact. The committee needs to identify non-county owned critical facilities which will be ever-changing.

Status of Identification of Strategic Plans (have the below)
OES
Regional Planning and Public Works

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Public Health

Meeting Adjourned at 3:33PM
Next meeting the 4th Monday in June at 2:30PM in this room.

FIRE HAZARD MITIGATION SUB COMMITTEE MEETING MINUTES

1/06/2004

Attendance:

1. Yolanda Pahua, Program Manager OEM, 323.980-2266, ypahua@lacoeoc.org
2. Jan Rogala, Dimensions, 707.374-6529, janrogala@aol.com
3. Theresa Hayes, Dimensions, Project Manager, 323.980-2122, dimensions@lacoeoc.org
4. Capt. Edgar Vega, Prevention Division, LACO Fire Dept. 323.724-3442, evega@lacofd.org
5. Battalion Chief Robert Hook, Regional Fire Prevention Unit-Section I, Fire Prevention Division, 323.980-4136, rhook@lacofd.org
6. Robert F. Parra, Administrative Analyst, Codes and Ordinances, Fire Prevention Division, 213.890-4236. rparra@lacofd.org

Agenda:

Overview of DMA 2000 Program

Jan summarized DMA 2000 Plan. She gave out copies to the State of California's document titled The California Wildfire Problem and Recommended Solutions.

Advisory Committee Tasks

The Fire Department needs to identify and review past and present mitigation strategies. This may include;

- Regular business types of mitigation
- If funded, what would the Fire Department like to mitigate in the future?
- Documents which contain mitigation strategies
- Mitigation strategies for fire prevention
- What you may currently have to be included in the plan, so the Fire Department can be given credit for past mitigation strategies.
- Constraints on mitigation strategies.
- Statistical data of past wild land fires

Land ownership of at risk lands

- Who's responsible?
- What constraints exist?
- Coordinating efforts and communication between federal, state, private, and county.
-

Sub-Committee needs

Add expertise from;

- Los Angeles County Fire Department Forestry Division

- Los Angeles County Fire Department Hazard Materials Division
- Link to Fire Chief
- California State Fire Department (Chief Rich Schell)
- California Department of Forestry
- FEMA representative
- Los Angeles Fire District Terrorist representative
- Los Angeles Fire District Internal Finance representative

Information needed;

- General risk analysis for fires
- Size of unincorporated area of the county
- Mitigation guidelines
- Shared reports of past fire plans

Chief Robert Hook's requests:

- Invite the additional participants
- The Fire dept would like a list of information needed from the fire department. The necessary documents can be located.
- Identify resources

Chief Hook described one existing mitigation strategy. The Prevention Bureau can issue up to 3 citations for brush removal to private land owners. If the private land owner does not comply by the third citation. The Prevention Bureau will sub contract for the brush to be removed at the land owner's expense.
Chief Hook summarized the current Fire Codes.

Fire Hazard Mitigation Sub Committee

February 4,004

February 4, 2004

Attendance:

1.	Chief Robert Hook, Fire Prevention,	323.890-4136,	rhook@lacofd.org
2.	Yolanda Pahua, Program Manager OEM,	323.980-2266,	ypahua@lacoeoc.org
3.	Walter Uroff, Health Haz Materials,	323.890-4043,	wuroff@lacofd.org
4.	Tom Klinger, Health Haz Materials,	323.890-4056,	tklinger@lacofd.org
5.	Bob Parra, Fire Prevention,	323.890-4236,	rparra@lacofd.org
6.	Frank Vidales, Forestry Division,	323.890-4330,	fvidales@lacofd.org
7.	Dave Stone, Public Affairs,	323.881-2472,	dstone@lacofd.org
8.	Theresa Hayes, Dimensions,	323.980-2122,	dimensions@lacoeoc.org
9.	Jan Rogala, Dimensions,	323.980-2121,	janrogala@aol.com

Agenda

Introductions were made to identify previous attendees to new members from Public Affairs Division, Forestry Division, and Health/Hazard Materials Division.
Handouts were of January 6, 2004 agenda, January 6, 2004 Meeting Minutes and current agenda.
Last meeting minutes were accepted and approved.

Overview of DMA 2000 Plan

Theresa summarized DMA 2000 Plan. She gave out last meetings agenda to up date everyone on what has been discussed by the Sub-Committee.

List of facilities considered critical or at risk?

Tom suggested contacting Elizabeth Espitia for Health Haz Material's current critical/infrastructure data. Elizabeth is with the Information Management Division in the Fire Prevention Bureau. Janet Parker is her supervisor. All statistical data is maintained at IMD. Assistant Fire Chief/Fire Marshal Jonney Jee of Fire Prevention Division concurred after the meeting that Elizabeth should and could be included in the Sub-Committee.
IMD will have general information for assets, responses, and statistical data for the entire LACO Fire District.

Contract areas/Cities covered and type of services

There is between 53 and 59 contract cities at this time. The exact number needs to be researched by Theresa. The type of service needs further discussion and research by committee members. Place on next agenda.

Fire Grant monies

The DR 1498 form and instruction sheet was passed around and discussed. There are other departments within the Fire District which addresses grant applications.

Documentation of Risk/Risk maps/LEPC

This information will be with IMD. Tom and Walter will bring a copy of their LEPC Plan to the next meeting.

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What to do in the future will be an on going subject in future Sub-committee meetings. Dave is going to brief the Chief on the committee and guide the committee's future mitigation strategies.
Theresa will give a copy of the Fire District GIS's CD which was provided by Nancy Miller, EDP Support Analyst II, Information Management Division of County of Los Angeles Fire Department for Frank to compare to his department's maps. A decision will be made after Frank reviews the CD's contents for what else can be provided to the LA County Hazard Mitigation Advisory Committee.

Wildland Urban Interface/Intraface

Frank will review what the Forestry department has at this time. IMD may have this information.

Other Business

Dave would like a template to be developed by Dimensions that describes what information is needed. Jan will create a template to be submitted to Dave for review.
Dave will schedule a meeting with the Assistant Chiefs of the 18 fire districts to present the DMA 2000 Plan and the Fire Department Hazard Mitigation Data Needs template.

Tom and Walter suggested inviting Chief Bill Jones of Health Hazard Materials Division to the next Fire Hazard Mitigation Sub-Committee meeting. His email address is bjones@lacofd.org.

Next meeting:
Fire Prevention Bureau
5823 Rickenbacher Rd
City of Commerce
February 24, 2004
1:00pm

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Fire Hazard Mitigation Sub Committee

February 24,004

Meeting called to order at 1:00 P.M.

Present at the meeting:

Chief Robert Hook, Fire Prevention	rhook@lacofd.org
Capt. Edgar Vega, Fire Prevention	evaga@lacofd.org
Michal Ashley, IMD	mashley@lacofd.org
Bob Parra, Admin.Anal. Fire Prevention	bparra@lacofd.org
Gilbert Garcia	ggarcia@lacofd.org
Tom Brown	tbrown@lacofd.org
Jan Rogala, Dimensions Unlimited Inc.	janrogala@aol.com
Theresa Hayes, Dimensions Unlimited, Inc.	Theresa@dimensionsui.com

Minutes

The minutes from the February 3, 2004 meeting were approved as submitted.

Program Overview

Theresa reviewed the DMA 2000 program and the objectives of the Fire Subcommittee actions for new members present. The objectives of the Fire subcommittee were reviewed:

1. Identify the past, current implemented by the fire department and future mitigation strategies identified by the Fire Department to reduce risk and protect lives and property
2. Identify Fire Department service area
3. Document major Disaster operations by the Department and how the Mitigation efforts evolved from those operations
4. Identify Fire Department facilities in the risk areas
5. Identify Fire Department assets, and critical facilities
6. Identify Fire Department assets in high risk areas (flood, wildfire and earthquake)

Briefing for Fire Chief Freeman:

The upcoming meeting with Fire Chief Freeman on March 10th was discussed. Chief Freeman will have heard an overview of DMA 2000 from Bill Butler of OEM and the Committee members recommended we brief the Chief on.

- The value of the Hazard Mitigation Program to the County and Fire Department
- Time Constraints on the Project
- What we need from the Fire Department for the County Plan
- Status of information needed

Gilbert suggested we give a one lead page briefing bullets and then provide any back up data deemed important for the group at the meeting. The committee Agreed that would be the most appropriate approach and it was in line with what Yolanda from OEM had advised.

The information template has been provided to Chief Stone and we will essentially use that document to identify Fire Department contributions to the Plan.

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Committee Chair Selection:

Chief Hook is transferring to another position in early April and a new chair for the committee will need to be selected. The members present recommended Chief Vidales from the Forestry Division to fill that position. The consultants will contact Chief Vidales and he request he chair the Committee.

Fire Department Contract Cities

The consultants requested a list of the contract cities and services provided for the cities for the Mitigation Plan. Michal explained the city contracts were not all the same type of agreement and the Fire Department was currently formulating a matrix of the City, agreement and services provided. That information can be obtained from Chief Tom Glonchak of Fire Prevention. Currently there are 58 cities who receive services from the Fire Department.

Information Management Division:

Michal explained the IMD was the repository of data but the divisions had to make the queries for information. She agreed to take the information requests back to the appropriate contacts and advise the committee if on what they could provide.

Fire Disaster Grant Applications:

The Committee had identified five Fire Disaster Grants currently being developed for the recent Fire Disaster.

- 5 of the Notice of Interests have been approved and they include
- 4 controlled burn projects- contact person for details is Anthony Williams
- Bradbury
- Topanga
- Whittier
- Tonner Canyon

The Fire Department is submitting an application for a seismic project for Fire facilities. Contact person Gilbert Garcia

The committee members agreed to obtain more specific information on the grants for the Hazard mitigation Plan Advisory Committee.

Risk Map update

Theresa shared the Fire Risk Maps that have been updated and provided by the Forestry Division.

The next meeting date was set for 1:00 P.M. on March 23, 2004

The meeting was adjourned at 2:00 P.M.

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Fire Hazard Mitigation Sub-Committee Meeting Minutes

March 23, 2004

Meeting called to order at 1:00pm

Present at the meeting:

Ch. Frank Vidales,	Forestry
Ch. Robert Hook,	Fire Prevention
Capt. Ed Vega,	Fire Prevention
Gil Garcia,	Support Services
Tom Brown,	Construction and Maintenance
Bob Parra,	Fire Prevention
Tim Smith,	Information Management
Michal Ashley,	Information Management
Janice Rogala,	Dimensions, Consultant
Rich Rogala,	Dimensions, Consultant
Theresa Hayes,	Dimensions, Consultant

Minutes

Gil made a motion to approve the minutes from February 23, 2004 meeting and Tom seconded. The minutes were adopted.

New Business

The committee welcomed Frank as our new Chairperson to the Fire Sub-Committee.

Handouts:
- Hazard Mitigation Program and Project Summary Form
- Fire Department Participation Overview

The Hazard Mitigation Program and Project Summary Form are for all fire divisions to list their current or future mitigation strategies.

The Fire Department Participation Overview is a guide outlining the required Data, strategies, and tasks for the committee. This guide was given out at the Fire Department Executive Meeting March 10, 2004. Dimensions asked if the committee thought the overview was a complete list or if there is anything else need which needed to be added to the list.

Old Business

Report on Presentation to Chief Freeman

Ch. Hook and Jan reported that the presentation went extremely well. Ch. Freeman was briefed on the DMA 2000 Plan and what is needed from the Fire Department Divisions.

Contract Matrix

Ch. Hook provided the Contract City Matrix from Ch. Glonchak. The matrix lists the client cities and what services are provided to the 59 cities.

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Mapping

Frank and Gil are going to coordinate on maps. Frank has provided an update on the GIS maps obtained from Nancy Miller. Frank is working on additional maps.

Historical Data

Gil has been directed to coordinate with other divisions to compile historical data, economic asset information, strategic plan, and various other pertinent data for the plan.
The deadline given to the other divisions and departments is April 30, 2004.

Grants

Gil suggested Ch. Dyer may be the keeper for all grant applications. Gil will contact Ch. Dyer for copies. Frank has copies of past and current grant applications. He will bring copies to the next meeting.

Hazardous Materials Division

Hazardous Materials Division was unable to attend the meeting. The committee discussed what information IMD may have of the Haz Mat Division. IMD will contact Mona, who manages the system, for statistical data, haz mat locations and the LEPC Plan. The information will be provided in electronic form if possible.

New Mitigation Strategies

Future strategies will be bought forth, discussed, and given to Ch. Stone or the Ch. Stone's position. That individual will be able to communicate with Chief Freeman's Office.

Fire Hazard Mitigation Sub-Committee Meeting Minutes

Meeting called to order at 1:00pm.

Meeting Attendees:

Chief Frank Vidales	Forestry
Chief Scott Poster	Fire Prevention
Tim Smith	Information Management
Walt Uroff	Hazardous Materials
Theresa Hayes	Dimensions/Consultant

Minutes

The committee adopted the minutes from March 23, 2004 meeting.

New Business

The committee received and reviewed the handouts. Theresa asked the committee members to review the Los Angeles County Fire Department Report Summary of Hazard Mitigation Document index for revisions or appendix documents.

Frank provided two DR-1498 Hazard Mitigation Grant Program Applications for the Los Angeles Fire Department.

- Tonner Canyon Fuels Management Project
- Whittier Hills Hazardous Mitigation Project

Frank shared a document from the California Fire Alliance Agency. It is a Grant Clearinghouse for communities statewide to find National Fire Plan grants to mitigate their wildfire risk and receive technical assistance. The website address is http://grants.firesafecouncil.org/home.cfm

Frank provided a PowerPoint Presentation of Fire Hazard Prevention CD of fire prevention for elementary schools.

The committee reviewed the Fire Hazard Mitigation Sub-Committee Status Report of April 28, 2004. The report lists the tasks assigned to the sub-committee. The report is attached to this document. The committee as completed the below tasks listed in this document:

Wildland/Urban Interface Tasks

- Fire History GIS data and maps, Completed.
- Wildland Fuels GIS Data and maps, Completed.
- Wildland Fire Prevention PowerPoint presentations, Completed.
- Development of Wildland Fire Prevention Grants, Completed
- Tonner Canyon, Whittier Hills, and Bradbury Grants, Received
- Copies of Grant NOI's to Dimensions, in progress
- Fire Safe Clearinghouse Operational Guidelines, Received

Infrastructure/Facilities and Assets Tasks

- High Risk hazardous materials sites in GIS Data and maps,
  2 CDs provided by Hazardous Materials Division
  1 CD provided by Information Management Division at this meeting.
- Development of Seismic Retrofit grant, Completed

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- Essential Fire facilities list including, Fire Command Control Facilities, Fire Stations, Camps, and Pacoima facility, Completed.
- Computer equipment list including servers and misc. hardware, Completed.
- Computer equipment replacement cost, Completed
- Fleet assets list including replacement costs. In Progress.
- Fire Command Control Facility asset and Replacement Costs, Completed

Financial Management Tasks

- FEMA Grant reimbursement summary, Completed.

Prevention Division Tasks

- Contract Cities Matrix, Completed.
- Manual A, Specialized Equipment, in Progress

An early fire season has been declared in Los Angeles County due to high temperatures and dry conditions. Theresa asked the committee if an early fire season affect the Los Angeles Fire Department in their mitigation efforts. No

The committee recognized 13 fire facilities which have not been seismically retrofitted. Theresa will contact Gil Garcia for documentation.

There was a discussion concerning Hazardous Materials Division role in responding to potential terrorist hazardous materials disaster. Frank will contact Tactical Operations for their mitigation strategies and data.

The committee agreed that the majority of their responsibilities have been met and there is no longer a need to meet as a committee on a regular basis. Dimensions will meet with the Los Angeles Fire Department on an individual basis as needed outside the Los Angeles County Hazard Mitigation Advisory Committee. When there is a rough draft of the Los Angeles County DMA 2000 Plan the committee will meet to review the Fire Department's section for corrections or additions.

Adjourned at 2:05pm.

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Fire Hazard Mitigation Sub-Committee Status Report

April 28, 2004

OEM is coordinating the development of the County of Los Angeles DMA 2000 plan. In order to complete this task, OEM formed the LA County Hazard Mitigation Advisory Committee and hired a consultant, Dimensions, to coordinate the development of the plan. In addition to forming an at large committee, eight sub-committees were formed to streamline coordination with Dimensions. The following is a status report on the assignment/tasks given to the Fire Subcommittee by Dimensions. The Fire Subcommittee is well ahead of schedule and approximately 95% of the assignments have been completed.

Wildland/Urban Interface Tasks

- Fire History GIS data and maps, **Completed.**
- Wildland Fuels GIS Data and maps, **Completed.**
- Wildland Fire Prevention PowerPoint presentations, **Completed.**
- Development of Wildland Fire Prevention Grants, **Completed.**
  Tonner Canyon, Whittier Hills, and Bradbury Grants completed.
- Copies of Grant NOI's to Dimensions, due on 5/4/04
- Fire Safe Clearinghouse operational guidelines, due on 5/4/04

Infrastructure/Facilities and Assets Tasks

- High Risk hazardous materials sites in GIS Data and maps, **Completed.**
- Development of Seismic Retrofit grant, **Completed.**
- Essential Fire facilities list including, FCCF, Fire Stations, Camps, and Pacoima facility, **Completed.**
- Computer equipment list including servers and misc. hardware, **Completed.**
- Computer equipment replacement cost, **Completed.**
- Fleet assets list including replacement costs. 80% completed, due on 4/30/04.
- FCCF asset and replacement costs, due on 4/30/04.

Financial Management Tasks

- FEMA Grant reimbursement summary, **Completed.**

Prevention Division Tasks

- Contract Cities Matrix, **Completed.**

Document provided by Sub-Committee Chair Assistant Chief Frank Vidales, Forestry

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GIS MEETING

January 20, 2004

Attendance:

1. Jan Rogala, Dimensions Unlimited
2. Theresa Hayes, Dimensions Unlimited
3. Peter Hodes, VRisk
4. Bill Butler, Office of Emergency Management
5. Bob Garrott, Office of Emergency Management
6. Margaret Carlin, GIS, Office of Emergency Management
7. Rob Sawyer, GIS, Office of Emergency Management

Map Sets
- Priority
- Sensitivity – Jan

Tag
1. LACO
2. City
3. State
4. Federal

Up-date
- Yearly
- Prioritize risks
- Define source files

Future Lists of Request
- Refinement
- Restrictions
- Turn into EOC tool
- Tag share/ Can't share information
- ID tactical in nature

Hazards
- How it relates to critical structure

Categories/Criticality
- Mitigation Strategy
- Expand Schools

Requests:
Q. How often does the GIS data base need to be up-dated?
A. Once a year.

Q. What changes would the EOC/GIS like to the present format of the GIS database?
1. Prioritize files by natural/human caused risk matrix
2. Hazards to critical structures
3. Define source files
4. Add columns: Confidentiality, source type/level, Prioritization, Date updated
5. Move comment column to the end of column list
6. Redefine classification? (Peter to do)

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GIS MEETING

January 20, 2004

Open Discussion

Organize data into intuitive understandable language and format. See what we have in practicalities. Could the redundant files be prioritizing? Check to see how much redundant data there is? Some files may appear to be the same, but contains different information attached to the GIS file, such as economical, historical, codes, polygons, points, address, phone, and titles.

Q. How this data base can be used with EMIS? GIS layers?
A. Responsibility- 1. Primary Bill
2. Combine- Bob
Bill- There is a problem with updates if multi-source layers are used for one file (combine redundant files). How to up date multi source files? Bill asked Jan to make a future list of requests to address these issues for future projects to be supported by grants. This can be used to mitigate strategies. Check with TEW, EOC GIS department, county departments, and Advisory committee and Sub-committee recommendations for mitigation strategies.

Look at all GIS layers and files for importance to the EOC, TEW, and what can be shared with other county agencies or cities. Confidentiality and licensing agreements need to be recognized and labeled. Decide what is important to each group. More information may be needed from schools for TEW but not necessary for the EOC.

Turn this GIS database into an EOC Tool.
Dimensions is responsible for validity of information, check for redundancy, examples; schools, hydrology, dams.

Change spreadsheet per above specifications. Up-date to the Snap Appliance. Dimensions identify agreement and confidentiality sources.
Bill contract update of completion and sign off. 90% completed. Mapping software is compatible to current EOC software. Delivered in agree upon format.

Outstanding tasks:
- TEW maps
- Risk maps for DMA 2000

Learned Lessons
- CAO and Constance's letter were invaluable
- Memo and information letters to provide guidance for participates
- Multiply calls necessary for results
- Actual meeting were essential to provide understanding of project
- Staff support in the EOC
- Working on site increased validity for Dimensions

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Los Angeles County GIS Hazard Mitigation Sub-Committee Meeting

April 27, 2004

Meeting Called to Order at 3:00 pm.

Introductions

Attendees:

Dai H. Bui	GIS Public Works	626.458-7113	dbui@ladpw.org
Margaret Carlin	CAO OEM	323.980-2296	mcarlin@lacoeoc.org
John Anderson	GIS Public Works	626.458-7002	janders@ladpw.org
Milan Svitek	GIS Regional Planning	213.893-0881	msvitek@planning.co.la.ca.us
Jan Rogala	Dimensions/OEM	707.374-6529	janrogala@aol.com
Theresa Hayes	Dimensions/OEM	323.980-2122	theresa@dimensionsui.com

This is the first meeting of the Los Angeles County GIS Hazard Mitigation Sub-Committee. Margaret Carlin and Dai Bui are co-chairpersons for the sub-committee.

Jan Rogala briefed the committee members on her meeting with Mark Benthien of USC/Earthquake Department. Jan invited Margaret and Dai to attend the meeting. The GIS Sub-Committee will have input on the earthquake scenario simulations. A total of four simulations will be run for HAZUS data. There will be two high and two moderate risks located in Northern Los Angeles and Southern Los Angeles County. The Los Angeles County Multi-Hazard Advisory Committee will also invite Steve Nyblom of the Los Angeles County CAO. He will be providing the county's asset values.

Jan informed the sub-committee that a rough draft of the Los Angeles County DMA 2000 Plan will be available to the committee members in June, 2004.

Jan discussed the relationship between the major stakeholders such as Los Angeles Sheriff's, Fire, Health Services and Public Works department and contract cities. The contract cities needs their stakeholders input. The cities will need support in providing maps for their DMA 2000 Plan. Margaret asked how much support does the contract cities and the Los Angeles County Multi-Hazard Mitigation Advisory Committee need in producing maps. Dimensions has a map database compiled of company, public domain, FEMA, and United States Geographical Service maps and will only ask the GIS sub-committee for minimal assistance in producing maps. Dimensions will use other available sources before coming to the county OEM's GIS department. OEM's GIS department is not obligated to produce maps for the independent cities.

The GIS database project was funded by the Department of Justice terrorism grant. The information will not be used without the Office of Emergency GIS department's permission.
Dai inquired about the analysis of the data. The grant project was to collect all existing GIS data in the Los Angeles County. It did not ask for an analysis. Dimensions was contracted to collect and index the GIS data collected only. The question exists of how to maintain and update the GIS database. Who will be responsible to maintain and gather updates?

Jan asked Margaret if the GIS database delivered to the Office of Emergency Management was functional. Margaret stated the GIS database was accessible and usable. Don Campbell and Margaret were able to use the database. John Anderson asked "How do you police the outside consultants?" Jan stated the sub contractors were hired on their reputation, integrity, and due diligence.
The GIS database was indexed into categories and sensitive data was labeled confidential. Margaret does not have the index with the confidential category. The final index was delivered to

Bill Butler of the Office of Emergency Management. The terrorism layer consisting of California federal, state, Los Angeles County and cities critical facilities was delivered to the Los Angeles Terrorist Early Warning (TEW) department. TEW is the keeper of this GIS layer.

Los Angeles County GIS Hazard Mitigation Sub-Committee Meeting

April 27, 2004

The Los Angeles County Multi-Hazard Advisory Committee will assist the DMACs in providing maps for their cities in PDF form. They can use HAZUS for mapping and data. The GIS Sub-committee can refer the cities back to the original source for requested maps and data. Theresa will provide a contact list for the sub-committee members. There are readily available PDF and PowerPoint maps which can be overlaid and manipulated into aerial maps. They will be provided in a standard 11 x 17 inch size.

Margaret told the sub-committee that there was very little Metadata for the GIS data layers collected. She provided an OES Metadata index for the sub committee to review.

The usage and licensing of the GIS data layers is referred back to the Office of Emergency Management. The GIS department will need to give permission for any of the county's GIS layers to be used by other jurisdictions. Only 25% of the cities within Los Angeles County participated in give their GIS layers to the County's GIS collection project. The GIS database index lists the participating cities. The GIS Sub-committee members will have to determine the accuracy and quality of the GIS data for the local hazard mitigation plan.

Other Business

What maps does Dimensions have at this time for the DMA 2000 Plan.

- Earthquake
- Dam inundation

Next meeting is scheduled for June 28, 2004 at 3:00 in the same room at Department of Public Works. Address the quality issues.

Adjourned at 5:00PM

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PUBLIC WORKS SUB COMMITTEE KICK OFF MEETING
12-16-04

Los Angeles County Public Works Department, Program Development Division, conducted a meeting to introduce Disaster Mitigation 2000 Plan and discuss 2003 Fires.
The items on the agenda covered: 2003 fires, LA. County Local Hazard Mitigation Plan, update on the status of the 2002 Fires, 1998 Disaster closeout, and HMGP projects.
The majority of the meeting was spent discussing the 2003 Fires and the LA County Local Hazard Mitigation Plan. The divisions were all represented except Road Maintenance and Building and Safety. We have been working directly with them regarding any issues related to the 2003 Fires.
Dimensions Unlimited, Los Angeles County contractor, gave a very thorough presentation of Public Work's role in the development of this plan. The presentation was an opportunity for every division to hear first hand what information Public Works will need to contribute to LA. County's Local Hazard Mitigation Plan.

Condensed meeting minutes by Rob Sneckenberg , LA County Department of Public Works, Programs Development Division.

Public Works DMA 2000 Plan Advisory Sub-Committee Meeting Minutes

January 13, 2004

Attendance:

Name/Title	Phone	Email
1. Jan Rogala/Dimensions	707.374-6529	janrogala@aol.com
2. Theresa Hayes/Dimensions	323.980-2122	dimensions@lacoeoc.org
3. Anthony Nyivih/FEMA Pro. Coor	626.458-3940	anyivih@ladpw.org
4. Rob Sneckenberg/ Mitigation	626.458-3939	rsneckenberg@ladpw.org
5. Charles Nestle/Geo/Engineering	626.458-4923	cnestle@ladpw.org
6. Chris Benigno	626.458-6573	cbenigno@ladpw.org
7. Steve McDonough/Survey Div	626.458-5122	smcdonou@ladpw.org
8. Rainer V. Globus/Environ.Div	626.458-2196	rglobus@dpw.co.la.ca.us
9. Michael Tucci	626.458-4109	mtucci@ladpw.org
10. Wendy Tagle/Fiscal	626.458-6966	wtagle@ladpw.org
11. Jerry Burke	626.458-4114	jburke@ladpw.org
12. David Smith/Cen.Wk Cont.Grp	626.458-5930	dsmith@ladpw.org
13. Jessica Sarmiento/Fiscal	626.458-6511	jsarmier@ladpw.org
14. Lani Eazell/Disaster Em.Coor.	626.458-7340	leazell@ladpw.org
15. Del Quevedo	626.458-6310	dquevedo@ladpw.org

Meeting Minutes:

Introductions

Jan introduced the Disaster Mitigation Act 2000. Summarized the act and how it affects Los Angeles Public Works and Los Angeles County.

Questions: Is this the first time we have to do this? A: Background on how DMA 2000 became a law. Yes, this is new.
Q: Fiscal dept; what general types of information do you need?
A: Local economic projects the fiscal dept has existing documentations.
If departments can provide a project list with the attached project number than the Fiscal Dept can locate the value.
It may not be broken down into county, PW's and FEMA portions. Jan said, if it would be too labor intensive than prioritize their projects to support their mitigation strategies.

Q. Fiscal dept; How do they charge their time on this project?
A. There are no funds available for time reimbursement. But Jan reminded them to record time spent on this project for credit.
Lani stated that they have not been reimbursed for services post Northridge. Palmer Canyon another example. Anthony mentioned they have an in house appeal process which they are in at this time for services. Going the political route.

Anthony Nyivih stated Mitigation Projects fall into two categories:
1. Capital infrastructure project i.e. Public Works retrofit their department building. Cost 20 million dollars. FEMA costs 10 million.
2. Individual-DSR projects. Could be burdensome to the departments to identify each project. A slight portion paid by FEMA.

Jan – Can go to FEMA or State OES for dollar amounts.

Charles Nestle –Geotechnical and Materials Engineering Division- his departments only have information post disaster for small private owners. They review new construction plans. Supervise new programs to mitigate disaster effects. Their earthquake data is readily available for review in exact dollars amounts.

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Public Works DMA 2000 Plan Advisory Sub-Committee Meeting Minutes
January 13, 2004

Jan gave an example of documentation of future mitigation in draft can be pointed towards future projects. Write strategies/constraints for private reimbursements.

Anthony will direct the Water Resources; Dams, Waterworks and Sewer Division, Roads Division, Flood Division, (we have their Floodplain Plans from Geoffrey Owu), Soils Division, GIS Division, and Operation Services to provide existing data.

Q: Time frame to provide existing information.
A: Shoot for 30 days, but before 60 days. Rob will receive the information and pass to Theresa to log and document.

Information needed is existing historical data, past, present, and future strategies and projects, constraints to minimize liabilities.

David Smith, Senior Civil Engineer, Central Works Controls Group; they document all maintenance into a computer system. They are work on an Action Plan I to enhance documentation of the infrastructure system to minimize risk exposure. (Include in strategies)

Divisions represented in the meeting:
Fiscal Division, Geotechnical and Materials Engineering Division, Survey Division, Flood Division, Environmental Programs Division, Information Technology Division, Central Works Controls Group, Programs Development Division

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Notes:

1. L.A. Advisory Committee:
   i. 2/23/04 minutes labeled "draft." Do we have final?

2. L.A. Fire Subcommittee:
   i. Missing 1/6/04 minutes (hard copy in file drawer).
   ii. Have minutes for 2/4/04 and 2/24/04. Two meetings in one month?
   iii. No minutes for month of April (no hard copy in file drawer).

3. GIS Subcommittee:
   i. Have minutes for 1/20/04 and 4/27/04.
   ii. Did Subcommittee meet in February and March, 2004?

4. Health Services Subcommittee:
   i. Have agenda for 3/16/04, but no minutes.
   ii. Any meetings in March?

5. Public Works Subcommittee:
   i. Have minutes for 1/13/04 and 3/17/04.
   ii. Any meetings in February and March, 2004?

6. Other issues: Do we include the following:
   i. EOC Executive Overhead Committee
   ii. Emergency Management Committee LHMP (Local Hazard Mitigation Plans) Advisory Task Force
   iii. L.A. City Council

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Hazard Mitigation Planning Public Participation

Several documents (listed below) were used to solicit public and outside jurisdiction input pertaining to Disaster Hazard Mitigation and the development of this plan.

A series of three Hazard Mitigation Workshops were held throughout Los Angeles County, these workshops included the participation and support of the County and were hosted by the Disaster Management Coordinators.

HAZARD MITIGATION WORKSHOP
JANUARY 20, 2004
Norwalk Arts & Sports Complex
13000 Clarkdale Avenue (TG 736-J2)
ATTENDANCE LIST

NAME	TITLE/DEPT	CITY	PHONE	E-MAIL
Hannon, Chuck	Police Sgt.	Bell PD	323-585-1245 X276	channon@cityofbell.org
Merina, Emely	ESC	City of Cerritos	562-916-1252	Emely_merina@ci.cerritos.ca.us
Yach, Mike	Comm. Mobilization Officer	City of Cerritos		Mike_yach@ci.cerritos.ca.us
Kellam, Doug	Public Works Mngmt Analyst	City of Cerritos		Doug_Kellam@ci.cerritos.ca.us
Holdren, Joe	Water Utility Administrator	City of Cerritos	562-916-1223	Joe_holdren@ci.cerritos.ca.us
Lanning, Tom	LASD	City of Diamond Bar	909-264-5621	Tom.lanning@ci.diamond-bar.ca.us
Buck, John	ESC	City of Lakewood	562-866-9771 X2404	jbuck@lakewoodcity.org
Chavez, Grissel	Management Assist.	City of Norwalk	(562) 929-5963	gchavez@ci.norwalk.ca.us
Hayashi, Ann-Marie	Emerg. Services Assistant	City of Whittier	(562) 464-3419	ahayashi@whittierch.org
Dooley, Don	Planning Ser. Mgr	City of Whittier		ddooley@whittierch.org
Reese, Carl	Bldng Ser. Mgr	City of Whittier		creese@whittierch.org
Collosi, David	Sr. Engineering Tech.	City of Whittier	(562) 464-3520	dcollosi@whittierch.org
Chavez, Robert	Pub Safety	Commerce	323-887-4460	robertc@ci.commerce.ca.us
Leon, Robert	Pub Safety	Commerce	323-887-4460	robertle@ci.commerce.ca.us
Levar, Ron	Building	Downey	562-904-7140	
Thomas, Richard		El Monte CSD	626-705-1891	ELMemergencyservices@yahoo.com
Giera, Paul	Pub Works	El Segundo	310-524-2742	pgiera@elsegundo.org
Hernandez, Juana	Pub Safety	Hawaiian Gardens	562-420-2641 X-202	jghernandez@hawaiiangardenscity.org
Firman, Rebecca	Public Safety	Lakewood	562-866-9771 X-2406	
Kuykendall, Paul	Comm Dev	Lakewood	562-866-9771	pkuykend@lakewoodcity.org
Stewart, Steve	ESC	Lynwood	310-603-0220	sstewart@lynwood.ca.us

NAME	TITLE/DEPT	CITY	PHONE	E-MAIL
Bufunda, Roy		Lynwood	310-603-0220	rbufanda@lynwood.ca.us
Moeller, Darin	Police	Maywood	323-562-5005	dmoeller@pd.maywood.ca.us
Cox, Christopher	Fire	Montebello	323-887-4700	ccox@cityofmontebello.com
Collins, Bryan	Pub Safety	Santa Fe Springs	562-409-1850	bryancollins@santafesprings.org
Koomen, Sheri	ESM	South Gate	323-563-5483	skoomen@sogate.org
Childers, Carol	Utilities	Vernon	323-583-8811	cchilders@ci.vernon.ca.us

Total attendance – 27

HAZARD MITIGATION WORKSHOP
JANUARY 15, 2004
Carson Community Center
801 E. Carson Street (TG 764-E6)
ATTENDANCE LIST

NAME	TITLE	CITY	PHONE	E-MAIL	Brief	Wrksh p
Mosack, Ray	ESC	Alhambra			X	X
Marston, Ken	ESC,	Arcadia	(626) 574-5102	kmarston@ci.arcadia.ca.us	X	X
Kinnahan, Peter	Econ Develop Admin	Arcadia	626-574-5408	Pkinnahan@ci.arcadia.ca.us	X	
Anderson, Bob	Lt.	Arcadia	626-574-5150	randerson@ci.arcadia.ca.us	X	
Galindo, Maddy	Human Resources	Artesia	(562) 865-6262	mgalindo@cityofartesia.org	X	
Bruno, Olga	ESC	Azusa	(626) 812-3265	obruno@ci.azusa.ca.us	X	
Onaga, Larry)	Assist. Dir /Plng	Azusa	(626) 812-5262	lonaga@ci.azusa.ca.us	X	
Hockman, Joel	Public Safety Dir	Bellflower	(562) 925-124	jhockman@bellflower.org	X	X
Johnson, Jennie	Public Safety Supervisor	Bellflower	(562) 925-0124	jjohnson@bellflower.org	X	X
Robinson, Tony \	Bldg. Dept	Bellflower	(562) 804-1424	trobinson@bellflower.org	X	X
Muller-Mottice, Pamela	Director of Office of Emerg. Mngmt.	Beverly Hills	(310) 285-1025	pmottice@beverlyhills.org	X	
Wilson, Katie)	Deputy Director Planning	Beverly Hills	(310) 285-1025	kwilson@beverlyhills.org	X	
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Baker, Roger	Deputy City Planner	Burbank	(818) 238-5278	RBaker@ci.burbank.ca.us	X	
Baenen, Rich	ESC	Burbank	(818) 238-3350	RBaenen@ci.burbank.ca.us	X	
Rivera, George	ESC	Carson	(310) 952-1700	GRivera@carson.ca.us	X	X
Edgerton, Eileen	ES Manager	Carson	310-952-1700	Eedgerto@carson.ca.us	X	X
Chavez, Robert	Dir of Comm Svcs	Commerce	323-887-4460	roberto@ci.commerce.ca.us	X	
Satra, Zurita for Augustus Ajawara	PW Program Mngr	Compton	(310) 605-5505	aajawara@comptoncity.org	X	X
Tatum, Adrian	OES Coord.	Compton	(310) 605-5670	atatum@comptoncity.org	X	X
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Steward, Patrick	Chief Bldg. Inspector	Compton	(310) 605-5519	psteward@comptoncity.org	X	X
Lim, Joseph	Planner III	Compton	(310) 605-5532	jlim@comptoncity.org		X
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Emrick, Brenda	ESC	Downey	(562) 904-7349	bemrick@downeyca.org	X	X
Levar, Ron	Sr. Bldg Inspector	Downey	(562) 904-7144	rlevar@downeyca.org	X	

NAME	TITLE	CITY	PHONE	E-MAIL	Brief	Wrkshp
Greene, Gerald	Senior Civil Engineer	Downey	(562) 904-7112	ggreene@downeyca.org	X	X
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Murray, Dan	Sgt. PD	Downey	562-904-2354	dmurray@downey.ca.org	X	X
Tallo, Jim	Operations Supr.	Downey USD	(562) 469-6707	jtallo@dusd.net	X	
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Jonas, Miriam	Civil Engineer Associate	El Segundo	(310) 524-2361	mjonas@elsegundo.org	X	
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Mussenden, James W.	Deputy City Manager	El Monte	(626) 580-2001	tmendez@ci.el-monte.ca.us	X	
Hatch, Tom	Dep City Manager Community Serv.	El Monte	(626) 580-2001	thatch@ci.el-monte.ca.us	X	X
Moy, Eugene	Assist. City Manager Comm. Development	El Monte	(626) 580-2001	emoy@ci.el-monte.ca.us	X	
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Jurjis, Selmone	Bldging & Safety Manager	El Segundo	(310) 524-2345	sjurjis@elsegundo.org	X	X
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Angelo, Norm	Fire Chief	El Segundo	(310) 524-2221	nbangelo@elsegundo.org		X
Johnson, David	Interim Public Works Director	El Segundo	(310) 524-2356	djohnson@elsegundo.org	X	
Gulli, Ronald	Fire Captain	Glendale	(818) 548-4080 x 5036	RGulli@ci.glendale.ca.us	X	
Hernandez, Juana	Senior Clerk	Hawaiian Gardens	(562) 420-2641	jghernandez@hawaiiangardenscity.org	X	
Lin, William	Admin. Analyst	Hawthorne	(310) 970-7259	wylin@cityofhawthorne.org	X	
Lane, Patrick	Police Sergeant	Hawthorne	(310) 629-4138	hpdeoc@earthlink.net	X	X
Garcia, Vivian	Assist. City Manager	Huntington Park	(323) 584-6226	vgarcia@huntingtonpark.org	X	
Kinsey, James	Sergeant	Huntington Park PD	(323) 584-6254	jmkinsey@huntingtonparkpd.org	X	X
Diers, William	Lieutenant	Huntington Park PD	(323) 584-6254	wdiers@huntingtonparkpd.org	X	
Calzada, Michael	Executive Assist.	Inglewood	310) 412-5371		X	X
Benavides, Mark	Police Sergeant	Irwindale PD	(626) 430-2245	mbenavides@ci.irwindale.ca.us	X	
Woodmansee, Rick	Lt	Iwindale	626-430-2237	Rickw@ci.Irwindale.ca.us	X	
Pachon, Andrew	ESC	La Canada/Flintridge	(818) 790-8880	apachon@icf.ca.gov	X	X
Stanley, Robert	Director of Comm. Development	La Canada/Flintridge	(818) 790-8880	rstanley@icf.ca.gov	X	X
Hendrickson, John	City Manager	La Habra Heights	562-694-6302	Johnh@la-habra-heights.org	X	
Parra, Daniel	Admin. Intern	La Mirada	(562) 902-2991	dparra@cityoflamirada.org	X	

NAME	TITLE	CITY	PHONE	E-MAIL	Brief	Wrksh p
Stedman, Mike	Public Safety Dir.	La Mirada	(562) 902-2960	mstedman@cityoflamirada.org	X	
Forster, Steve	Public Works Dir.	La Mirada	(562) 943-0131	sforster@cityoflamirada.org	X	
Lasher, David	Assist. City Manager	La Puente	(626) 855-1500	dlasher@lapuente.org	X	
Cassidy, William	Sgt.	La Puente	(626) 855-1500	wcassidy@lasd.org	X	
Johnson, Don	Emerg. Prep. Coordinator	La Verne	(909) 596-5991	jchappell@lvpd.org	X	
Chang, Roger	ESC	LACOE	(562) 940-1645	chang_roger@lacoe.edu	X	X
Kuykendall, Paul	Comm Develop	Lakewood	562-866-9771	pkuykend@lakewoodcity.org	X	X
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Spears, Bob	Assist. Director for Emerg. Operations	LAUSD	(213) 241-3199	Bspears@lausd.k12.ca.us	X	X
Ramos, Carlos	Municipal Services Director	Lawndale Roger Schrage	(310) 973-3235	rschrage@lawndalecity.org	X	
Schrage, Roger	ESC	Lawndale	(310) 973-3235	rschrage@lawndalecity.org	X	
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Sugano, Gary	Director of Comm. Development	Lomita	(310) 325-7110	g.sugano@lomita.com	X	
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Modica, Tom	City Manager's Office	Long Beach	(562) 570-5091	Tom_Modica@longbeach.gov	X	
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Derhelm, Dean	Planning & Bldging Inspector	Long Beach	(562) 570-7169	Dean_Derhelm@longbeach.gov	X	
Berg, Bob	ESC	Long Beach Water			X	
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Black, Gail	Personnel Dir	Lynwood	310-603-0220	gblack@lynwood.ca.us	X	
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Jester, Laurie	Senior Planner	Manhattan Beach	(310) 802-5510	ljester@citymb.info	X	
Jacobson, Carol	Building Official	Manhattan Beach	(310) 802-5525	cjacobson@citymb.info	X	
Dennis, Dave	Battalion Chief	Monrovia Fire Dept.	(626) 256-8111		X	
Johnson, Kurt	Fire Marshall	Montebello	323-887-4507	Kurt.Johnson@mtbfire.org	X	
Hyun, Bing	Planning Manager	Norwalk	(562) 929-5744	bhyun@ci.norwalk.ca.us	X	
Bilby, Lee	Public Safety Officer	Norwalk	(562) 929-5963	lbilby@ci.norwalk.ca.us	X	X
Rigg, Alan	Planning Director	Palos Verdes Estates	(310) 378-0383	arigg@pvestates.org	X	
Munz, Kristen	Planner	Palos Verdes Estates	(310) 378-0383	kmunz@pvestates.org	X	
Cash, Christopher	Assist. Director Utilities & Infrastructure	Paramount	(562) 220-2020	ccash@paramountcity.com	X	

NAME	TITLE	CITY	PHONE	E-MAIL	Brief	Wrksh p
Mitchell, Ernie	Fire Chief	Pasadena	626-744-7177	emitchell@cityofpasadena.net	X	
Derderian, Lisa	Disaster Coord.	Pasadena Fire Dept.	(626) 744-7276	lderderian@cityofpasadena.net	X	X
Moore, Michael	Acting Deputy Director of Public Works	Pico Rivera	(562) 801-4420	mmoore@pico-rivera.org	X	
Cruz, Carrie	ESC	Pomona		Carrie_cruz@ci.pomona.ca.us	X	
McDonald, Ron	Lt.	Pomona			X	
Petru, Carolynn	Assist. City Mgr	Rancho Palos Verdes	(310) 544-5203	Carolynn@rpv.com	X	
Engler, Robert	Div Chief	Redondo Beach	310-318-6003 X-4343	Robert.engler@redondo.org	X	
Magdaleno, Mike	Municipal Enforce	Redondo Beach	310-372-1171 X-2418	Michael.magdaleno@redondo.org	X	
York, John	Rec.	Redondo Beach	310-318-6680	John.York@redondo.org	X	X
Skipper, John	Lt.	Redondo Beach PD	310-379-2477 X2334	John.Skipper@redbdl.lro	X	
Grammer, Greg	Admin Analyst	Rolling Hills Estates	310-377-1577	gregg@RHE.org	X	X
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Garstang, Richard		San Ganbriel Fire	626-308-2880	rgarstang@sgfd.org	X	X
Nuzzi, Donna	ESC	Santa Clarita		dnuzzi@santa-clarita.com		X
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Koomen, Sheri	ESC	South Gate	323-563-5483		X	X
Crump, Jill	Planner/Community Develop. Dept	Torrance	(310) 618-5990	jcrump@torrnet.com	X	
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Janis, Joe	Battalion Chief City Manager	West Covina, Fire Dept.	(626) 338-6800 X15	j.janis@westcov.org	X	
Brown, Audrey	Assistant City Manager	Westlake Village	(818) 706-1613	Audrey @wlv.org	X	

Morning Session Attendance – 108
Executive Session and Briefing – 8:30-11:30am
Hosted by Disaster Management Area Coordinators (DMACs)
Conducted by Jan Rogala, Dimensions Contractor to County of Los Angeles

Afternoon Workshop Attendance – 44
1-4:00pm
Hosted by Disaster Management Area Coordinators (DMACs)

HAZARD MITIGATION WORKSHOP
JANUARY 28, 2004
Huntington Library
1151 Oxford Road, San Marino (TG 566-C6)
ATTENDANCE LIST

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Smith, Cynthia		San Gabriel		
Paues, P. Michael		San Gabriel		
Duran, Ariel	Lt. PD	San Gabriel	626-308-2840	ADO29@SGPD.com
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Preston, Steve	Dep City Manager	San Gabriel	626-308-2810	
Habsell, Cliff	Fire Batt Chief	San Marino		
Tarin, Fernando	Dir of Police Svcs	Santa Fe Springs	(626) 357-7938	fernandotarin@santefesprings.org
Coung, Nguyen	Asst Planner	Santa Fe Springs	562-568-0511 X7359	
Weinberg, Paul	ESC	Santa	310-458-8686	

NAME	TITLE	CITY	PHONE	E-MAIL
		Monica		
Stroud, Janice	Public Services Director	Temple City	(626) 285-2171	jguerrero@templecity.us
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Gulick, Adam	Comm. Development Intern	Temple City	(626) 285-2171	jguerrero@templecity.us
Robinson, Chuck	Mgt Analyst	Walnut	909-595-7543	crobinson@ci.walnut.ca.us

Total attendance - 92
8:00-11:30am
Hosted by Disaster Management Area Coordinators (DMACs)

Additional Public Meetings

November 10, 2004 – Town Hall Meeting for public information and prevention input from the "Post Fire" 140 attendees

November 12, 2003 – Town Hall Meeting for Public Information and prevention input
County Fires 26 Attendees

May 12, 2004
"Stronger Together" Public Private Workshop

Attendees filled out the Disaster Mitigation Questionnaire and were presented with mitigation programs including the Emergency Survival Program, Energy Shortages and Protecting the Vital Electrical Infrastructure, Transportation Security, Large Shopping Mall Risks. And access to the Disaster Resource Guide

Their were 178 attendees from organizations including the following:

Westfield Shopping Mall
Southern California Edison
Los Angeles International Airport
U. S. Coast Guard
Metrolink
Peace Officers Association
Los Angeles Department of Water and Power
American Red Cross
Los Angeles County Coroner
Police Officers Association Los Angeles Coaunty
TSP/Comcast
League of California Cities
United States Post Office
FBI
Los Angeles Police Department
Los Angeles Fire Department
City of Los Angeles
Dimensions Unlimited Inc.
City West Covina
City of Lomita
Universal Studios
Warner Brothers Studios
Wynham Hotel
Simplier Life Emergency Provisions Inc.
Donna M. Green Associates
Safety Mate
American Red Cross
Avon Products

April 7, 2004

Emergency Preparedness Commission Training Workshop in Sherman Oaks
Hazard Mitigation Questionnaires were distributed to the attendees. The Emergency Preparedness Commission consults with the County, City and other Public Authorities, and coordinates the development of disaster plans and programs which are countywide or affect numerous jurisdictions. It is the Commission's policy to aggressively pursue all appropriate avenues to carry out the purpose for which it was created. It also seeks the support of both the public and private sector to further the County's overall goal of countywide preparedness for all types of emergencies and disasters. Commission meetings are open to the public and provide an excellent opportunity for participants and guests to exchange ideas and information.

Yolanda Pahua Chairperson of the Los Angeles County Multi-County Hazard Mitigation Advisory Committee also serves as support staff to this Commission and was able to utilize several of the commission meetings to seek input into the County's Multi- Hazard Mitigation Plan.

The Commission consists of nine members all of whom must be County residents. Commissioners serve a four-year terms with out compensation.

April 14, 2004
Emergency Preparedness Council Meeting and Public Meeting
City of Malibu
Hazard Mitigation Questionnaires were made available to the attendees.

April 23, 2004

Public Meeting – Topanga Canyon Emergency Preparedness and Mitigation Meeting

Presenters Included:

Alli Acker	Los Angeles County CERT	
Mary Luckins	Animal Control	
Lee Sapadin	Los Angeles County Office of Emergency Management	
Pat Mac Neil	Topanga Canyon	
Reggie Lee	Los Angeles County Fire Department	
Theresa Hayes	Dimensions Unlimited	
Lance Grindle	Los Angeles County Public Works	
Ben Saltsman	Supervisor Yaroslavsky	
Susan Nessman	Supervisor Yaroslavsky	
Lari Sheehan	Los Angeles County Administrator's Office	
Theresa Hayes	Dimensions Unlimited	Hazard Mitigation Plan Input

The Agenda Included

Presentation and Discussion on Hazard Mitigation Project
Progress Report from Ad Hoc Committee
Priority Restoration of Service for T-CEP EOC
Discussion of Governance Issues

32 Members of the Public from the area attended

April 26, 2004

Disaster Management Area Coordinators Hazard Mitigation Meeting to share information and discuss progress of the area Cities in formulating Hazard Mitigation Plans. Attendees included Office of Emergency Management Project Coordinator, Yolanda Pahua, Fan Abel, Mike Martinet, Gertha Benson, Janice Rogala. DMAC's discussed their Hazard Mitigation Plan Template and requested mapping data.

May 5, 2004 Southern California Counsel of Governments

This meeting afforded the Los Angels County Multi- Hazard Mitigation Advisory to reach out to the surrounding six counties for information and support of hazard mitigation planning. The County DMA 2000 Hazard Mitigation Plan will be distributed to the SCAG membership for comment upon approval by the Los Angeles County Board of Supervisors.

The Southern California Association of Governments has evolved as the largest of nearly 700 councils of governments in the United States and they represent and function as the metropolitan planning organization for six counties. Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The region encompasses a population exceeding 15 million persons in an area of more than 38,000 square miles

Southern California Association of Governments Sponsored this meeting to discuss Homeland Security Issues and the support and promotion of hazard mitigation planning throughout their service area. Los Angeles County representative Janice Rogala made a Hazard Mitigation Planning presentation to the attendees and requested their input.

The Committee recommended the continued support of Hazard Mitigation Planning in the SCAG Service area and a Los Angeles County Wide GIS data basis as well as enhanced communication systems for the Emergency Operations Center. Consideration was given to the deployment of mobile hospitals.

Members and Attendees:

Nick Catrantzos	Metropolitan Water District
Steve Dwilde	Orange County Sanitation District
Michael Digirolamo	Los Angeles World Airport
Randy Hall	University of Southern California
Garry Lockhart	County of Los Angeles Fire Department
Richard Mader	SCAG – GIS data and monitoring
Edward McCullock	Daedalus Project Consulting
Ed Peterson	Southern California Metrolink
Shahab Rabbani	SCAG – data and monitoring
Janice Rogala	Dimensions Unlimited Inc.
Brent Rolf	County of San Bernardino, GIMS Program
Anastasia L.Sideris	University of California Los Angeles
Paul Weinberg	City of Santa Monica, Fire Department
John Wilson	University of Southern California – Geography
Paul Van Zuyle	City of Thousand Oaks, GIS Program

May 12, 2004
Emergency Preparedness Commission Seminar in Commerce: Questionnaires were made available to attendees and a brief discussion on hazard mitigation was presented. 7 members of the public were present.

May 24. 2004

Disaster Area Managers Meeting representing City issues on Hazard Mitigation Planning and City Map needs.
Attendees: Sign In Sheet not available

June 26, 2004

Meeting with Disaster Management Area Coordinators on Hazard Mitigation issues as they relate to the Cities

Sign In Sheet not available

September 27,2007

A meeting was held with the Los Angeles County Emergency Management Steering Committee on September 27 at 2:30 pm for plan review and recommendations. The Steering Committee is an executive-level committee. Present at the meeting were Sharon Harper (Chief Deputy CAO, Chair); Steve Dunn and Gary Hartley, Public Works; Bob Miletich, Public Social Services; Gertha Benson, Health Services; Britta Tubbs and Paul Hanley, Sheriff; Barbara Cienfuegos, Mental Health; Bob Gillis and Celina Ortiz, Internal Services; Darryl Dauncy, Chief Administrative Office; and myself, representing the Office of Emergency Management. Bill Butler of OEMS, presented the plan for executive comment. There was extensive discussion regarding the mitigation strategies, which led to many new strategies coming forward for inclusion in the plan. There was also discussion regarding the Board of Supervisors approval process.

October 6, 2004

Public Meeting/ with Published Agenda
Justice Deputies
Randy Tahara
Joseph Charney
Brian Center

The meeting was held at the Kenneth Hahn Hall of Administration
Los Angeles California

Agenda included a Hazard Mitigation Plan Briefing and Question and Answer period.
1 member of the public attended and voiced support for Hazard Mitigation Planning

COUNTY OF LOS ANGELES
2004 EXPOS FOR EMERGENCY MANAGEMENT
AND HAZARD MITIGATION PUBLIC INPUT OPPORTUNITIES

DATE	LOCATION	NUMBER OF ATTENDEES
January 17, 2004	Caltech US Geological Survey Beckman Auditorium	300 +
January 23, 2004	Pepperdine University 24255 Pacific Coast Hwy., Malibu	1000 +
April 14, 2004	Universal Studios, Hollywood	750-
April 18, 2004 Emergency Preparedness Fair Baldwin Hills	City of Los Angeles Annual	1000 +
April 29, 2004	OEM Annual Expo-Civic Center	1000 +
May 12, 2004	Wyndham Hotel & Resort 5757 telegraph Road, Commerce	500 +
May 15, 2004	Fire Station #118, 17056 Gale Avenue City of Industry	500 +
May 15, 2004 L.A . Community College 1301 Cesar Chavez, Monterrey Park	State Farm Insurance-Child Safety Day	600 +
July 21, 2004 200 N. Main, Los Angeles	Homeland Security Planning Expo Civic Center Plaza South	500 +
August 11, 2004	Glendale Center Emergency Fair 611 North Brand Blvd. Glendale	1000 +
September 1, 2004 Fair 2004 6150 West Century Blvd., Los Angeles	Delta Airlines Los Angeles Safety	700 +
September 22, 2004 Torrance Campus	Toyota Health & Safety Fair	500 +

Public questionnaires were distributed and input was requested from the participants the results of those questionnaires are in the Public Input portion of the Plan.

Dear Resident:

_____ is/are currently developing an All-Hazard Mitigation Plan as required in the Disaster Mitigation Act of 2000 (DMA-2000). This project addresses:

Safety of Life & Property by:

Implementing activities that assist in protecting lives by making homes, businesses, infrastructure, critical facilities, and other property more resistant to losses from all hazards.

Reducing losses and repetitive damages for chronic hazard events.

Public Awareness by:

Developing and implementing education and outreach programs to increase public awareness of the risks associated with these hazards.

Providing information on tools; partnership opportunities, and funding resources to assist in implementing mitigation activities.

Natural Systems

Balancing natural resource management, and land use planning with natural hazard mitigation to protect life, property, and the environment.

Preserving, rehabilitating, and enhancing natural systems to serve natural hazard mitigation functions.

Foster Partnerships and Implementation by:

Strengthening communication and coordinate participation among and within public agencies, citizens, non-profit organizations, business, and industry to gain a vested interest in implementation.

Encouraging leadership within public and private sector organizations to prioritize and implement local and regional hazard mitigation activities.

Enhancing Emergency Services by:

Establishing policy to ensure mitigation projects for critical facilities, services, and infrastructure.

Strengthening emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, business, and industry.

Coordinating and integrating hazard mitigation activities, where appropriate, with emergency operations plans and procedures.

In accordance with that law, it is our intent to solicit input regarding hazards from the communities we serve. We have enclosed a short questionnaire designed to gather information vital to an effective Hazard Mitigation Planning Project. Please take a few minutes to fill out the questionnaire and return it, no later than _____ to:

Please place contact information here

Thank you for supporting our commitment to making _____ a safer place to live.

Dear Colleague:

_____ is/are currently developing an All-Hazard Mitigation Plan as required in the Disaster Mitigation Act of 2000 (DMA-2000). This project addresses:

Safety of Life & Property by:

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Strengthening emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, business, and industry.

Coordinating and integrating hazard mitigation activities, where appropriate, with emergency operations plans and procedures.

In accordance with that law, it is our intent to solicit input regarding hazards to our property and people from our neighboring communities and other stakeholders in the mitigation process. We request that, if you have information that would enhance or otherwise benefit our Hazard Mitigation Planning Project, to please forward that information, no later than, _____ to:

Please place contact information here

Thank you for supporting our commitment to making _____ a safe neighbor.

Sincerely,

COUNTY OF LOS ANGELES
Office of Emergency Management
1275 North Eastern Avenue
Los Angeles, California 90063
(323) 980-2260

David E. Janssen
Chief Administrative Officer

Constance Perett
Administrator

October 2, 2003

Dear Colleague:

LOS ANGELES COUNTY MULTI-HAZARD MITIGATION PLAN - CONTRACTOR

The Los Angeles County Office of Emergency Management (OEM) is working on the County's Multi-Hazard Mitigation Plan required by the Disaster Mitigation Act of 2000 (DMA 2000). This federally-mandated program requires that OEM accomplish the following tasks:

1. Develop a countywide Geographic Information System (GIS) identification and retrieval data system that enhances the existing OEM/GIS system.

2. Conduct a County-coordinated effort for prioritizing risks and hazard mitigation projects for the future.

I would like to take this opportunity to introduce Jan Rogala of Dimensions Unlimited, Inc., whose firm has been contracted to work with OEM on this project. Jan Rogala and her staff will be contacting you and members of your staff for information and assistance to accomplish the project.

The goals of the project are to formulate a comprehensive GIS-based risk analysis and critical facility identification system; review the status of the County's hazard mitigation plans and project status; develop a FEMA-approved hazard mitigation plan prior to November 4, 2004; and protect the County's ability to receive pre- and post-disaster hazard mitigation funds in the future.

During the course of this project, you may be contacted by OEM staff or our consultants. I am requesting that you work with them by providing any information they need. We will be glad to share any information compiled by our consultant that can be of use to you in completing your plan.

Dear Colleague
October 2, 2003
Page 2

Please contact Bill Butler, at (323) 980-2258 or Yolanda Pahua, at (323) 980-2266 of my staff, if you have any questions.

Thank you for your assistance.

Sincerely,

CONSTANCE PERETT, CEM
Administrator

CP:YP:cm

(DATE)

Ms. Cynthis Valia, Director of Administration
Ralph's Grocery Company
(ADDRESS)
(CITY, STATE, ZIP)

Dear Ms. Valia:

I am Theresa Hayes, Project Manager for the Los Angeles County Office of Emergency Management (OEM) Team contracted to develop a risk analysis for Los Angeles County. The project entails collecting any and all data related to hazard mitigation plans, processes, and disaster risks. This project is funded by a grant from FEMA (Federal Emergency Management Agency) and is expected to be completed next year.

Mr. Greg Walters said I should contact you for information regarding the identification and location of food distribution centers in the Los Angeles County area. This information will be maintained at the Los Angeles County OEM and compiled into data layers for the County's Geographic Information System (GIS) and mapping programs. Its sole purpose is to be used for planning, preparedness and response in case of disasters and as necessary information included in the County's Multi-Hazard Mitigation Plan.

I have attached a letter from the OEM Administrator requesting your assistance in obtaining this information. It also provides background information and describes the goals of the project. Also attached is a memo outlining and describing the information required for this project. Once you look over the attachments, please call me at the number below with any questions.

I would like to contact you early next week to discuss the types of information available, ways to obtain this information, the format in which it is presented, and a how long it would take for us to gather it. I look forward to talking with you. Thank you.

Sincerely,

Theresa Hayes

Theresa Hayes, Contract Project Manager
Risk Analysis Development Project
Office of Emergency Management
County of Los Angeles
(323) 980-2122

PLANNING/ADMINISTRATIVE MEASURE SUPPLEMENT

This supplement is to be used for requesting funding for all or a functional part of either a Local Hazard Mitigation Plan or the California State Hazard Mitigation Plan as defined by Sec. 322. This section must also be completed when submitting an application for an administrative measure.

1. Will the plan/measure include more than one jurisdiction? Yes__ No__

2. Please provide the following information for each of the jurisdictions to be included in the plan (plans only):
    a. Jurisdiction Name
    b. County in which the jurisdiction is located
    c. Population of the jurisdiction
    d. If the jurisdiction is a special district, what is the function
    e. A map of the jurisdiction
    f. CID Number
    g. CRS Rating
    h. Indicate if the jurisdiction participates in any of the following
        i. Firewise Community
        ii. Firesafe Councils
        iii. Cooperating Technical Partner
        iv. National Fire Protection Association (NFPA) 5000 Code
        v. International Building Code
        vi. Building Code Effectiveness Grading Schedule (BCEGS). If so what is the jurisdiction's rating?
        vii. Mutual Aid agreement

3. Do any of the jurisdictions have any of the following plans (plans only)?
    i. General Plan (provide status if not updated)
    j. FEMA-approved flood mitigation plan
    k. FEMA multi-hazard mitigation plan (Provide status if not approved)
    l. Any other hazard mitigation plans

4. In general, identify the hazards and the vulnerabilities that will be addressed in the plan/measure, the general locations and the criticality of addressing the hazards and vulnerabilities.

5. In general, provide an overview of the plan/measure development process. Indicate if the effort will update or augment other plans.

6. If the plan is for multiple jurisdictions, please provide a map of the planning area containing the boundary of the included jurisdictions (plans only).

7. Please discuss the applicant's GIS mapping capabilities.

Hazards Mitigation and Preparedness Questionnaire

This questionnaire is designed to help the Local Hazard Mitigation Planning Project by identifying the community's concerns about natural and human-caused hazards and to better understand community needs in reducing risk and loss from such hazards. The questionnaire should be completed by an adult, preferably the homeowner or the head of the household. Please, take a few moments to complete this questionnaire. All individual responses are strictly confidential, and are for research purposes only. Thank you.

1. Zip code: _____ Community Name or location: _____ Internet Access? Y/N _____ Own/Rent _____

2. How concerned are you about the following disasters affecting your community? Please give each hazard a priority rating as follows: ***0 = Not concerned;*** 1 ***= Somewhat concerned; 2 = Moderately concerned; 3 = Very concerned***

Natural

Earthquake _____ Flood _____ Fire _____ Landslide/Mudslide _____

Levee Failure _____ High Winds _____ Biological (Plant/Animal) _____

Human-caused

Radiological _____ Dam Failure _____ Special Events _____ Health Alert/Epidemic _____

Terrorism _____ Transportation Loss _____ Utilities Interruption _____

3. What is the most effective way for you to receive information about how to make your household and home safer from natural disasters? (***Please check all that apply*** .)

Media:
- ☐ Newspaper stories
- ☐ Newspaper ads
- ☐ Television news
- ☐ Television ads
- ☐ Radio news
- ☐ Radio ads

Other methods:
- ☐ Schools
- ☐ Outdoor advertising (billboards, etc)
- ☐ Books
- ☐ Mail
- ☐ Fire Department
- ☐ Internet
- ☐ Fact sheet/brochure
- ☐ Church/religious organization
- ☐ Employer
- ☐ Public meetings
- ☐ University or research institution
- ☐ Utility Bills

4 In the following list, please check those activities that you ***have done*** , ***plan to do*** in the near future, ***have not done***, or are ***unable to do***. (***Please check one answer for each preparedness activity***)

Have you or someone in your household:	Have done	Plan to do	Not done	Unable to do
Attended meetings or received written information on natural disasters or emergency preparedness?				
Talked with family members about what to do in case of a disaster or emergency?				
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?				
Prepared a "Disaster Supply Kit" (extra food, water, medications, batteries, first aid items and other emergency supplies)?				
In the last year, has anyone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?				

5. Building a disaster supply kit, receiving First Aid training and developing a household/family emergency plan are all inexpensive activities that require a personal time commitment. How much time (per year) are you willing to spend on disaster/emergency preparedness? (***Check only one***)
☐ 0-1 hour ☐ 2-3 hours ☐ 4-7 hours ? 8-15 hours ☐ 16+ hours ☐ Other, please specify

_____

6. Did you consider the possible occurrence of a natural hazard when you bought/moved into your current home?
☐ Yes ☐ No

7. Would you be willing to spend more money on a home that has features that make it more disaster resistant?
☐ Yes ☐ No ☐ Don't know

8. Do you carry flood insurance? If so what is the annual cost?
☐ Yes ☐ No _____

9. Would you be willing to make your home more resistant to natural disasters?
☐ Yes ☐ No (***If you answered NO skip to question11)***

10. What nonstructural or structural modifications for earthquakes and floods have you made to your home? (***Please check all that apply***)

10a. Nonstructural

? Anchor bookcases, cabinets to wall
? Secure water heater to wall with approved strapping
? Install latches on drawers/cabinets
? Fit gas appliances with flexible connections
? Others (please explain)
? None

10b. Structural

? Secure home to foundation
? Brace inside of cripple wall with sheathing
? Brace unreinforced masonry and concrete walls and foundations
? Brace unreinforced chimney
? Others (please explain)

11. Natural and human-caused disasters can have a significant impact on a community but planning for these events can help lessen the impact. The following statement will help us determine community priorities for planning for those hazards. Please tell us how important each one is to you.

Statement	Very Important	Somewhat Important	Neutral	Not Very Important	Not Important
Protecting private property					
Protecting critical facilities (hospitals, transportation networks, fire stations)					
Preventing development in hazard areas					
Protecting natural environment					
Protecting historical and cultural landmarks					
Promoting cooperation among public agencies, citizens, non-profit organizations and businesses					
Protecting and reducing damage to utilities					
Strengthening emergency services (police, fire, ambulance)					

12. Please check the box that best represents your opinion of the following strategies to reduce the risk and loss associated with natural disasters.

Communitywide Strategies	Agree	Neutral	Disagree	Not Sure
I support a regulatory approach to reducing risk.				
I support a non-regulatory approach to reducing risk.				
I support policies to prohibit development in areas subject to natural hazards.				
I support the use of local tax dollars to reduce risks and losses from natural disasters.				
I support protecting historical and cultural structures.				
I would be willing to make my home more disaster-resistant.				
I support steps to safeguard the local economy following a disaster event				
I support improving the disaster preparedness of schools.				

Mail to: Los Angeles County Office of Emergency Management
1275 N. Eastern
Los Angeles, CA

Citizen Questionnaire Synopsis

Los Angeles County OEM received 3,432 responses to the citizen questionnaire.

1. The majority of respondents has internet access and owns their residence.

2. The respondents' concern about disasters affecting their community were:

   - Flood – very concerned
   - Levee Failure – not concerned
   - High Winds – moderately concerned
   - Dam failure – moderately concerned
   - Health Emergency – moderately concerned
   - Landslides – moderately concerned
   - Earthquake – very concerned
   - Biological – somewhat concerned
   - Transportation Loss – moderately concerned
   - Fire – very concerned
   - Telecommunications Failure – somewhat concerned
   - Radiological Incident – somewhat concerned
   - Special Events – somewhat concerned
   - Terrorism – moderately concerned
   - Utilities Interruption – moderately concerned

3. The majority of respondents receive information from television news. (newspaper stories second)

4. The majority of respondents responded to participating in disaster preparedness as follows:

    - Attend meetings & receive information – have not done
    - Talked with family members – have done
    - Develop a household emergency plan – have not done
    - Prepare a disaster supply kit –have not done
    - Been trained in emergency care – have not done

5. The majority of respondents are willing to spend 2-3 hours per year in disaster preparedness.

6. The majority of respondents did not consider the occurrence of a natural hazard when they moved into their home.

7. The majority of respondents would be willing to spend more money on a safe home.

8. The majority of respondents do not carry flood insurance. (for those that did, the average cost was approximately $555 per year)

9. The majority of respondents would be willing to make their home more disaster resistant.

10. The majority of respondents has made non-structural modifications and has not made structural modifications to their homes to make them more disaster resistant.

11. The majority of respondents prioritize disaster preparedness in the following manner:

    - Protecting Property – very important
    - Protecting Critical Facilities – very important
    - Preventing Development in Hazard Areas – very important
    - Protecting Environment – very important
    - Protecting Landmarks – somewhat important
    - Promoting Cooperation – very Important
    - Protecting Utilities – very Important
    - Strengthening Emergency Services – very Important

12. The majority of respondents offered the following opinions on strategies to reduce risk:

    - Support regulatory approach – Disagree
    - Support non-regulatory approach – Neutral
    - Support development prohibition policies – Agree
    - Support use of tax dollars – Agree
    - Support protecting historical structures - Neutral
    - Willing to make their home more resistant – Agree
    - Support steps to safeguard economy – Agree
    - Support improving disaster preparedness in schools – Agree

County of Los Angeles

All-Hazard Mitigation Plan

Version 1.0

October 2004

SECTION 3

Demographics and Statistics

Part A

History

General Data

Government

Prepared by Dimensions Unlimited, Inc.

Table of Contents

Section 3 – Demographics & Statistics

Part A - History, General Data, Government

History

Los Angeles Man

In 1936, construction workers excavating a storm drain in the Ballona Creek area of West Los Angeles, unearthed the mineralized cranium of a human skull. These remains that came to known as *Los Angeles Man* are among the oldest human remains found in North America. Although radiocarbon dating at the UCLA radiocarbon laboratory indicated an age of about 23,500 years, the sample from the skull was small and did not produce a conclusive date. Because scientists see no conclusive evidence of human habitation in the Los Angeles area prior to 10,000 years ago, having a 23,500-year-old Los Angeles man presents a problem. It is perhaps safer to maintain that Los Angeles Man is closer to 8,000 to 10,000 years old.

The La Brea Woman

The only prehistoric human remains uncovered in the Rancho La Brea area were those of the *La Brea Woman*, found in 1914. Excavators uncovered a woman's skull and partial skeleton. The La Brea Woman had died about 9,000 years ago. She was believed to have been about 22-24 years old and stood about 4 feet 10 inches (1.5 meters) tall. Wear on her surviving teeth indicated a diet of stone-ground meal. Her skull was fractured which suggests that a blow to the head may have killed her. She might just be L.A.'s first known case of homicide. A broken grinding stone and the remains of a domestic dog were found nearby.

Where Did the Name *Los Angeles* Come From?

The name *Los Angeles* is Spanish for *The Angels*. There is much more to this name, however. On Wednesday, August 2, 1769, Father Juan Crespi, a Franciscan priest accompanying the first European land expedition through California, led by Captain Fernando Rivera Y Moncado, described in his journal a "beautiful river from the northwest" located at "34 degrees 10 minutes." They named the river *Nuestra Señora de los Angeles de la Porciúncula.* In the Franciscan calendar, August 2 was the day of the celebration of the feast of the *Perdono* at the tiny Assisi chapel of St. Francis of Assisi. Early in St. Francis' life, the Benedictines had given him this tiny chapel for his use near Assisi. The chapel, ruined and in need of repair, was located on what the Italians called a *porziuncola* or "very small parcel of land". Painted on the wall behind the altar was a fresco of the Virgin Mary surrounded by angels. Now contained within a Basilica, the chapel was named *Saint Mary of the Angels at the Little Portion*. The newly discovered "beautiful river" was named in honor of this celebration and this chapel. In 1781, a new settlement was established along that river. The settlement came to be known as *El Pueblo de Nuestra Señora la Reina de los Angeles de Porciúncula* or *The Town of Our Lady the Queen of Angels of the Little Portion* although its official name was simply *El Pueblo de la Reina de Los Angeles*.

Yangna - Early Los Angeles Community

According to research by Dr. Harry Kelsey of the Los Angeles County Museum of Natural History, Governor de Neve, six months prior to the establishment of the Los Angeles pueblo in 1781, had undertaken preliminary diplomacy with the Tongva (Gabrielino) Indians at the Yangna settlement

(located on what is now the Los Angeles Civic Center). This was to develop friendly relations with the local people before Spanish settlers began moving into the area. Yangna was a favorite native trading center. Governor de Neve arranged for the baptisms of dozens of Yangna residents and even assumed the role of padrino (godparent) for 12 persons. One of the couples sponsored by de Neve, being baptized and remarried, even assumed the names Felipe de Neve and Felipa de Neve. Dr. Kelsey believes that de Neve might have been grooming this couple to serve as a nucleus family for a Christian Indian settlement that he had envisioned. This was not to happen, however, when de Neve was replaced by Pedro de Fages later that year. Sadly, in 1828, a German immigrant purchased the land upon which Yangna lay and, with the help of Mexican officials, evicted the entire community that had been living there for perhaps two to three thousand years.

Source: Mexican Los Angeles by Antonio Rios Bustamante, Floricanto Press, 1992.

The Settlement of Los Angeles

In the late 18th Century, **Felipe de Neve**, Spanish Governor of California, saw the need to establish a pueblo along the River Los Angeles north of the Mission San Gabriel. The primary purpose for the pueblo was to reaffirm Spain's claim over the territory in the face of encroachments by Russia in the north and Britain from the sea. The pueblo would also help to keep Spain's California military garrisons (or *Presidios*) supplied and fed (whereas they otherwise would have to be supplied irregularly by ship). The site Governor de Neve had in mind was a site earlier commended by **Father Juan Crespi**, a Franciscan priest who, more than a decade earlier, accompanied the Gaspar de Portola expedition - first European land expedition through California. With the authority of King Carlos III of Spain, **Viceroy Bucareli** and **Commandant General de la Croix** approved Governor de Neve's proposal and issued an order that the pueblo be established. **Don Fernando Rivera y Moncada**, Lt. Governor of the Californias, was directed to oversee recruitment of colonists and accompanying soldiers for the new settlement.

Before the recruitment of settlers even began, Governor de Neve immediately went to work drawing up detailed plans for the new pueblo. The efforts to recruit settlers, however, were much more challenging. Despite incentives of money, land and livestock, Rivera y Moncada found it difficult to find promising and willing candidates. At the time, what we today know today as Southern California was remote and desolate – not the sort of opportunity most people considered attractive. Rumors circulated, somewhat truthful, that soldiers serving in the region did not get paid. Furthermore, getting there was arduous and dangerous. Yet months of searching that extended into Sonora, Sinaloa and Culiacan eventually led to the recruitment of twelve families.

From about August through September 1781, Governor de Neve, the settlers (11 men, 11 women and 22 children - one family never made it to Los Angeles), along with soldiers, mission priests and a few Indians, set out for the last leg of the journey to arrive at the site of the new pueblo alongside the Los Angeles River. Governor de Neve recorded the date, September 4, 1781, as the official date of establishment of *El Pueblo de la Reina de Los Angeles* or *The Town of the Queen of the Angels*.*

Governor de Neve's statue stands today in the Plaza of Olvera Street in downtown Los Angeles.

Chronology of the Founding of Los Angeles

Date	Event
December 1779	Viceroy Bucareli and Commandant General de la Croix approve Governor Felipe de Neve's proposal to found the settlements of Los Angeles and Santa Barbara.
December 27, 1779	Commandant General de la Croix writes Don Fernando Rivera Y Moncada, Lt. Governor of the Californias, to oversee recruitment of colonists for the new settlements.
August 1, 1780	Rivera Y Moncada manages to recruit 45 soldiers (for escort & garrison duties) and seven settlers from Sinaloa and Culiacan.
November 1780	Rivera Y Moncada achieves his recruiting goal for soldiers but has only signed up 14 settlers. Two settlers subsequently change their minds and disappear. The decision is made to cease recruitment and proceed with the 12 remaining settlers and their families.
February 2, 1781	The first contingent of settlers and their families and an escort of 17 soldiers set out from Alamos, Sinaloa, by sea. Their destination is Loreto, Baja California.
March 12, 1781	A smallpox outbreak forces some of the party to recuperate in Loreto while healthier members proceed up the Baja coastline to Bahia de San Luis and then to San Diego.
June 9, 1781	The first members of the party arrive at the Mission San Gabriel Arcangel.
July 14, 1781	A second group of the party arrives at the Mission San Gabriel Arcangel.
August 18, 1781	The final party of settlers, minus one, arrives at the Mission San Gabriel Arcangel. The 12th settler, having been delayed in Baja California due to illness from smallpox, is diverted to the Presidio in Santa Barbara upon his eventual arrival in Alta California in 1782.
September 4, 1781	*El Pueblo de la Reina de Los Angeles** is officially established by Governor Felipe de Neve.

* Contrary to the popular belief that the original name of Los Angeles was El Pueblo de Nuestra Senora La Reina de Los Angeles de Porciuncula (The Town of Our Lady the Queen of the Angels of the (River) Porciuncula), scholars have determined from official documents of Governor Felipe de Neve, Commandant General de la Croix and Viceroy Bucareli that the settlement was simply named El Pueblo de la Reina de Los Angeles.

Source: Mexican Los Angeles by Antonio Rios Bustamante, Floricanto Press, 1992

Los Pobladores 200

On or about September 4th, **Los Pobladores 200**, an association of about 250 people who trace their lineage to Los Angeles' original settlers, make their "Historic Walk to Los Angeles" as part of the city's annual birthday celebrations. The trek begins at the Mission San Gabriel and finishes about three hours later at Olvera Street in downtown Los Angeles. The trek commemorates the final nine-mile leg of the 1781 journey made by the original settlers. *Los Pobladores* (Spanish for "the settlers") traveled from the interior of Mexico, arriving months later at the Mission San Gabriel. There they awaited other members of their party and the provincial governor Felipe de Neve to escort them to the site of *El Pueblo de la Reina de los Angeles*. Los Pobladores 200 was founded in 1981 by Joseph and Marie Northrop. The organization conducted their first annual trek that same year.

L.A.'s Original Peoples

Tongva (*Gabrielinos*)

The Tongva (or *Gabrielinos*) were the people who canoed out to greet Spanish explorer Juan Rodriquez Cabrillo upon his arrival off the shores of Santa Catalina and San Pedro in 1542. Cabrillo declined their invitation to come ashore and visit. Their original name having been lost to cultural assimilation into Spanish and Mexican culture, they came to be called *Gabrielinos* because of their close association with the Mission San Gabriel. They once inhabited all of Los Angeles County and northern parts of Orange County. There were an estimated 5,000 Tongva in the region when the first Spanish settlers arrived in 1781. There are 31 known sites believed to have been Tongva villages, each having had as many as 400 to 500 huts. Hereditary chieftains who wielded almost total authority over the community led the villages.

Warfare was not frequent for the Tongva and robbery, murder, and incest was rare.

Tongva religious ceremonies were held in a circular structure within the village. The structure could only be entered by select males of status in the community and close relatives in the event of funerary ceremonies. Female singers were also allowed.

The Tongva believed in a supreme being that brought order to the chaotic world by setting it upon the shoulders of seven giants made for that purpose. The Supreme Being went on to make animals, man, and woman. The Tongva believed that humans originated in the north where the Supreme Being lived and that the Supreme Being himself led Tongva ancestors to Southern California. The Tongva did not believe in evil spirits, or any concept of a hell or devil until Spanish missionaries introduced these ideas. Porpoises and owls were highly esteemed and were never killed. The practice of medicine and healing was the responsibility of the medicine man.

To fail to show courage was the height of disgrace among the Tongva. Men would deliberately lie on top of red anthills and have handfuls of ants placed in their face as a demonstration of courage.

The Tongva introduced boys to manhood through fasting, hallucinogenic rituals and trials of endurance. An experienced elderly man served to instruct the boys in the legends of the world's origin and their future. The boys sought visions of their own special animal protector. These ceremonies were believed to provide the boys with a spiritual nature. The boys were also tested for courage by facing trials by fire, whippings, and lying on anthills. Boys who failed to endure these trials earned unfortunate reputations of weakness and cowardice.

Tongva communities and culture fell into a rapid decline with the arrival of the Mission de San Gabriel in 1771. Many of the Tongva joined the mission (and the Missions San Fernando and San Juan Capistrano) and, upon their conversions, were compelled to abandon their villages and culture. It was their association with the Mission San Gabriel that gave the Tongva their Europeanized name *Gabrielino*. By the time the first American settlers arrival in the Los Angeles area in 1841, Tongva survivors were scattered and working at subsistence level on Mexican land grants. Disease further decimated the Tongva population. Today, it is estimated that a few hundred to a few thousand Tongva still live in California.

Chumash

The Chumash ranged into the Malibu area of Los Angeles County, although they mostly lived in parts of Ventura and Santa Barbara Counties. Being a seafaring people, Chumash Indians spent much of their time building small boats and fishing and were accomplished fishermen and artisans. They were more sophisticated craftsmen than their Tongva neighbors to the south.

When the first Spanish missionaries arrived, there were believed to be as many as 22,000 Chumash. However, as had happened with the Tongva, their population, communities and culture rapidly disappeared. By 1906, there were only 42 known survivors. Today, about 2,000 people claim to be Chumash descendents, mostly living in Ventura and Santa Barbara Counties.

Source: *California Indians - An Illustrated Guide,* George Emanuels, Diablo Books. *The First Angelinos: The Gabrielino Indians of Los Angeles,* William McCawley, Malki Museum Press/Ballena Press.

Tataviam (*Fernandeños*)

The smallest group of original Los Angeles native people is the Tataviam or *Fernandeños* (due to their close association to the Mission San Fernando). The sites of 20 early Tataviam villages lie north of the San Fernando Valley and in the Santa Clarita Valley. They were believed to have numbered about 1,000 people and were heavily influenced by the culture of their more numerous neighbors, the Tongva and Chumash.

Early Massacre?

In September of 1998, construction workers at the ARCO refinery in Carson uncovered an Indian burial site containing 200-year old remains of at least 50 Gabrielinos, including two unborn children. The site was one of the most unusual and significant archeological finds in Southern California. Archeologist Frank McDowell, excavating the site under the oversight of Gabrielino Sam Dunlap, found evidence that those buried there died suddenly and violently. Skeletal remains showed extreme and violent trauma to skulls, ribs, and limbs. The skeletal hands of a woman were found in front of her face as if she had died trying to ward off blows. The spine of another skeleton was snapped backwards to the point where the head was near the pelvis. Some bodies appeared to have been buried with care, but others appeared to have been buried hastily as if thrown into graves. There was also evidence of attempts at cremation. None of usual items placed at Gabrielino graves such as fishing implements and grain bowls were found among the remains. A few Indian artifacts such as basketry and beads were found in the area, as were glass beads from Venice—indicating some contact between these people and Europeans. There were no indicators of Christian conversion although Catholic Missions were already in the area. There was no evidence that Spaniards might have been responsible for the violence as would be indicated by sword wounds to bones or musket balls in the vicinity.

Mexico's Last Stand in California

On January 8, 1847, about 500 Mexican militia commanded by General Jose Maria Flores hastily set up defenses on a bluff overlooking the San Gabriel River (in modern-day Montebello) for what would become known as the **Battle of the San Gabriel River**. This was the last Mexican military force to resist U.S. forces occupying *Alta California*. The Mexicans faced an advance from San Diego of about 600 U.S. troops commanded by U.S. Army General Stephen Watts Kearny and U.S. Navy Captain Robert F. Stockton. A month earlier, Flores' deputy, Andres Pico, successfully led an attack on Kearny's force at San Pasqual, inflicting heavy casualties on the Americans (18 killed) and forcing them to retreat to San Diego. Kearny himself suffered several lance wounds. This time, however, the

Americans, fielding a more professional military force and superior firepower, were better prepared. The Mexican defenders were militia and local citizens.

The Mexicans opened fire upon the advancing U.S. troops as they arrived at the bank of the San Gabriel River. After two hours of artillery duels and several unsuccessful Mexican cavalry charges, Flores decided that he could not force the Americans to withdraw and conceded the battle by withdrawing himself. The Americans occupied the previously defended bluff, seizing abandoned Mexican artillery and setting up camp for the day.

The following day, on January 9th, the Mexicans again engaged the advancing American force at the **Battle of La Mesa** (in modern-day Vernon). Although the Mexicans offered a more intense fight and managed to almost "envelope" the American force, Flores conceded that he could not stop this advance and again ordered a withdrawal. Hearing of this outcome, leaders from Los Angeles gave up hope of a successful defense and came out to surrender the city peacefully to the American commanders. On January 10th, the Americans occupied Los Angeles. Flores' remaining force retreated to a camp in what is now Pasadena. Flores learned that yet another American force, commanded by U.S. Army Lieutenant Colonel John C. Fremont, was marching from the north to meet up with Stockton and Kearny in Los Angeles. Seeing the futility of the situation, Flores decided to turn over command to Andres Pico and flee to unoccupied Mexico. Pico, with no other serious options, agreed to meet with Colonel Fremont in the Cahuenga Pass to discuss terms for surrender. Pico was also motivated by the fear that, if he were captured by Kearny, he would be executed out of revenge for the San Pasqual battle. As newly-appointed Mexican Military Commander of California, Pico signed the Treaty of Cahuenga with Colonel Fremont, effectively surrendering all of *Alto California* to the United States.

A plaque presently marks the site of the Battle of the San Gabriel River. It is located at the northeast corner of Washington Boulevard and Bluff Road in Montebello.

Capitulation of Cahuenga, 1847
The Surrender of Los Angeles & California to the United States

Less than a week earlier, on the 8th and 9th of January, 1847, Mexican militia forces, under the command of Jose Maria Flores, twice failed to stop an advance on Los Angeles by U.S. forces marching from San Diego. On January 10, American troops occupied the City of Los Angeles. What remained of beaten Mexican forces retreated to an encampment in what is now Pasadena. Meanwhile, another American force, commanded by Lieutenant Colonel John C. Fremont, had marched into the area from the north and occupied the Mission San Fernando. Mexican General Flores, seeing the military situation as hopeless, decided to flee south to unoccupied Mexico after turning over command to his deputy Andres Pico. Colonel Fremont dispatched Jesus Pico, a man of some influence in the Mexican community, to persuade the Mexican force to surrender. With Flores still present, the Mexican commanders decided to follow the advice of Jesus Pico. On January 12, as Flores headed south, representatives from the Mexican camp returned with Jesus Pico to meet with Fremont and determine the terms for a capitulation. On January 13, 1847, Andres Pico, as newly appointed Commander-in-Chief of Mexican Forces in California, met with Fremont at a Cahuenga Pass ranch house and formally signed the Articles of Capitulation.

Established as a County

In 1850 Los Angeles is established as one of California's original counties (February 18). The county government is established following the first county election in April. Los Angeles is incorporated as an American city (April 4). Alpheus P. Hodges becomes Los Angeles' first American elected mayor. Los

Angeles gets its first Post Office. Los Angeles' first Protestant church services (Methodist) are held by the Rev. J. W. Brier. The first African-American to settle in Los Angeles is, Peter Biggs, a barber and escaped slave. The first U.S. Census is taken in Los Angeles County. Two Chinese men are listed in the census. Los Angeles' first hotel, The Bella Union, is built. Los Angeles County is the nation's number one wine-producing county.

Gage Mansion - Oldest Remaining Home in Los Angeles County

The oldest remaining house in Los Angeles is the Avila Adobe located on Olvera Street (built 1818). It is not, however, the oldest remaining house in Los Angeles County. Shane Kimbler, a Bell Gardens history enthusiast, wrote to point out that early colonist Francisco Salvador Lugo and son Antonio María Lugo began construction in 1795 on what is now known as *Casa de Rancho San Antonio* or the Henry Gage Mansion. The house is located at 7000 East Gage Avenue in Bell Gardens. It was built to qualify the younger Lugo, a former Spanish colonial soldier, for a land grant from the Spanish crown. In 1810, Antonio María Lugo completed the house and received the grant, naming his new grant *Rancho San Antonio*. The ranch eventually grew to encompass 29,513 acres, including what are now the cities of Bell Gardens, Commerce, and parts of Bell, Cudahy, Lynwood, Montebello, South Gate, Vernon and East Los Angeles. When California became part of the U.S. in 1850, Lugo, as did all recipients of Spanish/Mexican land grants, began losing portions of his land to the growing population of Yankee newcomers. The ranch adobe, however, continued to be owned and used by the Lugo family.

Don Antonio María Lugo died at the age of 85 in 1860. According to Dr. Roy Whitehead in his book *Lugo*, "Don Antonio Maria Lugo…rode around Los Angeles and his Rancho San Antonio in great splendor. He never adopted American dress, culture or language and still spoke only Spanish. He rode magnificent horses, sitting in his $1,500 silver trimmed saddle erect and stately, with his sword strapped to the saddle beneath his left leg…People knew him far and wide, and even the Indians sometimes named their children after him, as he was one Spanish Don that they admired."

By 1865, most of the Lugo ranch, divided among five sons and three daughters, had been sold off for as little as a dollar per acre. The original adobe ranch home, however, remained in the family. In 1880, attorney Henry T. Gage, a transplant from Michigan, married one of Lugo's great granddaughters, Francis "Fanny" Rains. The original adobe ranch home was gifted to Gage as a wedding dowry and it became known as the Gage Mansion. In 1898, Gage was elected to become Governor of California. He served in that office from 1899 to 1903. In 1910, he was appointed by President William Howard Taft to serve as U.S. Minister to Portugal. He resigned after only one year due to his wife's health problems. Gage lived in the abode ranch house until his death in 1924.

A century later, the Gage Mansion was all that remained of the once great *Rancho San Antonio*. In 1983, the Casa Mobile Home Park, a cooperative of mobile home owners renting lots on the property, purchased the land and the house from their ailing landlord. Although they were aware of the historical significance of the old house, they had no means of maintaining it. In 1987, then Bell Gardens City Councilwoman Letha Wiles began working to get the house listed on the state historical registry, making it eligible for maintenance grants. It is now listed as California Historical Site Number 984.

Terrorist Attack on the Los Angeles Times, 1910

At 1:07 a.m. on October 1, 1910, an explosion rocked the printing plant of the Los Angeles Times at First Street and Broadway. Several tons of stored ink were ignited into flames that quickly engulfed the entire building. Rescue workers tended to 17 injured people and later recovered 20 bodies from the wreckage. Amazingly, close to one hundred Times employees had been working in the plant on the

morning edition. Those nearby the smoldering ruins marveled that so few injuries and deaths resulted from the blast and subsequent inferno.

Harrison Gray Otis, publisher of the Times, immediately blamed unionists for the blast. For some time prior, the Times had been the most vocal opponent of labor union activity in Los Angeles. During the previous summer, the city suffered from several waves of labor strikes. In response, Otis, along with local business leaders, compelled the Los Angeles City Council and Mayor George Alexander to impose anti-picketing ordinances, giving police authority to arrest picketers and persons "speaking in public streets in loud or unusual tones." The LAPD took this new task seriously, rounding up hundreds of labor activists.

Labor leaders were furious. They felt that they had been making headway in Los Angeles until the appearance of these anti-labor ordinances. Prior to the Times building incident, Secretary-Treasurer John McNamara of the International Association of Bridge and Structural Iron Workers Union (based in Indianapolis) dispatched his brother James and associate Ortie McManigal to Los Angeles to address the matter.

With the full support of the Times and local business leaders, the District Attorney's Office and the city launched an aggressive investigation into the incident. Acclaimed investigator William J Burns was hired and eventually came to focus on the trip to Los Angeles by James McNamara and Ortie McManigal. When Burns finally confronted McManigal, the labor activist offered to tell all in exchange for immunity. The McNamara brothers were arrested and extradited to Los Angeles. Both pleaded not guilty.

The national labor movement rallied to the defense of the brothers. Labor insisted that the brothers were being framed to discredit the labor movement in Los Angeles. Famed defense attorney Clarence Darrow was persuaded to take the case for the McNamaras.

It did not go well for the brothers. Darrow himself became convinced that they were indeed guilty. He also became convinced that the prosecution had enough of a case to put his clients in line for the death penalty (Darrow was ardently opposed to capital punishment). Damaging the case even further, an associate of Darrow was caught attempting to bribe prospective jurors. Darrow himself was indicted for jury tampering. He was later acquitted on one charge of bribery and, on the other, the jury failed to reach a verdict.

Both Darrow and the prosecution were persuaded to sit down to negotiate a settlement. Darrow believed that his clients were as good as bound for death row. Prosecutors feared that the labor movement would make the McNamaras into martyrs. With the judge's approval, the McNamaras agreed to change their pleas to guilty in exchange for avoiding a death penalty. James McNamara admitted that he had placed a dynamite-laden suitcase with timer in an alleyway between two sections of the Los Angeles Times plant. The explosion resulted from that action. Brother John was sentenced to 15 years in prison for conspiracy to bomb the Times building. Brother James was sentenced to life in prison.

Four days after the McNamaras entered their new pleas, a close mayoral campaign between socialist/labor candidate Job Harriman (who was also Clarence Darrow's chief assistant on the McNamara case) and pro-business incumbent George Alexander came before Los Angeles voters. Harriman lost. Labor union efforts to turn Los Angeles into a union town in the early part of the 20th Century failed.

A New Kind of City...Lakewood

The post-World War II years placed a huge housing burden on the Los Angeles County. The local aerospace and defense industry was booming and hundreds of new residents were streaming into the county each day. In 1949, developers Louis Boyar, Mark Taper and Ben Weingart borrowed close to $9 million from Prudential Insurance and purchased 3,375 acres of farmland in Southeast Los Angeles County. Over the next five years, they frantically laid out 133 miles of streets and erected 17,500 homes in assembly-line fashion. *Time Magazine* called this new community the largest housing development in the world. As each subdivision opened, people lined up to buy the $7,500 to $9,500 homes. One salesman sold 107 homes in one hour.

In 1951, the developers also built the massive Lakewood Center Mall. The mall offered parking for 10,000 cars, making it the largest shopping center in the United States at the time.

In 1954, after rejecting annexation by Long Beach, the community became the first city to incorporate in California since 1939. The newly-minted **City of Lakewood** adopted an innovative new proposal for city government by attorney John Todd. The "Lakewood Plan" proposed to save money and expedite the city-formation process by contracting with the county for essential city services such as police and fire protection and street maintenance. Lakewood became the first city in the nation to become a "contract city," a model that has been adopted by 25% of California's cities and dozens more throughout the nation.

The Missiles of Los Angeles

During most of the 1950s and much of the 1960s, the United States saw large formations of attacking bombers as its primary strategic threat. Its answer to this threat came to be *Nike* supersonic anti-aircraft missile launch sites surrounding key American population and industrial centers such as Los Angeles.

In 1954, the Army began operating its first *Nike* missile launch site in the Los Angeles area. The site was located in the Santa Monica Mountains above Malibu. In late 1952, the 47th Air Defense Brigade established its headquarters at Fort MacArthur in San Pedro to assume responsibility for providing air defenses for the Los Angeles area. By 1958, the brigade had established 16 *Nike-Ajax* launch sites ringing the Greater Los Angeles area. These sites were located in Malibu, Van Nuys, Chatsworth, Newhall, Saugus, Mt. Gleason, Barley Flats, El Monte, Brea, Stanton, Long Beach, San Pedro, Palos Verdes, Torrance, El Segundo, and Playa del Rey. At each site, missiles were concealed in underground bunkers and, in the event of a threat, were brought to the surface, loaded onto missile launchers and elevated for firing.

In 1958, the Army began upgrading *Nike* missile sites in the Los Angeles area from the *Nike-Ajax* missile to the more powerful and longer-range *Nike-Hercules* missile. The new missile could also be armed with a nuclear warhead. Due to the enhanced capabilities of *Nike-Hercules*, the Army reduced the number of launch sites around Los Angeles from 16 to 9.

In order to protect this vital arsenal, the Los Angeles area air defense system became the first in the nation to use Army sentry dogs to protect missile sites. In November 1958, four sentry dogs and their handlers began patrolling the Chatsworth missile launch site.

By the end of the 1960s, the need for anti-aircraft missiles had begun to diminish. Intercontinental Ballistic Missiles (ICBMs) became the dominant strategic threat. By 1971, only 6 of the 16 original *Nike* launch sites in the Los Angeles area remained operational. On February 4, 1974, the Army ordered all *Nike* missile sites to deactivate.

Few signs are left of the former Los Angeles *Nike* missile system. Former sites have been "beaten into plowshares" and are now used for such diverse purposes as fire department and correctional facilities (Malibu, Mt. Gleason, Barley Flats), local government maintenance yards (El Monte, Palos Verdes), an oil field (Brea), an office complex (Long Beach), a commercial radar site (Newhall) and a cement company (Saugus). The California National Guard currently uses the former Van Nuys and Stanton sites. The Federal Court House in Pasadena is located on a former Nike support facility. Rancho Palos Verdes City Hall occupies the former administrative building for the Palos Verdes Missile Site.

Grand Central Airport - First Major Airport in the Los Angeles Area

Beginning in 1928, before LAX or Burbank-Glendale-Pasadena Airport, the first major airport in the Los Angeles area was **Grand Central Airport** in Glendale. It offered the first paved runway west of the Rocky Mountains and served as the departure point for the nation's first transcontinental airline service.

In 1928, the Grand Central Air Terminal opened for air passenger service. The following year saw the departure from the airport of the first airline service between Southern California and New York, piloted by none other than Charles A. Lindbergh. The airport became the first and, for a brief period, the most important air travel center in the Los Angeles area.

In 1930, Burbank-Glendale-Pasadena Airport opened and began, over the following decade, to eclipse Grand Central Airport as the primary air passenger airport in the Los Angeles area.

In 1933, two pilots, New Jersey surgeon Albert Forsythe and Charles Anderson, landed at Grand Central Airport, becoming the first African Americans to complete a transcontinental flight. The historic journey led to the creation of a famed World War II corps of black aviators.

Grand Central Airport appeared as a backdrop in many early films. In the film *Sherlock Holmes In Washington*, the airport served as "London Terminal" of "Transatlantic Airways." As passengers board the airplane on the tarmac, palm trees could be seen in the background.

During World War II, the airport became a center of military activity. Thousands of pilots were trained at the airport for the British RAF. The airport also served as base of operations for Army Air Corps P-38 *Lightings* that provided air protection for Los Angeles at the onset of the war.

After the war, the airport main runway was shortened to allow for a connecting road between San Fernando Road and Riverside Drive. This, in effect, prevented larger commercial aircraft operations. At the same time, most commercial airline service in the region moved to LAX.

In 1959, the airport finally closed. It was too small for the operation of jetliners.

Prudential Insurance acquired the airport after its closure and rebuilt it as an industrial park. The Walt Disney Company leased space there for its Imagineering division, eventually purchasing the land in 1997. Disney plans to transform the site into a tree-shaded media campus and restore the historic Grand Central Air Terminal and control tower (all that remains of the old airport) as a visitor center. The air terminal is located at 1310 Air Way in Glendale.

Some Aviation Highlights in Los Angeles County

1910 - For ten days, the **world's first international Air Meet** is held at Dominguez Field. The first powered flight in the west occurs at this event.

1911 - C.P. Rodgers makes the **first transcontinental airplane flight** from New York to Pasadena from September 17 to November 5. He makes numerous stops along the way and spends 82 hours and 4 minutes in the air.

1913 - On June 21, over Los Angeles, **Georgia Broadwick** becomes the **first women to parachute from an airplane**.

1921 - **Amelia Earhart Putnam's** flying career begins in Los Angeles when, at age 24, she takes flying lessons from Neta Snook and buys her first airplane.

1924 - The **first airplane to ever fly around the world** is built in **Santa Monica**. It is a Douglas World Cruiser named *New Orleans*.

1923 - Construction begins on the Grand Central Airport in Glendale. It offers the first paved runway west of the Rocky Mountains.

1928 - The Grand Central Air Terminal opens in at Glendale's Grand Central Airport. It provides the **first air passenger service** in the region.

1929 - A U.S. Army Air Corps Atlantic-Fokker C-2A named *Question Mark,* piloted by future Air Force Chief of Staff Carl A. Spaatz, takes off from Metropolitan Airport in Van Nuys, on January 1, 1929, to set a world flight endurance record of 150 hours, 40 minutes, 14 seconds. He circles over Southern California while being refueled 42 times (9 times at night), and lands on January 7. *** Charles Lindbergh takes off from Grand Central Airport in Glendale to inaugurate the **first air passenger service between Southern California and the East Coast**.

1930 - Laura Ingalls lands in Glendale to become the **first woman to fly solo across the United States**.

1932 - On August 24, Amelia Earhart Putnam takes off from Los Angeles to make the **first solo *nonstop* transcontinental flight across the United States by a woman**. Her flight ends in Newark, New Jersey.

1933 - Two pilots, New Jersey surgeon Albert Forsythe and Charles Anderson, land at Grand Central Airport, becoming the first African Americans to complete a transcontinental flight. The historic journey leads to the creation of a famed World War II corps of black aviators.

1935 - On April 19-20, by invitation of the Mexican government, **Amelia Earhart Putnam** takes off from Los Angeles to become the **first person to fly solo from Los Angeles to Mexico City**.

1935 - The **first DC-3** is rolled out on December 17 by the Douglas Aircraft Company. Many DC-3s are still flying today.

1946 - Commercial airline service begins at **Los Angeles International Airport**.

1958 - The **first TV news helicopter** is introduced in Los Angeles by **KTLA** Channel 5 on July 4. It is known as the "Telecopter."

Beginning the New Millennium

Former LAPD officer Rafael Perez agrees to a plea bargain with prosecutors for a five-year sentence on drug theft charges in exchange for providing informing on alleged corruption and police abuses

within the Rampart Division. Perez fingers about 70 other officers who were alleged to have been involved or known of falsifying of police reports and framing and even injuring and beating suspects. Dozen of LAPD officers are consequently relieved of duty pending investigations. One alleged victim of these abuses, Javier Francisco Ovando, is released from serving a 23-year sentence for assault on police officers. Perez had admitted to shooting then framing Ovando.

After filing a lawsuit against the City, Ovando receives a $15 million settlement. Later in the year, three former Rampart officers are convicted on police corruption charges coming out of the investigation (a fourth officer is acquitted). The convictions, however, are overturned when a Superior Court Judges agrees that the jury had considered irrelevant evidence. --- The Los Angeles Board of Education votes to abandon the Belmont Learning Center construction project after receiving reports of toxic gas leakage from the former oil field. By years end, with increased pressure for finding new school space for the burgeoning pupil population and over much debate, Superintendent Roy Romer and members of the Board begin to reconsider proposals for reopening the site as an educational facility.

Justice for Janitors wins a 25 percent wage increase over three years for office janitors after a high profile three week strike supported by Hollywood celebrities, Jesse Jackson and presidential candidate, Vice President Al Gore.

Major stockholders of the Times-Mirror Company, owner of the Los Angeles Times, agree to merge the company into The Tribune Company of Chicago in a deal valued at $6.8 billion. Los Angeles becomes the largest U.S. city without a locally owned, general interest daily newspaper.

The U.S. Justice Department threatens to take the City of Los Angeles to court on allegations of police and civil rights abuses. After much debate and political maneuvering, Mayor Richard Riordan agrees to expand the LAPD Internal Affairs Division, use more sophisticated methods to track officer behavior, grant more power to the Police Commission and the Inspector General, and keep detailed race and gender statistics on police stops.

Lori Gonzalez, the granddaughter of LAPD Chief Bernard Parks, is murdered in her car as she drives out of a fast food establishment and is fired upon at close range by a gunman.

Los Angeles County's murder rate begins to inexplicably climb after a decade-long decline. In response, Chief Parks pledges to put more officers on the streets of Los Angeles. --- About 30,000 delegates, party workers, media personnel and protestor descend on Los Angeles for the Democratic National Convention held in Staples Center. The LAPD takes serious precautions to prevent civil disorder by protestors as experienced in the Seattle last year. Critics, however, decry what they describe as excessive assault by police against mostly peaceful demonstrators when a few protestors begin throwing bottles and rocks at police over the fence. LAPD Chief Bernard Parks even goes so far as to apologize to peaceful demonstrators who were roughed up by riot police. --- The last three stations of the 15-year, $4.7 billion Metro Subway project open in North Hollywood, Universal City and Hollywood/Highland. --- Interim Los Angeles Unified School District Superintendent Ramon Cortines reorganizes the district into 11 sub-districts. --- Former Colorado Governor Roy Romer is selected to become Superintendent of the troubled Los Angeles Unified School District. --- Drivers and operators of the Metropolitan Transportation Authority (MTA) begin a strike that halts bus and rail service for 32 days. Low-income, public transit-dependent riders are most affected. --- In response to unacceptable wage increase proposals, Los Angeles County workers begin "rolling" strikes that culminate in a countywide strike. The strike lasts for only one day when union leaders find weak support from rank and file members and they face an appeal from Los Angeles Cardinal Roger Mahony to not withhold public health services to less advantaged citizens. The union ends up compromising with the County by signing an agreement for half of their demands. --- Screen Actor Guild (SAG) actors end a six-month strike against television commercial production in exchange for compensation from commercials

appearing on cable television. The strike brought economic hardship to technical production workers dependent on production work. --- Steve Cooley defeats two term incumbent Gil Garcetti with 64 percent of the vote. The candidates engaged in an unprecedented 15 debates. --- Democrat Adam Schiff defeats incumbent Republican James Rogan for the 27th Congressional District seat. Both candidates spent $10 million on campaign, making it one of the most expensive U.S. Congressional contests in the nation. --- An increase in holiday electricity usage and sharply rising power prices under a backfiring deregulation plan threatens the financial stability of Southern California Edison. The company warns of bankruptcy unless utility rates can be increased. In contrast, the City of Los Angles Department of Water and Power (DWP), a municipal-owned utility exempt from deregulation, basks in a surplus of power and the ability to insulate its customers from rate hikes. --- The 8,000-member Faithful Central Bible Church of Inglewood purchases the Great Western Forum in Inglewood for $22.5 million.

General Data

Area

Land & Water Area of Los Angeles County

Area	Acres	Square Miles	Square Kilometers
Land	2,598,400	4,060.87	10,517.61
Water	443,100	691.45	1,790.85
Total	3,041,480	4,752.32	12,308.46

Source: California Dept. of Water Resources

Unincorporated area: **2,640** Square Miles

The Los Angeles Basin is the *largest* flat basin opening onto the Pacific Ocean.

General Population

General Population - County & Cities
Los Angeles County
2000 & 1990 Census

City	2000 Census	1990 Census	Change
County of Los Angeles	9,519,338	8,863,164	+7.40%
Agoura Hills	20,537	20,390	+0.72%
Alhambra	85,804	82,106	+4.50%
Arcadia	53,054	48,290	+9.87%
Artesia	16,380	15,464	+5.92%
Avalon	3,127	2,918	+7.16%
Azusa	44,712	41,333	+8.18%
Baldwin Park	75,837	69,330	+9.39%
Bell	36,664	34,365	+6.69%
Bell Gardens	44,054	42,355	+4.01%
Bellflower	72,878	61,815	+17.90%
Beverly Hills	33,784	31,971	+5.67%
Bradbury	855	832	+2.76%
Burbank	100,316	93,643	+7.13%
Calabasas	20,033	N/A	+N/A
Carson	89,730	83,995	+6.83%
Cerritos	51,488	53,240	-3.29%

City	2000 Census	1990 Census	Change
Claremont	33,998	32,503	+4.60%
Commerce	12,568	12,141	+3.52%
Compton	93,493	90,454	+3.36%
Covina	46,837	43,207	+8.40%
Cudahy	24,208	22,817	+6.10%
Culver City	38,816	38,793	+0.06%
Diamond Bar	56,287	53,672	+4.87%
Downey	107,323	91,444	+17.36%
Duarte	21,486	20,688	+3.86%
El Monte	115,965	106,209	+9.19%
El Segundo	16,033	15,223	+5.32%
Gardena	57,746	49,847	+15.85%
Glendale	194,973	180,038	+8.30%
Glendora	49,415	47,828	+3.32%
Hawaiian Gardens	14,779	13,639	+8.36%
Hawthorne	84,112	71,349	+17.89%
Hermosa Beach	18,566	18,219	+1.90%
Hidden Hills	1,875	1,729	+8.44%
Huntington Park	61,348	56,065	+9.42%
Industry	777	580	+33.97%
Inglewood	112,580	109,602	+2.72%
Irwindale	1,446	1,050	+37.71%
La Canada Flintridge	20,318	19,378	+4.85%
La Habra Heights	5,712	6,226	-8.26%
La Mirada	46,783	40,452	+15.65%
La Puente	41,063	36,955	+11.12%
La Verne	31,638	30,897	+2.40%
Lakewood	79,345	73,557	+7.87%
Lancaster	118,718	97,291	+22.02%
Lawndale	31,711	27,331	+16.03%
Lomita	20,046	19,382	+3.43%
Long Beach	461,522	429,433	+7.47%
Los Angeles	3,694,820	3,485,398	+6.01%
Lynwood	69,845	61,945	+12.75%
Malibu	12,575	N/A	+N/A
Manhattan Beach	33,852	32,063	+5.58%
Maywood	28,083	27,850	+0.84%
Monrovia	36,929	35,758	+3.27%
Montebello	62,150	59,564	+4.34%

City	2000 Census	1990 Census	Change
Monterey Park	60,051	60,738	-1.13%
Norwalk	103,298	94,279	+9.57%
Palmdale	116,670	68,917	+69.29%
Palos Verdes Estates	13,340	13,512	-1.27%
Paramount	55,266	47,669	+15.94%
Pasadena	133,936	131,591	+1.78%
Pico Rivera	63,428	59,177	+7.18%
Pomona	149,473	131,723	+13.48%
Rancho Palos Verdes	41,145	41,659	-1.23%
Redondo Beach	63,261	60,167	+5.14%
Rolling Hills	1,871	1,871	+0.00%
Rolling Hills Estates	7,676	7,789	-1.45%
Rosemead	53,505	51,638	+3.62%
San Dimas	34,980	32,397	+7.97%
San Fernando	23,564	22,580	+4.36%
San Gabriel	39,804	37,120	+7.23%
San Marino	12,945	12,959	-0.11%
Santa Clarita	151,088	110,642	+36.56%
Santa Fe Springs	17,438	15,520	+12.36%
Santa Monica	84,084	86,905	-3.25%
Sierra Madre	10,578	10,762	-1.71%
Signal Hill	9,333	8,371	+11.49%
South El Monte	21,144	20,850	+1.41%
South Gate	96,375	86,284	+11.70%
South Pasadena	24,292	23,936	+1.49%
Temple City	33,377	31,100	+7.32%
Torrance	137,946	133,107	+3.64%
Vernon	91	146	-37.67%
Walnut	30,004	29,105	+3.09%
West Covina	105,080	96,086	+9.36%
West Hollywood	35,716	36,118	-1.11%
Westlake Village	8,368	7,455	+12.25%
Whittier	83,680	77,671	+7.74%

Source: U.S. Census Bureau

Population of Unincorporated Areas

Population of Unincorporated* Communities Los Angeles County

Community	2000 Census	Change - 1990 to 2000	1990 Census	Change - 1980 to 1990	1980 Census
Acton	2,390	62.47%	1,471	---	---
Alondra Park	8,622	- 29.41%	12,215	1.00%	12,096
Altadena	42,610	- 0.11%	42,658	5.30%	40,510
Avocado Heights	15,148	6.44%	14,232	21.40%	11,721
Charter Oak	9,027	1.91%	8,858	29.50%	6,840
Citrus	10,581	11.60%	9,481	- 23.80%	12,450
Del Aire	9,012	12.09%	8,040	- 5.30%	8,487
East Compton	9,286	16.56%	7,967	23.80%	6,435
East La Mirada	9,538	1.83%	9,367	- 3.30%	9,688
East Los Angeles	124,283	- 1.66%	126,379	14.90%	110,017
East Pasadena	6,045	2.28%	5,910	---	---
Florence-Graham	60,197	5.34%	57,147	17.40%	48,662
Gorman	---	---	100	---	---
Hacienda Heights	53,122	+ 1.47%	52,354	+ 5.90%	49,422
La Crescenta-Montrose	18,532	+ 9.22%	16,968	+ 2.60%	16,531
Ladera Heights	6,568	+ 3.99%	6,316	- 5.00%	6,647
Lake Hughes	---	---	600	---	---
Lake Los Angeles	11,523	+ 45.66%	7,911	---	---
Lennox	22,950	+ 0.85%	22,757	+ 23.40%	18,445
Littlerock	1,402	+ 6.21%	1,320	---	---
Marina del Rey	8,176	+ 10.03%	7,431	- 7.90%	8,065
Mayflower Village	5,081	+2.07%	4,978	---	---
Pearblossom	---	---	1,200	---	---
Quartz Hill	9,890	+ 2.74%	9,626	+ 74.30%	5,522
Rowland Heights	48,553	+ 13.85%	42,647	+ 51.00%	28,252
South San Gabriel	7,595	- 1.36%	7,700	+ 42.00%	5,421
South San Jose Hills	20,218	+ 13.50%	17,814	+ 11.00%	16,049
South Whittier	55,193	+ 11.47%	49,514	+ 13.00%	43,815
Val Verde	1,472	- 12.85%	1,689	---	---
Valinda	21,776	+ 16.23%	18,735	+ 0.20%	18,700
Valyermo	---	---	50	---	---
View Park-Windsor Hills	10,958	- 6.89%	11,769	- 2.70%	12,101

Community	2000 Census	Change - 1990 to 2000	1990 Census	Change - 1980 to 1990	1980 Census
Walnut Park	16,180	+ 9.90%	14,722	+ 24.60%	11,811
West Athens	9,101	2.73%	8,859	---	---
West Carson	21,138	+ 4.94%	20,143	+ 11.90%	17,997
West Compton	5,435	- 0.29%	5,451	- 7.70%	5,907
West Puente Valley	22,589	+ 11.53%	20,254	- 0.90%	20,445
West Whittier-Los Nietos	25,129	+ 3.99%	24,164	+ 15.10%	21,001
Westmont	31,623	+ 1.87%	31,044	+ 11.20%	27,916
Willowbrook	34,138	+ 4.17%	32,772	+ 6.20%	30,845

* Unincorporated communities are not independent municipalities or jurisdictions. They have no local government other than that by the County. All local public services are received from the County.
Source: U.S. Census Bureau

Growth

Fastest Growing Cities in Los Angeles County, 1990 - 2000

With Populations of 50,000 or more

City	2000 Census	1990 Census	Increase	Percent
Palmdale	116,670	68,917	47,753	69.29%
Santa Clarita	151,088	110,642	40,446	36.56%
Lancaster	118,718	97,291	21,427	22.02%
Bellflower	72,878	61,815	11,063	17.90%
Hawthorne	84,112	71,349	12,763	17.89%
Downey	107,323	91,444	15,879	17.36%
Paramount	55,266	47,669	7,597	15.94%
Gardena	57,746	49,847	7,899	15.85%

With Populations of Less Than 50,000

City	2000 Census	1990 Census	Increase	Percent
Irwindale	1,446	1,050	396	37.71%
Industry	777	580	197	33.97%
Lawndale	31,711	27,331	4,380	16.03%
La Mirada	46,783	40,452	6,331	15.65%
Santa Fe Springs	17,438	15,520	1,918	12.36%

City	2000 Census	1990 Census	Increase	Percent
Westlake Village	8,368	7,455	913	12.25%
Signal Hill	9,333	8,371	962	11.49%
La Puente	41,063	36,955	4,108	11.12%
Hidden Hills	1,875	1,729	146	8.44%
Covina	46,837	43,207	3,630	8.40%

Fastest Growing Unincorporated* Communities in Los Angeles County

...With Populations of 20,000 or More

Community	Zip Code	2000 Census	1990 Census	Increase	Percent
Valinda	**91744**	21,776	18,735	3,041	16.23%
Rowland Heights	**91745**	48,553	42,647	5,906	13.85%
South San Jose Hills	**91744**	20,218	17,814	2,404	13.50%
West Puente Valley	**91746**	22,589	20,254	2,335	11.53%
South Whittier	**90605**	55,193	49,514	5,679	11.47%

1980 to 1990

Community	1990 Census	1980 Census	% Change
Rowland Heights	42,647	28,252	51.0%
Lennox	22,757	18,445	23.4%
Florence-Graham	57,147	48,662	17.4%
West Whittier - Los Nietos	24,164	21,001	15.1%
East Los Angeles	126,379	110,017	14.9%
South Whittier	49,514	43,815	13.0%

...With Populations of Less Than 20,000

1990 to 2000

Community	Zip Code	2000 Census	1990 Census	Increase	Percent
Acton	**93510**	2,390	1,471	919	62.47%
Lake Los Angeles	**93550**	11,523	7,911	3,612	45.66%
East Compton	**90220**	9,286	7,967	1,319	16.56%
Garden Acres	**95205**	9,747	8,547	1,200	14.04%
Del Aire	**90250**	9,012	8,040	972	12.09%
Citrus	**91702**	10,581	9,481	1,100	11.60%
Marina del Rey	**90292**	8,176	7,431	745	10.03%

1980 to 1990

Community	1990 Census	1980 Census	% Change
Quartz Hill	9,626	5,522	74.3%
South San Gabriel	7,700	5,421	42.0%
Greenacres	7,379	5,381	37.1%
Charter Oak	8,858	6,840	29.5%
Walnut Park	14,722	11,811	24.6%
East Compton	7,967	6,435	23.8%

* Unincorporated communities are not independent municipalities or jurisdictions. They have no local government other than the County. All local public services are received from the County.
Source: U.S. Census Bureau

Population Density in Los Angeles County
1900 - 2000

Year	Residents Per Square Mile
2000	2,345
1990	2,183
1980	1,842
1970	1,732
1960	1,488
1950	1,023
1940	686
1930	544
1920	231
1910	124
1900	42

Source: U.S. Census Bureau

Racial/Ethnic Composition Los Angeles County

Population - All Races

Ethnic Group	Population	Percentage
Total Population (All Races)	9,519,338	100.00%
One Race*	9,049,557	95.06%
One Race not Hispanic or Latino	5,277,125	55.44%
White*	4,637,062	48.71%
White not Hispanic or Latino	2,959,614	31.09%
Black or African American*	930,957	9.78%
Black or African American not Hispanic or Latino	901,472	9.47%
Asian*	1,137,500	11.95%
Asian Not Hispanic or Latino	1,124,569	11.81%
American Indian & Alaskan Native*	76,988	0.81%
American Indian & Alaskan Native not Hispanic or Latino	25,609	0.27%
Native Hawaiian & Other Pacific Islander*	27,053	0.28%
Native Hawaiian & Other Pacific Islander not Hispanic or Latino	23,265	0.24%
Some Other Race*	2,239,997	23.53%
Some Other Race not Hispanic or Latino	19,935	0.21%
Two or More Races*	469,781	4.94%

Ethnic Group	Population	Percentage
Two or More Races not Hispanic or Latino	222,661	2.34%
Hispanic or Latino	4,242,213	44.56%
Total Not Hispanic or Latino	5,277,125	55.44%

* Includes Hispanic or Latino

Population - Hispanic or Latino
(Percentages calculated on total Hispanic or Latino population)

Ethnic Group	Population	Percentage
Total Hispanic or Latino	4,242,213	100.00%
One Race	3,995,093	44.15%
White	1,677,448	36.17%
Black or African American	29,485	3.17%
Asian	12,931	1.14%
American Indian & Alaskan Native	51,379	66.74%
Native Hawaiian & Other Pacific Islander	3,788	14.00%
Some Other Race	2,220,062	99.11%
Two or More Races	247,120	52.60%

Race/Ethnic Composition Census for Los Angeles County - Comparing 1990 & 2000

Ethnic Group	1990 Census		2000 Census		*Percent Change*
	Population	*Percent*	Population	*Percent*	
Total Population (All Races)	8,863,164	*100.00%*	9,519,338	*100.00%*	*+7.40%*
One Race [1]	---	---	9,049,557	*95.06%*	---
White	5,044,718	*56.92%*	4,637,062	*48.71%*	*-8.08%*
White not Hispanic or Latino	3,634,722	*40.70%*	2,959,614	*31.09%*	*-18.57%*
Black or African American	990,406	*11.17%*	930,957	*9.78%*	*-6.00%*
Asian	928,710	*10.48%*	1,137,500	*11.95%*	*+22.48%*
American Indian & Alaskan Native	43,689	*0.49%*	76,988	*0.81%*	*+76.22%*
Native Hawaiian & Other Pacific Islander	26,319	*0.29%*	27,053	*0.28%*	*+2.79%*
Some Other Race	1,829,022	*20.64%*	2,239,997	*23.53%*	*+22.47%*
Two or More Races [2]	---	---	469,781	*4.94%*	---
Hispanic or Latino	3,306,116	*37.96%*	4,242,213	*44.56%*	*+28.31%*
Total Not Hispanic or Latino	5,557,048	*62.70%*	5,277,125	*55.44%*	*-5.04%*

[1] For the 2000 Census, this category refers only to persons declaring one race. The 1990 Census offered no option to identify with more than one race. [2] Two or More Races - This category, first offered in the 2000 Census, allowed the option to identify with more than one race.

Notes: "Population of one race" refers to those who identified themselves to the Census as of one race only. "Population of two of more races" refers to those who identified themselves as of at least two races. "Total Population" is the combination of both.
"Hispanic of Latino" is not considered a "race" by the Census. Rather, it is a cultural/ethnic classification that overlaps with race. Persons who identify themselves as "Hispanic or Latino" must also identify themselves w ith a race or combination of races. In fact, a large number of these persons identify themselves with the racial classification "white." We have added a column under "Population of one race" that is titled "White (Not Hispanic or Latino)."

Source for above tables: U.S. Census Bureau

Population by Age & Sex

Population by Race, Age & Sex
Los Angeles County
2000 Census

Age	White Not Hispanic		Black		American Indian & Alaskan Native		Age	Asian		Native Hawaiian & Other Pacific Islander		Hispanic or Latino	
	Male	Female	Male	Female	Male	Female		Male	Female	Male	Female	Male	Female
All	1,464,819	1,494,795	433,924	497,033	39,334	37,654	**All**	541,958	595,542	13,400	13,653	2,139,599	2,102,614
Under 5	69,115	64,544	34,946	33,901	3,514	3,333	**Under 5**	30,802	28,965	1,217	1,153	230,863	220,986
5-9	78,502	74,283	42,101	41,177	3,892	3,781	**5-9**	35,192	33,185	1,450	1,347	242,058	232,290
10-14	79,198	75,432	41,764	40,645	3,564	3,435	**10-14**	37,346	34,734	1,342	1,215	200,596	192,355
15-17	45,269	42,010	22,048	20,888	1,895	1,866	**15-17**	24,292	22,438	741	698	111,854	103,977
18 & 19	30,206	29,987	12,798	13,203	1,334	1,186	**18 & 19**	17,105	16,765	452	505	78,943	71,853
20	15,088	14,776	6,047	6,665	661	610	**20**	8,695	8,477	237	277	40,427	36,197
21	14,443	14,263	5,619	6,390	627	577	**21**	8,289	8,471	241	270	39,278	35,444
22-24	45,941	45,645	15,924	18,930	2,108	1,799	**22-24**	24,910	25,780	703	696	124,029	113,095
25-29	97,192	92,559	28,477	34,720	3,632	3,093	**25-29**	45,585	49,376	1,135	1,208	214,759	197,179
30-34	116,052	108,353	33,562	39,769	3,744	3,244	**30-34**	43,671	48,757	1,178	1,239	206,940	185,842
35-39	133,723	122,313	36,540	43,023	3,485	3,173	**35-39**	45,008	51,424	1,130	1,183	174,123	164,182
40-44	134,966	123,531	34,644	40,198	3,042	2,838	**40-44**	45,558	53,751	887	874	137,161	138,974
45-49	123,864	117,891	28,003	33,666	2,405	2,362	**45-49**	42,111	49,966	704	787	103,047	110,024
50-54	111,670	111,566	23,259	29,003	1,742	1,920	**50-54**	36,224	41,922	612	679	73,937	83,509
55-59	86,914	88,338	18,056	22,645	1,225	1,342	**55-59**	25,630	29,321	465	477	50,305	58,816
60 & 61	29,062	29,693	6,648	8,266	398	421	**60 & 61**	8,784	9,971	154	170	16,140	19,394
62-64	38,774	40,849	9,285	10,919	490	506	**62-64**	11,657	13,784	180	190	20,328	25,861
65 & 66	23,774	25,760	5,531	6,836	266	321	**65 & 66**	6,798	8,769	112	109	11,902	15,511
67-69	34,463	38,805	6,899	8,715	332	384	**67-69**	9,436	12,167	147	122	15,519	21,121
70-74	55,122	68,368	8,872	12,824	398	558	**70-74**	14,003	18,396	142	187	21,221	30,908
75-79	48,646	67,406	6,710	10,586	321	413	**75-79**	10,793	14,398	83	137	14,138	21,685
80-84	30,894	48,692	3,654	7,120	160	269	**80-84**	6,190	8,634	46	65	6,945	12,292
85+	21,941	49,731	2,537	6,944	99	223	**85+**	3,879	6,091	42	65	5,086	11,119

Source: U.S. Census Bureau

Education

Educational Attainment
Persons 25 Years of Age & Over
Los Angeles County, 1990-2000 Census

Educational Attainment	2000 Census		1990 Census	
	Number	Percent	Number	Percent
Total Persons Age 25 & Over	5,882,948	100.00	5,481,222	100.00
Less than 9th grade	955,932	16.25	853,988	15.58
9th to 12th grade, no diploma	814,592	13.85	788,825	14.39
High school graduate (includes equivalency)	1,108,314	18.84	1,134,608	20.70
Some college, no degree	1,174,477	19.96	1,077,427	19.66
Associate degree	367,244	6.24	402,932	7.35
Bachelor's degree	945,634	16.07	793,556	14.48
Graduate or professional degree	516,755	8.78	429,886	7.84

Source: **U.S. Census Bureau**

Average Cost of Educating a Pupil* in Los Angeles County
1999-2000

Type of School District	Cost Per Pupil (ADA)*	Percent Above/Below Statewide Average for Similar Districts**
Elementary	$ 5,269	-3.5%
High School	$ 5,679	-2.8%
Unified	$ 5,526	+1.2%
All School Districts (Average)	$ 5,452	-4.4%

***California's method of counting students is Average Daily Attendance (ADA), the number of students attending school divided by the number of days in the school year. Calculated three times a year, ADA figures are referred to as First Principal Apportionment (P1), Second Principal Apportionment (P2), and Annual, the final one in the summer. ADA is used for a variety of funding purposes, with adjustments spelled out in the Education Code. ADA differs from enrollment. Ed-Data uses the enrollment figure from CBEDS reports, which is a count of students at each school on a specific day in October. ADA is normally less (approximately 95%) than actual enrollment because absences, even if excused, are not included in ADA.
**The statewide average is $5,460 for elementary districts in California, $5,843 for high school districts, $5,758 for unified districts, $5,705 for all districts.
Source: California Dept. of Education

Religion

Religious Affiliation by Religious Body
Los Angeles County

Affiliation	1990		2000	
	Congregations	Adherents	Congregations	Adherents
All Religious Bodies	**3,536**	**4,879,355**	**4,044**	**5,528,814**
Catholic Church	272	3,077,114	278	3,806,377
Orthodox	---	---	46	31,315
Other *(see following table)*	506	608,113	748	974,062
Protestant Evangelical	1,777	829,693	2,022	587,854
Protestant Mainline	963	355,435	950	339,206

Affiliation of Non-Catholic/Non-Protestant Religious Bodies
Los Angeles County

Religious Body	1990		2000	
	Congregations	Adherents	Congregations	Adherents
Bahá'í	---	---	44	6,346
Buddhism (estimate)	---	---	145	70,000*
Church of Christ, Scientist	75	---	---	---
Church of Jesus Christ of Latter-day Saints	271	103,286	239	97,347
Hindu (estimate)	---	---	37	70,000*
Jehovah's Witnessess (estimate)	---	62,400	---	70,000*
Jewish (estimate)	145	501,700	202	564,700
Muslim (estimate)	---	---	48	92,919
Sikh	---	---	14	---
Tao	---	---	4	---
Unitarian Universalist Congregations	15	3,127	13	2,750
Zoroastrian	---	---	2	---

*Estimates by the Almanac.
Source of data above: Association of Statisticians of American Religious Bodies (Glenmary Research Center) and Almanac research.

Housing

Number of Households & Household Characteristics Los Angeles County, 2000 Census

Family Households

Household Type	Total Households	Family Households					
		Married-couple family		Male householder, no wife present		Female householder, no husband present	
		With own children under 18 years	No own children under 18 years	With own children under 18 years	No own children under 18 years	With own children under 18 years	No own children under 18 years
Number of Households	3,133,774	811,522	679,805	83,369	102,889	257,611	201,781
Percent	*100.00%*	*25.90%*	*21.69%*	*2.66%*	*3.28%*	*8.22%*	*6.44%*

Non-Family Households

Household Type	Total Households	Non-Family Households
Number of Households	3,133,774	224,943
Percent	*100.00%*	*7.18%*

Single Person Households

Household Type	Total households	Single Person Households			
		Total Single Person households	Male householder	Female householder	Households with one person 65 years and over
Number of Households	3,133,774	771,854	358,915	412,939	223,473
Percent	*100.00%*	*24.63%*	*11.45%*	*13.18%*	*7.13%*

Source: U.S. Census Bureau

Income

Household Income in Past 12 Months (2000 Inflation-Adjusted Dollars) Los Angeles County Households

Census 2000 Supplementary Survey Summary Data (Estimates)

Household Income	Estimate	Percent
All Households	3,079,803	100.00%
Less than $10,000	317,250	10.30%
$10,000 to $14,999	230,675	7.49%
$15,000 to $19,999	202,150	6.56%
$20,000 to $24,999	209,676	6.81%
$25,000 to $29,999	183,949	5.97%
$30,000 to $34,999	190,014	6.17%
$35,000 to $39,999	172,414	5.60%
$40,000 to $44,999	162,302	5.27%
$45,000 to $49,999	120,443	3.91%
$50,000 to $59,999	243,910	7.92%
$60,000 to $74,999	275,552	8.95%
$75,000 to $99,999	305,690	9.93%
$100,000 to $124,999	179,964	5.84%
$125,000 to $149,999	96,369	3.13%
$150,000 to $199,999	99,487	3.23%
$200,000 or more	89,958	2.92%

Data based on twelve monthly samples during 2000.
Note: The Census 2000 Supplementary Survey universe is limited to the household population and excludes the population living in institutions, college dormitories, and other group quarters. Data are based on a sample and are subject to sampling variability. The number of householders does not necessarily equal the number of households because of differences in the weighting schemes for the population and occupied housing units.
Source: U.S. Census Bureau

The estimated **MEDIAN HOUSEHOLD INCOME** in Los Angeles County for 2000 (in the past 12 months in 2000 Inflation-Adjusted Dollars) is:
$40,864

Source: Census 2000 Supplementary Survey Summary Data (Estimates)

Family Income in Past 12 Months (2000 Inflation-Adjusted Dollars) Los Angeles County Families

Census 2000 Supplementary Survey Summary Data (Estimates)

Family Income	Estimate	Percent
All Families	2,094,662	100.00%
Less than $10,000	164,407	7.85%
$10,000 to $14,999	135,840	6.49%
$15,000 to $19,999	127,352	6.08%
$20,000 to $24,999	140,271	6.70%
$25,000 to $29,999	123,812	5.91%
$30,000 to $34,999	132,748	6.34%
$35,000 to $39,999	118,043	5.64%
$40,000 to $44,999	109,066	5.21%
$45,000 to $49,999	82,005	3.91%
$50,000 to $59,999	166,917	7.97%
$60,000 to $74,999	201,313	9.61%
$75,000 to $99,999	238,972	11.41%
$100,000 to $124,999	132,835	6.34%
$125,000 to $149,999	73,812	3.52%
$150,000 to $199,999	78,010	3.72%
$200,000 or more	69,259	3.31%

Data based on twelve monthly samples during 2000.
Note: The Census 2000 Supplementary Survey universe is limited to the household population and excludes the population living in institutions, college dormitories, and other group quarters. Data are based on a sample and are subject to sampling variability. The number of householders does not necessarily equal the number of households because of differences in the weighting schemes for the population and occupied housing units.
Source: U.S. Census Bureau

The estimated **MEDIAN FAMILY INCOME** in Los Angeles County for 2000 (in the past 12 months in 2000 Inflation-Adjusted Dollars) is:
$44,784

Source: Census 2000 Supplementary Survey Summary Data (Estimates)

Non-Family Household Income in the Past 12 Months (2000 Inflation-Adjusted Dollars) Los Angeles County Non-Family Households

Census 2000 Supplementary Survey Summary Data (Estimates)

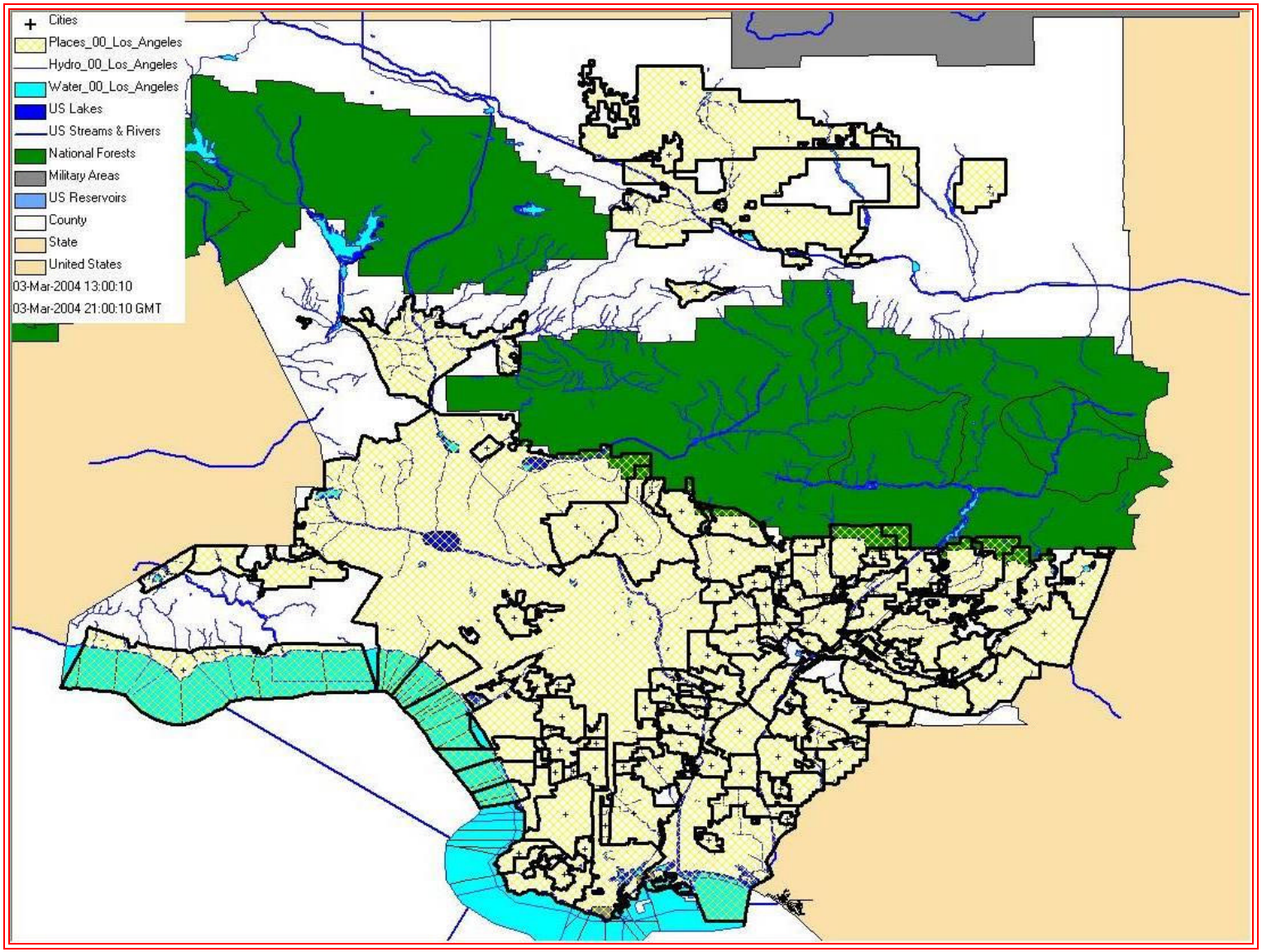
Non-Family Household Income	Estimate	Percent
All Non-Family Households	985,141	100.00%
Less than $10,000	181,202	18.39%
$10,000 to $14,999	99,597	10.11%
$15,000 to $19,999	77,225	7.84%
$20,000 to $24,999	68,255	6.93%
$25,000 to $29,999	60,746	6.17%
$30,000 to $34,999	57,280	5.81%
$35,000 to $39,999	51,557	5.23%
$40,000 to $44,999	52,694	5.35%
$45,000 to $49,999	36,864	3.74%
$50,000 to $59,999	74,464	7.56%
$60,000 to $74,999	68,183	6.92%
$75,000 to $99,999	60,437	6.13%
$100,000 to $124,999	39,504	4.01%
$125,000 to $149,999	20,281	2.06%
$150,000 to $199,999	17,551	1.78%
$200,000 or more	19,301	1.96%

Data based on twelve monthly samples during 2000.
Note: The Census 2000 Supplementary Survey universe is limited to the household population and excludes the population living in institutions, college dormitories, and other group quarters. Data are based on a sample and are subject to sampling variability. The number of householders does not necessarily equal the number of households because of differences in the weighting schemes for the population and occupied housing units.
Source: U.S. Census Bureau

The estimated **MEDIAN NON-FAMILY HOUSEHOLD INCOME** in Los Angeles County for 2000 (in the past 12 months in 2000 Inflation-Adjusted Dollars) is:

$30,397

Source: Census 2000 Supplementary Survey Summary Data (Estimates)

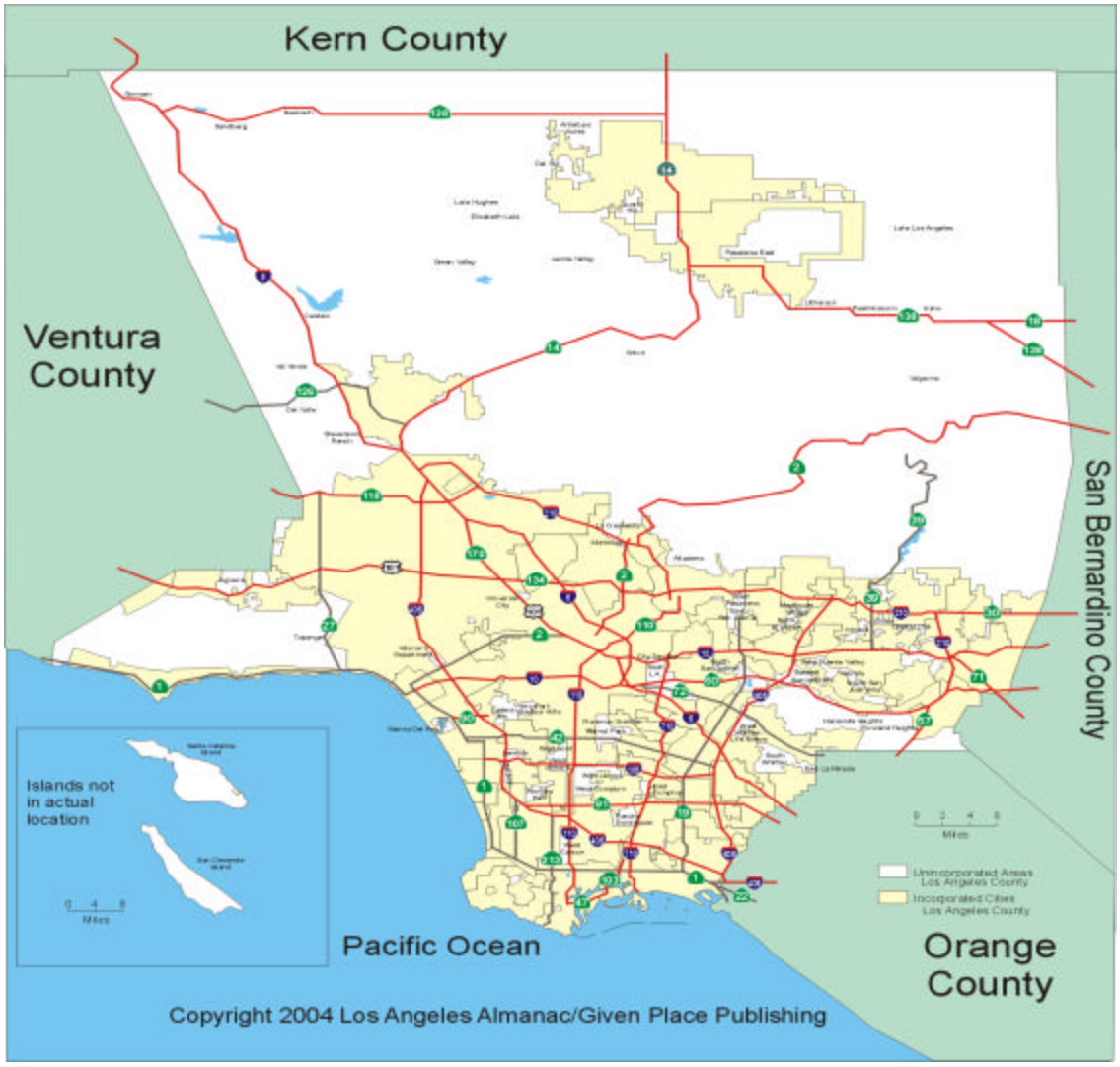


Map of Los Angeles County

Unincorporated Areas

More than 65 percent of the County (or 2,640 square miles) is unincorporated, and contains approximately 10.5 percent of the total residents in L.A. County. The Board of Supervisors functions as their "City Council" and the L.A. County's departments provide all municipal services. The Board has executive, legislative and quasi-judicial roles, and appoints all department heads except the assessor, district attorney, and sheriff, which are elective positions.

Map of Unincorporated Areas of Los Angeles County (white areas)



Unincorporated Areas General Profile Data

4/23/2003

Profile of General Demographic Characteristcs 2000:
Unincorporated Los Angeles County

Table	Subject	Total	Percent	Table	Subject	Total	Percent
P1	**Total Population**	**987,537**	**100.0**	P3	**Race alone or in combination with one or more races**		
P12	**SEX AND AGE**				White	483,214	48.9
	Male	492,493	49.9		Black or African American	113,029	11.4
	Female	495,044	50.1		American Indian and Alaska Native	15,483	1.6
	Under 5 years	80,819	8.2		Asian	105,884	10.7
	5 to 9 years	91,260	9.2		Native Hawaiian and Other Pacific Islander	4,131	0.4
	10 to 14 years	85,270	8.6		Some other race	311,726	31.6
	15 to 19 years	78,323	7.9				
	20 to 24 years	70,218	7.1	P27,	**RELATIONSHIP**		
	25 to 34 years	146,942	14.9	P28	**Total Population**	**987,537**	**100.0**
	35 to 44 years	154,821	15.7		In households	970,763	98.3
	45 to 54 years	118,507	12.0		Householder	280,434	28.4
	55 to 59 years	41,171	4.2		Spouse	157,295	15.9
	60 to 64 years	32,766	3.3		Child	347,304	35.2
	65 to 74 years	50,311	5.1		Own child under 18 years	249,610	25.3
	75 to 84 years	28,663	2.9		Other relatives	126,301	12.8
	85 years and over	8,426	0.9		Under 18 years	45,635	4.6
	Median age (years)*	29.6			Nonrelatives	59,429	6.0
	18 years and over	682,147	69.1		In group quarters	16,774	1.7
	Male	335,743	34.0		Institutionalized population	11,433	1.2
	Female	346,404	35.1		Noninstitutionalized population	5,341	0.5
	age 21 and over	637,298	64.5				
	Age 62 and over	106,081	10.7	P19,	**HOUSEHOLDS BY TYPE**		
	Age 65 and over	87,420	8.9	P20	**Total households**	**280,434**	**100.0**
	Male 65 and over	37,430	3.8		Family households (families)	220,593	78.7
	Female 65 and over	49,990	5.1		with own children under 18 years	120,157	42.8
					Married-couple family	157,295	56.1
P3	**RACE**				with own children under 18 years	88,061	31.4
	One race	944,048	95.6		Female householder, no husband present	44,743	16.0
	White	447,504	45.3		with own children under 18 years	23,661	8.4
	Black or African American	106,678	10.8		Nonfamily households	59,841	21.3
	American Indian and Alaska Native	8,919	0.9		householder living alone	46,473	16.6
	Asian	97,142	9.8		householder 65 years and over	16,332	5.8
	Native Hawaiian and Other Pacific Islander	2,213	0.2		Households with individuals under 18	138,952	49.5
	Some Other Race	281,592	28.5		Households with individuals 65 or older	64,484	23.0
	Two or more races	43,489	4.4		Average household size	2.75	
					Average family size	3.01	
P4	**HISPANIC OR LATINO AND RACE**						
	Total Population	**987,537**	**100.0**	H3	**HOUSING OCCUPANCY**		
	Hispanic or Latino (of any race)	525,903	53.3		**Total housing units**	**294,026**	**100.0**
	Not Hispanic or Latino	461,634	46.7		Occupied housing units	280,434	95.4
	White Alone	239,560	24.3		Vacant housing units	13,592	4.6
					For seasonal, recreational, or occasional use	1,432	0.5
				H5	**HOUSING TENURE**		
					Occupied housing units	**280,434**	**100.0**
					Owner-occupied housing units	175,653	62.6
					Renter-occupied housing units	104,781	37.4

*For data involving a median value, the value is the median of all of the medians of the block groups in the geographic area.
Source: U.S. Bureau of the Census, Census 2000, SF1 files.

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Demographic Profile - Unincorporated.xls

4/23/2003

Profile of Selected Social Characteristics 2000: Unincorporated Los Angeles County

Table	Subject	Total	Percent	Table	Subject	Total	Percent
P36	**SCHOOL ENROLLMENT**			P42	**DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION**		
	Population 3 years and over enrolled in school	**318,505**	**100.0**		**Population 5 to 20 years**	**267,425**	**100.0**
	Nursery school, preschool	17,892	5.6		With a disability	20,884	7.8
	Kindergarten	18,243	5.7		**Population 21 to 64 years**	**541,976**	**100.0**
	Elementary school (grades 1-8)	145,246	45.6		With a disability	120,558	22.2
	High school (grades 9-12)	72,019	22.6		Employed	63,635	11.7
	College or graduate school	65,105	20.4		Unemployed	56,923	10.5
					Population 65 years and over	**85,937**	**100.0**
P37	**EDUCATIONAL ATTAINMENT**				With a disability	37,696	43.9
	Population 25 years and over	**581,980**	**100.0**				
	Less than 9th grade	108,263	18.6				
	9th to 12th grade, no diploma	90,822	15.6	P21	**NATIVITY AND PLACE OF BIRTH**		
	High school graduate (includes equivalency)	120,639	20.7		**Total population**	**987,855**	**100.0**
	Some college, no degree	114,197	19.6		Native	657,411	66.5
	Associate degree	37,358	6.4		born in United States	649,462	65.7
	Bachelor's degree	72,079	12.4		same state of residence	499,780	50.6
	Graduate or professional degree	38,622	6.6		different state	149,682	15.2
					born outside United States	7,949	0.8
	Percent high school graduate or higher	66.8%			Foreign born	330,444	33.5
	Percent bachelor's degree or higher	19.0%			entered 1990 to March 2000	104,118	10.5
					naturalized citizen	125,390	12.7
P18	**MARITAL STATUS**				not a citizen	205,054	20.8
	Population 15 years and over	**729,444**	**100.0**				
	Never married	231,657	31.8	PCT12	**LANGUAGE SPOKEN AT HOME**		
	Now married, except separated	380,814	52.2		**Population 5 years and over**	**907,382**	**100.0**
	Separated	22,368	3.1		English only	403,496	44.5
	Widowed	37,477	5.1		Language other than English	503,886	55.5
	female	29,412	4.0		speak English less than "very well"	265,212	29.2
	Divorced	57,108	7.8		Spanish	401,167	44.2
	female	33,291	4.6		speak English less than "very well"	213,511	23.5
					Other Indo-European languages	20,633	2.3
P39	**VETERAN STATUS**				speak English less than "very well"	6,305	0.7
	Civilian population 18 years and over	**682,513**	**100.0**		Asian and Pacific Island languages	76,936	8.5
	Civilian veterans	52,893	7.7		speak English less than "very well"	43,711	4.8

Source: U.S. Bureau of the Census, Census 2000, SF3 files.

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Data based on a sample.

Demographic Profile - Unincorporated.xls

4/23/2003

Profile of Selected Economic Characteristics 2000: Unincorporated Los Angeles County

Table	Subject	Total	Percent	Table	Subject	Total	Percent
P43,	**EMPLOYMENT STATUS**			P51	**CLASS OF WORKER**		
P46	**Population 16 years and over**	**713,978**	**100.0**		Private wage and salary workers	298,910	78.2
	In labor force	416,676	58.4		Government workers	52,632	13.8
	civilian labor force	416,495	58.3		Self-employed workers in own unincorporated		
	employed	382,385	53.6		business	29,249	7.6
	unemployed	34,110	4.8		Unpaid family workers	1,594	0.4
	percent of civilian labor force	8.2%					
	armed forces	381	0.1	P52	**HOUSEHOLD INCOME IN 1999**		
	Not in labor force	297,102	41.6		**Households**	**280,720**	**100.0**
	Females 16 years and over	**362,187**	**100.0**		Less than $10,000	24,939	8.9
	In labor force	186,385	51.5		$10,000 to $14,999	16,481	5.9
	civilian labor force	186,311	51.4		$15,000 to $24,999	33,233	11.8
	employed	170,572	47.1		$25,000 to $34,999	32,868	11.7
	Own children under 6 years	**88,316**	**100.0**		$35,000 to $49,999	42,281	15.1
	All parents in family in labor force	42,775	48.4		$50,000 to $74,999	55,973	19.9
					$75,000 to $99,999	31,677	11.3
P30	**COMMUTING TO WORK**				$100,000 to $149,999	27,600	9.8
	Workers 16 years and over	**372,644**	**100.0**		$150,000 to $199,999	7,869	2.8
	Car, truck, or van - drove alone	266,115	71.4		$200,000 or more	7,799	2.8
	Car, truck, or van - carpooled	62,047	16.7		Median household income (dollars)*	$41,759	
	Public transportation (including taxi cab)	18,239	4.9				
	Walked	8,608	2.3		With earnings	236,026	84.1
	Other means	6,048	1.6		With Social Security income	61,503	21.9
	Worked at home	11,587	3.1		With Supplemental Security Income	16,422	5.8
					With public assistance income	19,603	7.0
P50	**OCCUPATION**				With retirement income	39,228	14.0
	Employed civilian population 16+	**382,385**	**100.0**				
	Management, professional, and related	114,384	29.91	P76	**FAMILY INCOME IN 1999**		
	Service occupations	54,948	14.37		**Families**	**222,036**	**100.0**
	Sales and office occupations	105,753	27.66		Less than $10,000	15,836	7.1
	Farming, fishing, and forestry	1,062	0.28		$10,000 to $14,999	11,814	5.3
	Construction, extraction, and maintenance	34,080	8.91		$15,000 to $24,999	25,530	11.5
	Production, transportation, and material		0.00		$25,000 to $34,999	26,228	11.8
	moving occupations	72,158	18.87		$35,000 to $49,999	34,239	15.4
					$50,000 to $74,999	45,604	20.5
P49	**INDUSTRY**				$75,000 to $99,999	26,523	11.9
	Agricultural, forest, fish, hunting, mining	1,501	0.4		$100,000 to $149,999	23,080	10.4
	Construction	21,539	5.6		$150,000 to $199,999	6,725	3.0
	Manufacturing	66,275	17.3		$200,000 or more	6,457	2.9
	Wholesale trade	22,271	5.8		Median family income (dollars)*	$42,853	
	Retail trade	41,027	10.7				
	Transportation, warehousing, and utilities	22,227	5.8	P90	**POVERTY STATUS IN 1999**		
	Information	14,956	3.9		Families below poverty level	**30,841**	**11.2**
	Finance, insurance, and real estate	23,789	6.2		With related children under 18 years	25,697	83.3
	Professional, scientific, management,				with related children under 5 years	3,330	10.8
	administrative, and waste management	36,701	9.6	P90	**Families below poverty level with female**		
	Educational, health, and social sciences	69,006	18.0		**householder, no husband present**	12,288	40
	Arts, entertainment, recreation, hotel, food	27,802	7.3		With related children under 18 years	10,822	35.1
	Services (except public administration)	20,826	5.4		with related children under 5 years	1,317	4.3
	Public administration	14,465	3.8	P87	**Individuals below poverty level**	**166,218**	**100.0**
					18 years and over	96,619	58.1
					65 years and over	8,824	5.3

*For data involving a median value, the value is the median of all of the medians of the block groups in the geographic area.
Source: U.S. Bureau of the Census, Census 2000, SF3 files.

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Data based on a sample.

Demographic Profile - Unincorporated.xls

4/23/2003

Profile of Selected Housing Characteristics 2000:
Unincorporated Los Angeles County

Table	Subject	Total	Percent	Table	Subject	Total	Percent
H30	**UNITS IN STRUCTURE**			H20	**OCCUPANTS PER ROOM**		
	Total housing units	**294,008**	**100.0**		**Occupied housing units**	**280,410**	**100**
	1-unit, detached	202,203	68.8		1.00 or less	212,120	75.6
	1-unit, attached	22,937	7.8		1.01 to 1.50	26,038	9.3
	2 units	6,510	2.2		1.51 or more	42,252	15.1
	3 or 4 units	11,407	3.9				
	5 to 9 units	10,826	3.7	H74	**VALUE**		
	10 to 19 units	7,479	2.5		**Specified owner-occupied units**	**155,701**	**100.0**
	20 or more units	21,707	7.4		Less than $50,000	3,152	2.0
	Mobile home	10,377	3.5		$50,000 to $99,999	9,501	6.1
	Boat, RV, van, etc.	560	0.2		$100,000 to $149,999	31,112	20.0
					$150,000 to $199,999	48,409	31.1
H34	**YEAR STRUCTURE BUILT**				$200,000 to $299,999	34,296	22.0
	1999 to March 2000	3,922	1.3		$300,000 to $499,999	20,826	13.4
	1995 to 1998	8,988	3.1		$500000 to $999,999	7,143	4.6
	1990 to 1994	12,287	4.2		$1,000,000 or more	1,262	0.8
	1980 to 1989	33,714	11.5		Median (dollars)*	$156,400	
	1970 to 1979	44,326	15.1				
	1960 to 1969	53,531	18.2	H90	**MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS**		
	1940 to 1959	108,549	36.9		With a mortgage	124,670	80.1
	1939 or earlier	28,689	9.8		Less than $300	564	0.4
H23	**ROOMS**				$300 to $499	3,529	2.3
	1 room	12,872	4.4		$500 to $699	6,674	4.3
	2 rooms	29,506	10.0		$700 to $999	16,385	10.5
	3 rooms	44,754	15.2		$1,000 to $1,499	43,399	27.9
	4 rooms	41,155	14.0		$1,500 to $1,999	27,406	17.6
	5 rooms	58,554	19.9		$2,000 or more	26,693	17.1
	6 rooms	49,901	17.0		Median (dollars)*	$1,238	
	7 rooms	30,042	10.2		Not mortgaged	31,031	19.9
	8 rooms	15,441	5.3		Median (dollars)*	$227	
	9 or more rooms	11,783	4.0				
	Median (rooms)*	4.5		H94	**SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1999**		
H38	**YEAR HOUSEHOLDER MOVED INTO UNIT**						
	Occupied housing units	**280,410**	**100.0**		Less than 15.0 percent	41,466	26.6
	1999 to March 2000	48,984	17.5		15.0 to 19.9 percent	20,890	13.4
	1995 to 1998	79,084	28.2		20.0 to 24.9 percent	19,884	12.8
	1990 to 1994	44,117	15.7		25.0 to 29.9 percent	17,647	11.3
	1980 to 1989	47,847	17.1		30.0 to 34.9 percent	12,135	7.8
	1970 to 1979	31,852	11.4		35.0 percent or more	42,020	27.0
	1969 or earlier	28,526	10.2		Not computed	1,659	1.1
H44	**VEHICLES AVAILABLE**			H62	**GROSS RENT**		
	None	27,325	9.7		**Specified renter-occupied units**	**104,196**	**100.0**
	1 vehicle	85,703	30.6		Less than $200	2,259	2.2
	2 vehicles	103,414	36.9		$200 to $299	2,350	2.3
	3 or more vehicles	63,968	22.8		$300 to $499	13,542	13.0
					$500 to $749	38,344	36.8
H40	**HOUSE HEATING FUEL**				$750 to $999	23,042	22.1
	Utility gas	217,907	77.7		$1,00 to $1,499	16,629	16.0
	Bottled, tank, or LP gas	11,137	4.0		$1,500 or more	5,143	4.9
	Electricity	37,044	13.2		No cash rent	2,887	2.8
	Fuel oil, kerosene, etc	147	0.1		Median (dollars)*	$633	
	Coal or coke	19	0.0				
	Wood	2,437	0.9	H69	**GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME IN 1999**		
	Solar energy	739	0.3				
	Other fuel	433	0.2		Less than 15.0 percent	14,454	13.9
	No fuel used	10,547	3.8		15.0 to 19.9 percent	13,211	12.7
					20.0 to 24.9 percent	13,138	12.6
	SELECTED CHARACTERISTICS				25.0 to 29.9 percent	10,531	10.1
P48	Lacking complete plumbing facilities	2,526	0.9		30.0 to 34.9 percent	8,567	8.2
P51	Lacking complete kitched facilities	3,003	1.1		35.0 percent or more	38,302	36.8
P43	No telephone service	4,659	1.7		Not computed	5,993	5.8

*For data involving a median value, the value is the median of all of the medians of the block groups in the geographic area.
Source: U.S. Bureau of the Census, Census 2000, SF3 files.

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Data based on a sample.

Demographic Profile - Unincorporated.xls

Acton

Geographic and Political

Acton is located in the Santa Clarita Valley, and has a total population of 2,390. It covers 4.6 square miles and is populated by 519.56 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It is not an independent municipality or jurisdiction and has no local government other than that provided by the County. It is located in Supervisorial District 5. All local public services are received from the County.

Schools

Acton is served by the Acton-Agua Dulce Unified School District.

Economic Data

Acton has an average income of $52,416 (1989) and an employment rate of 97.9 percent.

Alondra Park

Geographic and Political

Alondra Park is located in the South Bay, and has a total population of 8,622. It covers 1.1 square miles, and is populated by 7,838.18 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It is not an independent municipality or jurisdiction and has no local government other than that provided by the County. Located in Supervisorial District 2, Alondra Park receives all of its local public services from the County.

Housing Data

Alondra Park's individually owned housing units have a median value of $196,900.

Economic Data

Alondra Park has an employment rate of 91.6 percent, with an average annual income of $39,722.

Altadena

Geographic and Political

Altadena is located in the San Gabriel Valley and has a total population of 42,610. It covers 8.7 miles, and is populated by 4,898.91 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County, and is located in Supervisorial District 5. Altadena receives all of its local public services from the County.

Schools

Altadena is served by the Pasadena Unified School District.

Housing Data

10,959 or 71 percent of Altadena's 15,245 housing units are individually owned, and have a median value of $259,500. Statistically, there are 2.83 persons per household in Altadena.

Economic Data

Altadena has an employment rate of 94.4 percent, with an average annual income of $60,549.

Avocado Heights

Geographic and Political

Avocado Heights is located in the San Gabriel Valley and has a total population of 15,148. It covers 2.7 square miles and is populated by 5,610.37 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County, and is located in Supervisorial District 1. Avocado Heights receives all of its local public services from the County.

Housing Data

Avocado Heights' individually owned housing units have a median value of $179,900.

Economic Data

The employment rate is 93.1 percent and the average annual income is $48,712.

Charter Oak (Islands)

Geographic and Political
Charter Oak is located in the San Gabriel Valley, and has a total population of 9,027. It covers 0.9 square miles, and is populated by more than 9,027 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.
It has no local government other than that provided by the County, and is located in Supervisorial District 5. Charter Oak receives all of its local public services from the County.
Housing Data
Charter Oak's individually owned housing units have a median value of $182,400.
Economic Data
The employment rate is 95.6 percent and the average annual income is $50,744.

Citrus (Covina Islands)

Geographic and Political

Citrus is located in the San Gabriel Valley, and has a total population of 10,581. It covers 0.9 square miles and is populated by more than 10,581 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County, and is located in Supervisorial Districts 1 and 5. Citrus receives all of its local public services from the County.

Housing Data

Citrus' individually owned housing units have a median value of $151,800.

Economic Data

The employment rate is 92.5 percent, with an average annual income of $55,110.

Del Aire

Geographic and Political

Del Aire is located near Los Angeles International Airport, and has a total population of 9,012. It covers 1.0 square miles and is populated by 9,012 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County, and is located in Supervisorial District 2. Del Aire receives all of its local public services from the County.

Housing Data

Del Aire's individually owned housing units have a median value of $187,600.

Economic Data

The employment rate is 95.6 percent, and the average annual income is $55,186

East Compton

Geographic and Political

East Compton is located in South Central Los Angeles, and has a total population of 9,286. It covers 0.5 square miles, and is populated by the equivalent of 18,572 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County, and is located in Supervisorial District 2. East Compton receives all of its local public services from the County.

Schools and Media

East Compton is served by the Compton Unified School District.

Housing Data

East Compton's individually owned housing units have a median value is $134,300.

Economic Data

Average annual income is $31,398, and the employment rate is 85.7 percent.

East La Mirada

Geographic and Political

East La Mirada is located in the Whittier area, and has a total population of 9,538. It covers 1.1 square miles, and is populated by 10,491.8 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County, and is located in Supervisorial District 4. East La Mirada receives all of its local public services from the County.

Housing Data

East La Mirada's individually owned housing units a median value of $51,440.

Economic Data

Average annual income is $51,440, and the employment rate is 94.2 percent.

East Los Angeles

Geographic and Political

East Los Angeles, a large area in the eastern part of the County, encompasses several small communities such as Belvedere Gardens, City Terrace, and Eastmont. It covers 7.4 square miles and has a total population of 124,283. It is populated by 28,544 persons per square mile, compared to Los Angeles County, which has 2,344.2 persons per square mile.

It is not an independent municipality and has no local government other than that provided by the County. Located in Supervisorial District 1, East Los Angeles receives all of its local public services from the County.

Schools

East Los Angeles is served by the Los Angeles Unified School District.

Housing Data

East Los Angeles' individually owned housing units have a median value of $155,800.

Economic Data

The employment rate is 88.6 percent, and the average annual income is $28,544.

East Pasadena

Geographic and Political

East Pasadena is located in the San Gabriel Valley, and has a total population of 6,045. It covers 1.3 square miles, and is populated by 4,650 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County, and is located in Supervisorial District 5. All of its local public services are received from the County.

Schools

East Pasadena is served by the Pasadena Unified School District.

Housing Data

East Pasadena's individually owned housing units have a median value of $315,700.

Economic Data

The employment rate is 94.9 percent, with an average annual income of $53,378.

Florence-Graham

Geographic and Political

Florence-Graham is located in South Central Los Angeles, and has a total population of 60,197. It covers 3.6 square miles, and is populated by 16,721.38 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It is not an independent municipality has no local government, and is located in Supervisorial Districts 1 and 2. All of its local public services are received from the County.

Economic Data

The average annual income was $18,901 (1989), and the employment rate was 87.7 percent (1989).

Gorman

Geographic and Political

It has no local government other than that provided by the County, and is located in Supervisorial District 5. Gorman receives all of its local public services from the County.

Schools

Gorman is served by the Gorman Elementary School District and the Antelope Valley Union High School District.

Hacienda Heights

Geographic and Political

Hacienda Heights is located in the San Gabriel Valley, has a total population of 53,122. It covers 11.4 square miles, and is populated by 4,659.82 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

Hacienda Heights has no local government other than that provided by the County, and is located in Supervisorial Districts 1 and 4. All of its local public services are received from the County.

Schools

Hacienda Heights is served by the Hacienda La Puente Unified School District.

Housing Data

Hacienda Heights' individually owned housing units have a median value of $230,800.

Economic Data

Average annual income is $59,485, and the employment rate is 94.3 percent.

La Crescenta-Montrose

Geographic and Political

La Crescenta-Montrose, an area in the Verdugo Mountains, has a total population of 18,532.

It is not an independent municipality or jurisdiction and has no local government other than that provided by the County. It is located in Supervisorial District 5, and receives all of its local public services from the County.

Economic Data

The employment rate was 97.2 percent, and average annual income was $46,365 (1989).

Ladera Heights

Geographic and Political

Ladera Heights is located in the South Bay, and has a total population of 6,569. It covers 2.9 square miles, and is populated by 2,264.82 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It is not an independent municipality and has no local government other than that provided by the County. It is located in Supervisorial District 2, and receives all of its local public services from the County.

Housing Data

Ladera Heights individually owned housing units have a median value of $442,000.

Economic Data

Average annual income is $90,233, and the employment rate is 96.1 percent.

Lake Hughes

Geographic and Political

It has no local government other than that provided by the County, and is located in Supervisorial District 5. Lake Hughes receives all of its local public services from the County.

Lake Los Angeles

Geographic and Political

Lake Los Angeles is located in the Antelope Valley, and has a total population of 11,523. It covers 13.0 square miles, and is populated by 886.38 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County, and is located in Supervisorial District 5. Lake Los Angeles receives all of its local public services from the County.

Housing Data

Lake Los Angeles' individually owned housing have a median value of $75,400.

Economic Data

Average annual income is $38,794, with an employment rate of 88.3 percent.

Lennox

Geographic and Political

Located near the Los Angeles International Airport, Lennox has a total population of 22,950. It covers 1.1 square miles, and is populated by 20,836.63 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County, and is located in Supervisorial District 2. Lennox receives all of its local public services from the County.

Housing Data

Lennox's individually owned housing units have a median value of $28,278.

Economic Data

Average annual income is $28,273, and the employment rate is 89.5 percent.

Littlerock

Geographic and Political

Littlerock is located in the Antelope Valley, and has a total population of 1,402. It covers 1.4 square miles and is populated by 1,001.43 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County, and is located in Supervisorial District 5. Littlerock receives all of its local public services from the County.

Housing Data

Littlerock's individually owned housing units have a median value is $88,400.

Economic Data

Average annual income is $39,000, with an employment rate of 88.7 percent.

Marina del Rey

Geographic and Political

Marina del Rey is located in the South Bay, and has a total population of 8,176. It covers 0.9 miles, and is populated by 7,358.4 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It is not an independent municipality or jurisdiction and has no local government other than that provided by the County. It is located in Supervisorial Districts 2 and 4, and receives all of its local public services from the County.

Schools

Marina del Rey is served by the Inglewood Unified School District.

Housing Data

Marina del Rey's individually owned housing units have a median value of $191,300.

Economic Data

Average annual income is $68,447, and the employment rate is 95.8 percent.

Mayflower Village

Geographic and Political

Mayflower Village is located in the San Gabriel Valley, and has a total population of 5,081. It covers 0.7 square miles, and is populated by the equivalent of 3,557 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County. Mayflower Village receives all of its local public services from the County.

Housing Data

The median value of Mayflower Village's individually owned housing units is $196,700.

Economic Data

Mayflower Village's average annual income is $55,547, and the employment rate is 95.7 percent.

Pearblossom

Geographic and Political

Pearblossom is located in the Antelope Valley in North Los Angeles County.

Pearblossom has no local government other than that provided by the County. It is located in Supervisorial District 5, and receives all of its local public services from the County.

Quartz Hill

Geographic and Political

Located in the Antelope Valley, Quartz Hill has a total population of 9,890. It covers 3.8 square miles, and is populated by 2,602.63 persons per square mile. By comparison, Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County. It is located in Supervisorial District 5 and receives all of its local public services from the County.

Housing Data

Quartz Hill's individually owned housing units have a median value of $138,500.

Economic Data

The average annual income is $48,098, and the employment rate is 91.7.

Rowland Heights

Geographic and Political

Rowland Heights has a total population of 48,553, and it covers 9.0 square miles. It is populated by 5,394.77 persons per square mile compared to Los Angeles County, which has 2,344.2 persons per square mile.

It has no local government other than that provided by the County, and is located in Supervisorial Districts 1 and 4. Rowland Heights receives all of its local public services from the County.

Housing Data

Rowland Heights' individually owned housing median value is $221,000.

Economic Data

The average annual income is $52,270, and the employment rate is 94.7 percent.

South San Gabriel

Geographic and Political

Located in the San Gabriel Valley, South San Gabriel has a total population of 7,595. It covers 0.8 square miles, and is populated by the equivalent of 6,076 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

South San Gabriel has no local government other than that provided by the County. It is located in Supervisorial District 1, and receives all of its local public services from the County.

Schools and Media

South San Gabriel is served by the San Gabriel Unified School District.

Housing Data

South San Gabriel's individually owned housing median value is $174,100.

Economic Data

The average annual income is $48,655, and the employment rate is 91.8 percent.

South San Jose Hills

Geographic and Political

Located in the San Gabriel Valley, South San Jose Hills has a total population of 20,218. It covers 1.5 square miles, and is populated by 13,478.66 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County, and is located in Supervisorial District 1. All local public services for South San Jose Hills are received from the County.

Housing Data

South San Jose Hills' individually owned housing median value is $141,200.

Economic Data

Average annual income is $48,655, and the employment rate is 93 percent.

South Whittier

Geographic and Political

South Whittier is located in the Whittier area, and has a population of 55,193. It covers 5.4 square miles, and is populated by 10,220.9 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County. Located in Supervisorial Districts 1 and 4, South Whittier receives all of its local public services from the County.

Schools and Media

South Whittier is served by the El Rancho Unified School District.

Housing Data

South Whittier's individually owned housing units median value is $171,400.

Economic Data

Average annual income is $47,378, with an employment rate of 92.7 percent.

Val Verde

Geographic and Political

Located in the Santa Clarita Valley, Val Verde has a total population of 1,472. It covers 0.3 square miles, and is populated by the equivalent of 4,906.6 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County, and is located in Supervisorial District 5. All local public services for Val Verde are received from the County.

Housing Data

Val Verde's individually owned housing units median value is $152,601.

Economic Data

Average annual income is $52,593, with an employment rate of 94.5 percent.

Valinda

Geographic and Political

Located in the Santa Gabriel Valley, Valinda has a total population of 21,776. It covers 2.0 square miles, and is populated by 10,888 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square.

Valinda has no local government other than that provided by the County, and is located in Supervisorial District 1. All local public services for Valinda are received from the County.

Housing Data

Valinda's individually owned housing units median value is $158,300.

Economic Data

The average annual income is $49,578, and the employment rate is 89.1 percent.

Walnut Park

Geographic and Political

Located in South Central Los Angeles, Walnut Park has a population of 16,180. It covers 0.7 square miles, and is populated by 23,114 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

Walnut Park has no local government other than that provided by the County, and is located in Supervisorial District 1. All local public services for Walnut Park are received from the County.

Housing Data

Walnut Park's individually owned housing units have a median value of $165,900.

Economic Data

The average annual income is $38,837, and the employment rate is 89.6 percent.

West Athens

Geographic and Political

Located in South Central Los Angeles, West Athens has a total population of 9,101. It covers 1.3 square miles, and is populated by 7,000.6 persons per square mile. By comparison Los Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County, and is located in Supervisorial Districts 2 and 4. West Athens receives all of its local public services from the County.

Economic Data

The average income was $32,208 (1989).

West Carson

Geographic and Political

Located in the South Bay, West Carson has a total population of 21,138, and it covers 2.3 square miles. West Carson has 9,190.4 persons per square mile compared to 2,344.2 persons per square mile for Los Angeles County.

It has no local government other than that provided by the County, and is located in Supervisorial District 5. West Carson receives all of its local public services from the County.

West Compton

Geographic and Political

West Compton has a total population of 5,435. It covers 1.6 square miles, and is populated by 3,396.9 persons per square mile. By comparison, Los Angeles County has 2,344.2 persons per square mile.

It has no local government other than that provided by the County. All local public services for West Compton are received from the County.

Schools

West Compton is served by the Compton Unified School District.

Economic Data

Average annual income was $35,145 (1989).

West Puente Valley

Geographic and Political

Located in the San Gabriel Valley, West Puente Valley has a total population of 22,589, and it covers 1.7 square miles. West Puente has 8,851.6 persons per square mile, compared to 2,344.2 persons per square mile for Los Angeles County.

It has no local government other than that provided by the County, and is located in Supervisorial District 1. West Puente receives all of its local public services from the County.

Economic Data

Average income was $39,641 (1989), and the employment rate is 92.7 percent.

West Whittier-Los Nietos

Geographic and Political

Located west of the City of Whittier

It is has no local government other than that provided by the County and is located in Supervisorial Districts 1 & 4 and it receives all of its local public services from the County.

Schools

West Whittier is served by the Whittier Unified School District.

Westmont

Westmont has no local government other than that provided by the County and is located in Supervisorial District 2. Westmont receives all of its local public services from the County.

Willowbrook

Willbrook has no local government other than that provided by the County, and is located in Supervisorial District 2. Willowbrook receives all of its local public services from the County.

Definition of Housing Unit

According to the 2000 Census, a housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied or intended for occupancy as separate living quarters. Separate living quarters are those in which the occupant(s) live separate from any other people in the building and which have direct access from outside the building or through a common hall.

Unincorporated Supervisorial Representation

Unincorp. Area	Supervisorial District
Acton	5
Agoura	3
Agua Dulce	5
Alpine	5
Altadena	5
Antelope Acres	5
Athens (or West Athens)	2
Avocado Heights	1
Baldwin Hills	2
Bandini (islands)	1
Bassett	1
Big Pines	5
Bouquet Canyon	5
Calabasas (adjacent)	3
Calabasas Highlands	3
Canyon Country	5
Castaic	5
Castaic Junction	5
Charter Oak (islands)	5
Citrus (Covina islands)	1, 5
Crystalaire	5
Deer Lake Highlands	5
Del Aire	2
Del Sur	5
East Azusa (islands)	1, 5
East Compton	2
East Los Angeles	1
Belvedere Gardens	
City Terrace	
Eastmont	
East Pasadena	5
East San Gabriel	5
East Whittier	4
El Camino Village	2
El Dorado	5
Elizabeth Lake	5
Fairmont	5
Firestone	1, 2
Florence	1, 2
Forrest Park	5
Franklin Canyon	3
Glendora (islands)	5
Gorman	5
Graham	1, 2
Green Valley	5
Hacienda Heights	1, 4
Hi Vista	5
Juniper Hills	5
Kagel Canyon	5
Kinneola Mesa	5
La Crescenta	5
La Rambla	4
Ladera Heights	2
Lake Balboa	3
Lake Hughes	5
Lake Los Angeles	5
Lakeview	5
Lang	5
Lennox	2
Leona Valley	5
Littlerock	5
Llano	5
Long Beach (islands)	4
Longview	5
Los Cerritos Wetlands	4
Los Nietos	1, 4
Malibu Vista	3
Marina del Rey	2, 4
Mint Canyon	5
Monrovia/Arcadia/ Duarte (islands)	5
Monte Nido	3
Montrose	5
Mulholland Corridor	3
Cornell	
Las Virgenes/Malibu Canyon	
Malibou Lake	
Malibu Bowl	
Malibu Highlands	
Malibu/Sycamore Canyon	
Monte Nido	
Seminole Hot Springs	
Sunset Mesa	
Trifuno Canyon	
Neenach	5
Newhall	5
North Claremont (islands)	1, 5
Northeast San Dimas (islands)	5
Northeast Whittier (island)	4
Northwest Whittier	4
Norwalk/Cerritos (islands)	4
Oat Mountain	5
Pearblossom	5
Placerita Canyon	5
Quartz Hill	5
Rancho Dominguez	2
Redman	5
Roosevelt	5
Rowland Heights	1, 4
San Clemente Island	4
San Pasqual	5
Santa Catalina Island	4
Saugus	5
Soledad	5
South San Gabriel	1
South San Jose Hills	1
South Whittier	1, 4
Stevenson Ranch	5
Sulphur Springs	5
Sun Village	5
Sunland/Sylmar/Tujunga (adjacent)	5
Sunshine Acres	1
Three Points	5
Topanga Canyon	3
Fernwood	
Glenview	
Sylvia Park	
Topanga	
Twin Lakes	5
Universal City	3
Val Verde	5
Valencia	5
Valinda	1
Valley Glen	3
Valyermo	5
Vasquez Rocks	5
Veterans Administration Center	3
View Park	2
Walnut Park	1
West Arcadia (islands)	5
West Carson	2, 4
West Chatsworth	3, 5
West Pomona (islands)	5
West Puente Valley	1
West Rancho Dominguez	2
West Whittier	1, 4
Westfield	4
Westmont	2
White Fence Farms	5
Whittier Narrows	1
Willowbrook	2
Wilsona Gardens	5
Windsor Hills	2
Wiseburn	2
Wrightwood	5

Public Affairs, Chief Administrative Office
County of Los Angeles
Room 358, Kenneth Hahn Hall of Administration
Phone (213) 974-1311
REV 04/04 Web lc

Municipal Governments (Incorporated Cities)

Mayors & City Councils Cities of Los Angeles County

Los Angeles County has 88 municipalities, each with a city council and mayor. Of these, voters in eight cities elect a specific mayor at-large (Compton, Inglewood, Long Beach, Los Angeles, Pomona, Pasadena, Redondo Beach, and Torrance). The remaining 80 cities have mayors who are actually elected city council members and who, on an annual or semi-annual rotational basis, each serve in the role of mayor and vice mayor (or Mayor Pro Tempore). Most city councils have five council members, with the exception of the cities of Los Angeles (15), Long Beach (9), Santa Monica (7), Pasadena (7), Pomona (6), Torrance (6), Compton (4), and Inglewood (4). A few cities have city councils whose members represent specific districts (Alhambra, Bradbury, Compton, Downey, Inglewood, Long Beach, Los Angeles, Pasadena, Pomona, and Redondo Beach). All other city councils are elected at-large. Almost all city governments in Los Angeles County have an elected City Clerk and City Treasurer. The largest city in the county, Los Angeles, also elects a City Attorney and City Controller.

Because the 458-plus city council members and mayors in Los Angeles County are constantly shifting and changing, it proved difficult to keep our own roster of mayors and city councils current. We therefore now simply list City Hall contact information and Internet links to obtain current rosters and contact information.

CITY OF AGOURA HILLS
30101 Agoura Ct, Agoura Hills 91301
(818) 597-7300
www.ci.agoura-hills.ca.us

CITY OF ALHAMBRA
111 S First St, Alhambra 91802
(626) 570-5007
www.cityofalhambra.org

CITY OF ARCADIA
240 W Huntington Dr, Arcadia 91007
(626) 574-5400
www.ci.arcadia.ca.us

CITY OF ARTESIA
18747 Clarkdale Ave, Artesia 90701
(562) 865-6262
www.cityofartesia.org

CITY OF AVALON
209 Metropole, Ave Avalon, Avalon 90704
(310) 510-0220
www.cityofavalon.com

CITY OF AZUSA
213 E Foothill Blvd, Azusa 91702
(626) 812-5238
www.ci.azusa.ca.us

CITY OF BALDWIN PARK
14403 E Pacific Ave, Baldwin Park 91706
(626) 813-5201
www.baldwinpark.com

CITY OF BELL
6330 Pine Ave, Bell 90201
(323) 588-6211

CITY OF BELL GARDENS
7100 S Garfield Ave, Bell Gardens 90201
(562) 806-7700
www.ci.bell-gardens.ca.us

CITY OF BELLFLOWER
16600 Civic Center Dr, Bellflower 90706
(562) 804-1424
http://bellflower.org

CITY OF LANCASTER
44933 N Fern Ave, Lancaster 93534
(661) 723-6000
http://www.cityoflancasterca.org

CITY OF LAWNDALE
14717 Burin Ave, Lawndale 90260
(310) 970-2100
www.lawndalecity.org

CITY OF LOMITA
24300 Narbonne Ave, Lomita 90717
(310) 325-7110
www.lomita.com/cityhall

CITY OF LONG BEACH
333 W Ocean Blvd, Long Beach 90802
(562) 570-6555
www.ci.long-beach.ca.us

CITY OF LOS ANGELES
200 N Spring St, Los Angeles 90012
(213) 485-2121
www.lacity.org

CITY OF LYNWOOD
11330 Bullis Rd, Lynwood 90262
(310) 603-0220
www.lynwood.ca.us

CITY OF MALIBU
23555 Civic Center Way, Malibu 90265
(310) 456-2489
www.ci.malibu.ca.us

CITY OF MANHATTAN BEACH
1400 Highland Ave, Manhattan Beach 90622
(310) 802-5000
www.ci.manhattan-beach.ca.us

CITY OF MAYWOOD
4319 E Slauson Ave, Maywood 90270
(323) 562-5000
www.cityofmaywood.com

CITY OF MONROVIA
415 South Ivy Ave, Monrovia 91016
(626) 932-5550
www.ci.monrovia.ca.us

CITY OF BEVERLY HILLS
455 N Rexford Dr, Beverly Hills 90210
(310) 285-1000
www.ci.beverly-hills.ca.us

CITY OF BRADBURY
600 Winston Ave, Bradbury 91010
(626) 358-3218
http://cityofbradbury.org

CITY OF BURBANK
275 E Olive Ave, Burbank 91502
(818) 238-5851
www.ci.burbank.ca.us

CITY OF CALABASAS
26135 Mureau, Ste 200, Calabasas 91302
(818) 878-4225
www.ci.calabasas.ca.us

CITY OF CARSON
701 E Carson St, Carson 90745
(310) 830-7600
http://ci.carson.ca.us

CITY OF CERRITOS
Bloomfield at 183rd St, Cerritos 90703
(562) 860-0311
www.ci.cerritos.ca.us

CITY OF CLAREMONT
207 Harvard Ave, Claremont 91711
(909) 399-5461
www.ci.claremont.ca.us

CITY OF COMMERCE
2535 Commerce Way, Commerce 90040
(323) 722-4805
www.ci.city-of-commerce.ca.us

CITY OF COMPTON
205 S Willowbrook Ave, Compton 90220
(310) 605-5500
www.comptoncity.org

CITY OF COVINA
125 E College St, Covina 91723
(626) 858-7212
www.ci.covina.ca.us

CITY OF MONTEBELLO
1600 W Beverly Blvd, Montebello 90640
(323) 887-1200
www.cityofmontebello.com

CITY OF MONTEREY PARK
320 W Newmark Ave, Monterey Park 91754
(626) 307-1359
www.ci.monterey-park.ca.us

CITY OF NORWALK
12700 Norwalk Blvd, Norwalk 90650
(562) 929-5700
www.ci.norwalk.ca.us

CITY OF PALMDALE
38300 N Sierra Hwy, Palmdale 93550
(661) 267-5100
www.cityofpalmdale.org

CITY OF PALOS VERDES ESTATES
340 Palos Verdes Dr West, Palos Verdes Estates 90274
(310) 378-0383
www.palosverdes.com/pve

CITY OF PARAMOUNT
16400 Colorado Ave, Paramount 90723
(562) 220-2000
www.paramountcity.com

CITY OF PASADENA
100 N Garfield, Pasadena 91109
(626) 744-4000
www.ci.pasadena.ca.us

CITY OF PICO RIVERA
6615 Passons Blvd, Pico Rivera 90660
(562) 942-2000
www.ci.pico-rivera.ca.us

CITY OF POMONA
505 S Garey Ave, Pomona 91766
(909) 620-2051
www.ci.pomona.ca.us

CITY OF RANCHO PALOS VERDES
30940 Hawthorne Blvd, Rancho Palos Verdes 90274

(310) 377-0360
www.palosverdes.com/rpv

CITY OF CUDAHY
5220 Santa Ana St, Cudahy 90201
(323) 773-5143
www.cudahy.ca.us

CULVER CITY
9770 Culver Blvd, Culver City 90232
(310) 253-6000
www.ci.culver-city.ca.us

CITY OF DIAMOND BAR
21660 E Copley Dr, Diamond Bar 91765
(909) 860-2489
www.ci.diamond-bar.ca.us

CITY OF DOWNEY
11111 Brookshire Ave, Downey 90241
(562) 904-7246
www.downeyca.org

CITY OF DUARTE
1600 Huntington Dr, Duarte 91010
(626) 357-7931
www.accessduarte.com

CITY OF EL MONTE
11333 Valley Blvd, El Monte 91731
(626) 580-2001
www.ci.el-monte.ca.us

CITY OF EL SEGUNDO
350 Main St, El Segundo 90245
(310) 524-2300
www.elsegundo.org

CITY OF GARDENA
1700 W 162nd St, Gardena 90247
(310) 217-9500
www.ci.gardena.ca.us

CITY OF GLENDALE
613 E Broadway, Glendale 91206
(818) 548-4000
www.ci.glendale.ca.us

CITY OF GLENDORA
116 East Foothill Blvd, Glendora 91741
(626) 914-8200
http://www.ci.glendora.ca.us/

CITY OF REDONDO BEACH
415 Diamond St, Redondo Beach 90277
(310) 372-1171
www.redondo.org

CITY OF ROLLING HILLS
#2 Portuguese Bend Rd, Rolling Hills 90274
(310) 377-1521
www.palosverdes.com/rh

CITY OF ROLLING HILLS ESTATES
4045 Palos Verdes Dr North, Rolling Hills Estates 90274
(310) 377-1577; (310) 377-4468
www.palosverdes.com/rhe

CITY OF ROSEMEAD
8838 E Valley Blvd, Rosemead 91770
(626) 569-2100

CITY OF SAN DIMAS
245 Bonita Ave, San Dimas 91773
(909) 394-6200
www.cityofsandimas.com

CITY OF SAN FERNANDO
117 MacNeil St, San Fernando 91340
(818) 898-1200
www.ci.san-fernando.ca.us

CITY OF SAN GABRIEL
532 W Mission Dr, San Gabriel 91776
(626) 308-2803
www.sangabrielcity.com

CITY OF SAN MARINO
2200 Huntington Dr, San Marino 91108
(626) 300-0700
www.ci.san-marino.ca.us

CITY OF SANTA CLARITA
23920 Valencia Blvd, Santa Clarita 91355
(661) 259-2489
http://www.santa-clarita.com

CITY OF HAWAIIAN GARDENS
21815 Pioneer Blvd, Hawaiian Gardens 90716
(562) 420-2641
www.hawaiiangardenscity.org

CITY OF HAWTHORNE
4455 W 126th St, Hawthorne 90250
(310) 970-7902
www.cityofhawthorne.com

CITY OF HERMOSA BEACH
1315 Valley Dr, Hermosa Beach 90254
(310) 318 -0239
www.hermosabch.org

CITY OF HIDDEN HILLS
6165 Spring Valley Rd, Hidden Hills 91302
(818) 888-9281
www.hiddenhillscity.org

CITY OF HUNTINGTON PARK
6550 Miles Ave, Huntington Park 90255
(323) 582-6161
www.huntingtonpark.org

CITY OF INDUSTRY
15651 E Stafford St, Industry 91744
(626) 333-2211
www.cityofindustry.org

CITY OF INGLEWOOD
One Manchester Blvd, Inglewood 90301
(310) 412-5301
www.cityofinglewood.org

CITY OF IRWINDALE
5050 N Irwindale Ave, Irwindale 91706
(626) 430-2200
www.ci.irwindale.ca.us

CITY OF LA CAÑADA FLINTRIDGE
1327 Foothill Blvd, La Canada-Flintridge 91011
(818) 790-8880
www.lacanadaflintridge.com

CITY OF LA HABRA HEIGHTS
1245 N Hacienda Blvd, La Habra Heights 90631
(562) 694-6302

CITY OF SANTA FE SPRINGS
11710 E Telegraph Rd, Santa Fe Springs 90670
(562) 868-0511
www.santafesprings.org

CITY OF SANTA MONICA
1685 Main St, Santa Monica 90401
(310) 393-9975
http://pen.ci.santa-monica.ca.us

CITY OF SIERRA MADRE
232 W Sierra Madre Blvd, Sierra Madre 91024
(626) 355-7135
www.ci.sierra-madre.ca.us

CITY OF SIGNAL HILL
2175 Cherry Ave, Signal Hill 90806
(562) 989-7300
www.ci.signal-hill.ca.us

CITY OF SOUTH EL MONTE
1415 Santa Anita Ave, So. El Monte 91733
(626) 579-6540
www.ci.south-el-monte.ca.us

CITY OF SOUTH GATE
8650 California Ave, South Gate 90280
(323) 563-9500
www.cityofsouthgate.org

CITY OF SOUTH PASADENA
1414 Mission St, South Pasadena 91030
(626) 403-7200
www.ci.south-pasadena.ca.us

TEMPLE CITY
9701 La Tunas Dr, Temple City 91780
(626) 285-2171
www.ci.temple-city.ca.us

CITY OF TORRANCE
3031 Torrance Blvd, Torrance 90503
(310) 328-5310
www.ci.torrance.ca.us

CITY OF LA MIRADA
13700 La Mirada Blvd, La Mirada 90638
(562) 943-0131
www.cityoflamirada.org

CITY OF LA PUENTE
15900 E Main St, La Puente 91744
(626) 855-1500
www.lapuente.org

CITY OF LA VERNE
3660 D St, La Verne 91750
(909) 596-8726
www.ci.la-verne.ca.us

CITY OF LAKEWOOD
5050 Clark Ave, Lakewood 90712
(562) 866-9771
www.lakewoodcity.org

CITY OF VERNON
4305 Santa Fe Ave, Vernon 90058
(323) 583-8811
www.cityofvernon.org

CITY OF WALNUT
21201 La Puente Rd, Walnut 91789
(909) 595-7543
http://ci.walnut.ca.us

CITY OF WEST COVINA
1444 W Garvey Ave, West Covina 91790
(626) 814-8400
www.westcov.org

CITY OF WEST HOLLYWOOD
8300 Santa Monica Blvd, West Hollywood 90069
(323) 848-6400
www.ci.west-hollywood.ca.us

CITY OF WESTLAKE VILLAGE
4373 Park Terrace Dr, Westlake Village 91361
(818) 706-1613
www.wlv.org

CITY OF WHITTIER
13230 Penn St, Whittier 90602
(562) 945-8200
www.whittierch.org

Geographic Size (Square Miles) & Geographic Coordinates

Place	Area (Square Miles)			Geographic Coordinates	
	Total	Land	Water		
Acton*	4.64	4.64	0.00	34.472777	-118.183696
Agoura Hills	8.20	8.18	0.03	34.153365	-118.761805
Alhambra	7.62	7.62	0.00	34.081859	-118.135052
Alondra Park*	1.16	1.14	0.02	33.890915	-118.334297
Altadena*	8.70	8.70	0.00	34.188605	-118.134795
Arcadia	11.11	10.98	0.12	34.132688	-118.036491
Artesia	1.62	1.62	0.00	33.867215	-118.080622
Avalon	3.15	2.81	0.33	33.340941	-118.327821
Avocado Heights*	2.82	2.67	0.15	34.038610	-118.004575
Azusa	8.90	8.90	0.00	34.130657	-117.906869
Baldwin Park	6.80	6.66	0.13	34.082809	-117.971677
Bell	2.64	2.48	0.17	33.978414	-118.182908
Bellflower	6.15	6.07	0.07	33.888165	-118.127604
Bell Gardens	2.49	2.49	0.00	33.968181	-118.156039
Beverly Hills	5.67	5.67	0.00	34.073109	-118.399460
Bradbury	1.91	1.91	0.00	34.149306	-117.974319
Burbank	17.36	17.35	0.02	34.180170	-118.328341
Calabasas	13.15	13.10	0.05	34.138363	-118.660917
Carson	18.97	18.84	0.12	33.839684	-118.259588
Cerritos	8.89	8.62	0.27	33.868314	-118.067547
Charter Oak*	0.93	0.93	0.00	34.101308	-117.857656
Citrus*	0.90	0.90	0.00	34.114891	-117.891786
Claremont	13.43	13.14	0.28	34.110009	-117.719734
Commerce	6.57	6.57	0.00	34.000613	-118.154781
Compton	10.20	10.13	0.07	33.896715	-118.225078
Covina	6.97	6.97	0.01	34.091609	-117.879193
Cudahy	1.12	1.12	0.00	33.964214	-118.182575
Culver City	5.13	5.11	0.02	34.007761	-118.400905
Del Aire*	0.99	0.99	0.00	33.916138	-118.369282
Desert View Highlands*	0.47	0.47	0.00	34.589738	-118.153512
Diamond Bar	14.76	14.76	0.00	34.001652	-117.820761
Downey	12.59	12.42	0.17	33.938164	-118.130801
Duarte	6.68	6.68	0.00	34.140416	-117.961678
East Compton*	0.52	0.52	0.00	33.897748	-118.194093
East La Mirada*	1.11	1.11	0.00	33.924403	-117.988975
East Los Angeles*	7.45	7.44	0.00	34.031462	-118.168653
East Pasadena*	1.32	1.32	0.00	34.140057	-118.077650

Place	Area (Square Miles)			Geographic Coordinates
	Total	Land	Water	
East San Gabriel*	1.57	1.55	0.01	34.119149 -118.082053
El Monte	9.69	9.55	0.14	34.073276 -118.027491
El Segundo	10.80	5.54	5.26	33.921313 -118.406233
Florence-Graham*	3.58	3.58	0.00	33.969364 -118.243881
Gardena	5.82	5.82	0.00	33.893615 -118.307841
Glendale	30.67	30.65	0.02	34.170939 -118.250081
Glendora	19.27	19.14	0.13	34.130957 -117.854127
Hacienda Heights*	11.39	11.38	0.01	34.000578 -117.969434
Hawaiian Gardens	0.98	0.96	0.02	33.828565 -118.073646
Hawthorne	6.06	6.06	0.00	33.917214 -118.348607
Hermosa Beach	5.91	1.43	4.48	33.866314 -118.399681
Hidden Hills	1.65	1.65	0.00	34.167557 -118.660918
Huntington Park	3.03	3.03	0.00	33.982364 -118.217381
Industry	11.89	11.72	0.18	34.015778 -117.950804
Inglewood	9.14	9.14	0.00	33.957513 -118.346082
Irwindale	9.46	9.29	0.17	34.112481 -117.964390
La Canada Flintridge	8.65	8.65	0.00	34.206047 -118.199499
La Crescenta-Montrose*	3.43	3.43	0.00	34.224954 -118.236845
Ladera Heights*	2.94	2.94	0.00	33.988762 -118.374146
La Habra Heights	6.20	6.20	0.00	33.964012 -117.952837
Lake Los Angeles*	13.06	13.01	0.05	34.617665 -117.833678
Lakewood	9.50	9.43	0.07	33.847365 -118.119889
La Mirada	7.88	7.85	0.03	33.902130 -118.009663
Lancaster	94.18	94.00	0.18	34.686980 -118.154062
La Puente	3.49	3.49	0.00	34.032410 -117.955195
La Verne	8.41	8.31	0.10	34.114361 -117.771348
Lawndale	1.98	1.98	0.00	33.886764 -118.353556
Lennox*	1.08	1.08	0.00	33.939813 -118.357482
Littlerock*	1.45	1.45	0.00	34.525056 -117.990048
Lomita	1.90	1.90	0.00	33.793384 -118.316110
Long Beach	65.87	50.44	15.43	33.804133 -118.158028
Los Angeles	498.29	469.07	29.22	34.086159 -118.375984
Lynwood	4.85	4.85	0.00	33.924642 -118.201862
Malibu	100.96	19.87	81.09	34.030450 -118.778612
Manhattan Beach	10.36	3.93	6.43	33.888980 -118.405357
Marina del Rey*	1.47	0.88	0.59	33.979361 -118.452912
Mayflower Village*	0.66	0.66	0.00	34.117837 -118.009486
Maywood	1.18	1.18	0.00	33.987864 -118.186553
Monrovia	13.81	13.75	0.07	34.144156 -118.001848

Place	Area (Square Miles)			Geographic Coordinates	
	Total	Land	Water		
Montebello	8.35	8.25	0.11	34.014412	-118.114501
Monterey Park	7.67	7.63	0.03	34.049199	-118.135561
North El Monte*	0.42	0.42	0.00	34.102958	-118.023319
Norwalk	9.74	9.68	0.05	33.906914	-118.083398
Palmdale	105.10	104.96	0.14	34.581005	-118.100603
Palos Verdes Estates	4.79	4.79	0.00	33.787049	-118.396657
Paramount	4.84	4.73	0.10	33.899915	-118.166651
Pasadena	23.17	23.10	0.07	34.156098	-118.131808
Pico Rivera	8.84	8.30	0.55	33.989013	-118.089121
Pomona	22.84	22.84	0.00	34.060760	-117.755886
Quartz Hill*	3.82	3.82	0.00	34.652194	-118.220647
Rancho Palos Verdes	13.66	13.66	0.00	33.758216	-118.364256
Redondo Beach	6.43	6.28	0.14	33.856514	-118.377081
Rolling Hills	3.08	3.08	0.00	33.759350	-118.341550
Rolling Hills Estates	3.60	3.59	0.02	33.773738	-118.360788
Rosemead	5.15	5.15	0.01	34.070428	-118.082312
Rowland Heights*	9.02	9.02	0.00	33.980962	-117.889791
San Dimas	15.63	15.51	0.12	34.102908	-117.816249
San Fernando	2.38	2.38	0.00	34.287251	-118.438836
San Gabriel	4.13	4.13	0.00	34.094176	-118.098449
San Marino	3.77	3.77	0.00	34.122658	-118.112964
Santa Clarita	47.85	47.83	0.02	34.416561	-118.506443
Santa Fe Springs	8.86	8.75	0.11	33.937443	-118.067155
Santa Monica	15.91	8.26	7.65	34.022059	-118.481336
Sierra Madre	3.01	3.00	0.01	34.164806	-118.050907
Signal Hill	2.23	2.23	0.00	33.801817	-118.170500
South El Monte	2.89	2.88	0.00	34.048910	-118.048463
South Gate	7.48	7.37	0.12	33.944264	-118.194903
South Pasadena	3.44	3.44	0.00	34.112958	-118.155778
South San Gabriel*	0.83	0.83	0.00	34.049060	-118.095150
South San Jose Hills*	1.46	1.46	0.00	34.011261	-117.904846
South Whittier*	5.38	5.38	0.00	33.934724	-118.030800
Temple City	4.01	4.01	0.00	34.102641	-118.057979
Torrance	20.54	20.54	0.00	33.834815	-118.341330
Valinda*	2.01	2.01	0.00	34.037760	-117.928939
Val Verde*	0.33	0.33	0.00	34.445211	-118.657240
Vernon	5.16	5.00	0.16	34.001213	-118.210979
View Park-Windsor Hills*	1.86	1.86	0.00	33.993662	-118.346950
Vincent*	1.50	1.50	0.00	34.098555	-117.924395

Place	Area (Square Miles)			Geographic Coordinates
	Total	Land	Water	
Walnut	8.98	8.98	0.00	34.027738 -117.860514
Walnut Park*	0.74	0.74	0.00	33.968781 -118.223790
West Athens*	1.34	1.34	0.00	33.922414 -118.301156
West Carson*	2.26	2.26	0.00	33.826266 -118.292534
West Compton*	1.64	1.64	0.00	33.894116 -118.266304
West Covina	16.11	16.11	0.00	34.056660 -117.918617
West Hollywood	1.88	1.88	0.00	34.087909 -118.372160
Westlake Village	5.66	5.21	0.45	34.141973 -118.819514
Westmont*	1.85	1.85	0.00	33.941514 -118.302306
West Puente Valley*	1.75	1.75	0.00	34.050838 -117.969783
West Whittier-Los Nietos*	2.51	2.51	0.00	33.976113 -118.069000
Whittier	14.63	14.63	0.00	33.965662 -118.024495
Willowbrook*	3.74	3.74	0.00	33.917515 -118.252705

* Unincorporated Place, Source: U.S. Census Bureau

Largest & Smallest Cities by Square Miles in Los Angeles County

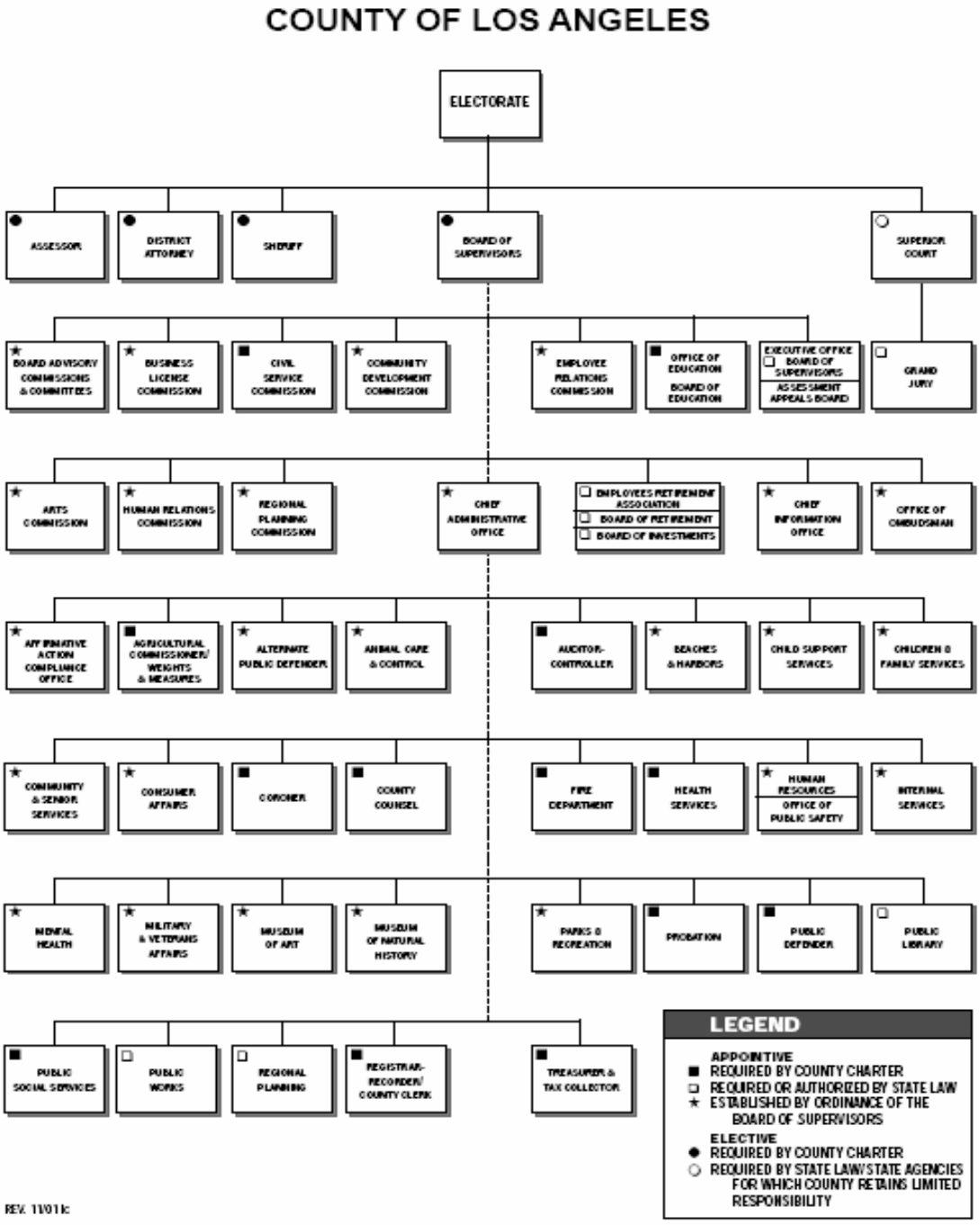
Largest Cities in Los Angeles County (Square Miles)

Los Angeles	498.29
Palmdale	105.10
Malibu	100.96
Lancaster	94.18
Long Beach	65.87
Santa Clarita	47.85
Glendale	30.67
Pasadena	23.17
Pomona	22.84
Torrance	20.54

Smallest Cities in Los Angeles County (Square Miles)

Hawaiian Gardens	0.98
Cudahy	1.12
Maywood	1.18
Artesia	1.62
Hidden Hills	1.65
West Hollywood	1.88
Lomita	1.90
Bradbury	1.91
Lawndale	1.98
Signal Hill	2.23

Structure of Government



Administrative Body

Los Angeles County Supervisors (Elected)

District	Supervisor
1	Gloria Molina
2	Yvonne Brathwaite Burke
3	Zev Yaroslavsky
4	Don Knabe
5	Michael D. Antonovich

Los Angeles County Supervisorial Districts
By Community *(except for City of Los Angeles)*

*Some communities are divided between two Supervisorial Districts.

Community	Supervisorial District
Acton	5
Agoura	3
Agoura Hills, City of	3
Agua Dulce	5
Alhambra, City of	5
Alondra Park	2
Alpine	5
Altadena	5
Antelope Acres	5
Arcadia, City of	5
Artesia, City of	4
Athens (or West Athens)	2
Avalon, City of	4
Avocado Heights	1
Azusa, City of	1
Baldwin Hills	2
Baldwin Park, City of	1
Bandini (islands)	1
Bassett	1
Bell Gardens, City of	1
Bell, City of	1
Bellflower, City of	4
Belvedere Gardens	1

Community	Supervisorial District
Beverly Hills, City of	3
Big Pines	5
Bouquet Canyon	5
Bradbury, City of	5
Burbank, City of	5
Calabasas, City of	3
Carson, City of	2
Castaic	5
Castaic Junction	5
Cerritos, City of	4
Charter Oak (islands)	5
Citrus (islands)	5
City Terrace	1
Claremont, City of	5
Commerce, City of	1
Compton, City of	2
Cornell	3
Covina, City of	5
Crystalaire	5
Cudahy, City of	1
Culver City, City of	2
Deer Lake Highlands	5
Del Aire	2
Del Sur	5
Diamond Bar, City of	4
Dominguez (or Dominguez Hills or Rancho Dominguez)	2
Downey, City of	4
Duarte, City of	5
East Azusa (islands)	1
East Compton	2
East La Mirada	4
East Los Angeles: Belvedere Gardens, City Terrace, Eastmont	1
East Pasadena	5
East San Gabriel	5
East Whittier	4
Eastmont	1
El Dorado	5
El Monte, City of	1

Community	Supervisorial District
El Segundo, City of	4
Elizabeth Lake	5
Fairmont	5
Fernwood	3
Firestone (portion)	1, 2*
Florence (portion)	1, 2*
Forrest Park	5
Franklin Canyon	3
Gardena, City of	2
Glendale, City of	5
Glendora, City of	5
Gorman	5
Graham (portion)	1, 2*
Green Valley	5
Hacienda Heights	4
Hawaiian Gardens, City of	4
Hawthorne, City of	2
Hermosa Beach, City of	4
Hi Vista	5
Hidden Hills, City of	3
Huntington Park, City of	1
Industry, City of	1
Inglewood, City of	2
Irwindale, City of	1
Juniper Hills	5
Kagel Canyon	5
Kinneola Mesa	5
La Canada-Flintridge, City of	5
La Crescenta	5
La Habra Heights, City of	4
La Mirada, City of	4
La Puente, City of	1
La Rambla	4
La Verne, City of	5
Ladera Heights	2
Lake Hughes	5
Lake Los Angeles	5
Lakeview	5
Lakewood, City of	4

Community	Supervisorial District
Lancaster, City of	5
Lang	5
Lawndale, City of	2
Lennox	2
Leona Valley	5
Littlerock	5
Llano	5
Lomita, City of	4
Long Beach, City of	4
Longview	5
Los Angeles, City of	*Go to Sup. Districts - City of L.A.*
Los Cerritos Wetlands	4
Los Nietos (portion)	1, 4*
Lynwood, City of	2
Malibu Bowl	3
Malibu Highlands	3
Malibu Lake	3
Malibu Vista	3
Malibu, City of	3
Manhattan Beach, City of	4
Marina del Rey	4
Maywood, City of	1
Mint Canyon	5
Monrovia, City of	5
Monte Nido	3
Montebello, City of	1
Monterey Park, City of	1
Montrose	5
Neenach	5
Newhall	5
North Claremont (islands)	5
Northeast San Dimas (islands)	5
Norwalk, City of	4
Palmdale, City of	5
Palos Verdes Estates, City of	4
Paramount, City of	4
Pasadena, City of	5
Pearblossom	5
Pico Rivera, City of	1

Community	Supervisorial District
Placerita Canyon	5
Pomona, City of	1
Quartz Hill	5
Rancho Dominguez	2
Rancho Palos Verdes, City of	4
Redman	5
Redondo Beach, City of	4
Rolling Hills Estates, City of	4
Rolling Hills, City of	4
Roosevelt	5
Rosemead, City of	1
Rowland Heights (portion)	1, 4*
San Clemente Island	4
San Dimas, City of	5
San Fernando, City of	3
San Gabriel, City of	5
San Marino, City of	5
San Pasqual	5
Santa Catalina Island	4
Santa Clarita, City of	5
Santa Fe Springs, City of	1
Santa Monica, City of	3
Seminole Hot Springs	3
Sierra Madre, City of	5
Signal Hill, City of	4
Soledad	5
South El Monte, City of	1
South Gate, City of	1
South Monrovia (islands)	5
South Pasadena, City of	5
South San Gabriel (portion)	1, 5*
South San Jose Hills	1
South Whittier (portion)	1, 4*
Stevenson Ranch	5
Sulphur Springs	5
Sun Village	5
Sunshine Acres	1
Sylmar (portion)	5
Sylvia Park	3

Community	Supervisorial District
Temple City, City of	5
Three Points	5
Topanga (or Topanga Canyon)	3
Torrance, City of	4
Triunfo Canyon	3
Twin Lakes	5
Universal City	3
Val Verde	5
Valencia	5
Valinda (portion)	1, 5*
Valyermo	5
Vasquez Rocks	5
Vernon, City of	1
Veterans Administration Center	3
View Park	2
Walnut Park	1
Walnut, City of	5
West Arcadia (islands)	5
West Athens	2
West Carson	2
West Chatsworth (portion)	3, 5*
West Compton	2
West Covina, City of	5
West Hollywood, City of	3
West Pomona (islands)	5
West Puente Valley	1
West Whittier (portion)	1, 4*
Westlake Village, City of	3
Westmont	2
White Fence Farms	5
Whittier Narrows Recreation Area	1
Whittier, City of	4
Willowbrook	2
Wilsona Gardens	5
Windsor Hills	2
Wrightwood	5

*Some communities are divided between two Supervisorial Districts.
Check the District Maps to determine who the County Supervisor is.

Other Elected Officials

U.S. Senators Representing California

- **Senator Dianne Feinstein (D)**
- **Senator Barbara Boxer (D)**

U.S. Congressional Representatives for Los Angeles County

Congressional District	Representative
22	William M. "Bill" Thomas (R)
24	Elton Gallegly (R)
25	Howard P. "Buck" McKeon (R)
26	David Dreier (R)
27	Brad Sherman (D)
28	Howard L. Berman (D)
29	Adam B. Schiff (D)
30	Henry A. Waxman (D)
31	Xavier Becerra (D)
32	Hilda L. Solis (D)
33	Diane E. Watson (D)
34	Lucille Roybal-Allard (D)
35	Maxine Waters (D)
36	Jane Harmon (D)
37	Juanita Millender-McDonald (D)
38	Grace F. Napolitano (D)
39	Linda T. Sanchez (D)
42	Gary G. Miller (R)
46	Dana Rohrabacher (R)

U.S. Congressional Districts for Los Angeles County

22nd Congressional District

Lancaster (55.6%), Quartz Hill (2.9%)

24th Congressional District

Los Angeles (7.7% in part of West Hills)

25th Congressional District

Acton, Castaic, Desert View Highlands, La Crescenta (1.2%), Lake Los Angeles, Lancaster (44.4%), Littlerock, Los Angeles (0.6% in part of Sunland), Palmdale, Quartz Hill (97.1%), Santa Clarita, Stevenson Ranch, Val Verde

26th Congressional District

Altadena (10.1%), Arcadia, Bradbury, Charter Oak (74.0%), Citrus (37.7%), Claremont, East Pasadena (65.9%), East San Gabriel (93.9%), Glendora, La Canada Flintridge, La Crescenta (44.6%), La Verne, Mayflower Village, Monrovia, North El Monte, San Dimas, San Marino, Sierra Madre, Walnut,

27th Congressional District

Burbank (45.3%), Los Angeles (16.0% in part of Canoga Park, part of Chatsworth, part of Encino, Granada Hills, part of Mission Hills, part of North Hills, part of North Hollywood, Northridge, Reseda, part of Sherman Oaks, part of Sun Valley, part of Sunland, part of Sylmar, part of Tarzana, part of Tujunga, part of Van Nuys, Winnetka, part of Woodland Hills)

28th Congressional District

Los Angeles (16.7% in part of Encino, part of Mission Hills, part of North Hills, part of North Hollywood, Pacoima, Panorama City, part of Sherman Oaks, part of Studio City, part of Sun Valley, part of Sylmar, part of Tarzana, Toluca Lake, Valley Village, part of Van Nuys), San Fernando, Universal City

29th Congressional District

Alhambra, Burbank (54.7%), Glendale, La Crescenta (54.0%), Monterey Park (41.5%), Pasadena, San Gabriel, South Pasadena, Temple City, Altadena (89.9%), East Pasadena (34.1%), East San Gabriel (6.1%)

30th Congressional District

Agoura Hills, Beverly Hills, Calabasas, Hidden Hills, Los Angeles (10.8% in part of Canoga Park, part of Chatsworth, Pacific Palisades, part of Tarzana, part of West Hills, part of Woodland Hills), Malibu, Santa Monica, Topanga, West Hollywood, Westlake Village

31st Congressional District

Los Angeles (17.3%)

32nd Congressional District

Azusa, Baldwin Park, Covina, Duarte, El Monte, Irwindale, Los Angeles (0.8%), Monterey Park (58.5%), Rosemead, South El Monte, West Covina, Charter Oak (26.0%), Citrus (62.3%), East Los Angeles (35.0%), South San Gabriel (42.9%), Valinda (12.7%), Vincent

33rd Congressional District

Culver City, Los Angeles (15.8%), Ladera Heights, View Park-Windsor Hills

34th Congressional District

Bell, Bellflower, Bell Gardens, Commerce, Cudahy, Downey, Huntington Park, Los Angeles (5.1%), Maywood, Vernon, East Los Angeles (22.1%), Florence-Graham (33.6%), Walnut Park

35th Congressional District

Gardena, Hawthorne, Inglewood, Lawndale, Los Angeles (South Central), Alondra Park, Del Aire (99.7%), Florence-Graham (18.9%), West Athens, Westmont

36th Congressional District

El Segundo, Hermosa Beach, Lomita, Los Angeles (Playa del Rey, part of San Pedro, Venice, Westchester, Wilmington), Manhattan Beach, Redondo Beach, Torrance, Del Aire (0.3%), Lennox, Marina del Rey, West Carson (98.1%)

37th Congressional District

Carson, Compton, Long Beach (79.9%), Los Angeles (Watts, Wilmington), Signal Hill, East Compton, West Carson (1.9%), West Compton, Willowbrook (61.8%)

38th Congressional District

Industry, La Puente, Montebello, Norwalk, Pico Rivera, Pomona, Santa Fe Springs, Whittier (1.9%), Avocado Height, East Los Angeles (42.9%), Hacienda Heights, Rowland Heights (14.4%), South San Gabriel (57.1%), South San Jose, Valinda (87.3%), West Puente Valley

39th Congressional District

Artesia, Cerritos, Hawaiian Gardens, Lakewood, La Mirada, Long Beach (2.0%), Los Angeles (0.1%), Lynwood, Paramount, South Gate, Whittier (68.0%), East La Mirada, Florence-Graham (47.5%), South Whittier, West Whittier, Willowbrook (38.2%)

42nd Congressional District

Diamond Bar, La Habra Heights, Whittier (30.1%), Rowland Heights (85.6%)

46th Congressional District

Los Angeles (part of San Pedro)

California Board of Equalization Members Representing L.A. County

Bill Leonard	Claude Parrish	John Chiang
		
Serves the **Northeast corner of Los Angeles County**, and the counties of Alpine, Amador, Butte, Calaveras, El Dorado, Fresno, Inyo, Kern, Kings, Madera, Mariposa, Merced, Mono, Nevada, Placer, Plumas, Sacramento, San Bernardino, San Joaquin, San Luis Obispo, Santa Barbara, Sierra, Stanislaus, Tulare, Tuolumne, Ventura, and Yuba.	Serves the **Southwest corner of Los Angeles County** and the counties of Imperial, Orange, Riverside and San Diego.	Serves the **County of Los Angeles** (the Central portion; consisting of the City of Los Angeles and 67 other incorporated cities).

California State Senators Representing L.A. County

District	Senator
17	William "Pete" Knight (R)
19	Tom McClintock (R)
20	Richard Alarcón (D)
21	Jack Scott (D)
22	Gilbert Cedillo (D)
23	Shiela J. Kuehl (D)
24	Gloria Romero (D)
25	Edward Vincent (D)
26	Kevin Murray (D)
27	Betty Karnette (D)
28	Debra Bowen (D)
29	Bob Margett (R)
30	Martha Escutia (D)
32	Nell Soto (D)

California Senate Districts in Los Angeles County

17th State Senate District

Acton, Castaic, Elizabeth Lake, Hi Vista, Juniper Hills, Lake Hughes, Lake Los Angeles, Lancaster, Leona Valley, Littlerock, Llano, Los Angeles (Chatsworth, Granada Hills, Lake View Terrace, Northridge, Porter Ranch, Shadow Hills, Sun Valley, Sunland, Sylmar), Palmdale, Pearblossom, Quartz Hill, Santa Clarita (Agua Dulce, Canyon Country, Newhall, Saugus, Valencia

19th State Senate District

Agoura Hills, Los Angeles (West Hills), Oak Park, Santa Clarita (Valencia), Stevenson Ranch, Westlake Village

20th State Senate District

Los Angeles (Arleta, Canoga Park, Mission Hills, North Hills, North Hollywood, Northridge, Pacoima, Panorama City, Reseda, Van Nuys, Winnetka

21st State Senate District

Altadena, Burbank, Glendale, Los Angeles (Atwater Village, Chinatown, Civic Center, Cypress Park, Eagle Rock, Glassell Park, Griffith Park, Los Feliz, Mt. Washington, North Hollywood, Toluca Lake, Valley Village, Van Nuys), Pasadena, San Gabriel, Temple City

22nd State Senate District

Alhambra, Los Angeles (Boyle Heights, Downtown Los Angeles, Echo Park, Highland Park, Montecito Heights, Pico Heights, Silverlake, South Central), Maywood, San Marino, South Pasadena, Vernon

23rd State Senate District

Agoura, Beverly Hills, Calabasas, Hidden Hills, Los Angeles (Bel Air Estates, Beverly Glen, Brentwood, Canoga Park, Castellemare, Encino, Mount Olympus, North Hollywood, Pacific Highlands, Pacific Palisades, Park La Brea, Sawtelle, Sherman Oaks, Studio City, Tarzana, Van Nuys, West Beverly, Westwood, Woodland Hills), Malibu, Oak Park, Santa Monica, Topanga, Universal City, Valinda, West Hollywood

24th State Senate District

Azusa, Baldwin Park, Bassett, City of Industry, City Terrace, Covina, East Los Angeles, El Monte, Irwindale, La Puente, Los Angeles (El Sereno, Monterey Hills), Monterey Park, Rosemead, West Covina

25th State Senate District

Carson, Compton, East Rancho Dominguez, Gardena, Hawthorne, Inglewood, Lawndale, Long Beach (Bixby Knolls, North Long Beach), Los Angeles (LAX Area, South Central, Watts, Westchester), Palos Verdes Estates, Rancho Dominguez, Rancho Palos Verdes, Rolling Hills, Rolling Hills Estates, Willowbrook

26th State Senate District

Athens, Baldwin Hills, Culver City, Los Angeles (Century City, Country Club Park, Crenshaw, Hancock Park, Hollywood, Hyde Park, Jefferson Park, Koreatown, Ladera Heights, Leimert Park, Mid City, South Central, West Adams, West Fairfax, Westlake), View Park, Windsor Hills

27th State Senate District

Avalon, Bellflower, Cerritos, Downey, Hawaiian Gardens, Lakewood, Long Beach (Belmont Shore, East Long Beach, Naples), Lynwood, Paramount, Signal Hill, South Gate

28th State Senate District

Carson, El Segundo, Gardena, Hermosa Beach, Lennox, Lomita, Long Beach, Los Angeles (Cheviot Hills, Harbor City, Mar Vista, Palms, Playa del Rey, Rancho Park, San Pedro, Sawtelle, Terminal Island, Venice, West Los Angeles, Wilmington), Manhattan Beach, Marina del Rey, Rancho Palos Verdes, Redondo Beach, Torrance

29th State Senate District

Arcadia, Bradbury, City of Industry, Claremont, Covina, Diamond Bar, Glendora, La Canada Flintridge, La Crescenta, La Habra Heights, La Verne, Los Angeles (Tujunga), Monrovia, Montrose, Rowland Heights, San Dimas, Sierra Madre, Valyermo, Walnut

30th State Senate District

Bell, Bell Gardens, City of Commerce, Cudahy, Hacienda Heights, Huntington Park, La Mirada, La Puente, Los Angeles (Watts), Los Nietos, Montebello, Norwalk, Pico Rivera, Santa Fe Springs, South El Monte, South Whittier, Walnut Park, Whittier

32nd State Senate District

Pomona

California Assembly Representatives for Los Angeles County

District	Member of the Assembly
36	Sharon Runner (R)
37	Tony Strickland (R)
38	Keith Richman (R)
39	Cindy Montañez (D)
40	Lloyd L. Levine (D)
41	Fran Pavley (D)
42	Paul Koretz (D)
43	Dario Frommer (D)
44	Carol Liu (D)
45	Jackie Goldberg (D)
46	Fabian Nuñez (D)
47	Herb J. Wesson Jr. (D)
48	Mark Ridley-Thomas (D)
49	Judy Chu (D)
50	Marco Antonio Firebaugh (D)
51	Jerome Horton (D)
52	Mervyn M. Dymally (D)
53	George Nakano (D)
54	Alan Lowenthal (D)
55	Jenny Oropeza (D)
56	Rudy Bermúdez (D)
57	Edward Chavez (D)
58	Ronald S. Calderon (D)
59	Dennis Mountjoy (R)
60	Robert Pacheco (R)
61	Gloria Negrete McLeod (D)

California Assembly Districts in Los Angeles County

36th Assembly District

Acton, Hi Vista, Juniper Hills, Lake Los Angeles, Lancaster, Leona Valley, Littlerock, Llano, Palmdale, Pearblossom, Quartz Hill

37th Assembly District

Castaic, Elizabeth Lake, Lake Hughes, Lancaster, Los Angeles (Canoga Park, Chatsworth, West Hills), Quartz Hill, Santa Clarita (Agua Dulce, Saugus), Westlake Village

38th Assembly District

Glendale, Los Angeles (Chatsworth, Granada Hills, Porter Ranch, Shadow Hills, Sun Valley, Sunland, Tujunga), Santa Clarita (Canyon Country, Newhall, Saugus, Valencia), Stevenson Ranch

39th Assembly District

Los Angeles (Arleta, Lake View Terrace, Mission Hills, North Hills, North Hollywood, Pacoima, Panorama City, Sun Valley, Sylmar), San Fernando

40th Assembly District

Los Angeles (Canoga Park, North Hills, Northridge, Reseda, Van Nuys, West Hills, Winnetka, Woodland Hills), San Fernando

41st Assembly District

Agoura, Agoura Hills, Calabasas, Hidden Hills, Los Angeles (Castellemare, Encino, Pacific Highlands, Tarzana, Woodland Hills), Malibu, Oak Park, Santa Monica, Topanga, Westlake Village

42nd Assembly District

Beverly Hills, Los Angeles (Bel Air Estates, Beverly Glen, Brentwood, Century City, Hollywood, Mount Olympus, North Hollywood, Park La Brea, Sherman Oaks, Studio City, Toluca Lake, Valley Village, Van Nuys, West Beverly, Westwood), Universal City, West Hollywood

43rd Assembly District

Burbank, Glendale, Los Angeles (Griffith Park, Los Feliz, North Hollywood, Toluca Lake)

44th Assembly District

Altadena, Arcadia, Duarte, La Canada-Flintridge, Los Angeles (Cypress Park, Eagle Rock, Glassell Park, Mt. Washington), Mount Wilson, Pasadena, South Pasadena, Temple City

45th Assembly District

City Terrace, Echo Park, Los Angeles (Atwater Village, Chinatown, Civic Center, Downtown Los Angeles, El Sereno, Highland Park, Hollywood, Montecito Heights, Monterey Hills, Silverlake)

46th Assembly District

City of Commerce, East Los Angeles, Huntington Park, Los Angeles (Boyle Heights, Downtown Los Angeles, Pico Heights, Westlake), Maywood, Vernon, Walnut Park

47th Assembly District

Baldwin Hills, Culver City, Ladera Heights, Los Angeles (Cheviot Hills, Country Club Park, Crenshaw, Hyde Park, Jefferson Park, Leimert Park, Mid City, Palms, Rancho Park, Sawtelle, West Adams, West Fairfax, West Los Angeles, Westchester), View Park, Windsor Hills

48th Assembly District

Athens, Los Angeles (Hancock Park, Koreatown, South Central, Wilshire Blvd)

49th Assembly District

Alhambra, El Monte, Monterey Park, Rosemead, San Gabriel, San Marino, South El Monte

50th Assembly District

Bell, Bell Gardens, Bellflower, City of Commerce, Cudahy, Downey, Florence, Los Angeles (South Central), Lynwood, South Gate

51st Assembly District

Culver City, Gardena, Hawthorne, Inglewood, Lawndale, Lennox, Los Angeles (Mar Vista, South Central, Watts), Playa Vista, Willowbrook

52nd Assembly District

Compton, East Rancho Dominguez, Long Beach (North Long Beach), Los Angeles (South Central, Watts), Paramount, Rancho Dominguez, Willowbrook

53rd Assembly District

El Segundo, Hermosa Beach, Lomita, Los Angeles (LAX Area, Mar Vista, Playa del Rey, Venice, Westchester), Manhattan Beach, Marina del Rey, Rancho Palos Verdes, Redondo Beach, Torrance

54th Assembly District

Avalon, Long Beach (Belmont Shore, Naples), Los Angeles (San Pedro, Terminal Island), Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills, Rolling Hills Estates

55th Assembly District

Carson, Lakewood, Long Beach, Los Angeles (Harbor City, Wilmington), Signal Hill, Torrance

56th Assembly District

Artesia, Cerritos, Hawaiian Gardens, Lakewood, Los Nietos, Norwalk, Santa Fe Springs, South Whittier, Whittier

57th Assembly District

Azusa, Baldwin Park, Bassett, City of Industry, Covina, Irwindale, La Puente, Valinda, West Covina

58th Assembly District

Downey, East Los Angeles, Hacienda Heights, La Puente, Montebello, Pico Rivera, South Whittier, Whittier

59th Assembly District

Bradbury, Claremont, Glendora, La Crescenta, La Verne, Los Angeles (Lake View Terrace, Sylmar), Monrovia, Montrose, San Dimas, Sierra Madre, Valyermo

60th Assembly District

Covina, Diamond Bar, Industry, La Habra Heights, La Mirada, Rowland Heights, Walnut, Whittier

61st Assembly District

Phillips Ranch, Pomona

Other Key Elected Los Angeles County Officials

OFFICE	ELECTED OFFICIAL
Assessor	Rick Auerbach
District Attorney	Steve Cooley
Sheriff	Leroy (Lee) D. Baca

Budget

Budget History

Los Angeles County Revenue & Expenditures By Fiscal Year (FY) 1997-1999

Revenues - Final Adopted Budget
In millions of dollars

Revenue Source	1999-2000	1998-1999	1997-1998
State Assistance	4,146	3,837	3,408
Federal Assistance	2,958	2,835	2,703
Special Funds & Districts	3,235	2,723	2,619
Locally Generated Revenues*	2,818	2,508	2,326
Other	2,065	1,787	1,481
Total	15,222	13,690	12,609

*** Includes property tax, sales tax, state motor vehicle license fees, cancelled reserves and other non-departmental revenues. A detailed list of local revenue sources is listed at the end this page.**

Expenditures - Final Adopted Budget
In millions of dollars

Expenditure Area	1999-2000**	1998-1999	1997-1998
General	1,350	---	---
Recreation & Cultural	681	---	---
Public Assistance	5,126	4,220	3,742
Health & Sanitation	3,498	3,000	2,826
Special Funds & Districts	---	2,723	2,691
Public Protection	3,533	2,621	2,458
Other	1,034	1,126	892
Total	15,222	13,690	12,609

****The county changed method of presenting expenditure areas to the public between fiscal years 98-99 and 99-00. Added was the general and recreation & cultural categories. Dropped was the special funds & districts category.**

Source: Los Angeles County

Revenue Sources

Local Taxes
Sales & Use Taxes
Transit & Non-Transit Transportation Tax
Property Transfer Tax
Transient Lodging Tax
Aircraft Tax
Utility Users Tax
Licenses, Permits & Franchises
Animal License
Business License
Construction Permits
Road, Privileges & Permits
Zoning Permits
Franchises
Fines, Forfeitures & Penalties
Vehicle Code Fines
Superior Court Fines
Municipal Court Fines
Forfeitures & Penalties
Penalties & Costs on Delinquent Taxes
Revenue – Use of Money & Property
Interest
Rents & Concessions
Royalties
Charges for Services
Assessments & Tax Collection Fees
Auditing & Accounting Fees
Communication Services
Elections Services
Legal Services
Planning & Engineering Services
Agricultural Services
Civil Process Services
Court Fees & Costs
Estate Fees
Humane Services
Law Enforcement Services
Recording Fees
Road & Street Services
Health Fees
Mental Health Services
California Children's Services
Sanitation Services
Institutional Care & Services
Library Services
Park & Recreation Fees

Allocation of 8.25% Sales Tax

Destination of Funds	Percent of Sales Tax
State	**6%**
Cities & County	**1.25%** (1% goes to general operations and 0.25% goes to county transportation purposes – road maintenance & transit systems)
Los Angeles County Transportation Commission	**1%**
Total	**8.25%**

The **City of Avalon** (Catalina Island) has a special tax district and charges sales tax of 8.75%. It is the highest sales tax in the state.

California State Income Tax Returns, Los Angeles County

Los Angeles County, 1997 & 1990 Tax Years

	1997 Tax Year	1990 Tax Year
Total Number of Returns	3,415,391	3,747,022
Adjusted Gross Income*	$151,524,324,000*	$126,674,292,000*
Number of Joint Returns	1,230,826	1,380,534
Tax Assessed*	$6,452,790,000*	$4,729,791,000*

Federal Total Direct Expenditures or Obligations
Fiscal Years 1996 -1999
Los Angeles County (most recently published data)

In dollars (*except for population figures*)

Year	1999	1998	1997	1996
Population	***9,329,989***	***9,213,533***	***9,127,751***	***9,149,811***
Total	43,465,603,306	41,924,847,873	41,379,829,699	40,885,530,766
Department of Defense	7,968,088,258	7,599,340,365	7,602,982,961	8,198,239,276
All Other Agencies	35,497,515,048	34,325,507,508	33,776,846,738	32,687,291,490
Grant Awards	10,244,480,151	8,507,709,138	8,122,760,615	7,699,848,487
Salaries and Wages				
Total	2,959,503,268	2,919,168,971	2,858,377,546	3,038,351,138
Department of Defense	279,649,000	340,524,000	337,368,000	550,297,196
Direct Payments for Individuals				
Total	20,174,349,875	21,028,727,881	20,650,808,325	19,830,918,308
Retirement and Disability	11,459,182,441	11,233,373,866	10,889,947,656	10,500,707,575
All Other	8,715,167,434	9,795,354,015	9,760,860,669	9,330,210,733
Procurement Contract Awards				
Total	10,087,270,012	9,469,241,883	9,657,703,513	10,233,411,361
Department of Defense	7,329,340,000	6,890,527,000	6,910,359,000	7,222,700,000
Direct Payments Other Than for Individuals				
Total	140,538,367	72,952,998	90,179,700	83,001,472

Year	1999	1998	1997	1996
Other Federal Assistance				
Total	19,481,283,985	21,250,504,528	7,225,668,912	7,252,277,537
Direct Loans	152,118,736	111,818,047	115,339,752	512,301,617
Guaranteed Loans	5,776,835,800	6,876,094,084	4,089,057,091	3,990,959,522
Insurance	13,552,329,449	14,262,592,397	3,021,272,069	2,749,016,398

Source: U.S. Census Bureau

Revenues and Expenditures by City
Los Angeles County
Fiscal Year 1996-1997 (most recently published data)

City	Total Revenue[1]	Total Expenditures[2]	Revenues Over Expenditures	Est. Population 1/1997	Expenditures Per Resident
Agoura Hills	$7,426,450	$7,337,762	1.20%	21,200	$346
Alhambra	56,677,635	55,256,433	2.60%	88,500	624
Arcadia	40,830,582	39,798,341	2.60%	51,400	774
Artesia	6,099,558	5,899,473	3.40%	16,400	360
Avalon	9,558,005	10,127,698	-5.60%	3,400	2,979
Azusa	64,116,439	53,893,465	19.00%	44,000	1,225
Baldwin Park	20,906,450	21,536,219	-2.90%	73,500	293
Bell	14,757,863	13,016,054	13.40%	36,400	358
Bell Gardens	19,577,313	21,921,836	-10.70%	43,750	501
Bellflower	21,038,001	20,554,134	2.40%	65,300	315
Beverly Hills	141,111,438	144,229,523	-2.20%	33,300	4,331
Bradbury	487,451	437,271	11.50%	890	491
Burbank	258,617,837	261,594,914	-1.10%	101,400	2,580
Calabasas	16,789,580	14,172,786	18.50%	18,850	752
Carson	42,558,243	39,055,777	9.00%	88,200	443
Cerritos	66,176,444	54,532,770	21.40%	55,300	986
Claremont	23,693,065	19,598,298	20.90%	34,050	576
Commerce	54,229,488	44,918,929	20.70%	12,700	3,537
Compton	81,668,976	78,433,713	4.10%	93,300	841
Covina	31,626,666	32,189,425	-1.70%	45,950	701
Cudahy	5,525,437	5,970,848	-7.50%	24,400	245
Culver City	77,535,529	86,108,891	-10.00%	40,550	2,124
Diamond Bar	15,242,255	11,481,374	32.80%	56,000	205
Downey	59,109,300	56,716,604	4.20%	97,600	581
Duarte	10,083,942	9,617,505	4.80%	21,900	439
El Monte	51,503,253	50,520,632	1.90%	113,300	446
El Segundo	48,316,644	50,383,698	-4.10%	16,050	3,139

City	Total Revenue[1]	Total Expenditures[2]	Revenues Over Expenditures	Est. Population 1/1997	Expenditures Per Resident
Gardena	39,009,963	56,233,398	-30.60%	56,800	990
Glendale	308,125,243	277,337,460	11.10%	195,000	1,422
Glendora	24,303,648	26,283,725	-7.50%	51,200	513
Hawaiian Gardens[3]	---	---	---	14,500	---
Hawthorne	60,160,681	55,839,357	7.70%	76,700	728
Hermosa Beach	15,235,036	17,014,327	-10.50%	18,700	910
Hidden Hills	1,400,447	915,793	52.90%	1,860	492
Huntington Park	27,238,067	28,504,433	-4.40%	60,200	473
Industry	72,823,747	72,907,854	-0.10%	690	105,664
Inglewood	165,724,131	164,567,615	0.70%	116,100	1,417
Irwindale	10,207,726	10,300,829	-0.90%	1,090	9,450
La Canada Flintridge	7,277,406	7,038,126	3.40%	20,000	352
La Habra Heights	3,486,897	2,939,704	18.60%	6,550	449
La Mirada	21,966,253	20,130,334	9.10%	45,800	440
La Puente	8,467,914	7,961,479	6.40%	40,400	197
La Verne	23,772,133	22,275,749	6.70%	32,300	690
Lakewood	36,274,569	33,426,429	8.50%	77,200	433
Lancaster	47,948,724	50,075,977	-4.20%	123,000	407
Lawndale	11,166,546	7,687,325	45.30%	29,500	261
Lomita	9,557,365	8,695,315	9.90%	20,100	433
Long Beach	1,015,035,021	1,082,010,097	-6.20%	437,900	2,471
Los Angeles	7,941,668,480	7,795,655,197	1.90%	3,638,800	2,142
Lynwood	40,399,407	38,715,299	4.30%	65,900	587
Malibu	11,325,278	10,184,973	11.20%	12,200	835
Manhattan Beach	41,667,971	33,986,906	22.60%	33,900	1,003
Maywood	6,822,818	6,652,197	2.60%	29,150	228
Monrovia	27,992,147	26,830,904	4.30%	38,900	690
Montebello	52,683,516	50,523,437	4.30%	62,100	814

City	Total Revenue[1]	Total Expenditures[2]	Revenues Over Expenditures	Est. Population 1/1997	Expenditures Per Resident
Monterey Park	40,598,228	39,799,541	2.00%	64,000	622
Norwalk	44,156,070	44,669,705	-1.10%	99,800	448
Palmdale	36,756,568	43,699,268	-15.90%	112,000	390
Palos Verdes Estates	12,948,245	11,557,707	12.00%	13,950	829
Paramount	28,592,989	25,376,500	12.70%	53,900	471
Pasadena	352,594,601	338,126,387	4.30%	137,200	2,464
Pico Rivera	31,626,747	27,149,385	16.50%	61,100	444
Pomona	105,449,616	106,119,312	-0.60%	139,800	759
Rancho Palos Verdes	21,788,958	18,935,346	15.10%	42,700	443
Redondo Beach	58,144,764	62,023,635	-6.30%	63,900	971
Rolling Hills	1,494,775	1,212,972	23.20%	1,980	613
Rolling Hills Estates	5,281,819	4,698,686	12.40%	8,200	573
Rosemead	15,401,216	13,593,502	13.30%	54,500	249
San Dimas	14,259,233	13,269,921	7.50%	35,100	378
San Fernando	19,094,991	17,947,796	6.40%	23,600	760
San Gabriel	17,902,897	16,530,565	8.30%	39,600	417
San Marino	11,356,737	9,642,207	17.80%	13,400	720
Santa Clarita	64,429,393	56,423,125	14.20%	129,900	434
Santa Fe Springs	36,968,930	37,344,150	-1.00%	15,700	2,379
Santa Monica	230,525,491	203,341,141	13.40%	90,300	2,252
Sierra Madre	8,107,955	7,274,365	11.50%	11,150	652
Signal Hill	24,248,194	14,175,322	71.10%	8,775	1,615
South El Monte	8,965,411	9,174,972	-2.30%	21,750	422
South Gate	47,400,290	44,750,819	5.90%	91,100	491
South Pasadena	17,840,864	17,010,824	4.90%	24,850	685

City	Total Revenue[1]	Total Expenditures[2]	Revenues Over Expenditures	Est. Population 1/1997	Expenditures Per Resident
Temple City	9,782,944	7,647,501	27.90%	33,050	231
Torrance	165,670,529	164,559,945	0.70%	139,800	1,177
Vernon	81,649,530	65,586,040	24.50%	80	819,826
Walnut	11,401,795	8,824,939	29.20%	31,600	279
West Covina	56,059,048	54,341,001	3.20%	101,900	533
West Hollywood	42,220,513	41,477,006	1.80%	37,200	1,115
Westlake Village	8,577,173	4,897,542	75.10%	7,825	626
Whittier	58,447,836	50,233,623	16.40%	82,500	609
Totals & Averages	**$12,966,749,328**	**$12,705,413,362**	**Avg. 8.4%**	**8,396,340**	**Avg. $ 1,513**

(1) Functional & general revenue
(2) Operating & capital outlay expenditures
(3) Hawaiian Gardens did not submit information for this year. For informational purposes, the city had total revenues of $4,635,639 and total expenditures of $5,977,837 in Fiscal Year 1993-94.

Source: California Office of the State Controller

Contracted Services

Department of Public Works (DPW) Contracted Services

The DPW City Services are listed below with its responsibilities.

Building & Safety Services

- Conducts plan check and issue permit on all new building and grading on private property.
- Performs building inspections.

Industrial Waste Management

- Conduct the Industrial Waste Control Program under County ordinance and adopted by cities. This includes issuing discharge permits (in conjunction with other agencies), collecting fees, making inspections, conducting plan reviews and taking enforcement action where appropriate.

Permit Issuance and Inspection

- Issue permits for encroachment or construction in public right of way.
- Issue permits for extra-legal transport loads and film production.
- Provide inspection services to ensure permitted work complies with permit requirements, standard specifications and approved plans.

Sewer Maintenance

- Provide sewer maintenance service for city-owned facilities that have either been annexed for maintenance purposes to the County Consolidated Sewer Maintenance District or that are covered by a separate maintenance agreement with the Department.

Street Maintenance

- Pavement maintenance
- Bridge maintenance
- Alley and drainage maintenance
- Sidewalk/ driveway apron repair
- Curb and gutter repair
- Shoulder repair
- Vegetation control
- Litter and debris removal
- Call-outs, emergency response
- Monthly street inspection
- Semi-annual parkway inspection
- Bridge inspections for all cities except LA and 5 others

Subdivision Maps: Tentative

- Review subdivision applications and recommend (condition) public works infrastructure improvements.

Subdivision Maps: Final

- Review improvements plans, certify technical accuracy of final map, and recommend approval to City Council.

Traffic Advisor

- Provide advice and reports on traffic issues.
- Note: Traffic design work is included under General Services rather than as part of the Traffic Advisor services.

Traffic Operations Maintenance

- Maintain and repair Traffic signs, other signs, including street name signs
- Maintain and repair Streetlights, soffit lights, and other roadway and pedestrian lights
- Pavement striping and marking

Traffic Signal Maintenance

- Maintain and repair traffic signals either for: 1) all traffic signals in the city, or 2) specific jurisdictionally shared intersections.
- Maintain and repair highway safety lights and illuminated street name signs associated with a traffic signals.

Underground Storage Tanks

- Manage State regulatory program mandated to counties.

General Services

- Catch basin cleaning and stenciling
- Construction Administration Services
- Design Services including traffic design, highway design, storm drain, etc.
- Infrastructure plan checking and approval for private development
- Mapping and Land Surveying
- Material Testing
- Project management for City-County cooperative projects administered by the County
- Soils and Geology reports
- Traffic Signal controller and cabinet testing and inspecting
- Traffic Signal timing installation

DPW provides a broad range of City Services to most of the County's 88 cities, more than half of which are members of the California Contract Cities Association (CCCA) of the County of Los Angeles, Overall, in terms of DPW's core services, 17 cities contract for building and safety services and 19 cities for street maintenance. Approximately one-third of the cities contract for ongoing services and the majority (86 cities) use general services on an as-needed basis.

CCCA Members

Artesia	City of Industry	Flintridge
La Puente	Palmdale	Santa Clarita
Avalon	Claremont	Gardena
Lakewood	Paramount	Santa Fe Sp[rings
Bell	Commerce	Glendora
Lancaster	Pico Rivera	Signal Hill
Bell Gardens	Compton	Hawaiian Gardens
Lawndale	Pomona	South El Monte
Bellflower	Cudahy	Huntington park
Lomita	Rancho Palos Verdes	Temple City
Bradbury	Diamond Bar	Irwindale
Lynwood	Rolling Hills	Vernon
Calabasas	Downey	La Canada
Malibu	Rolling Hills Estates	Walnut
Carson	Duarte	La Habra Heights
Maywood	Rosemead	West Hollywood
Cerritos	El Monte	La Mirada
Norwalk	San Dimas	Westlake Village

Not CCCA Members

Agoura Hills
Manhattan Beach
Alhambra
Monrovia
Arcadia
Montebello
Azusa
Monterey Park
Baldwin Park
Palos Verdes Estates
Beverly Hills
Pasadena
Burbank
Redondo Beach
Covina
San Fernando
Culver City
San Gabriel
El Segundo
San Marino
Glendale
Santa Monica
Hawthorne
Sierra Madre
Hermosa Beach
South Gate
Hidden Hills
South Pasadena
Inglewood
West Covina
La Verne
Whittier
Long Beach
Torrance
Los Angeles

County of Los Angeles Department of Public Works
City Services Agreement Matrix

May 18, 2004

City	Building and Safety	Street Maintenance	As Needed Services	Industrial Waste	Permit Issuance (Excluding Transportation)	Permit Inspection (Excluding Transportation)	Permit Issuance & Inspection (Transportation)	Sewer Maintenance Agreement	Consolidated Sewer Maintenance District	Storm Water Quality (a)	Subdivision Maps: Final	Subdivision Maps: Tentative	Traffic Advisor	Traffic Operations Maintenance	Traffic Signal Maintenace	Traffic Signal Maintenace - Jurisdictionally Shared Intersections Only	Underground Storage Tanks	Member of CCCA
Agoura Hills		X	X	X					X	X				X	X		X	
Alhambra			X														X	
Arcadia			X								X					X	X	
Artesia	X	X	X	X	X	X	X		X	X	X						X	X
Avalon			X														X	X
Azusa			X								X					X	X	
Baldwin Park			X						X							X	X	
Bell			X										X				X	X
Bell Gardens			X	X			X		X	X							X	X
Bellflower			X	X		X	X		X	X							X	X
Beverly Hills			X	X						X	X					X	X	
Bradbury		X	X		X	X	X		X								X	X
Burbank			X							X	X							
Calabasas		X	X	X					X	X				X	X		X	X
Carson	X		X	X		X	X		X	X	X	X		X		X	X	X
Cerritos	X	X	X	X			X			X						X	X	X
Claremont			X														X	X
Commerce	X	X	X	X	X	X	X		X	X	X	X	X	X		X	X	X
Compton			X													X	X	X
Covina			X				X			X	X					X	X	
Cudahy			X	X					X	X	X						X	X
Culver City			X	X						X							X	
Diamond Bar			X	X					X	X						X	X	X
Downey			X				X			X				X			X	X
Duarte	X		X	X					X	X							X	X
El Monte			X				X			X							X	X
El Segundo			X							X	X			X				
Gardena			X	X						X	X				X		X	X
Glendale			X								X				X			
Glendora			X						X		X				X		X	X
Hawaiian Gardens		X	X	X					X	X					X		X	X
Hawthorne			X								X			X			X	
Hermosa Beach			X				X				X						X	
Hidden Hills			X						X					X			X	
Huntington Park			X								X				X		X	X
Industry	X	X	X				X		X				X	X			X	X
Inglewood			X												X		X	
Irwindale	X		X	X				X		X				X			X	X
La Canada Flintridge	X	X	X	X	X	X	X		X	X			X	X			X	X
La Habra Heights		X	X				X		X				X				X	X
La Mirada	X	X	X	X	X	X	X		X	X	X	X	X	X			X	X
La Puente		X	X	X			X		X	X			X	X			X	X
La Verne			X	X						X	X						X	
Lakewood	X	X	X	X	X	X	X		X	X	X	X	X	X			X	X
Lancaster			X						X						X		X	X
Lawndale	X	X	X	X			X		X	X	X		X	X			X	X
Lomita	X		X	X	X	X	X		X	X	X	X	X				X	X
Long Beach			X				X								X			
Los Angeles															X			
Lynwood			X				X				X				X		X	X
Malibu			X						X								X	X
Manhattan Beach			X				X				X			X			X	
Maywood			X														X	X
Monrovia			X												X		X	
Montebello			X								X				X		X	

County of Los Angeles Department of Public Works
City Services Agreement Matrix

May 18, 2004

City	Building and Safety	Street Maintenance	As Needed Services	Industrial Waste	Permit Issuance (Excluding Transportation)	Permit Inspection (Excluding Transportation)	Permit Issuance & Inspection (Transportation)	Sewer Maintenance Agreement	Consolidated Sewer Maintenance District	Storm Water Quality (a)	Subdivision Maps: Final	Subdivision Maps: Tentative	Traffic Advisor	Traffic Operations Maintenance	Traffic Signal Maintenance	Traffic Signal Maintenance - Jurisdictionally Shared Intersections Only	Underground Storage Tanks	Member of CCCA
Monterey Park			X	X						X					X	X		
Norwalk			X	X			X			X					X	X	X	
Palmdale			X	X			X		X	X			X		X	X	X	
Palos Verdes Estates			X						X							X		
Paramount			X	X	X	X	X		X	X						X	X	
Pasadena			X								X				X			
Pico Rivera			X	X			X		X	X	X				X	X	X	
Pomona			X												X	X	X	
Rancho Palos Verdes			X	X			X		X	X						X	X	
Redondo Beach			X								X				X	X		
Rolling Hills	X		X						X		X	X				X	X	
Rolling Hills Estates	X	X	X	X	X	X	X		X	X	X	X		X		X	X	
Rosemead		X	X	X			X		X	X				X		X	X	
San Dimas			X	X			X		X	X	X				X		X	
San Fernando			X	X						X								
San Gabriel			X								X				X	X		
San Marino			X												X	X		
Santa Clarita			X	X					X	X						X	X	
Santa Fe Springs	X		X				X		X						X		X	
Santa Monica			X								X							
Sierra Madre			X													X		
Signal Hill			X								X						X	
South El Monte		X	X		X	X	X		X							X	X	
South Gate			X				X								X	X		
South Pasadena			X								X					X		
Temple City	X	X	X	X	X	X	X		X	X	X	X		X	X	X	X	
Torrance			X								X				X			
Vernon			X								X						X	
Walnut		X	X	X			X		X	X				X		X	X	
West Covina			X				X				X				X	X		
West Hollywood			X	X				X		X	X			X		X	X	
Westlake Village	X	X	X	X	X	X	X		X	X			X	X		X		
Whittier			X												X	X		
TOTALS:	17	20	67	32	12	14	37	2	40	43	33	6	8	18	19	38	76	62

Through the General Services Agreement, a City can request County resources upon specific request. Public Works currently provides at least some degree of services to all 88 cities in Los Angeles County.

Notes:

a. Program consisting of educational site visits under previous storm water quality permit expired in December 2001. Currently, under the new permit, a specific service program for cities has not been established.

Fire Protection Contracted Services

City Interface Matrix Los Angeles County Fire

City	County Fire Services Non-Contract	County Fire Services Contract	County Prevention Services	Prevention Services Contract	County Public Works Services	Public Works Services Contract	County Planning Services	Computer Interface
Acton	Y		Y					
Agoura Hills	Y			Y	Y			
Agua Dulce	Y		Y					
Alhambra					Y			
Altadena	Y		Y					
Angeles Crest	Y		Y					
Antelope Valley	Y		Y					
Arcadia					Y			
Arcadia (CO)	Y		Y					
Artesia	Y			Y		Y		
Athens	Y		Y					
Avalon					Y			
Azusa		Y		Y	Y			
Baldwin Hills	Y		Y					
Baldwin Park	Y			Y	Y			
Basset	Y		Y					
Bell	Y			Y	Y			
Bell Gardens	Y			Y	Y			
Bellflower	Y			Y	Y			
Beverly Hills					Y			
Bradbury	Y			Y	Y			
Burbank					Y			
Calabasas	Y			Y	Y			
Canyon Country	Y		Y					
Carson	Y			Y		Y		
Castaic	Y		Y					
Catalina	Y		Y					
Cerritos	Y		Y			Y		
Chatsworth (CO)	Y		Y					
City Terrace	Y		Y					
Claremont	Y			Y	Y			
Commerce		Y		Y		Y		
Compton					Y			
Compton (CO)	Y		Y					
Covina		Y		Y	Y			
Cudahy	Y			Y	Y			
Culver City					Y			

Incorporated =Black
Unincorporated = Red

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2.20.04

City Interface Matrix Los Angeles County Fire

City	County Fire Services Non-Contact	County Fire Services Contract	County Prevention Services	Prevention Services Contract	County Public Works Services	Public Works Services Contract	County Planning Services	Computer Interface
Diamond Bar	Y			Y	Y			
Dominguez	Y		Y					
Downey					Y			
Duarte	Y			Y		Y		
East Los Angeles	Y		Y					
Elizabeth Lake	Y		Y					
El Monte		Y		Y	Y			
El Segundo					Y			
Firestone	Y		Y					
Florence	Y		Y					
Gardena		Y		Y	Y			
Gardena (CO)	Y		Y					
Glendale					Y			
Glendora	Y			Y	Y			
Gorman	Y		Y					
Green Valley	Y		Y					
Hacienda Heights	Y		Y					
Hawaiin Gardens	Y			Y	Y			
Hawthorne		Y		Y	Y			
Hermosa Beach					Y			
Hidden Hills	Y			Y	Y			
Huntington park	Y			Y	Y			
Industry	Y			Y		Y		
Inglewood		Y		Y	Y			
Irwindale	Y			Y		Y		
La Canada-Flintridge	Y			Y		Y		
La Crescenta	Y		Y					
La Habra Heights					Y			
Lake Hughes	Y		Y					
Lakewood	Y			Y		Y		
La Mirada	Y			Y		Y		
Lancaster	Y			Y	Y			
La Puente	Y			Y	Y			
La Verne					Y			
La Vern (CO)	Y		Y					
Lawndale	Y			Y		Y		
Lennox	Y		Y					

Incorporated =Black
Unincorporated = Red

City Interface Matrix Los Angeles County Fire

City	County Fire Services Non-Contact	County Fire Services Contract	County Prevention Services	Prevention Services Contract	County Public Works Services	Public Works Services Contract	County Planning Services	Computer Interface
Lake Los Angeles	Y		Y					
Littlerock	Y		Y					
Llano	Y		Y					
Lomita	Y		Y			Y		
Long Beach					Y			
Los Angeles					Y			
Lynwood		Y		Y	Y			
Malibu	Y		Y	Y	Y			
Manhattan Beach					Y			
Marina Del Rey	Y		Y					
Maywood	Y			Y				
Monrovia					Y			
Montebello					Y			
Monterey Park					Y			
Montrose	Y		Y					
Newhall	Y		Y					
Norwalk	Y			Y	Y			
Olive View	Y		Y					
Padua Hills	Y		Y					
Palmdale	Y			Y	Y			
Palos Verdes Estates		Y		Y	Y			
Paramount	Y			Y	Y			
Pasadena					Y			
Pasadena (CC)	Y		Y					
Pearblossom	Y		Y					
Pico Rivera	Y			Y				
Pomona		Y		Y				
Quail Lake	Y		Y					
Quartz Hill	Y		Y					
Rancho Dominguez	Y		Y					
Rancho Palos Verdes	Y			Y	Y			
Redondo Beach					Y			
Rolling Hills	Y			Y		Y		
Rolling Hills Estates	Y			Y		Y		
Rosemead	Y			Y	Y			
Rowland Heights	Y		Y					
San Dimas	Y			Y	Y			

Incorporated =Black
Unincorporated = Red

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2-29-04

City Interface Matrix Los Angeles County Fire

City	County Fire Services Non-Contact	County Fire Services Contract	County Prevention Services	Prevention Services Contract	County Public Works Services	Public Works Services Contract	County Planning Services	Computer Interface
San Fernando					Y			
San Gabriel					Y			
San Gabriel (CC)	Y		Y					
San Marino					Y			
San Pedro (CC)	Y		Y					
Santa Clarita	Y			Y	Y			
Santa Fe Springs						Y		
Santa Monica					Y			
Saugus	Y		Y					
Sierra Madre					Y			
Signal Hill	Y			Y	Y			
South El Monte	Y		Y		Y			
South Gate	Y			Y	Y			
South Pasadena					Y			
South San Gabriel	Y		Y					
Stevenson Ranch	Y		Y					
Temple City	Y			Y		Y		
Torrance					Y			
Torrance (CC)	Y		Y					
Topanga	Y		Y					
Universal City	Y		Y					
Valencia	Y		Y					
Valinda	Y		Y					
Vallyemar	Y		Y					
Val Verde	Y		Y					
Vasquez Rocks	Y		Y					
Vernon					Y			
Walnut	Y			Y	Y			
Walnut Park	Y		Y					
West Covina					Y			
West Hollywood	Y			Y	Y			
Westlake Village	Y			Y		Y		
Whittier	Y			Y	Y			
Whittier (CC)	Y		Y					
Willowbrook	Y		Y					
Wilmington (CC)	Y		Y					
Winsor Hills	Y		Y					

Incorporated =Black
Unincorporated = Red

Sheriff's Department Contracted and Mutual Aid Services

Los Angeles County Sheriff Services

Type	Region	City	Primary Station	Alternate Station
Contract	I	Agoura Hills	Malibu/Lost Hills	West Hollywood
		Bradbury	Temple	Crescenta Valley
		Calabasas	Malibu/Lost Hills	West Hollywood
		Commerce	East Los Angeles	Century
		Duarte	Temple	Industry
		Hidden Hills	Malibu/Lost Hills	West Hollywood
		La Canada	Crescenta Valley	Temple
		Lancaster	Lancaster	Palmdale
		Malibu	Malibu/Lost Hills	West Hollywood
		Palmdale	Palmdale	Lancaster
		Rosemead	Temple	East Los Angeles
		Santa Clarita	Santa Clarita Valley	Crescenta Valley
		South El Monte	Temple	Industry
		Temple City	Temple	East Los Angeles
		Westlake Village	Malibu/Lost Hills	West Hollywood
	II	Carson	Carson	Lomita
		Compton	Compton	Carson
		Lawndale	Lennox	Lomita
		Lomita	Lomita	Carson
		Lynwood	Century	Norwalk
		Rancho Palos	Lomita	Lennox
		Rolling Hills	Lomita	Carson
		Rolling Hills Estates	Lomita	Carson
		West Hollywood	West Hollywood	Marina del Rey
	III	Artesia	Lakewood	Cerritos
		Avalon	Avalon	Lakewood
		Bellflower	Lakewood	Cerritos
		Cerritos	Cerritos	Lakewood
		Diamond Bar	Walnut/Diamond Bar	Industry
		Hawaiian Gardens	Lakewood	Cerritos
		Industry	Industry	Walnut
		La Habra Heights	Industry	Norwalk
		La Mirada	Norwalk	Lakewood
		La Puente	Industry	Walnut
		Lakewood	Lakewood	Cerritos
		Paramount	Lakewood	Paramount
		Pico Rivera	Pico Rivera	Norwalk
		San Dimas	San Dimas	Walnut
		Walnut	Walnut/Diamond Bar	Industry
		Norwalk	Norwalk	Pico Rivera

Type	Region	City	Primary Station	Alternate Station
Mutual Aid		Los Angeles	Division Dependent	Division Dependent
	I	Alhambra	Temple	East Los Angeles
		Arcadia	Temple	Crescenta Valley
		Bell	East Los Angeles	Century
		Bell Gardens	East Los Angeles	Norwalk
		Burbank	Crescenta Valley	Temple
		Cudahy	East Los Angeles	Century
		El Monte	Temple	Industry
		Glendale	Crescenta Valley	Temple
		Irwindale	Temple	Walnut/Diamond Bar
		Maywood	East Los Angeles	Century
		Monrovia	Temple	Industry
		Monterey Park	East Los Angeles	Temple
		Pasadena	Crescenta Valley	Temple
		San Fernando	Crescenta Valley	Santa Clarita Valley
		San Gabriel	Temple	East Los Angeles
		San Marino	Temple	East Los Angeles
		Sierra Madre	Temple	Crescenta Valley
		South Pasadena	Crescenta Valley	Temple
		Vernon	East Los Angeles	Century
	II	Beverly Hills	West Hollywood	Marina del Rey
		Culver City	West Hollywood	Marina del Rey
		El Segundo	Lennox	Carson
		Gardena	Lennox	Carson
		Hawthorne	Lennox	Carson
		Hermosa Beach	Lennox	Lomita
		Huntington Park	Century	East Los Angeles
		Inglewood	Lennox	Carson
		Manhattan Beach	Lennox	Carson
		Redondo Beach	Lomita	Carson
		Rolling Hills Estates	Lomita	Carson
		Santa Monica	West Hollywood	Marina del Rey
		South Gate	Century	East Los Angeles
		Torrance	Lomita	Carson
	III	Azusa	San Dimas	Walnut/Diamond Bar
		Baldwin Park	Industry	Temple
		Claremont	San Dimas	Walnut/Diamond Bar
		Covina	San Dimas	Walnut/Diamond Bar
		Downey	Norwalk	Lakewood
		Glendora	San Dimas	Walnut/Diamond Bar
		La Verne	San Dimas	Walnut/Diamond Bar
		Long Beach	Lakewood	Carson
		Montebello	Pico Rivera	East Los Angeles
		Pomona	Walnut/Diamond Bar	Industry
		Santa Fe Springs	Pico Rivera	Norwalk
		Signal Hill	Lakewood	Carson
		West Covina	Industry	Walnut/Diamond Bar
		Whittier	Pico Rivera	Norwalk

Stations	Deputies	Address & Telephone
Altadena	67	780 E Altadena Dr, Altadena 91001; (626) 798-1131
Avalon	13	215 Sumner Ave, 90704; (310) 510-0174
Carson	183	21356 Avalon Blvd, 90745; (310) 830-1123
Century	293	11703 Alameda Rd, Lynwood 90262; (323) 567-8121
Cerritos	52	18135 Bloomfield Ave, Cerritos 90703; (562) 860-0044
Compton	162	301 S Willowbrook Ave, Compton 90220; (310) 605-5600
Crescenta Valley	67	4554 Briggs Ave, La Crescenta 91214; (818) 248-3464
East Los Angeles	230	5019 E Third St, Los Angeles 90022; (323) 264-4151
Industry	223	150 N Hudson Ave, 91744; (626) 330-3322
Lakewood	241	5130 Clark Ave, Lakewood 90712; (562) 866-9061
Lancaster	196	501 W Lancaster, Lancaster 93534; (661) 948-8466
Lennox	210	4331 Lennox Blvd, Inglewood 90304; (310) 671-7531
Lomita	98	26123 Narbonne Ave, Lomita 90717; (310) 539-1661
Malibu/Lost Hills	135	27050 Agoura Rd, 91301; (818) 878-1808
Marina Del Rey	78	13851 Fiji Way, 90292; (310) 823-7762
Norwalk	213	12335 Civic Center Dr, 90650; (562) 863-8711
Palmdale	141	1020 E Palmdale Blvd, Palmdale 93550; (661) 267-4300
Pico Rivera	99	6631 Passons Blvd, 90660;(562) 949-2421
San Dimas	108	122 N San Dimas Ave, San Dimas 91773; (909) 599-1261
Santa Clarita Valley	167	23740 Magic Mountain Pkwy, Valencia 91355; (661) 255-1121
Temple	209	8838 E Las Tunas Dr, Temple 91780; (626) 285-7171
Walnut/Diamond Bar	137	21695 E Valley Blvd, Walnut 91789; (626) 913-1715
West Hollywood	137	720 N San Vicente Blvd, West Hollywood 90069; (310) 855-8850

Source: Los Angeles County Sheriff's Dept.

Sheriff Station Locations

Business Continuity

Los Angeles County Business Continuity Program (BCP) Priorities

Departments will ensure that BCP planning is done for these programs, at a minimum. Departments may elect to complete planning for other programs, *but planning must be completed, for programs that fall into these priorities.*

BCP Priority programs and services:

Priority 1. Programs that provide for life-safety and protection of property, including critical police, fire, ***emergency*** medical services, coroner services, key dispatch services, including the 911 system, the County Emergency Operations Center, and Department Emergency Centers that support life-safety and "protection of property" programs and services.

Priority 2. Continuity of county governance, including support for the Board of Supervisors and key administrative bodies that support life safety and protection of property.

Priority 3. Emergency Public Information (EPI) programs and the infrastructure that supports these programs. EPI is formed by messages that *alert, inform, and reassure* the public and County employees, including public information programs managed primarily by Sheriff, Fire, Health Services, and Mental Health, with the involvement of the Board of Supervisors. This priority also includes EPI programs that facilitate coordination with other governments, such as Joint Information Centers.

Priority 4. Non-public-safety emergency communications systems that enable emergency communications between county departments, cities and school districts, the County Emergency Operations Center's communications with the State. (Note that communication systems, which are necessary for public safety, are included in priority 1.)

Priority 5. Public health and welfare systems that meet the emergency, short-term needs of people, such as emergency food and shelter and "safety-net" programs such as welfare programs.

Priority 6. Programs that support custodial and residential services where the residents are under county care and supervision. These include hospitals, jails, juvenile detention facilities and probation camps, persons dependent on critical Mental Health maintenance programs, County supervised group homes for children and dependent adults, and other similar facilities.

Priority 7. Programs that must be restored in order to protect the county from severe financial losses and lawsuits.

Priority 8. Criminal justice system programs that support criminal court activities.

Priority 9. County programs, including ad hoc programs, that directly projote county and community economic and social recovery including federal and state reimbursement programs for disaster losses, county recovery assistance centers, disaster mental health programs, and building repair and reconstruction permitting centers. In some departments this includes employee payroll systems that may be required to support proper federal and state reimbursement claims

Los Angeles County Departments

Administrative Officer, Chief David E. Janssen, Chief Administrative Officer	500 W Temple St, Rm 713, Los Angeles 90012 Phone (213) 974-1101;
Affirmative Action Compliance Office Dennis A. Tafoya, Director	500 W Temple St, Rm 780, Los Angeles 90012 Phone (213) 974-1080
Agricultural Commissioner/Weights and Measures, Cato R. Fiksdal, Agricultural Commissioner/Director of Weights and Measures	12300 Lower Azusa Rd, Arcadia 91006 Phone (626) 575-5471
Alternate Public Defender Janice Fukai, Alternate Public Defender	320 W Temple St, Rm 35, Los Angeles 90012 Phone (213) 974-8163
Animal Care and Control Marcia Mayeda, Director	11258 South Garfield Avenue, Downey 90242 Phone (562) 940-8899
Assessor Rick Auerbach, Assessor	500 W Temple St, Rm 320, Los Angeles 90012 Phone (213) 974-3101
Auditor-Controller J. Tyler McCauley, Auditor-Controller	500 W Temple St, Rm 525, Los Angeles 90012 Phone (213) 974-8301
Beaches and Harbors, Dept. of Stan Wisniewski, Director	13837 Fiji Way, Marina del Rey 90292 Phone (310) 305-9523
Board of Supervisors Violet Varona-Lukens, Executive Officer	500 W Temple St, Rm 383, Los Angeles 90012 Phone (213) 974-1401
Child Support Services, Dept. of Philip Browning, Director	5770 S Eastern Avenue, Commerce 90040 Phone (323) 889-3340
Children and Family Services, Dept. of David Sanders, Director	425 Shatto Place, Suite 600, Los Angeles 90020 Phone (213) 351-5600
Community and Senior Service Robert Ryans, Director	3175 W Sixth St, 4th Floor, Los Angeles 90020 Phone (213) 738-2617
Consumer Affairs, Dept. of Pastor Herrera, Jr., Director	500 W Temple St, Rm B-96, Los Angeles 90012 Phone: (213) 974-9750
Coroner Anthony T. Hernandez, Director Dr. Lakshmanan Sathyavagiswaran, Chief Medical Examiner/Coroner	1104 N. Mission Road, Los Angeles Phone (213) 343-0778
County Counsel, Office of Lloyd W. Pellman, County Counsel	500 W Temple St, Rm 648, Los Angeles 90012Phone (213) 974-1904

District Attorney, Office of Steve Cooley, District Attorney	Clara Shortridge Foltz Criminal Justice Center 210 W Temple St, Rm 18-709, L.A. 90012 Phone (213) 974-3501
Fire Department P. Michael Freeman, Fire Chief	Forester & Fire Warden Fire Protection District 1320 N Eastern Avenue, Los Angeles 90063 Phone (213) 881-2401
Health Services, Dept. of Dr. Thomas L. Garthwaite, Director	313 N Figueroa St, Rm 912, Los Angeles 90012 Phone (800) 427-8101
Human Resources Michael J. Henry, Director	500 W Temple St, Rm 579, Los Angeles 90012 Phone (213) 974-2406
Information Officer, Chief Jon Fullinwider, Chief Information Officer	500 W. Temple St, Rm 493, Los Angeles 90012 Phone (213) 974-2008
Internal Services Department Joan Ouderkirk, Interim Director	1100 N Eastern Avenue, Los Angeles 90063 Phone (213) 267-2101
Library *(see Public Library)*	
Mental Health Dr. Marvin J. Southard, Director	550 S Vermont Avenue, Los Angeles 90020 Phone (213) 738-4601
Military and Veterans Affairs, Dept. of Joseph N. Smith, Director	1816 S Figueroa St, Los Angeles 90015 Phone (213) 744-4827
Museum of Art Dr. Andrea Rich, President & CEO	5905 Wilshire Blvd, Los Angeles 90036 Phone (213) 857-6001
Musuem of Natural History Jane G. Pisano, President & Director	900 Exposition Blvd, Los Angeles 90007 Phone (213) 763-3301
Ombudsman, Office of Robert B. Taylor, Ombudsman	18411 Crenshaw Blvd, Suite 240, Torrance 90504 Phone (310) 352-3700
George C. Page Museum of La Brea Discoveries & La Brea Tar Pits (Administered by Natural History Museum of Los Angeles County)	5801 Wilshire Blvd (in Hancock Park) Los Angeles 90036
Parks and Recreation, Dept. of Timothy Gallagher, Director	433 S Vermont Ave, Los Angeles 90020 Phone (213) 738-2951
The Petersen Automotive Museum (Administered by Natural History Museum of Los Angeles County)	6060 Wilshire Blvd, Los Angeles 90036 Phone (213) 930-CARS
Probation Department Richard Shumsky, Chief Probation Officer	9150 E Imperial Hwy, Rm N-31, Downey 90242 Phone (562) 940-2501
Public Defender Michael Judge, Public Defender	Clara Shortridge Foltz Criminal Justice Center 210 W Temple St, Rm 19-513, L.A. 90012 Phone (213) 974-2811

Public Library Margaret Donnellan Todd, County Librarian	7400 E Imperial Highway, Downey 90242 Phone (562) 940-8400
Public Social Services, Dept. of Bryce Yokomizo, Director	12860 Crossroads Pkwy South, Industry 91746 Phone (562) 908-8383
Public Works, Dept. of Donald L. Wolfe, Interim Director	900 S Fremont Avenue, Alhambra 91803 Phone (626) 458-4000
Regional Planning, Dept. of James Hartl, Planning Director	320 W. Temple St, Rm 1390, Los Angeles 90012 Phone (213) 974-6401
Registrar-Recorder/County Clerk Conny B. McCormack, Registrar-Recorder/County Clerk	12400 Imperial Highway, Norwalk 90650 Phone (562) 462-2716
Sheriff's Department Lee Baca, Sheriff	4700 Ramona Boulevard, Monterey Park 91754 Phone (213) 526-5000
Small Business, Office of Edna Bruce, Director	4800 Cesar E. Chavez, Los Angeles 90022 Phone (323) 260-2311
Social Services *(see Public Social Services)*	
Treasurer and Tax Collector Mark J. Saladino, Treasurer and Tax Collector	500 W Temple St, Rm 437, Los Angeles 90012 Phone (213) 974-2101
William S. Hart Museum (Administered by Natural History Museum of Los Angeles County)	24151 San Fernando Road (in Hart Park), Newhall 91321 Phone (805) 254-4584

County Department Responsibilities

Administrative Office, Chief

David E. Janssen, Chief Administrative Officer
713 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles 90012

The County Administrative Office (CAO) supports the Board of Supervisors by preparing budgetary and operational recommendations that will result in cost-efficient programs that will better serve the public, the Board, and County departments.

The CAO works closely with the 37 County department heads reporting directly to the Board, to ensure that Board policies and priorities are followed. The CAO also monitors the departments' expenditures and recommends to the Board what the departments' budget should be each year.

The CAO has a wide range of responsibilities,

- Preparing budget and operational recommendations to the Board of Supervisors; monitoring and controlling countywide expenditures,
- Analyzing and advocating legislation; coordinating capital projects; debt management; asset, leasing and space management; performing demographic and geographic research,
- Coordinating emergency preparedness activities and cost recovery efforts following major disasters,
- Administering insurance management programs, addressing unincorporated area issues,
- Handling centralized security management for employees and facilities, advising Board and Departments on international protocol issues,
- Managing the County's employee relations program and compensation systems, coordinating centralized marketing programs,
- Coordinating centralized workplace programs such as ridesharing, saving bonds, charity and volunteers, and
- Initiating and promoting activities which provide information about the County to the public.

To carry out these responsibilities, the CAO has established an organizational structure with six divisions: Executive, Budget and Operations, Financial and Asset Management, Intergovernmental Relations, Service Integration, and Unincorporated Area Services and Special Projects. The heads of these divisions report directly to the CAO.

CAO – Executive

CAO – Budget and Operations

CAO – Financial and Asset Management

This function provides for the planning, implementation, and management of real property related matters, including recommendations for the funding of new capital projects, commercial development of potentially surplus property, new property purchases and sales and lease acquisitions and renewals necessary to carry out various departmental missions. Primary activities include implementation of short- and long-term revenue streams financing policies for capital improvements; development and implementation of short- and long-term revenue streams through private sector ground lease development of County-owned property; negotiation and implementation of real property leases to house County staff and activities; development and maintenance of a comprehensive inventory of County real property holdings (land and improvements); negotiation, implementation, and administration of contracts for architectural, engineering, and related services connected with asset development activities; administration of the County's regulatory programs for franchising of utilities and pipelines and the development of strategies to allocate funding for the most critical major maintenance of the County's infrastructure. In addition, this program includes management of the County's outstanding short- and long-term debt obligations, and coordinate cost recovery efforts of federal and other revenues to provide for the rebuilding of County property after a catastrophic loss.

CAO – Risk Management Operations (RMO)

The mission of the Chief Administrative Office's Risk Management Operations is to establish and administer County risk management policies and guidelines, so that Countywide risk management practices protect the investments and assets of the County from catastrophic or accidental loss.

Risk management is a countywide process which requires the participation of all County departments. This process identifies and measures potential County risk exposures and uses industry acknowledged techniques to effectively manage risk. The Countywide process is coordinated and administered by the Chief Administrative Office (CAO) Risk Management Operations Section.

CAO – Intergovernmental Relations (IGR)

The Intergovernmental Relations (IGR) Branch of the Los Angeles County Chief Administrative Office, consists of State and Federal Legislative Policy Development and Governmental Affairs; the Sacramento Advocacy Office; the Washington, D.C. Advocacy Office; the Public Affairs Office; and the Office of Workplace Programs and Countywide Marketing.

IGR is the focal point of coordination of state and federal legislative policy and strategy for the County. In consultation with the Board of Supervisors, the legislative strategist, and County departments, IGR develops the County's legislative priorities and policies for consideration by the Board, and analyzes legislative proposals. The County's advocacy is handled on a day-to-day basis by the Sacramento and Washington, D.C. offices.

The Public Affairs Office is the chief liaison for the County to the public and media. It prepares and disseminates informational materials about the County, oversees the County website, and provides information and referral services. It also provides centralized photo and graphic arts services to departments, and assists the Board with special projects.

The Office of Workplace Programs and Countywide Marketing coordinates employee programs throughout the County, such as the annual charitable giving campaign, savings bonds, volunteer opportunities, vanpool and transportation programs, and countywide marketing.

CAO – Service Integration Branch (SIB)

The Service Integration Branch (SIB) of the Chief Administrative Office works to develop the leadership, planning, data, and capacity for achieving the Board of Supervisor's direction for delivering services to children and families in a seamless fashion.

SIB's mission is to: support and coordinate collaborative policy development; assist County departments integrate service delivery systems; and help provide children and families with needed information. SIB supports the commitment of the Board to improve the five adopted outcomes for children and families in Los Angeles County: 1) good health, 2) safety and survival, 3) economic well-being, 4) social and emotional well-being, and 5) education and workforce readiness.

CAO – Unincorporated Area Services and Special Projects (UAS & SP)

The Office of Unincorporated Area Services and Special Projects (UAS & SP), a branch of the Chief Administrative Office, provides support to the Board of Supervisors and other County departments on a variety of topics related to the unincorporated communities and County operations.

Unincorporated areas are those communities and areas that are outside the jurisdictional boundaries of incorporated cities. As such, they are not serviced by an incorporated city. County government serves as the "city" for these areas by providing basic municipal services such as law enforcement, zoning, building permits, libraries, parks, recreational programs, street maintenance, and traffic signals and stop signs.

In Los Angeles County, unincorporated areas include almost 1 million residents living in approximately 300,000 households. The areas cover 2,600 square miles and represent one-tenth of the County population and two-thirds of the land area. Some unincorporated areas are as small as a couple of blocks and some are very similar in population and development to cities.

The Municipal Services Mission under the UAS Strategic Plan is to, "…deliver quality, responsive and cost-effective municipal services using collaborative approaches that respond to the unique neighborhood, business, individual, and family priorities of Los Angeles County's diverse unincorporated communities."

Emergency Responsibilities

During a state of emergency, the CAO serves as the Chair of the Emergency Management Council, and is the Director of the County Office of Emergency Management (OEM). The Director has authority for organizing, directing and coordinating the emergency operations of the County, which includes directing the development and approval of all departmental emergency response plans, reviewing and approving all Board-ordered departmental emergency response plans and all emergency preparedness activities, consistent with the Sheriff's emergency operations responsibilities.

Under the Standardized Emergency Management Systems (SEMS), the CAO is designated as the head of the Finance and Administration Section of the County Emergency Operations Center (CEOC), and is empowered to obtain for operational and administrative purposes, vital supplies, equipment and other properties found lacking and needed for the protection of life and property, to require emergency services of any County officer or employee, and to command the aid of as many citizens of the County as deemed necessary in the execution of duties.

Once the Initial Recovery Phase of the disaster begins, the CAO becomes the Director of Recovery Operations, with countywide responsibilities and authority appropriate to that position. During the Recovery Phase, the County Recovery Coordination Center (CRCC) is established and located in the CEOC. The Director of Recovery is responsible for recovery policy implementation for County government and is assisted by OEM in carrying out these.

Affirmative Action Compliance, Office of

Dennis A. Tafoya, Director
780 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles 90012

The Office of Affirmative Action Compliance develops, monitors, and enforces the County's affirmative action, civil rights, minority- and women-owned business enterprises, disadvantaged business enterprises, and disabled veterans business enterprise programs in conjunction with County Departments and agencies, and in compliance with the American with Disabilities Act.

The Department advises the Board of Supervisors on the development and implementation of affirmative action and equal employment opportunity programs within the County as well as deficiencies and cases of non-compliance, and investigates external and internal complaints of employment discrimination and sexual harassment.

Agricultural Commissioner/Weights and Measures, Department of

Cato R. Fiksdal, Agricultural Commissioner/
Director of Weights and Measures
12300 Lower Azusa Road
Arcadia 91006-5872

The Department of Agriculture enforces state laws which prevent the introduction or spread of insects, diseases, weeds and animal pests, maintains quality and prevents consumer deception in handling and sale of fruits, vegetables, nuts, eggs, honey, seed, salad products and nursery stock. It also regulates use of pesticides hazardous to persons or property and regulates commercial pest control operations.

Under authority of state law and County ordinance, this department's functions are, abate hazardous weeds or brush on vacant property, control noxious weeds and pest animals through legal notice or cooperative agreements, abate bee diseases and provides bee control information, compiles crop production and similar data, administers nursery inspection and certification program, and issues certificates of standardization compliance or pest condition of shipments.

The Department of Agricultural Commissioner/Weights and Measures is a support department of the Department of Health Services and is responsible for administering and enforcing laws and policies regarding standards for marketable foods, plants, weighing and measuring devise, and other commodities, and controlling and eradicating plant and animal pests.

In response to a disaster, the Department eliminates and prevents invasions of pests such as fruit flies which are harmful to crops, controls and eradicates noxious weeds, inspects produce and other commodities to ensure that they meet standards for public health, quantity and quality, and inspects gas pumps, scales and other commercial measuring devices to ensure that they work accurately.

Alternate Public Defender, Office of

Janice Fukai, Alternate Public Defender
Hall of Records
320 West Temple Street, Room 35
Los Angeles 90012

Provides legal representation to indigent defendants the public defender is unable to represent, due to a conflict of interest or availability, for court proceedings in the Superior and Municipal Courts, and for appeals to higher courts.

During periods of emergency or disaster, the primary responsibilities and considerations of the Alternate Public Defender's office are the safety of employees and the public at work sites, preservation of vital Departmental records and property, and continuation of legal services to clients. In addition to these responsibilities, the department shall provide supportive assistance to the Sheriff's Department.

Animal Care and Control, Department of

Marcia Mayeda, Director
11258 South Garfield Avenue
Downey 90242

The Department of Animal Care and Control enforces state laws and county ordinances regarding the humane care of domestic animals. The department impounds and shelters stray dogs and cats as well as livestock and other animals normally housed or cared for during cruelty investigations, rescues and returns wild animals to nature.

The department also inspects and licenses pet kennels and wild animal compounds in unincorporated County areas and cities under contract to the department. It conducts state required low-cost rabies vaccination clinics, provides a low-cost spay and neuter program as a pet population control measure.

Emergency Responsibilities

During emergencies, the Department of Animal Care and Control patrols disaster areas to rescue domestic animals displaced by catastrophic events, and provide support to fire and law enforcement agencies responding to the crisis. Additionally, the Department offers emergency animal housing at its shelters. Depending on the circumstances, the Department may also set up temporary emergency animal shelters to assist persons who have taken their pets from evacuated areas.

Assessor, Office of the

Rick Auerbach, Assessor
320 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles 90012

The Assessor locates all taxable properties in the County and identifies ownership, establishes value for all property subject to property taxation, reassesses property upon transfer or changes of ownership, adds value for new construction, lists the value of all property on the assessment roll, and processes all property tax exemptions. In addition, the Department is represented at all assessment appeal hearings.

Emergency Responsibilities

In response to an emergency, the Assessor will continue to provide for equitable, accurate and timely assessment of all taxable property within the County and make appropriate adjustments in the tax roles.

Auditor-Controller, Department of

J.Tyler McCauley, Auditor-Controller
525 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles 90012

The Auditor-Controller serves as County Auditor, Controller, Accounting Officer and Paymaster, and maintains financial control over the centralized accounting records and transactions of the County, school districts, and special districts. The Department prepares and issues warrants on the County treasury for employee payroll, welfare, services and supplies, conducts operational and financial audits of the County Departments, the courts' special districts and concessionaires, checks and certifies assessed valuations, extends tax rates, makes charges against the tax collector, processes tax refunds and cancellations, apportions and distributes taxes to taxing agencies, and provides accounting control of funds to be allocated to community redevelopment agencies.

Emergency Responsibilities

During an emergency, the Department sustains professional financial leadership for the County through continued monitoring of financial performance by providing recommendations and reporting financial results, in sustaining economy and efficiencies, and in fulfilling the legal duties of the Auditor-Controller. Continuity of this mission following an emergency is essential to the conduct of County business.

Beaches and Harbors, Department of

Stan Wisniewski, Director
13837 Fiji Way
Marina del Rey 90291

The Department of Beaches and Harbors operates Marina del Rey Small Craft Harbor and 31 miles of beaches from Cabrillo Beach in the south to Nicholas Canyon Beach in the north.

Within the County-owned Marina del Rey, the department administers property leases, and plans, develops and maintains all County-operated harbor facilities. It organizes, coordinates and maintains community relations and recreational programs and serves as informational focal point for all public activities within the harbor and on the beaches.

Along much of the County's coastline, provides maintenance services and operates recreational vehicle and parking lots, coordinates beach recreational programs, cooperates closely with community groups in developing beach youth and water activities and volunteer participation programs, including anti-litter activities. The department also helps develop and coordinate maximum revenue-generating programs to benefit the County and improve beach services.

Emergency Responsibilities

During emergencies, the Department of Beaches and Harbors is a support department to both the Fire and Sheriff's Departments. They provide continuous essential services such as employee safety and the mobilization of off-highway and heavy equipment and personnel to mitigate damage to public and private property.

Board of Supervisors

Violet Varona-Lukens, Executive Officer
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles 90012

The Board of Supervisors serves as the governing body of the County, enacts ordinances and establishes specific regulations for the administration of County Departments and special districts, and establishes salaries and adopts the final County Budget on or before August 1 of each year.

The Executive Officer acts as the administrative head of the Department, serves as Secretary to the Board of Supervisors as a whole, maintains records of the Board proceedings which date back to the formation of the County in 1850, and serves as administrative officer of the Assessment Appeals Board, which sits as a board of equalization for Los Angeles County.

Chief Information Office

Jon Fullinwider, Chief Information Officer
493 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles 90012

The Chief Information Office develops and implements strategic direction and vision for the effective application of information technology throughout the County of Los Angeles. The CIO develops countywide business automation plans, develops enterprise computer and telecommunication standards to ensure compatibility, and ensures all automation initiatives are in concert with both Departmental and county objectives.

Child Support Services, Department of

Philip Browning, Director
5770 S. Eastern Ave.
Commerce, CA 90040

The Department of Child Support Services provides a wide range of child support services with the primary responsibility of administrating, collecting and distributing child support payments. The Department assists custodial and non-custodial parents with child support procedures and processes including locating parents, establishing paternity, and establishing court orders for child support. The Department also modifies court orders, collects and distributes court-ordered support, and works with other counties, states, and countries to obtain child support payments.

In specialized outreach programs, the Child Support Services Department partners with community based organizations and other County agencies that provide job training, job placement, peer counseling, and parenting classes to aid unemployed and underemployed non-custodial parents, enabling them to provide emotional, as well as financial, support to their children.

Children and Family Services, Department of

David Sanders, Ph.D., Director
425 Shatto Place
Los Angeles 90020

The Department's mission is to protect children and to strengthen families, and social services are offered to children and their families when children are at risk due to potential or actual abuse, neglect, abandonment, or exploitation. This includes protective services to children in their own homes, through short-term out-of-home care, adoption, guardianship, or through long-term foster care. In addition, support is provided to foster parents, adoptive parents, and small family home/group home operators that serve children in need of placement.

Emergency Responsibilities

The primary concern of the Department of Children's Services (DCS) is the safety and well-being of the children in its care, the Department's employees, and children otherwise known as "unaccompanied minors" who may be left unsupervised as a result of a disaster.

In a major disaster, DCS will provide a variety of services for displaced children and offer various programs, including 1) deployment of DCS staff to designated Red Cross shelters to process the initial intake and registration of unaccompanied minors, including follow-up action to reunite them with their parents/guardians or to provide appropriate placement, 2) support the Department of Public Social Services (DPSS), on request, in the provision of emergency welfare services including assigning staff to emergency shelters or relief programs to assist in interviewing victims, processing requests for disaster assistance and other related tasks, and 3) continuing commitment to provide services to children under DCS care, including the placement of children affected by a disaster.

Civil Service Commission

Tony Butka, Executive Officer
522 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles 90012

The Civil Service Commission conducts hearings on appeals for discharges, reduction of permanent employees, charges of discrimination, suspensions in excess of five days, and scored portions of examinations, as established by the County Charter and Civil Service Rules.

Community and Senior Services (CSS)

3175 West Sixth Street, 4th floor
Los Angeles, California 90020

The Community and Senior Services Department administers a wide variety of community and social services programs throughout Los Angeles County. Persons eligible to receive these programs include senior citizens, pre-delinquent youth, economically disadvantaged persons, unemployed persons, victims of family violence, and refugees.

Specific programs include unemployment and training, energy conservation, services to alleviate poverty, domestic violence shelters, cold weather housing programs, senior nutrition programs, adult protective services, senior transportation, senior in-home care provider registries, and the Los Angeles City/County Native American Indian Commission and the Community Services American Indian Block Grant Programs.

Emergency Responsibilities

The Department of Community and Senior Services (CSS) is designated as a support department to DPSS for disaster-response efforts. CSS will provide liaison through a human services community-based network of contractors through the operational units (Aging and Adult Services, Employment and Training, Community Services Block Grant) at Senior Centers, Community Centers, Senior Congregate and Home-Delivered Meals, Food Pantries and shelters throughout the County.

CSS also manages Adult Protective Services (APS) for high-risk individuals aged 18 and over, who are a danger to themselves and others. APS social workers will conduct health and safety checks on high-risk individuals, in coordination with DPSS IHSS social workers immediately following a disaster, to determine their status and need for assistance.

Community Development Commission/Housing Authority (CDC)

Carlos Jackson, Executive Director
2 Coral Circle
Monterey Park 91755

The Community Development Commission/Housing Authority administers the Urban County Community Development Block Grant Program for the County and participating cities, and develops, owns and operates public housing for low-income persons.

The commission administers Section 8 rent subsidy programs; provides consulting services for asset development; administers the County Mortgage Revenue Bon Program for single-family and multi-family properties; uses block grant funds for low-interest housing conversion loans to property owners in target areas for housing rehabilitation, and administers the Rental Rehabilitation and Moderate Rehabilitation Program which helps pay for rehabilitating rental units.

The commission also administers the Community Business Revitalization Program, which provides low-interest loans, rebates, and matching assistance for businesses in target areas. The commission is responsible for redevelopment programs in unincorporated County areas, and identifies and analyzes economic and residential development needs.

Emergency Responsibilities

The Community Development Commission (CDC), during an emergency, will continue and may need to augment, their response in implementing the county's housing and community development programs, including redevelopment, low-and moderate-income housing development, and rehabilitation in unincorporated areas of the County and participating cities, including community revitalization and loan assistance for small businesses.

Consumer Affairs, Department of

Pastor Herrera, Jr., Director
B-96 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles 90012

The Department of Consumer Affairs receives and responds to inquiries and complaints related to consumer problems in the market place. The Department investigates and resolves consumer complaints of unethical or deceptive business practices, and refers selected complaints to law enforcement and regulatory agencies. The Department informs consumers and merchants of consumer affairs regulations and legislation, conducts consumer/merchant mediation sessions, provides consumer education material to the public, responds to inquiries regarding filling and procedures in Small Claims Court matters, and provides conciliation and formal mediation services to Los Angeles County residents. All services are free.

Note: *I'll get info on this, but the DSA is also the regulatory agency that oversees all cemetery operations for the state of California. Can't remember everything that they do, but they audit cemeteries, establish regulations, functions as the conservator of cemeteries in the event the owners are incarcerated (or has the court appoint someone in that position), etc.*

Coroner, Department of

Anthony T. Hernandez, Director
Dr. Lakshmanan Sathyavagiswaran
Chief Medical Examiner/Coroner
1104 Mission Road
Los Angeles 90033

The Department of the Coroner inquires into and determines the cause, manner, and circumstances of death in all unnatural, suspicious, unusual, violent, sudden or unattended deaths. The cause of death is determined by investigation, post mortem examination and laboratory testing.

Emergency Responsibilities

The Coroner is mandated by law to inquire into and determine the circumstances, manner, and cause of all violent, sudden or unusual deaths occurring in within Los Angeles County including all homicides, suicides, accidental deaths and natural deaths where the decedent has not seen a physician within 20 days prior to death.

In a major disaster, the Coroner is responsible for activating the Emergency Mortuary Response Plan, and will work with key agencies in establishing a Death Notification Center, Mass Fatality Collection Points and the dissemination of information according to protocols.

County Counsel, Office of

Ray G. Fortner, County Counsel Chief Deputy
648 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles 90012

The Office of the County Council provides legal representation, advice, and counsel to the Board of Supervisors, the County, and other public officers and agencies in representing the County's position in the State Legislature, and serves as the legal officer of Los Angeles County, but does not engage in the practice of criminal law.

Emergency Responsibilities

In times of emergency, County Counsel serves as advisor to the Command Group and key CEOC staff on the legal aspects of emergency management, provides advice on the formulation of emergency orders, and reviews all emergency proclamations and orders prior to their being signed by the authorized executive.

District Attorney, Office of

Steve Cooley, District Attorney
210 West Temple Street, Rm. 18-709
Los Angeles 90012

The District Attorney initiates charges and prosecutes persons accused of both felony and misdemeanor offenses, prosecutes juvenile cases, enforces civil and criminal laws relating to consumer, environmental and antitrust matters, and prosecutes safety violations which result in industrial accidents and fatalities.

The Department focuses special attention on domestic violence, sex crimes, child abduction, and child abuse cases, and operates special units which deal with minors unfit for the juvenile system, hardcore gang cases, major narcotics, and nursing home abuse cases.

The District Attorney appears at mental and narcotic commitment hearings, investigates allegations of organized criminal activities, corruption, major fraud, and unlawful conduct by public officials, investigates and prosecutes fraud involving workers' compensation and automobile insurance, obtains reimbursement for victims of bad check writers, provides victim advocates to counsel crime victims and accompanies them to court, and conducts crime prevention programs aimed at-risk youths.

Emergency Responsibilities

During an emergency, the District Attorney's Office, pursuant to established contingency plans, will continue to represent the People in all felony prosecutions and juvenile hearings as well as in all misdemeanor prosecutions where there is no city attorney. In addition to these responsibilities, the Department shall provide supportive assistance to the Sheriff's Department.

Employee Relations Commission

Tony Butka, Executive Officer
374 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles 90012

The Employee Relations Commission supervises the administration of County employee relations, approves appropriate employee representation units, conducts elections to determine employee representation, certifies employee representatives, investigates unfair employee relations practices, and assists in the resolution of negotiation impasses.

Fire Department

P. Michael Freeman, Fire Chief
1320 North Eastern Avenue
Los Angeles 90063

The Los Angeles County Fire Department is comprised of the Forester and Fire Warden, a function required by County Charter, and the Consolidated Fire Protection District of Los Angeles County, a special district organized under the provisions of the California Health and Safety Code. In 1993-94, the two Departments were merged and all functions of the Forester and Fire Warden were transferred to the Department.

The Fire Department provides fire protection and paramedic service 24 hours a day, 365 days a year for all of the unincorporated areas in Los Angeles County as well as 54 incorporated cities, provides lifeguard services at beaches, makes fire inspections, approves building and subdivision plans pertaining to fire prevention, and issues permits and licenses.

Los Angeles County Fire Department Mission Statement

To protect lives, the environment and property by providing prompt, skillful and cost-effective fire protection and life safety services

Background

The LA County Fire Department is divided into three Regional Emergency Operations Bureaus consisting of: North Operations Bureau Central Operations Bureau East Operations Bureau consisting of more than 3,700 sworn and civilian personnel. Emergency Operations also includes the departments Lifeguards Division protecting beach-goers and employing over 700 permanent and seasonal lifeguard personnel.

The Special Operations Bureau provides many highly technical operational functions to County residents, including Emergency Medical Services, Urban Search and Rescue, Hazardous Materials, Air Operations, Fire Camps for wildland firefighting, Heavy Equipment and central Dispatch. Also included in Special Operations is the Department's Terrorism Response Section, which coordinates the Department's response to incidents involving Weapons of Mass Destruction.

County fire stations are home to firefighters on duty, but sometimes they become temporary home for those that are in need. The Countywide Safe House Program offers each of the 158 County fire stations as shelter and protection for anyone facing a potentially threatening situation.

The Safe Surrender Baby Program, based on legislation adopted in California in 2001, designates County fire stations as Safe Surrender Sites for parents of unwanted newborns who wish to give up their child, with no questions asked. These babies find loving adoptive homes through the County's Department of Children and Family Services. Since its inception, two babies have been safely surrendered at LACoFD fire stations.

The Junior Firesetters Program teams up County firefighters with local law enforcement officers to identify and educate young members of the community about the seriousness of playing with fire. Working with the County's District Attorney, the Rescue Youth Program provides troubled youth with the caring mentorship of County firefighters. Firefighters spend time with them at the fire stations, helping with homework and rescuing their self esteem. Many of these kids have changed the course of their lives as a direct result of the attentiveness of County firefighters in the neighborhood.

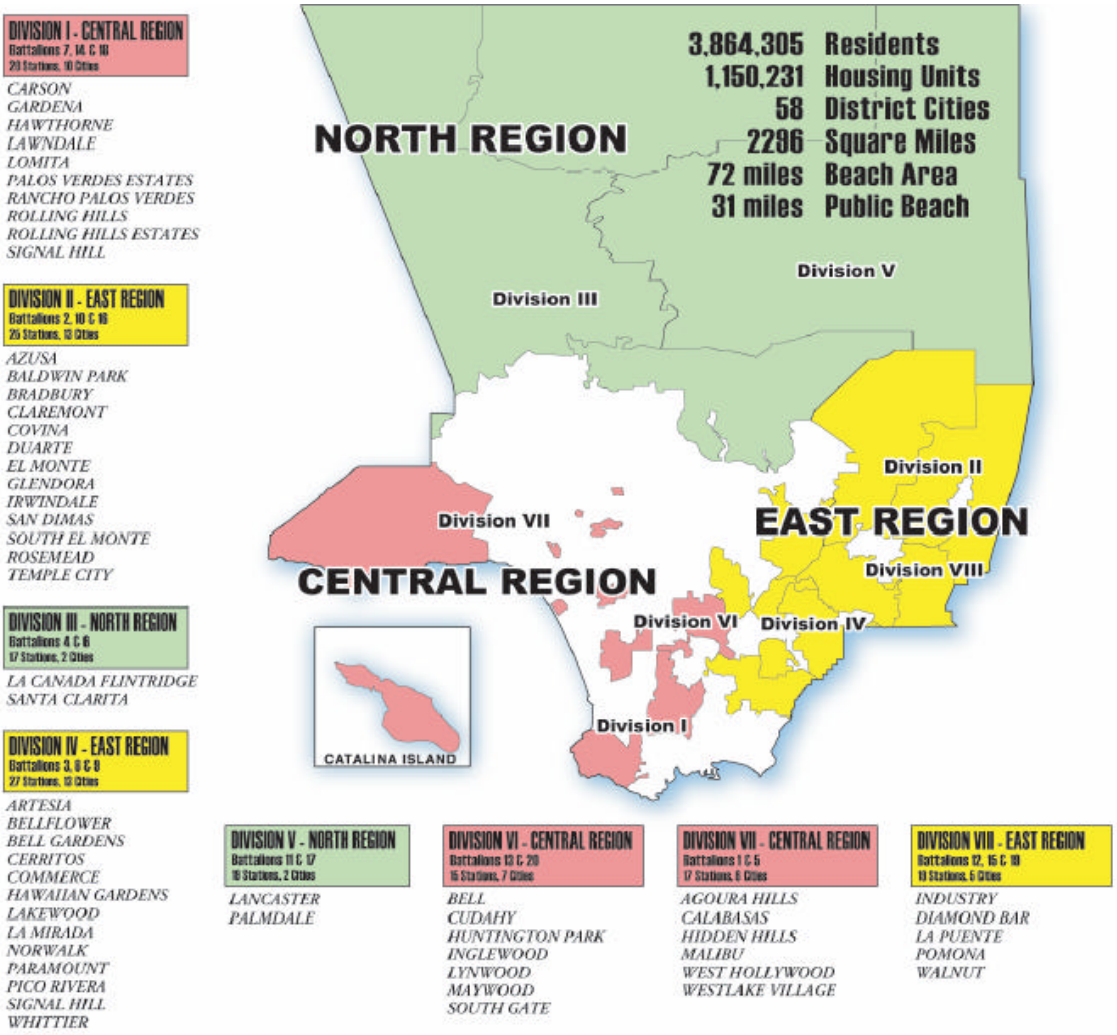
Los Angeles County Fire Department Strategic Plan

The Strategic Plan is intended to be used as an instrument to guide the Department in sound business practices, as well as a device to measure the effectiveness of the Department's ability to deliver prompt, skillful, and cost-effective fire protection and life safety services. By following the plan and achieving the goals within, executives and managers of the Department can continuously adjust their service delivery, internal processes, and budget while managing change effectively.

The Los Angeles County Fire Department will invest time, effort, and intellectual capital in its Strategic Plan in order to develop a more effective, efficient, and flexible organization, capable of anticipating and responding to internal and external environmental stimuli. The process, grounded in "The Balanced Scorecard" model, will include:

- Clarifying and gaining consensus for the strategy,
- Communicating the strategy throughout the Department,
- Aligning Department and MAPP goals to the strategy,
- Linking strategic objectives to long-term targets, achievement of the vision, and the annual budget process,
- Performing periodic, data-based reviews, and
- Obtaining and providing feedback to learn about and improving the strategy.

Fire Department Organization



Station Locations (in Battalion Order)

Battalion 1

FS 7 (Bn. Hq)	846 N. San Vincente Bl., West Hollywood 90069-4007
FS 8	7643 Santa Monica Bl., West Hollywood 90046-6408
FS 38	3907 W. 54th St., Los Angeles 90043-2203
FS 51	3900 Lankershim Blvd., Universal City 91608-1085
FS 58	5757 S. Fairfax Ave., Los Angeles 90056-1243
FS 110	4433 Admiralty Way, Marina Del Rey 90292-5415

Battalion 2

FS 62	3701 N. Mills Ave, Claremont, CA 91711-1423
FS 64 (Bn HQ)	164 S. Walnut Ave, San Dimas 91773-2620
FS 85	650 E. Gladstone St., Glendora 91740-5726
FS 86	520 S. Amelia Ave., Glendora 91741-4027
FS 101	606 W. Bonita Ave., Claremont 91711-4512
FS 102	4370 N. Sumner Ave.-, Claremont 91711-2403
FS 141	1124 W. Puente Ave., San Dimas 91773-4414
FS 151	231 W. Mountain View Ave., Glendora 91741-3302

Battalion 3

FS 1	1108 N. Eastern Ave., Los Angeles 90063-3216
FS 3	930 S. Eastern Ave., Los Angeles 90022-4801
FS 22	928 S. Gerhart Ave., Commerce 90022-4108
FS 25	9209 E. Slauson Ave., Pico Rivera 90660-4524
FS 27 (Bn HQ)	6031 Rickenbacker Road, Commerce 90040-3031
FS 39	7000 Garfield Ave. Bell Gardens 90201
FS 40	4864 S. DurFee, Pico Rivera 90660-2459
FS 50	2327 S. Saybrook Ave., Commerce 90040-1721
FS 103	7300 S. Paramount Blvd., Pico Rivera 90660-3714

Battalion 4

FS 11	2521 N. El Molino Ave., Altadena 91001-2317
FS 12	2760 N. Lincoln Ave., Altadena 91001-4961
FS 19	1729 W. Foothill Blvd., La Canada Flintridge 91011-2950
FS 63	4526 N. Ramsdell Ave., La Crescenta 91214-2834
FS 66	2764 E. Eaton Canyon Dr., Pasadena 91107-1005
FS 74	12587 N. Dexter Park Road, San Fernando 91342-5613
FS 82 (Bn. HQ)	352 W. Foothill Blvd. La Canada Flintridge 91011-3501

Battalion 5

FS 65	4206 N. Cornell Rd., Agoura 91301-2528
FS 67	25801 Piuma Rd., Calabasas 91302-2153
FS 68	24130 Calabasas Rd., Calabasas 91302-1511
FS 69	401 S. Topanga Cyn Blvd., Topanga 90290-9774
FS 70 (Div & Bn. HQ)	3970 Carbon Cyn Rd., Malibu 90265-5005
FS 71	28722 W. Pacific Coast Hwy., Malibu 90265-3902
FS 72	1832 S. Decker Rd., Malibu 90265-9613
FS 88	23720 W. Malibu Rd., Malibu 90265-4603
FS 99	32550 Pacific Coast Hwy., Malibu 90265-2432
FS 125	5215 N. Las Virgenes Rd., Calabasas 91302-1061
FS 144	31981 Foxfield Dr., Westlake Village 91361-4203

Battalion 6

FS 73 (Div/Bn.HQ)	24875 N. San Fernando Rd., Newhall 91321-1520
FS 75	23310 Lake Manor Dr., Chatsworth 91311-6418
FS 76	27223 Henry Mayo Dr., Valencia 91355-1009
FS 77	46833 Peace Valley Rd., Gorman 93243-0002 Mail: P.O. Box 2
FS 107	18239 W. Soledad Canyon Road, Canyon Country 91351-3521
FS 111	26829 Seco Canyon Rd., Valencia 91350-2217
FS 123	26321 N. Sand Canyon Rd., Canyon Country 91351-4020
FS 124	25870 Hemingway Ave. Stevenson Ranch 91381-1604
FS 126	26320 Citrus Dr., Santa Clarita, 91355
FS 149	31770 Ridge Route, Castaic 91384-3300

Battalion 7

FS 10 (Bn. HQ)	1860 E. Del Amo, Carson 90746-2940
FS 36	127 W. 223rd St., Carson 90745-3702
FS 95	137 W. Redondo Beach Blvd., Gardena 90248-2220
FS 105	18915 S. Santa Fe Ave., Compton 90221-5907
FS 116	755 Victoria St., Carson 90746-1534
FS 127	2049 E. 223rd St., Carson 90810-1610

Battalion 8

FS 15	11460 Santa Gertrudes Ave., Whittier 90604-3411
FS 17	12006 Hadley St., Whittier 90601-3910
FS 20	12110 E. Adoree St., Norwalk 90650-3002
FS 28 (Bn. HQ)	7733 Greenleaf Ave., Whittier 90602-2195
FS 49	13820 S. La Mirada Blvd., La Mirada 90638-3029
FS 59	10021 Scott Ave., Whittier, 90603-2119
FS 96	10630 S. Mills Ave., Whittier, 90604-2441
FS 115	11317 Alondra Blvd., Norwalk, 90650-6225

Battalion 9

FS 23	9548 E. Flower St., Bellflower 90706-5708
FS 30 (Div. & Bn. HQ)	19030 Pioneer Blvd., Cerritos 90703-6602
FS 31	7521 E. Somerset Blvd., Paramount 90723-4003
FS 34	21207 S. Norwalk Blvd. Hawaiian Gardens 90716-1020
FS 35	13717 Artesia Blvd., Cerritos 90701-4804
FS 45	4020 E. Candlewood St., Lakewood 90712-1620
FS 94	6421 E. Turnergrove St., Lakewood 90713-2706
FS 98	9814 Maplewood Ave., Bellflower, 90706-3103
FS 122	2600 Greenmeadow Road, Lakewood, 90712-3906

Battalion 10

FS 4 (Bn. HQ)	2644 N. San Gabriel Blvd., Rosemead 91770-3254
FS 5	7225 N. Rosemead Blvd., San Gabriel 91775-1315
FS 42	9319 E. Valley Blvd., Rosemead 91770-1923
FS 47	5946 N. Kauffman Avenue, Temple City 91780-2234
FS 90	10115 E. Rush St., South El Monte 91733-3223
FS 166	3615 Santa Anita Avenue, El Monte 91731
FS 167	11567 Bryant Road, El Monte 91732
FS 168	3207 Cogswell Road, El Monte 91732
FS 169	5112 N. Peck Road, El Monte 91732

Battalion 11

FS 33 (Bn. HQ)	44947 Date Avenue, Lancaster 93534-3213
FS 78	17021 W. Elizabeth Lake RD., Lake Hughes 93532-9519
FS 84	5030 W. Ave. L-14, Quartz Hill 93536-3622
FS 112 CFF	8812 W. Ave. E-8, Lancaster 93535-9662
FS 117	44851 30th Street East, Lancaster 93535-1338
FS 129 (Div. HQ)	42110 6th Street West, Lancaster 93534-7134
FS 130	44558 40th Street West, Lancaster 93536-9575
FS 134	43225 N. 25th Street, Lancaster 93534
FS 135	1846 East Avenue K-4, Lancaster 93535
FS 140 CFF	8723 Elizabeth Lake Rd, Leona Valley 93550-9715
FS 157 CFF	15921 Spunky. Cyn. Rd, Green Valley 91350-1030

Battalion 12

FS 26	15336 E. Elliott Ave,. La Puente 91744-2710
FS 43	921 S. Stimson Ave., La Puente 91746-2413
FS 87	140 S. Second Ave., Industry 91746-2413
FS 91	2691 S. Turnbull Canyon Road, Hacienda Heights 91745-5135
FS 118 (Bureau HQ)	17056 Gale Ave., City of Industry 91745
FS 145 (Bn. HQ)	1525 S. Nogales Avenue, Rowland Heights 91748-2256

Battalion 13

FS 16	8010 Compton Ave., Los Angeles 90001
FS 41	1815 E. 120th St., Los Angeles 90059-3005
FS 54	4867 Southern Ave., South Gate 90280-3466
FS 57	5720 Gardendale St., South Gate 90280-7806
FS 147	3161 E. Imperial Highway, Lynwood, 90262
FS 148	4262 Martin Luther King Jr. Blvd., Lynwood; 90262
FS 163	6320 Pine Ave., Bell 90201-1221
FS 164 (Div/ Bn. HQ)	6301 S. Santa Fe Avenue, Huntington Park 90255-3805
FS 165	3255 Saturn Ave., Huntington Park 90255-5449

Battalion 14

FS 2	340 Palos Verdes Drive West Palos Verdes Estates 0274-1226
FS 6	25517 S. Narbonne Ave., Lomita 90717-2511
FS 53	6124 Palos Verdes Drive South Rancho Palos Verdes 90275-5935
FS 55	P. 0. Box 663, Avalon 90704-0663 945 Avalon Canyon Road
FS 56	12 Crest Road West, Rolling Hills 90274-5058
FS 83	83 Miraleste Plaza Rancho Palos Verdes 90275-6586
FS 106 (Bn. HQ)	27413 Indian Peak Road Rolling Hills, 90275-7136
FS 155 (PFF)	P.O. Box 5011, Two Harbors 90704

Battalion 15

FS 181 (Div/Bn. HQ)	590 S. Park Avenue, Pomona, CA 91766-3038
FS 182	1059 N. White Avenue, Pomona, CA 91768-3038
FS 183	708 N. San Antonio, Pomona91767-4910
FS 184	1980 W. Orange Grove, Pomona 91768-2046
FS 185	925 E. Lexington, Pomona, 91766-5204
FS 186	280 E. Bonita, Pomona, 91767-1924
FS 188	18-A Village Loop Road, Pomona, 91766-4811

Battalion 16

FS 29	14334 East Los Angeles Street, Baldwin Park 91706-2603
FS 32	605 N. Angeleno, Azusa 91702-2904
FS 44	1105 S. Highland Ave., Duarte 91010-2546
FS 48	15546 E. Arrow Hwy., Irwindale 91706-2001
FS 97	18453 E. Sierra Madre Ave., Azusa 91702-1522
FS152	807 W. Cypress Street, Covina 91723
FS153	1577 E. Cypress Street, Covina 91723
FS 154 (Div.&Bn. HQ)	401 N. Second Avenue, Covina 91723

Battalion 17

FS 24 (Bn HQ)	1050 W. Avenue P, Palmdale 93550-2932
FS 37	38318 E. Ninth St. East, Palmdale 93550-9519
FS 79	33957 Longview Road, Pearblossom 93553-9704
FS 80	1533 W. Sierra Hwy., Acton 93510-9740
FS 81	8710 W. Sierra Hwy., Agua Dulce 91350-2814
FS 92	8905 E. Ave. U, Littlerock 93535-9662
FS 114	39939 N. 170 St. East, Lake Los Angeles, 93591
FS 131	2629 East Avenue "S", Palmdale, 93550-4790

Battalion 18

FS 21	4312 W. 147th Street, Lawndale 90260-2511
FS 158 (Div. HQ)	1650 W. 162nd Street, Gardena, 90247
FS 159	2030 W. 135th Street, Gardena, 90249
FS 160	5323 W. Rosecrans Ave., Hawthorne 90250-6622
FS 161 (Bn. HQ)	4475 W. El Segundo Blvd., Hawthorne 90250-4411
FS 162	12151 Crenshaw Blvd., Hawthorne 90250-3301

Battalion 19

FS 61	20011 La Puente Road, Walnut 91789-1719
FS 119	20480 E. Pathfinder Road, Walnut 91789-4620
FS 120 (Bn. HQ)	1051 S. Grand Ave., Diamond Bar 91765-2210
FS 121	346 Armitos, Diamond Bar, 91765-1838
FS 146	20604 E. Loyalton Dr., Walnut 91789-1216
FS 187	3325 Temple Avenue, Pomona 91768-3256

Battalion 20

FS 14	1401 W. 108th St., Los Angeles 90044-4905
FS 18	4518 W. Lennox Blvd., Inglewood 90304-2216
FS 170	10701 S. Crenshaw, Inglewood 90304
FS 171 (Bureau & Bn HQ)	141 W. Regent St., Inglewood 90301
FS 172	810 Centinela Ave., Inglewood 90302
FS 173	9001 S. Crenshaw, Inglewood 90303

Statistics

PERSONNEL	
Chief Officers	97
Captains	641
Fire Fighter Specialists	738
Fire Fighter Paramedics	632
Fire Fighters	1207
Administrative Personnel	497
Lifeguards	749
Dispatchers	92
Foresters	35
Health Haz Mat Unit	79
Mechanics	49
Pilots	12
Call Fire Fighters	74
Fire Suppression Aids (Paid)	75
TOTAL PERSONNEL	4,345
EMERGENCY OPERATIONS	
FIRES	11,229
RESCUES	174,007
OTHER	87,450
TOTAL INCIDENTS	272,686
Fire Injuries	
Civilian	306
Fire Fighters	21
Fire Fatalities	
Civilian	10
Fire Fighters	0
DIVE OPERATIONS	
Emergency Responses	25
Dive Injuries – Civilian	24
Dive Fatalities – Civilian	2

NON-EMERGENCY OPERATIONS	
Public Education Program	
Lifeguard Presentations	52
Yogi Bear Schoolhouse Presentations	107
Total Attendees	75,000
Junior Lifeguard Program	
Participants	2,360
Fire Prevention	
Plan Checks	11,344
Inspections	20,054
Permits	3,628
Health Hazardous Materials Division	
Emergency Operations	2,191
Non-emergency Operations	9,320
Complaint Inspections	665
Forestry Division	
Plants Distributed	62,041
Programs Presented	1,297
Oak Tree Permits	55
Persons Served	254,364
Air Operations	
Fire Responses	483
Rescues	1,518
Passengers Transported	16,140
Water/Foam Dropped	2,155,664
Cargo	20,650
FACILITIES	
Fire Stations	159
Fire Suppression Camps	11
Paid	3
Inmate	8
Fire Precention Offices	23
Forestry Nurseries	5
Towers Staffed Year Round	25
Total	223

EQUIPMENT	
Helicopters	
Bell 206 (4 passenger)	1
Bell 412 (14 passenger)	4
Sikorsky S7015 (14 passenger)	2
Total	7
Aircraft Tugs	2
Battalion Suburbans	54
Beach Patrol Vehicles	57
Buses	6
Cargo Vans	9
Command Trailers	4
Command Vans	1
Crew Carriers	61
Deluge Trucks	2
Dozer Tenders	12
Dozers	8
Sump Trucks	12
Emergency Support Teams (EST)	7
EMT-D Lifeguard Support Vehicles	52
Engine Companies	235
Field Kitchen	5
Foam Units	3
Fuel Dispensers	2
Hazardous Materials Squads	5
Heavy Equipment	12
Helicopter Tenders	6
Inflatable Rescue Boats	6
Mobile Aids (Ambulances)	6
Mobile Air Utilities	2
Mobile Light Units	2
Patrol Fire Trucks	44
Pick-up Trucks	96
Quints	20
Repair Trucks	28
Rescue/Fire Boats	20
Paramedic Squads	85

EQUIPMENT	
Special Operations Vans	4
Staff Vehicles	318
Stake Bed Trucks	52
Swift Water Rescue Squads	4
Trailers	42
Transports	15
Truck Companies	21
USAR Vehicles	11
USAR Trailers	12
Utility Trucks	38
Vans	37
Water Tenders	12
Water Towers	3
Yogi Bear Schoolhouse	2
Total	1,435

2003 Los Angeles County Fire Department Statistics

Five Year Data

	2003	2002	2001	2000	1999
Acreage Burned	14,350	120,075	3,355	1,374	8,814
Fire Incidents					
Structures	1,953	1,988	2,088	1,918	1,875
Vehicles	3,229	3,336	3,582	2,914	2,838
Rubbish	2,990	3,232	3,029	2,447	2,085
Brush/Grass	1,073	1,242	1,126	1,303	1,335
Outside Storage	51	64	73	682	703
Miscellaneous Property	1,933	2,148	2,013	699	300
Totals	11,229	12,010	11,911	9,963	9,136
EMS Incidents	174,307	170,072	166,305	156,218	146,977
Victims Treated	196,788	194,249	188,302	160,272	146,877
Other Incidents					
False Alarms	30,702	28,462	26,666	24,923	27,403
Smoke Scares	2,541	2,406	1,667	2,072	1,167

	2003	2002	2001	2000	1999
Vehicle Accidents	17,195	17,708	17,425	8,986	4,549
Totals	87,450	82,790	82,055	67,534	65,708
TOTAL INCIDENTS	**272,986**	**264,872**	**260,271**	**233,716**	**221,821**
Losses in Dollars					
Improvements	$68,635,761	$56,513,065	$112,358,262	$51,883,670	$40,174,382
Contents	42,196,731	28,850,591	25,246,374	33,011,561	23,961,964
Vehicle/Contents	18,151,572	17,661,360	17,616,138	13,160,336	10,573,546
Miscellaneous Property	1,649,560	984,618	308,450	548,461	220,216
TOTAL DOLLARS LOST	**$130,633,624**	**$104,009,634**	**$155,529,244**	**$99,604,028**	**$74,930,108**
Lifeguard					
Ocean Rescues	10,603	8,362	8,038	11,765	9,408
Medical Calls	20,710	11,006	12,976	20,354	9,703
Boat Rescues (Distress)	843	797	872	928	847
Missing Persons	1,424	1,386	1,490	1,533	1,470
Resuscitations	485	553	749	481	431
Drownings	1	6	3	1	2
Beach Attendance	50,568,438	48,028,661	50,117,518	53,980,751	53,858,470

2003 Los Angeles County Fire Department Statistics

Emergency Responsibilities

The Fire Department's mission is to "proudly protect lives and property and the environment providing prompt, skillful, cost effective protection and life safety services." This includes response to emergencies of all types: fires, floods, earthquakes, wild land fires, hazardous materials incidents, civil disturbances, emergency medical rescues, Urban Search and Rescue incidents and ocean lifeguard rescues.

The Los Angeles County Fire Department is designated as the Administering Agency for hazardous materials for the County. The Los Angeles County Fire Chief is designated as Region I Coordinator during major emergencies and is primarily responsible for the overall coordination and dispatch of mutual aid fire and rescue resources.

Health Services, Department of

Dr.Thomas L.Garthwaite, Director
313 North Figueroa Street, Room 912
Los Angeles 90012

The Department of Health Services (DHS) provides services to protect, maintain, and improve the health of the community by assessing health needs and developing policies to address those needs. DHS provides services to prevent and control communicable diseases such as measles, food-borne diseases, AIDS, and tuberculosis, manages harmful agents in the environment to protect the public from environmental hazards, provides health promotion and prevention services, and overcomes cultural, linguistic, financial, and disability-related barriers to provide the indigent and Medi-Cal population access to health care services.

Major specialty services include prenatal services, children's services, chronic disease prevention and treatment, AIDS prevention and treatment, spinal cord injury services, emergency/trauma care, burn services, psychiatry, and other prevention-oriented services, as well as gynecology, rehabilitation, and geriatric services. DHS programs include California Children Services, Child Heal and Disability Prevention Program, Juvenile Court Health Services, AIDS Program, Alcohol and Drug Program and Tobacco Control Program.

DHS operates the following prepaid health plans in the County: the Community Health Plan, six hospitals, six comprehensive health centers, thirty-eight health centers which are organized into five integrated health service delivery networks, three of the County's five Level-1 trauma centers, three of its nine pediatric critical care centers, and one of its three burn centers. Four DHS hospitals have affiliations with Drew, UCLA or USC Medical Schools, and partners with the private sector, other County Departments, and affiliated educational institutions in training health professionals.

Emergency Responsibilities

The mission of the Department of Health Services (DHS) during disaster response conditions is to provide for the medical and health needs of the population of the Los Angeles County Operational Area by organizing, mobilizing, coordinating and directing public and private medical and health resources. The Director of Health Services, as the Operational Area Coordinator, is responsible for the countywide management and allocation of medical and health resources, both public and private.

DHS is unique in that a majority of its medical response capability is provided by private sector health facilities. These facilities include hospitals, clinics and skilled nursing facilities that may also be designated as Casualty Collection Point (CCP) sites to handle mass casualties.

The Department also provides and coordinates public health services during disaster response conditions. Public health services may include preventive health services, including the control of communicable diseases, coordinating inspection of health hazards in damaged buildings, inspection of vital foodstuffs, water, drugs, and other consumables, mosquito and other vector control, and detection and identification of possible sources of contamination dangerous to the general physical and mental health of the community.

Human Relations Commission

Robin Toma, Executive Director
320 W.West Temple Street
Los Angeles 90012

The Human Relations Commission promotes programs that combat racism, homophobia, religious prejudice, linguistic bias, anti-immigrant sentiments, and other divisive attitudes which can lead to inter-group tension, related violence, and hate crimes.

The Department produces annual reports of hate crimes in Los Angeles County, provides technical assistance to mitigate inter-group conflicts in schools and communities, and helps municipalities develop the capacity to resolve their own local human-relations issues.

The Human Relations Commission partners with law enforcement agencies, school districts, local governments, community-based organizations, academics, policy-makers, business enterprises, and civic leaders to reduce hate crimes and promote positive human relations.

Human Resources, Department of

Michael J. Henry, Director
579 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles 90012

The Department of Human Resources develops and implements HR policies to manage the County's recruitment, selection, promotion, salary and benefits administration, discipline, and employee appeals processes. The Department provides a countywide human resources program to deliver a comprehensive personnel system, and assists County Departments with their operational ability to develop and maintain a high-quality workforce to provide critical services to the public.

Emergency Responsibilities

During an emergency, the Department may be called upon to implement personnel adjustments to respond to the event. They may also implement the Employee Disaster Assistance Program (EDAP) to help employee disaster victims.

Internal Services Department

Dave Lambertson, Interim Director
1100 N. Eastern Avenue
Los Angeles 90063

The Internal Services Department supports other County Departments by providing a full-range of in-house, contracted, and advisory services in the areas of purchasing, contracting, facilities, information technology and other essential support and administrative services.

ISD is organized into four primary service areas: Administrative and Finance Service (AFS), Facilities Operations Services (FOS), Information Technology Services (ITS), and Purchasing and Central Services (P&CS). These services are provided by mandated authority or at the pleasure of the County departments. The primary service areas are organized as follows:

Administration and Finance Service (AFS)

Administration and Finance Service (AFS) provides administrative support to ISD in the areas of human resources, billing, budgeting and other administrative areas.

Facilities Operations Services (FOS)

The Facilities Operations Services (FOS) is organized into three specialized areas which provide building and energy-related services to County departments as follows:

- FOS–Alterations and Improvements provides carpentry, electrical, masonry, mill rights, painting, roofing, sheet metal, and project management & job order contracting services.
- FOS–Maintenance Operations provides building alarms, elevator, general maintenance, heat and frost insulation, locksmith, plumbing, and refrigeration services.
- FOS–Other provides administration, custodial services and energy management services.

Information Technology Services (ITS)

Information Technology Services (ITS) plans, develops, operates, and maintains computer applications, systems and networks, and telecommunications systems for County departments. The three specialized areas of ITS provides the following services:

ITS– Administration and Customer Assistance offers general ITS administration, data center project, and infrastructure resource planning services.

- ITS–Customer Application Branch delivers information systems planning, contract management, web design and Internet application development, systems development and maintenance, project management, and application rightsizing support and services.
- ITS–Computer Service Branch provides systems operations and production support, distributed operations support, office information systems services, microfiche, CD-ROM preparation and laser printer services, Internet access and Web service support, and operates help desk and customer service hotlines for various County departments.
- ITS–Telecommunications Branch provides telecommunications consultation services, network design, installation, maintenance and operations services, radio systems design, implementation, maintenance and support services, and communications system design, installation, maintenance and support services.

Purchasing and Central Services (P&CS)

ISD is formally designated as the official Purchasing Agent for the County of Los Angeles, and ISD Purchasing and Center Services (P&CS) acts as both an integrator and facilitator in providing purchasing, contract processing, equipment maintenance, mail, parking, reprographic and fleet maintenance services to County departments, Maintains the County and Management Information System (CAMIS), Solicits bids from vendors that can provide these goods and services to the County, Offers guidance and training on procurement matters to County Departments, Fleet Management, Parking, P&CS Administration, Mail Sorter, Materials Management, Reprographics.

- P&CS–Services negotiates and manages master agreements, processes purchase orders for specific goods and services upon department request, Manages annual blanket purchase orders for departments, Develops and maintains vendor lists

Emergency Responsibilities

During an emergency, it is the primary responsibility of the Internal Services Department (ISD) to gather safety assessment information relative to County facilities and report their status to the CEOC. Additionally, ISD must determine if county facilities are mechanically safe for occupancy, then if feasible, facilitate the repair or alterations of damaged/unsafe County facilities to safe operating levels, or secure them.

Under the Standardized Emergency Management Systems (SEMS), ISD is also the head of the Logistics Section of the CEOC for the Los Angeles County Operational Area. ISD supports other emergency services by providing and repairing communications, by providing and repairing vehicles and off-highway equipment, by providing fuel, water and temporary power, by providing procurement support for essential emergency supplies, and by maintaining and/or restoring computer operations to support critical applications required for the operation of the County. ISD provides a liaison with utilities (except water) concerning the status of electrical, natural gas and telecommunications systems. ISD is also the transportation coordinator for mass transportation resources such as the Metropolitan Transit Authority (MTA).

Library, County Public

Margaret Donnellan Todd, Librarian
P. O. Box 7011
7400 East Imperial Highway
Downey 90242

The Public Library provides a full range of library services and information products at 87 community-level libraries, including three bookmobiles. The library offers books, paperbacks, periodicals, magazines, government publications, videocassettes, compact discs, books on cassette, audio cassettes, and laser discs, services include free and fee-based reference assistance, children's programs, and public computers for information and for the Internet. The library offers free service and serves the County's unincorporated areas and 51 cities.

Emergency Responsibilities

The County of Los Angeles Library is designated as a support department to DPSS. Upon activation of the CEOC, or as instructed, the Public Library will assist disaster relief efforts by providing staff to support the County's Disaster Victim Inquiry System (DVIS).

In addition to supporting the disaster information needs of the residents of the County of Los Angeles, the Public Library's Maintenance Section has general maintenance workers experienced in all types of repairs, equipment and several types of vehicles which can be made available to support the Logistics Section if necessary.

Mental Health, Department of

Dr. Marvin J. Southard, Director
550 S. Vermont Avenue
Los Angeles 90020

The Department of Mental Health is responsible for providing care and treatment of mentally disordered individuals through County-operated mental health clinics and hospitals, State hospitals, and private contract providers.

Through a system of directly-operated and contact agencies, the Department provides mobile response, crisis management, case management, social rehabilitation, in addition to acute inpatient care services, in strategically located clinics throughout the eight geographic services areas of the County.

The Department serves as the public's guardian and is responsible for investigating the need for conservator of all persons referred as allegedly incompetent or gravely disabled by mental illness and, upon appointment as guardian or conservator, is responsible for the care and custody of the person and management of his estate.

Emergency Responsibilities

In response to a disaster, the Department will augment the Public Health and medical Divisions of the Department of Health Services by providing disaster mental health services as requested through the Los Angeles CEOC. The Department will coordinate and provide mental health services, including Critical Incident Stress Debriefing (CISD) Teams, to community disaster victims and disaster workers throughout the entire duration of the disaster and its recovery period.

Military and Veterans Affairs, Department of

Joseph N. Smith, Director
1816 South Figueroa Street
Los Angeles 90015

The Department of Military and Veteran Affairs counsels veterans, their dependents and survivors regarding federal and state benefits such as compensation, pensions, disability, education, hospitalization, loans, and burials. The Department counsels veterans concerning alcohol abuse, drug abuse, and post-traumatic stress disorders; provides limited emergency assistance to homeless veterans; and grants state college tuition and fee waivers to qualifying veterans' dependents.

The Department provides liaison between the Board of Supervisors and veterans organizations and the military services, and administers Patriotic Hall, the County's veteran's memorial building, a 10-story facility with meeting rooms, auditorium, gymnasium, and banquet facilities available to the public.

Museum of Art

Dr. Andrea Rich, President and Director
5905 Wilshire Boulevard
Los Angeles 90036
(323) 857-6001
Fax: (323) 857-6210

The Museum of Art acquires, preserves, researches, exhibits, and provides for the educational use of works or art in all media from prehistoric times to the present. In addition to the permanent collection and special exhibitions, the museum offers many varied activities including film series, concerts, lectures, tours of the collections, student and adult classes, and special weekend programs designed for the entire family to participate in museum events.

Museum of Natural History

Jane G. Pisano, President and Director
900 Exposition Boulevard
Los Angeles 90007
(213) 763-3301
Fax: (213) 746-7538

The Museum of Natural History offers public exhibitions, educational programs and conducts research in the natural sciences and in western history. The Board of Governors, consisting of 15 members appointed by the Board of Supervisors, serves as the governing body.

Municipal Courts

Emergency Responsibilities

During periods of emergency or disaster, the primary responsibility and considerations of the Municipal Courts are: safety of employees and the public at work sites, preservation of vital Departmental records, and maintaining the jurisdiction in misdemeanor cases, civil cases up to $25,000, small claims up to $5,000, and felony arraignments and preliminary hearings. In addition to these responsibilities, the Department shall provide supportive assistance to the Sheriff's Department.

Ombudsman, Office of

Robert B. Taylor, Ombudsman
510 S. Vermont Ave., Suite 215
Los Angeles 90030

The Office of the Ombudsman assists citizens who have filed complaints against the Sheriff's Department or the Office of Public Safety personnel, and are dissatisfied with the results. The Department assures that citizens' complaints are addressed fully and timely, and can confidentially review the adequacy of the investigation and, if appropriate, request the Sheriff to reconsider an investigation.

Parks and Recreation, Department of

Timothy Gallagher, Director
433 South Vermont Avenue
Los Angeles 90020

The Department of Parks and Recreation plans, designs, administers and maintains local and regional County parks, golf courses, and special recreational facilities. The Department initiates beautification projects, offers maintenance and recreation services to special assessment districts, provides regional and community recreation programs and services, provides administrative services to the Los Angeles

County Regional Park and Open Space District, and acts as liaison and provides staff services to the Parks and Recreation Commission.

The Department develops and maintains botanical gardens and arboreta located in four major climatic environments of Los Angeles County, develops plant collections, grows and tests plants from all parts of the world, conducts research in horticultural, botanical and related environmental problems, conducts daily tours for the general public and special educational tours for school children, disseminates horticultural information, and maintains a botanical and horticultural reference library.

Emergency Responsibilities

The role of the Department of Parks and Recreation, in the event of a disaster, is to make its parks and facilities available to relief and disaster agencies for use as evacuation centers or mass care shelters to provide care and shelter for disaster victims. Park Rangers will act as the primary security resource at these facilities.

In a widespread disaster, DPSS and Parks and Recreation personnel may be used to assist staff from the relief agencies.

Probation Department

Richard Shumsky, Chief Probation Officer
9150 East Imperial Highway, Room N-31
Downey 90242

The Probation Department designs and implements programs to reduce crime and ensure victims' rights, and recommends sanctions to the courts, enforces court orders, operates correctional institutions, and incarcerates delinquents.

The Department serves the Courts and the community by conducting, on an annual basis, 80,000 pre-sentence investigations on adults convicted of a crime (about three-quarters of these are felony convictions), and 47,000 investigations on minors found to have committed what would have been a criminal act for an adult. The Department supervises 80,000 adults and 23,000 juveniles placed on probation by the Courts (including 15,000 in special programs), collects $12.7 million in restitution and fines from adult and juvenile probationers, disburses restitution to 27,000 victims of crime, provides secure detention in juvenile halls for approximately 1,700 minors at any one time, and provides control and rehabilitation programs in camp facilities for approximately 4,000 minors each year.

Emergency Responsibilities

During an emergency, the Probation Department, pursuant to standard operating procedures, will continue to enforce court orders, operate correctional institutions, incarcerate delinquents and, time permitting, recommend sanctions to the courts and design and implement additional programs to reduce crime and ensure victims rights. In addition to these responsibilities, the Department shall provide supportive assistance to the Sheriff's Department.

Public Defender, Office of

Michael Judge, Public Defender
210 West Temple Street, Room 19-513
Los Angeles 90012

The Public Defender provides legal representation to all persons, including juveniles, who are financially unable to employ counsel in criminal proceedings. Services which may be requested by a defendant or ordered by a court include: representation in criminal, juvenile, mental health and certain civil proceedings triable in the superior and municipal courts. Limited appellate representation in the state and federal court system may also be provided while public defender is representing the defendant in the trial court.

Emergency Responsibilities

During periods of emergency or disaster, the primary responsibilities and considerations of the Public Defender's office are the safety of employees and public at work sites, preservation of vital Departmental records and property, and continuation of legal services to clients. In addition to these responsibilities, the Department shall provide supportive assistance to the Sheriff's Department.

Public Safety, Office of

The Office of Public Safety provides law enforcement and protective services to patrons and employees at various County-operated government properties and recreational venues.

Public Social Services, Department of (DPSS)

Bryce Yokomizo, Director
12860 Crossroads Parkway South
City of Industry 91746

The Department of Public Social Services provides cash assistance, benefits and/or social services to needy individuals and families who meet various specific program requirements. Financial assistance are available to help residents meet their basic needs for food, housing, child care, in-home care and/or medical assistance, and a variety of services are available to help able-bodied adults gain employment and achieve economic self-sufficiency as quickly as possible. Programs include CalWORKs (formerly AFDC), L.A. GAIN employment services, Cal-Learn for Teen Parents, In-Home Supportive Services, Food Stamps, Medi-Cal, and General Relief, and free personnel recruitment services are also available to local business.

Emergency Responsibilities

During an emergency, the Department of Public Social Services (DPSS) is designated as the Los Angeles County Area Branch Coordinator for Care and Shelter. DPSS is the Operational Area liaison with private, not-for-profit human services agencies, including community-based organizations. DPSS is also the Operational Area liaison with the grocery industry.

DPSS manages the Emergency Food Stamp program when activation is requested by the County and approved by the USDA. DPSS In-Home Supportive Services (IHSS) Social Workers conduct health and welfare checks on high-risk disabled and elderly HISS recipients immediately following a disaster.

Public Works, Department of (DPW)

Donald L. Wolfe, Interim Director
900 South Fremont Avenue
Alhambra 91803-1331

The Department of Public Works (DPW) is responsible for the County's infrastructure and essential services, i.e., road network, flood control systems, sewer and waterworks districts, and building and safety functions. DPW constructs, installs, operates, maintains and/or repairs roads, highways, bridges, airports, flood control and water conservation facilities, sewage and water distribution systems. DPW maintains regulatory and ministerial programs for the County of Los Angeles, Los Angeles County Flood Control District, other special districts, and contract cities that request services.

DPW provides a broad range of contracted City Services to most of the County's 88 cities, more than half of which are members of the California Contract Cities Association (CCCA) of the County of Los Angeles. Overall, in terms of DPW's core services, 17 cities contract for building and safety services and 19 cities for street maintenance. Approximately one-third of the cities contract for ongoing services and the majority (86 cities) use general services on an as-needed basis.

DPW comprises many Divisions:

Administrative Services Division

The Administrative Services Division is responsible for a wide range of support functions: administrative, legislative, ridesharing, telecommuting, sundry services contracting, living wage monitoring, contractor outreach, fleet services, records management, graffiti abatement, procurement, and warehousing. These functions are handled through several sections whose responsibilities include monitoring and coordinating the analysis of State and federal legislation that impacts the Department; contracting for various consultant services, as well as for a variety of maintenance or operational services such as landscaping, security, janitorial, vehicle repair, garbage disposal, and hazardous waste removal; productivity improvement and monitoring; reprographic services; administration of the employee suggestion program; administrative directives; mail and messenger services; records and information management; graffiti abatement services; and materials management. The Fleet Management Group and Library are included in this Division.

Library Division

The Department's Technical Library opened in July 1993. The Library's professional research staff increases employee efficiency by providing technical, legal and other work-related information. The library offers print resources as well as online databases and the Internet is available to support research requirements. To expand departmental access to resources, networking relationships have been established with area engineering libraries as well as institutions specializing in transportation, law and earthquake engineering research.

The Technical Library is open during business hours. Staff is encouraged to visit the Library. Research requests may also be submitted by telephone or by e-mail. The Library Catalog is online.

Architectural Engineering Division

The Architectural Engineering Division is composed of three sections: contracts administration, design & review, and inspection.

The contracts administration section prepares contracts for capital projects and monitors the contracts through project construction. This section also prepares requests for proposals for consultant contracts in architectural, engineering, and other design related disciplines.

The design and review section, staffed by architects, landscape architects, and structural, civil, mechanical, and electrical engineers, is involved in the design, plan preparation, and construction phases of small to medium-sized facility County capital projects and for additions/alterations to existing facilities. The section also reviews construction documents prepared by consultants for major capital projects and earthquake repair projects. These reviews focus on design-related issues such as the quality, maintainability, cleanability, and longevity of the facility design and construction.

The inspection section provides quality and code inspections for County buildings during the construction process.

Aviation Division

The Aviation Division administers a contract for the management, operation, and maintenance of five general aviation airports in the County: Brackett Field, La Verne; Compton Airport, Compton; El Monte Airport, El Monte; Fox Field, Lancaster; and Whiteman Airport, Pacoima. These airports provide vital general aviation services for approximately 2,000 based aircraft, and represent an essential link in the County's emergency preparedness program. They offer strategically located home bases for air ambulance, Sheriff's Department aircraft, and Federal aerial fire-fighting equipment. In addition, 61 privately-owned businesses operate on leased airport property.

Budget/Fund Management

The Budget/Fund Management Division prepares, administers, and manages the Department's budget, which totals over $760 million annually.

Building & Safety Division

The primary function of Building & Safety is the enforcement of Los Angeles County Building, Plumbing, Mechanical, and Electrical Codes, as well as other local and State requirements relevant to the construction and occupancy of public and private structures. The Division provides this enforcement through plan checking and inspection of new commercial and residential construction. The County's unincorporated area and 21 cities under contract are served by 25 branch or city inspection offices and a central administrative office.

In addition to these responsibilities, the Division operates the Property Rehabilitation Program. This involves the abatement of neighborhood deterioration and elimination of unsightly, unsafe or unhealthful conditions through the repair or demolition of substandard buildings.

Construction Division

The Construction Division is responsible for the administration and inspection of Public Works construction contracts; inspection of subdivision improvements; issuance and inspection of permits for road, drainage, and sewer projects; and utility coordination. In addition, the division awards and administers contracts to clean approximately 70,000 catch basins during the late summer months prior to each rainy season. Cleaning the basins improves storm water quality by minimizing the amount of debris that would otherwise flow through the storm drains and into the ocean.

Design Division

Design Division is responsible for preparing contract drawings, cost estimates, and specifications for the Department's new construction, repair, retrofit, and rehabilitation projects. Projects include streets and highways, bridges, storm drains, water and sewer lines, debris control facilities, pumping plants, and facilities appurtenant to dams. The Department also lends technical design support to other agencies and the public, and it publishes its Standard Plan Manual and Standard Specifications Book for construction contractors.

Disaster Services Division

The primary responsibilities of the Disaster Services Group are planning and coordination of the Department's disaster responses. This includes coordinating disaster programs, directing the activities of the Department's Operations Center, updating and distributing the Department's Emergency Response Manual, training personnel in emergency preparedness and response, and obtaining disaster-related equipment and products. As part of the Los Angeles Operational Area responsibilities mandated by the State, Public Works has a vital role in planning for disaster mitigation in conjunction with the Chief Administrative Office, County agencies and the cities of Los Angeles County.

Environmental Programs Division

The Environmental Programs Division conducts the largest household hazardous waste program in the nation, and is responsible for five major environmental programs within the County: Hazardous Material Underground Storage Tank (UST) Regulation; Solid and Hazardous Waste Management Planning and Implementation; Stormwater Discharge/Water Quality Monitoring and Control; Industrial Waste Control; and administration of the County's Garbage Disposal Districts which serves a population of 300,000. In addition, Environmental Programs provides technical support and advice for County recycling, composting, and hazardous waste programs, conducts environmental outreach programs, reviews road and utilities improvement plans relative to sanitary sewers, reviews building construction plans for the Methane Gas Intrusion Protection System, and provides waste management advice and coordination.

Financial Management Division

The Financial Management Branch is responsible for the financial activities of the Department. This includes responsibility for the Department's annual budget, maintaining financial records, and internal auditing. The Fiscal Division, Budget/Fund Management Division and the Fleet Management Group are included in this Branch.

Fiscal Division

The Fiscal Division is responsible for maintaining the accounting, cashiering, billing, accounts payable, accounts receivable, cost accounting, and fixed asset property records for the Department.

Fleet Management Group Division

The Fleet Management Group is responsible for providing a wide range of equipment services to the Department. These services include vehicle acquisition, disposal, maintenance, and repair. Fleet Management is also responsible for overall coordination of fleet policy and for ensuring that vehicles and equipment are appropriate for their intended use, safe and cost effective to operate.

Flood Maintenance Division

The Flood Maintenance Division is responsible for operating and maintaining the major portion of the County's flood control and water conservation facilities. These facilities include 15 major dams, 284 debris basins, 450 miles of storm drain channel, 2,500 miles of drains, 33 pump plants, 30 spreading grounds covering 1,989 acres, and 22 miles of barrier projects which prevent the intrusion of seawater into the fresh water supply.

Flood Maintenance Division is also responsible for implementing Best Management Practices (Bumps) to meet the permit requirements of the National Pollutant Discharge Elimination System. These BMPs include the inspection of all storm drains for illegal connections and discharges.

Geotechnical and Materials Engineering Division

The Geotechnical and Materials Engineering Division are comprised of the geotechnical engineering, engineering geology, and materials engineering disciplines. The Division performs the review of geologic and soils reports for verification of compliance with the Los Angeles County Building Code requirements for the unincorporated county and contract cities. It establishes and implements policy from a geotechnical standpoint and determines building site stability following emergency situations. The Division, also performs geologic and geotechnical investigations for all county facilities and contract cities. It is responsible for providing recommendations for remedial measures regarding site failures due to landslide, settlement or slippage. The Division also analyzes groundwater conditions and recommends actions for dam safety and seawater barriers. Environmental assessments and investigations of contaminated soil and groundwater are performed and mitigation measures provided by the Division.

The Division is also responsible for the operations of various state-of-the-art testing laboratories. Through these labs, the Division performs materials testing and analysis, concrete, asphalt concrete and reinforced concrete pipe plant inspection, and field sampling and compaction testing. The Division also serves as Materials Engineer to other Divisions within the Department, other County Departments, and several cities in Los Angeles County. As such, it performs concrete and asphalt concrete mix design, roadway structural section design and pavement management.

Human Resources Division

The Human Resources Division is responsible for general personnel services, discipline and advocacy, recruitment, examinations, selection, employee relations and special studies, job classifications, safety, workers compensation, return-to-work, and payroll.

Information Technology Division

The Information Technology Division is responsible for computer systems development; operation of the Department's Data Center; budgeting, acquisition, maintenance, repair, and support of all Department computer hardware and software; computer equipment planning, configuration, installation, and relocation; maintenance of master software licensing agreements; computer training; computer security management; data conversion services; and telecommunications including telephone, radio, telemetry and other related electronic systems.

Land Development Division

Land Development is responsible for the geology, soils, and materials engineering requirements for the Department's projects and facilities. Complete geotechnical investigative services for landslides, roadway failures, bridges, storm drains and other County facilities are also provided. Services have recently been expanded to include environmental assessment studies, and specially trained personnel

prepare Phase me and Phase II Site Assessments. The Division also reviews and approves plans and geotechnical reports for private developments within Los Angeles County.

The Materials Engineering Laboratory provides service to cities in Los Angeles County upon request. The laboratory has Certified Acceptance to perform laboratory work on Federal projects for contract cities and adheres to strict certification and calibration standards.

Mapping & Property Mana gement Division

The Mapping & Property Management Division is responsible for acquiring property for Department purposes and for renting, selling, and leasing excess County- and special district-owned property under the jurisdiction of the Department. Property functions include title investigations, appraisals, project coordination, right of way engineering, and acquisitions and dispositions. Permits are also issued for use of County property. Claims and pending litigation against the Department are processed and coordinated. An extensive mapping operation is supported by the Department's Computer-Aided Design and Drafting (CADD) system network which consists of over 130 work stations in nine divisions.

Operational Services Division

The Operational Services Division is responsible for providing traffic signal maintenance, sign posting, street pavement markings, street striping, parking meter maintenance, and bridge maintenance for the unincorporated areas of the County and contract cities, including 1,420 signalized intersections and 172,000 traffic signs. This Division also provides support services for the DPW including electrical engineering, materials management, bridge and facility maintenance, and craft services including carpentry, painting, plumbing and air conditioning.

Programs Development Division

This Division has varied functions, including budgeting, scheduling, and managing the Department's road construction programs; administering State grade separation programs; coordinating and administering Federal and State grants; monitoring road construction for each Supervisory District; preparing and processing City-County and State-County cooperative agreements and jurisdiction requests; coordinating the Department's rail transit involvement; coordinating the State-mandated Bridge Retrofit Program for Los Angeles County; and administering the Flood Control Benefit Assessment Program and Federal and State disaster assistance.

Programs Development also coordinates a significant number of special programs intended to meet the specific needs of Los Angeles County residents. These include the construction, operation and maintenance of the County Bikeway System and the County's Public Transit Program.

The Flood Management section has project management responsibilities for flood control construction projects as well as other selected capital improvement or special projects. Duties include developing the annual Flood Control Construction Program, scheduling and managing the various tasks necessary to deliver projects in a timely and cost-effective manner, and acting as the Department's liaison with outside agencies and jurisdictions to obtain permits and approvals for flood control projects.

Programs Development is also responsible for conducting public meetings to discuss upcoming projects with affected residents and businesses during the design phase.

Project Management Divisions I & II

Project Management Divisions I and II play a key role in the development and implementation of complex County-building projects by providing project management services, directing all technical aspects of the project development process, and managing the consultants involved in planning, procurement, design, construction, and project delivery. The scope of projects undertaken range from renovation or refurbishment of existing structures to construction of new facilities. Project managers work closely with tenant departments, CAO, and other stakeholders to coordinate activities to ensure that all project requirements are delivered within established budgets and schedules.

Project Management Division I manages projects on behalf of the Departments of Animal Care and Control, Beaches and Harbors, Health Services, Internal Services Department, Parks and Recreation, Public Works, Public Library, Mental Health, and Coroner, among others. Project Management Division II provides services primarily to Superior Court, Probation, Sheriff and Fire Departments. They are also responsible for overseeing the recovery of County facilities damaged by the Northridge Earthquake.

Public Relations Group

The Public Relations Group handles a broad range of responsibilities and special assignments, including answering inquiries and providing information to the media and to the public; preparing and/or presenting speeches; coordinating groundbreaking, ribbon cutting, and other ceremonies or meetings; handling the employee recognition and employee safety awards, community support, and other employee/charitable programs or campaigns; coordinating tours for foreign visitors; and developing and implementing programs to enhance the Department's image.

Road Maintenance Division

The Road Maintenance Division is responsible for providing road maintenance and emergency services required for the upkeep of the County's 3,100 mile road system. The services provided include: patching potholes, resurfacing streets, sealing pavements, sweeping streets, maintaining 150,000 parkway trees, removing problem trees, and providing wind and storm damage repair work.

Rain Storms/Floods: When a significant amount of rain has fallen, road crews begin storm duties which can include: storm patrol, clearing the roads of rocks and debris, posting/turning warning signs, and maintaining culverts and storm drains. Road and bridges are closed when they are found unsafe for the public.

The level of Division response will depend on the nature and size of the emergency. In the event of an emergency the Department’s DOC Director or Disaster Services Coordinator will inform the appropriate divisions that the DOC will or will not be activated. Each responding division will keep the DOC Director fully informed as to the status of all emergency response activities.

Survey Division

The functions of Survey Division include design and construction surveying, topographic mapping, maintaining Countywide survey control points, maintaining a Countywide vertical control network that furnishes benchmarks for projects throughout the County, and monitoring dams and land areas for movement.

The Division's survey records library is the largest in the County and its public counter continues to do a large volume of business. An Optional Technical Research Service provides a high quality survey records research service to the public via mail and facsimile requests with fees based on recovery of County costs.

Traffic and Lighting Division

The Traffic & Lighting Division is primarily responsible for traffic design, traffic investigations and studies, and administering street lighting special districts for the unincorporated areas and 20 incorporated cities covering approximately 100,000 streetlights within Los Angeles County. Functions include designing striping and signing for highways; designing new or modifying existing traffic signals; developing systems to synchronize traffic signals to provide better progression on arterial highways; investigating requests from the public for new traffic controls; reviewing traffic analyses for new developments; and reviewing high-accident locations in the unincorporated areas to improve traffic safety. In addition to these responsibilities, the Division coordinates efforts by the County and its cities toward relieving traffic congestion and improving traffic flow.

Water Resources Division

The Water Resources Division directs the operation of the Department's dams, spreading grounds, and seawater barriers; performs hydrology and sedimentation studies; gathers and disseminates hydraulic and hydrological data; manages reservoirs, debris basins and disposal areas; performs studies and improvement planning on facilities under its direction; and prepares maps of watersheds burned by brush fires and potential mud flow areas.

Watershed Management Division

Watershed Management Division is responsible for planning and implementing watershed management projects that protect the County's residents from flooding while integrating the elements of natural resources, groundwater and storm water conservation, improved storm water runoff quality, and socio-economic, environmental, and recreational features. The Division's goal is to establish the Department as the leader in planning and implementing watershed management activities in the region.

Watershed Management Division has four sections dedicated to managing the following major watersheds: Los Angeles River, San Gabriel River, Ballona Creek/Malibu Creek/Dominguez Channel, and Santa Clara River/Antelope Valley. Each watershed team develops, coordinates, and implements multi-purpose projects within their respective watersheds and incorporates new technologies and methods for achieving the stakeholders' goals. Watershed Management Division deals with issues related to flood hazard mitigation, water quality analysis, water conservation studies, groundwater recharge, FEMA, flood insurance, and floodplains. The Division also coordinates the efforts of the Department and 84 municipalities under the National Pollutant Discharge Elimination System permit program to improve the quality of storm water/urban runoff.

Watershed Management Division works with various affected stakeholders within respective watersheds (such as elected officials, local, state, and federal agencies, environmental groups, and industries) to optimize the use of available resources, sponsors research in collaboration with institutions, and establishes a forum for disseminating information. The Division strives to provide a higher quality of life for County residents by providing flood protection, increasing water conservation, preserving and creating open space for recreation and habitat, and reducing water pollution.

Waterworks/Sewer Maintenance Division

The Waterworks & Sewer Maintenance Division is made up of two branches. The Sewer Maintenance Branch consists of three Sewer Maintenance Districts which encompass 14 tax zones and 41 cities. These Districts are organized under the State of California Health and Safety Code. The primary

responsibility of the Districts is to protect the health and welfare of the public by providing them with continuous and uninterrupted operation of the sewage system.

The sewage system maintained by the Division contains over 4,600 miles of sewers and 137 pumping stations serving over half a million parcels and approximately 2 million County residents. Most of the sewage generated is treated by the County Sanitation Districts, although the Sewer Maintenance Districts also operate four treatment plants for remote areas of the County.

The Waterworks Branch administers and maintains five Los Angeles County Waterworks Districts and the Marina Del Rey Water System serving residents in Marina del Rey, Malibu, Val Verde, Acton, Kagel Canyon, and Antelope Valley. The primary mission is to provide for the availability and distribution of potable water for domestic use and fire suppression purposes to almost 200,000 people through approximately 48,000 water meters within the nearly 300 square mile service area.

DPW Emergencies Responsibilities

Overarching Responsibility: The County of Los Angeles is responsible for protecting its residents from the effects of major emergencies and disasters that may pose a threat to lives and property. Along with the Sheriff, Fire, and other County Departments, DPW has a major role as a lead Department in responding to such major emergencies.

The Department is responsible for the maintenance and repair of a large share of the County's infrastructure and essential services such as the road network, flood control system, sewer and waterworks districts, and building and safety functions. The Department conducts damage assessment, construction and engineering recovery operations. Therefore, a quick response by the Department to emergencies affecting these systems and facilities will be critical.

The Homeland Security Advisory System: The County and the Department of Public Works hare incorporated the federal governments' Homeland Security advisory System (HSAS) into emergency response procedures to facilitate preparedness for terrorist attacks. The HSAS has five alert levels representing graduated increase in the threat of terrorist action.

DPW – as a whole

Along with the Sheriff, Fire, and other County Departments, the Department of Public Works is a lead Department in responding to major emergencies and disasters that may pose a threat to the lives and property of LA County residents.

DPW is the lead County Department in conducting Safety Assessment and Construction and Engineering Recovery activities and has a lead role in responding to major emergencies. DPW is responsible for the repair and maintenance of infrastructure and essential services, including the road network, flood control systems, general aviation airports administered by the department, sewer and waterworks districts, and building and safety functions. For this, the Department maintains a 24-hour emergency operations center, and provides emergency response, damage assessment, and infrastructure restoration services during major emergencies.

Department of Public Works Operations Center (DOC)

A major disaster or emergency for DPW purposes is any unusual or unexpected event of significance which endangers the lives and/or property of LA County residents or threatens Department-maintained systems and facilities residents depend upon for mobility and essential services.

The Department's Operations Center (DOC), located on the 2nd floor of the Thomas A. Tidemanson Headquarters Building, provides centralized direction and coordination of resources to respond effectively to major emergencies impacting the Department.

As Mandated by the County Board of Supervisors, the Department uses the Standardized Emergency Management Systems (SEMS) in its response to emergencies. The DOC is organized into the five branches of management: Command, Operations, Plans/Intel, Logistics and Finance/Administration.

In addition, each division has its own primary set of Emergency Responsibilities.

Administrative Services Division

- Provide photograph, reprographic services, security and mail/messenger services.
- Arrange use of County helicopters.
- Responsible for reporting damage to Deap5tment-owned buildings.
- Coordinate Telecommuting Services for department employees.
- Responsible for securing in the field facilities.
- Responsible for arranging extra security coverage if requested by a field division (field division would be responsible for monitoring the security services provided).
- Operate procurement office and warehouse.

Architectural Engineering Division

- County Building Evaluation Team

Aviation Division

- Collect safety assessment reports from five County-owned airports.
- Provide safety assessment information on all major airports in the Operational Area.

During or after County emergency/terrorist threat, Aviation Division personnel are assigned as "Airport Emergency Coordinators" to provide proper guidance and, if necessary, assume operational control of the five general aviation County airports currently managed by private contract personnel. The scope of this control is to direct County, contractor, and other personnel in the repair and restoration of both airside and landside facilities to operational conditions, and to direct the moving of aircraft and tenants to non-operational areas, as needed, to provide both indoor and outdoor emergency staging areas for event-recovery operations.

Strategically located to offer home base facilities for various law enforcement, fire-fighting, emergency response agencies, and the military, these airports represent an essential link in the County's

emergency preparedness program. Support personnel, supplies and equipment would be made available to stage large transport aircrafts, helicopters, air ambulances, Sheriff's Department aircrafts, and Federal aerial fire-fighting equipment, and to stage regional damage assessments, accept airlifted emergency supplies, place military troops and evacuate the injured. In addition, these airports provide an isolation zone, quickly available, in the heart of a populated area.

Building and Management Group

- Conduct damage assessment inspections for the Headquarters' complex buildings.
- Responsible for Security in the Headquarters' complex.
- Building Emergency Coordinator for Headquarters' buildings including Floor Wardens.
- Responsible for coordination of all Headquarters' complex contracts and emergency services.

Building and Safety Division

- Perform safety inspections of private structures or property in unincorporated areas and contract cities to determine which buildings are safe to occupy or need to be condemned or demolished.
- Conduct inspections of the Department Headquarters' complex and other Department buildings on request.

Construction Division

- Responsible for patrolling construction projects, unaccepted active subdivision and unaccepted active permits to assess damage and any unsafe conditions.
- Coordinate negotiations for special fast-track emergency repair contracts.

Design Division

- Inspect bridges in the unincorporated areas or cities with service agreements.
- Provide safety assessment information on all bridges in the Operational Area.
- Provide personnel for storm patrol of flood control channels.
- Member of Review Committee of Dam Safety (RCODS)

Disaster Services Group

- Coordinate disaster activities between the Department, other County Departments and outside agencies.
- Coordinate disaster activities within the Department as necessary during emergencies.
- Act as liaison with County Emergency Management Council (EMC).

- Coordinate and schedule Department's representatives at the County Emergency Operations Center (CEOC).
- Act as coordinator for the Public Works Mutual Aid Agreement (PWMAA).
- Assist the DOC (Department's Operations Center) Director in coordinating the activities of the DOC.
- Act as the coordinator for the Mobile Emergency Operations Center (MEOC).

Environmental Programs Division

- Inspect permitted discharges regarding problems (actual or potential) to receiving systems, domestic sewers or flood control drains within the unincorporated areas and contract cities.
- Staff available to assist in dealing with hazardous material incidents in the drainage systems flowing downstream toward the ocean.
- Provide information on disposal sites, facilities and gas monitoring.
- Act as coordinator for the Mass Debris Removal Plan.
- Inspect underground tanks.

Financial Management Branch

- Process emergency related job numbers (PCA's) and produce accounting reports related to the emergency.
- Process petty cash payments.
- Provide FEMA cost accounting financial reports.
- Coordinates the Financial Disaster Assistance Team (FDAT).

Fleet Management Group

- Repair Department equipment.
- Provide support and coordination for user divisions to obtain rental equipment.
- Act as Public Works Mutual Aid Agreement (PWMAA) Coordinator during emergencies.
- Motor Pool operations.
- Act as coordinator for Plan Bulldozer (Associated General Contractors Association – AGCA).
- Operate Transportation Unit.

Flood Maintenance Division

- Patrol flood control facilities (storms).
- Remove debris from access roads, reservoirs and debris basins and reconstruction or repairing or spreading ground facilities, crib dams, access roads, storm drains, channels, pump stations and stabilization structures.
- Assess and repair damage to Los Angeles County Flood Control District drainage facilities.
- Receive/evaluate safety assessment information on the dams and relate any abnormal situations to the Review Committee on Dam Safety (RCODS).

Geotechnical & Materials Engineering Division

- Provide geotechnical expertise and materials testing and analysis.
- Assist Building & Safety Division with the posting of private property subject to, or which has been affected by, geotechnical hazards.
- Staff available to assess County facilities and recommended geotechnical mitigation measures for building and special structure damage and site hazards, due to earth movement.
- Member of Review Committee on Dam Safety (RCODS).

Human Resources Division

- Hire and compensate temporary emergency response personnel.
- Designated as the personnel coordinator to manage departmental human resources.
- Act as coordinator for the Volunteer Program.
- Risk Management Coordinator.
- Act as coordinator of the employee hotline.

Information Technology Division

- Provide information processing and reporting services.
- Operate the radio dispatch center and radio network.
- Repair radio, telephone and telemetry systems.
- Reconnect all network users, restore, add data and voice communications links and restart the various systems.
- Provide computer systems support.

Land Development Division

- Collect water systems damage data for the Operational Area.

- Member of Review Committee on Dam Safety (RCODS).

Operational Services Division

- Survey damage and provide emergency repairs to traffic signals, street lights, pump houses in underpasses, etc.
- Respond to problems involving downed or damaged traffic signs, particularly critical signs.
- Provide electrical services.
- Provide welding services.

OSD performs emergency repairs of Public Works' buildings and restores essential services including traffic signals, street lighting, and critical traffic signs as soon as possible, and assist in the implementation of traffic detours and delineation and control of evacuation routes. OSD surveys the extent of the damage and provide emergency repairs while keeping the Radio Dispatcher appraised of developments.

Terrorist Attacks: Unlike other types of emergencies, acts of terrorism may result in the contamination of the impacted area with radioactive, biological, or chemical agents. Such areas are known as "hot zones." According, OSD does not have a first-responder role, but rather a support role.

Programs Development Division

- Provide liaison with cities to coordinate construction and engineering emergency services requests and ensure their requests are receiving the appropriate response.
- Collect damage assessment information for railroads operating in the County and the Ports of Long Beach and Los Angeles.
- Responsible for collecting damage data and compiling SITSTAT reports.
- Coordinate the disaster recovery reimbursement for Public Works personnel cost and infrastructure except for County buildings. (Recovery for County buildings is coordinated by the Chief Administrative Office's Office of Recovery and Project Management Division).

Public Relations Group

- Public Information Officer is responsible for media contacts and the dissemination of accurate information to the press and the public.

Road Maintenance Division

The Road Maintenance Division, as a part of the Operations Branch, has various lead roles in the Department's emergency response effort. Typical roles for this Division include:

- Conduct damage assessment to roads in the unincorporated areas and contract cities.
- Clear and repair roads as quickly as possible.

- Maintain records of equipment, road closure, danger areas, alternate routes, etc.
- Coordinate with Fleet Management Group for the renting of equipment, as needed.
- Clear roads of mud and debris: close roads that are washed out or otherwise impassable or unsafe for public travel (storms).
- Clear snow off roads under the Department's jurisdiction.
- Barricade affected areas from hazardous materials spills; contact health agency and vendor to remove material.
- Provide barricades for road closures upon request of the Sheriff, California Highway Patrol (CHP) or directing fire agency.
- Inspect and perform emergency repairs to bridges.
- Clearing roads of mud and debris during storm conditions, closing roads and bridges that are washed out or impassable or otherwise unsafe for public use,
- Clearing roads of fallen trees and other debris during windstorms,
- Clearing and assessing damage to roads and bridges in the event of an earthquake,
- Keeping Disaster Routes clear and open during emergencies where at all possible on the Disaster Route Maps,
- Closing roads as necessary in response to unsafe conditions.

Survey Division

- Monitor key areas for flooding throughout Los Angeles basin area, depending on the intensity of the storm.
- Member of the Review Committee on Dam Safety (RCODS).
- Survey for emergency repair work.

Water Resources Division (WRD)

- Direct operations of the Department's dams and other flood control facilities.
- Collect and provide storm/runoff data information.
- Evaluate operational capability of water conservation facilities.
- Monitor and assess information on leakage at the dams to determine significant damage.
- Evaluate maps from burned watersheds to assess potential hazards.
- Chair of Review Committee on Dam Safety (RCODS).

- Obtain safety assessment information on the status of dams in the Operational Area that are under the jurisdiction of the State Department of Safety of Dams.
- Provide engineering advice for fire areas (County areas only unless requested by a city).
- Act as the liaison with corps of Engineers' operations.
- Operate, maintain and disseminate data to Department stakeholders from Spreading Grounds, Reservoirs, Harrier Projects and Automated Local Evaluation in Real Time (ALERT) Telemetry Systems.
- Provide hydrology and sedimentation studies for Department facilities.

Water Resources Division (WRD) has direct responsibilities for the operation of dams, spreading grounds, seawater barrier facilities, and hydroelectric facilities, and a supporting technical advisory role for the operation and management of debris basins. Therefore, WRD is assigned the co-leadership role in conjunction with Flood Maintenance Division (FMD) in emergency responses related to protection and repair of these facilities. Additionally, WRD has the lead in collecting "status" information for all dams that have the potential to impact the Los Angeles operational area.

Watershed Management Division

- Provide engineering advice to general public regarding temporary home flood measures (storms).
- Coordinate sandbag distribution (storms).
- Handle public complaint calls.

Waterworks & Sewer Maintenance Division

- Assess damage to the waterworks and sewer systems in the unincorporated areas and contract cities.
- Make emergency repairs, as necessary.
- Restore water and sewer service to all customers and stop main line sewer overflows.
- Provide safety assessment information for County Sanitation damages.

DPW Hazard Mitigation Responsibilities

DPW provides complete project management services for county capital and earthquake recovery projects, in addition to providing a leadership role in countywide transportation systems, traffic mitigation efforts, and solid and hazardous waste management plans.

The DPW is responsible for the maintenance and repair of the County's infrastructure, including the road network, flood control system, sewer and waterworks districts, general aviation airports administered by the Department, and building and safety standards and functions.

Regional Planning, Department of

James Hartl, Planning Director
1390 Hall of Records
320 West Temple Street
Los Angeles 90012

The Department of Regional Planning establishes and maintains ongoing comprehensive long-range processes for the physical, social, and economic development of the County. The Department prepares and maintains area and community plans and administers the County subdivision and zoning ordinances, develops and maintains a base of information on conditions in the County, and develops programs to encourage effectuation of the County's General Plan.

Emergency Responsibilities

During an emergency, Regional Planning prepares and maintains the Countywide General Plan, administers the County's subdivision and zoning ordinances and maintains an information base on demographic and development conditions in the County.

Regional Planning supports the County Departments of Public Works, Community Development Commission and the CAO in accomplishing the Construction/Engineering and Recovery functions and supports the Board of Supervisors and Regional Planning Commission in dealing with the many disaster-related land use/zoning issues.

Regional Planning maintains a responsive General Plan Safety Element supporting pre-event hazard reduction.

Registrar-Recorder/County Clerk, Department of

Conny B. McCormack, Registrar-Recorder/County Clerk
Harry L. Hufford Registrar-Recorder Building
12400 E. Imperial Highway
Norwalk 90650-8357

The Department of Registrar-Recorder/County Clerks' Office registers voters and maintains voter files, conducts federal, state, local and special elections, checks petitions for initiatives and referenda, records legal documents which serve as the basis for determining ownership of real property in Los Angeles County, maintains and issues copies of birth, death and marriage records, issues marriage licenses, files fictitious business names statements, performs civil marriages, administers notary public oaths and authenticates notary signatures.

Sheriff's Department

Lee Baca, Sheriff
4700 Ramona Boulevard
Monterey Park 91754-2169

The Los Angeles Sheriff's Department (LASD) administers the police function of the County, and is responsible for enforcing all laws and regulations as required or requested by statute. The Department operates County detention facilities, participates in rehabilitation programs, crime prevention programs, and programs to suppress delinquency, assists in the functions of the superior and municipal courts, maintains security, and directs and coordinates emergency services.

The total number of sworn officers is **8,915** and the total number of civilian employees is **5,965.**

The LASD performs mandated law enforcement functions regardless of the level of the emergency. Standard operating policies and procedures (i.e., Manual of Policy and Procedures, Emergency Operations Procedures, etc.) are in place to keep the peace, to enforce applicable laws fairly and impartially, to protect the rights of all people involved, and to prevent property damage and personal injury.

The Sheriff of Los Angeles County oversees the largest Sheriff's Department in the world, providing police services to all unincorporated county areas as well as to 41 of the 88 municipalities with police service contracts. Sheriff's deputies and detectives respond to more than 1.2 million calls and conduct an estimated 77,000 criminal investigations each year. The Sheriff also manages the nation's largest jail system, supervising more than 20,000 prisoners at any given time and transporting more than 1.6 million prisoners per year between jails and the county's 44 courthouses. The county's newest jail facility, Twin Towers, is the largest jail facility in the world. The Sheriff also provides courtroom bailiffs and serves process for L.A. County's enormous court system. If all of this were not enough, the Sheriff also provides police services for all 349 miles of Metrolink train routes and the entire bus and light rail system of the Metropolitan Transportation Authority (MTA). Although the Sheriff's Department has often been portrayed in television shows and motion pictures like the LAPD, it has not achieved the same level of international acclaim and recognition.

The Los Angeles County Sheriff's Department handles an estimated 1,200,000 calls for patrol service each year and conducts an estimated 77,000 criminal investigations.

The Sheriff's Transportation Bureau (within the Court Services Division) operates a fleet of 64 standard buses, 2 semi-truck "Superbus" transports, 2 specially equipped wheelchair buses, 17 vans, and 10 radio cars. The Bureau's Deputies will drive more than 2.5 million miles in one year.

Sheriff's Department, Divisions of the

Court Services Division

Court Services Division is tasked with providing security and support services to all Superior and Municipal Courts in the County of Los Angeles. This mission includes staffing bailiffs, operating courthouse lock-ups, facilitating inmate transportation, and serving and enforcing civil and criminal process. The Division provides these services at over 50 courthouse locations throughout Los Angeles County. Court Services is the second largest Division in the Department consisting of over 1,500 sworn members and over 500 civilians. The Division consists of four bureaus: Central, East, West, Transportation, plus the Judicial Protection District.

Custody Operations Division

The Custody Operations Division operates and maintains the detention facilities throughout Los Angeles County.

County Correction Facilities & Jails - Los Angeles County

Biscailuz Center - *Closed*	1060 N Eastern Ave, Monterey Park 90063
Century Regional Detention Facility - *Closed*	11705 Alameda St, Lynwood 90262; (323) 357-5100*
Inmate Reception Center	450 Bauchet St, Los Angeles 90012; (213) 893-6100
Men's Central Jail	441 Bauchet St, Los Angeles 90012; (213) 974-4916*
Mira Loma Detention Facility	45100 60th West, Lancaster 93536; (661) 949-3811
North County Correctional Facility	29340 The Old Road, Saugus 91350; (661) 295-7810*
Pitchess Detention Center East Facility	29310 The Old Rd, Castaic 91384; (661) 295-8815*
Pitchess Detention Center North Facility	29320 The Old Road, Castaic 91384; (661) 295-8840*
Pitchess Detention Center South Facility - *Closed*	29330 The Old Road, Castaic 91384; (661) 295-8853*
Sybil Brand Institute for Women - *Closed*	4500 E City Terrace Dr, Monterey Park 90063
Twin Towers Correctional Facility	450 Bauchet St, Los Angeles 90012; (213) 893-5100*

Medical Services Bureau of the Los Angeles County Sheriff's Department is the largest correctional medical service provider in the world.

Source: Los Angeles County Sheriff

Technical Services Division

Technical Services Division provides technical support services and management of the Department's communications, vehicle fleet, data and information systems, records, criminal justice databases, federal excess property acquisition, scientific services, investigations, crime analysis and criminal statistics reporting.

Technical Services Division has been in operation since its creation in mid-1997. The Division consists of the Communications and Fleet Management, Data Systems, Records and Identification, and Scientific Services Bureaus.

Technical Services Division members manage the Department's technical support operations and scientific investigations. The establishment of Technical Services Division has resulted in an enhanced focus on the importance of critical mission support functions.

The TSD Bureaus are as follows:

1) **Communications & Fleet Mgmt Bureau** - dispatch services to the patrol units, telecommunications. and fleet procurement, testing and maintenance;

2) **Data Systems Bureau** - is responsible for the ongoing system management and operational support of Department-wide systems;

3) **Records and Identification Bureau** - records management, criminal and law enforcement service level statistics, crime analysis functions, and criminal / person identification services for the criminal justice community and the public;

4) **Scientific Services Bureau** - Criminalistics Laboratory and Evidence Services - a full-service crime lab that provides forensic evidence analysis and crime scene investigations for all Los Angeles County law enforcement agencies (except Los Angeles Police Department).

Correctional Services Division

Correctional Services Division (COSD) was formed with the goal of enhancing the quality and number of educational, vocational, drug and alcohol, anger management, and religious programs available to the inmate population. COSD is comprised of the following: Inmate Reception Center, Medical Services Bureau, Food Services Unit, Jail Construction/Special Projects, Inmate Services Unit, and the Community Transition Unit. The Inmate Reception Center screens and evaluates all inmates for medical and mental health problems upon entry into the County jail system. Medical Services Bureau maintains Correctional Treatment Center licensure and provides in-patient medical, skilled nursing, and psychiatric services to inmates. The Food Services Unit provides quality meals for inmates and staff in accordance with government regulations for proper food preparation and required daily nutritional needs. CRDF programs provide goal-oriented inmates the opportunity to rehabilitate themselves through a strict regimen of behavior modification and educational programs. Inmate Services Unit works with the Inmate Welfare Commission to provide for the needs of inmates; Religious and Volunteer Services, Inmate Commissary, and Correctional Education. The Community Transition Unit partners with community based organizations to provide inmates a continuum of support services while transitioning back into the community. Headquarters for the Correctional Services Division is located at the Twin Towers Correctional Facility in downtown Los Angeles.

Detective Division

Homicide Bureau

The Homicide Bureau is responsible for the investigation of all Homicides.
The Homicide Bureau is responsible for the investigation of questionable deaths.
The Homicide Bureau is responsible for the investigation of missing persons and questionable deaths include suicides, accidental deaths, drug overdoses, and infants.

Major Crimes Bureau

Major Crimes Bureau conducts widely varied and specialized criminal investigations involving organized criminal enterprise groups, vice and morals investigations, cargo thefts, locating and apprehending criminals and fugitives, surveillance operations, crimes related to health care and illegal pharmaceuticals, extraditions, series and pattern robberies, and crimes involving imminent threat to the life of the victim such as solicitation for murder, kidnapping, Amber Alerts, and threats against government officials and Department members. In addition, a professional staff handles the Department's investigations related to business licensing, pawn shop and secondhand dealer operations and the processing of fugitive warrants and extradition requests.

The bureau is divided into four details, each headed by a lieutenant. The operations detail is responsible for the day-to-day operations of the bureau including personnel, budget, training and the like. The Health Authority Law Enforcement Task Force (HALT), a multi-agency task force funded by the County's Department of Health Services, investigates Medi-Cal fraud, counterfeit and illegal distribution of pharmaceuticals and the illegal practice of medicine and dentistry and is part of the operations detail.

Commercial Crimes Bureau

The Los Angeles County Sheriff's Department Forgery/Fraud Detail is an investigative unit within the Detective Division and is tasked with the responsibility of investigating reported ``white collar'' crimes. The types of cases the unit handles are those involving forgery of all types of documents, as well as fraud and computer crimes. The unit consists of seven teams comprised of eight Sergeants, 27 Deputies, and several Volunteers. Of the seven teams, one is assigned cases involving real estate fraud, one investigates only those cases involving computers, and another team has the responsibility of investigating cases that involve possible or suspected elder or dependent abuse, which involves a family member or caretaker who has stolen funds intended for the care of the elder or dependent person. The remaining four teams are assigned to geographic areas within Los Angeles County.

The total area covered by the Los Angeles County Sheriff's Department consists of 3182 square miles with a population of 2,501,506. The area covered is all unincorporated areas as well as 39 incorporated cities that contract with the Sheriff's Department for law enforcement services.

Family Crimes Bureau

The investigation of child sexual and physical abuse is one of the missions of the Family Crimes Bureau. The Bureau also provides extensive legislative analysis on child abuse bills and participates in a Federal task force on child exploitation. As a Detective Division unit, the Family Crimes Bureau serves all of the Sheriff Station areas and has the exclusive responsibility for these investigations.

In an attempt to be as responsive as possible to the citizens of Los Angeles County, investigators work out of satellite offices in Lancaster and West Covina, in addition to the Headquarters office in Whittier.

The investigation of child abuse cases is highly specialized. Investigators assigned to this bureau are recognized experts in the interviewing of child victims, as well as juvenile and adult suspects. Child abuse detectives participate in multi-disciplinary child abuse centers located throughout Los Angeles County. Family Crimes Bureau personnel conduct training of new deputies just prior to patrol assignment, and in-service training to patrol personnel to enable deputies to best carry out their responsibility as first responders in cases of suspected child abuse. Child abuse investigators also provide training to mandated reporters of child abuse, as well as community groups desirous of child abuse information.

Narcotics Bureau

Narcotics Bureau is responsible for the investigation of cases involving the use, possession, sale, manufacture, and transportation of controlled substances. Other responsibilities include disposal of controlled substances, providing specialized training about controlled substances, directing all financial and asset seizure/forfeitures relative to narcotic activities, making public appearances, liaison with the County of Los Angeles Narcotics Drugs Commission, Western States Information Network, and participation in multi-agency narcotic task forces.

The Department's Cocaine seizures statistics continue to mirror a disturbing nationwide abuse trend. A significant number of Marijuana seizures are from outdoor grow locations in the Angeles National Forest.

Taskforce for Regional Auto Theft Prevention (TRAP)

In 1992, the Los Angeles County Board of Supervisors through the California Vehicle Code imposed an additional fee on motor vehicles registered in the County to establish a vehicle theft curtailment program. In 1993, under the direction of the Countywide Criminal Justice Coordination Committee (CCJCC) with the Sheriff as the regional coordinator, the Taskforce for Regional Autotheft Prevention (TRAP) was established.

TRAP is a multi-jurisdictional, multi-agency task force comprising investigators from the Los Angeles County Sheriff's and Police Departments, the California Highway Patrol, and participating law enforcement agencies in the County who work in concert with other criminal justice entities. The activities of this highly-specialized unit include the investigation, apprehension, and prosecution of organized auto theft operations, "chop shops," international car theft rings that ship stolen vehicles in cargo containers out of the country, suspects who obtain vehicles by the use of fraudulent applications, and other criminals who engage in various types of vehicle theft.

The mission of TRAP is to promote a coordinated effort and encourage maximum cooperation among all law enforcement and prosecutorial agencies in Los Angeles County as well as the private sector business community in an effort to deter and reduce the incidents of auto theft.

Office of Homeland Security

On October 27, 2002 the new Office of Homeland Security was established by Sheriff Baca with the concurrence of the Board of Supervisors. The members of this office are committed to the pursuit of a coordinated strategy of preparedness to ensure the readiness of the "first responders" who are ultimately entrusted with the mission of protecting all the citizens of the county.

The Sheriff's Department has a proactive approach to enhancing its response to potential threats related to local homeland security. This approach is to designate a special office to command those bureaus and units within the Sheriff's Department that have a nexus to local homeland security.

Emergency Responsibilities

The County's Emergency Organization is directed by the Sheriff who serves as the Director of Emergency Operations for Emergency Response Operations. Following a whole or partial activation of the Los Angeles County Operational Area, the Sheriff, as Director of Emergency Operations (DEO), is empowered to coordinate the utilization of County, other local government, State and Federal resources within the Operational Area, and to coordinate operations conducted by the local

governments in Los Angeles County in accordance with SEMS and approved mutual aid and operations plan.

The DEO has responsibility for ensuring that the Board of Supervisors is kept apprised of the situation and brings all major policy issues to the Board for review and actions.

It is anticipated that only in worst case emergencies involving the entire County would the supporting County law enforcement agencies be mobilized. The support law enforcement Department includes the Superior and Municipal Courts, District Attorney, Public Defender, Alternate Public Defender and Probation.

Treasurer and Tax Collector, Office of

Mark J. Saladino, Treasurer and Tax Collector
437 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles 90012

The Office of the Treasurer and Tax Collector administers and manages the County treasury and provides for the collection, custody, investment and disbursement of all County general trust, schools, and special district funds. The Department bills and collects current and delinquent real (secured) property taxes and personal (unsecured) property taxes, bills and collects transient occupancy taxes for unincorporated areas of the County, issues and collects fees required under Los Angeles County business and public health licensing ordinances, and collects monies owed the County for debts arising from the receipt of services provided through County resources such as hospital bills or outpatient clinics.

The Treasurer and Tax-Collector serves as ex-officio member of the LACERA Board of Retirement, Board of Investments, and Los Angeles Unified School District Annuity Reserve Fund Board. This office also serves as the public administrator and conducts investigations of decedents who resided or had property in Los Angeles County where no executor, legatee or heir has sought to administer the estate, and manages the estates of decedents when appointed by the court. The office also provides trust accounting and property management services for gravely mentally disabled and probate conservatees under the conservatorship of the Public Guardian.

Independent County Agencies

Air Quality Management District (AQMD)	21865 E Copley Drive, Diamond Bar 91765 Phone (909) 396-3600
Courts, County Superior	111 North Hill Street, Room 204, Los Angeles 90012 Phone (213) 974-5550
Education, Office of	9300 Imperial Highway, Ste 109, Downey, 90242 Phone (562) 922-6111
Entertainment Industry Development Corp.	7083 Hollywood Blvd, 5th Floor, Hollywood 90028 Phone (323) 957-1000
Grand Jury	Clara Shortridge Foltz Criminal Justice Center Room 13303 210 W Temple Street, Los Angeles 90012 Phone (213) 974-3993
Homeless Services Authority, Los Angeles County	548 S Spring Street, Suite 400, Los Angeles 90013 Phone (213) 683-3333
Law Library	301 West First Street, Los Angeles 90012 Phone (213) 629-3531
Metropolitan Transportation Authority	1 Gateway Plaza, Los Angeles 90012 Phone (213) 922-7400
Music Center/Performing Arts Center of Los Angeles County	135 N Grand Avenue, Los Angeles 90012 Phone (213) 972-7211 for ticket information
Sanitation Districts	1955 Workman Mill Road, Whittier 90601 PO Box 4998, Whittier 90607 Phone (562) 699-7411

Education, Office of

Darline Robles, Superintendent
9300 East Imperial Highway, Room 109
Downey 90242

As an intermediate unit between the State Department of Education and the 81 public school districts in the County, the Los Angeles County Office of Education provides instructional, consultant and business services to districts, their students and other clients. It also provides educational leadership, works with public and private agencies to benefit public education, and operates schools and classes for talented arts students, handicapped children, juvenile wards of the Probation Department, and students seeking vocational skills.

Emergency Responsibilities

The Los Angeles County Office of Education (LACOE) is designated as the Los Angeles County Operational Area Coordinator for matters relating to public schools. As such, LACOE shall monitor and report the overall condition of public education in the Operational Area. Reports will include the status of reunification of student populations with families, school closings and condition of facilities.

As a direct operator of a number of educational and administrative programs, LACOE is responsible for coordinating response and recovery activities for its own programs.

As a support department to other Los Angeles County Departments, LACOE may be called upon to assist in matters related to care and sheltering in public schools, coordinating assignment of school resources to the disaster effort, and providing information to the public on the status of schools.

Los Angeles County Employees Retirement Association

Marsha D. Richter, Chief Executive Officer
Gateway Plaza, 300 North Lake Avenue, Suite 820
Pasadena 91101

The Los Angeles County Employees Retirement Association provides retirement, disability and survivor benefits to *public safety and general members* employed by Los Angeles County and four other participating agencies including Little Lake Cemetery District, Local Agency Formation Commission, Los Angeles County Office of Education and South Coast Air Quality Management District.

The association administers a comprehensive health benefits program for the retirees of these five employers, and is governed primarily by the California Constitution and the County Employees Retirement Law of 1937. The general management of LACERA is vested in the Board of Retirement while the Board of Investments is responsible for the investment of the system's assets.

Local Agency Formation Commission

Larry J. Calemine, Executive Officer
700 N. Central Ave., #350
Glendale, CA 91203

The Local Agency Formation Commission is an independent, state-created agency which screens proposals for incorporation of new cities, formation of new special districts, changes in boundaries of existing cities and districts, and establishes "spheres of influence" for all cities and districts within the County.

Los Angeles County Law Library

Richard Iamele, Director
301 West First Street
Los Angeles 90012

The County Law Library serves the legal information needs of all of Los Angeles County's citizens, and enhances its information services beyond the traditional collections of printed materials and CD-ROMs by providing individuals access to information via the Internet.

Metropolitan Transportation Authority

Roger Snoble, Chief Executive Officer
1 Gateway Plaza
Los Angeles 90012

The Metropolitan Transportation Authority serves as the major operator of bus and rail services in Los Angeles County and provides transportation planning, rail construction and multi-modal transit services for the entire region.

Emergency Responsibilities

The Metropolitan Transit Authority (MTA) is the primary source of mass transportation equipment used by the Los Angeles County Operational Area. Both busses and mass transit trains are available for use in evacuations, transportation of equipment and supplies, transportation of emergency response workers and establishment of temporary bus/train lines for the transportation of victims to Disaster Application Centers (DACs) and other relief locations such as mass shelters. Requests for MTA resources are handled through the Logistics Section, Transportation Coordinator in the CEOC.

Sanitation Districts

Jim Stahl, Chief Engineer and General Manager
1955 Workman Mill Road
Whittier 90601

The Sanitation Districts are independent special districts serving the water pollution control and solid waste management needs of more than half the people in Los Angeles County. The agency is made up of 26 separate districts working cooperatively under one administrative staff headquartered near Whittier. The policy body for the Sanitation Districts consists of the mayors of the 78 cities on the system as well as the chair of the county Board of Supervisors.

The agency's eleven water pollution control plans (sewage treatment plants) treat approximately 520 million gallons a day, 190 of which are available for reuse in the dry Southern California climate. Four sanitary landfills handle nearly 17,600 tons a day of trash (approximately half the countywide disposal capacity). The agency also operates three recycle centers, a refuse-to-energy facility, gas to energy facilities, and a refuse transfer station.

Superior Court

Robert A. Dukes, Presiding Judge
John A. Clarke, Executive Officer/Clerk
111 North Hill Street, Room 204
Los Angeles 90012

The Superior Court handles all cases in equity, i.e., cases involving title to, or possession of, real property, felony and misdemeanor criminal cases, probate and divorce matters, conciliation and domestic relations cases, adoptions, and psychiatric and juvenile cases. It also handles civil cases, i.e. collections of accounts, promissory notes, unlawful detainer actions, and damages resulting from automobile collisions, traffic infractions, and provides a forum for resolution of small claims matters with a jurisdiction of $5,000 or less.

Emergency Responsibilities

During periods of emergency or disaster, the primary responsibility and considerations of the Superior Court is: the safety of employees and the public at work sites, preservation of vital Departmental records and property, and maintaining the jurisdiction in felony cases, civil cases in excess of $25,000, small claims cases over $5,000, and juvenile matters. In addition to these responsibilities, the Department shall provide supportive assistance to the Sheriff's Department.

Disaster Management Areas

Because of the County's size, demographic diversity and population, it is divided into areas specifically for coordinating disaster-related programs, responses and recovery. Below are lists of the Los Angeles County Disaster Management Areas.

Each area hires its own Disaster Management Area Coordinator [DEMAC]. This person is responsible for coordinating Emergency Management-related programs, projects and issues with the County Office of Emergency Management and the State Office of Emergency Services, as well as with each other.

Los Angeles County Operational Area — Disaster Management Areas
As of: 7/22/03

Area A
Pamela Mottice-Muller
Emergency Services Coordinator
City of Beverly Hills

Beverly Hills
Culver City
Santa Monica
West Hollywood

Area B
Gertha Benson
L.A. County OEM

Agoura Hills
Calabasas
Hidden Hills
Lancaster
Malibu
Palmdale
Santa Clarita
Westlake Village

Area C
Gertha Benson
L.A. County OEM

Alhambra
Burbank
Glendale
La Canada Flintridge
Pasadena
San Gabriel
San Marino
South Pasadena
San Fernando

Area D
Brenda Hunemiller
Area Coordinator

Arcadia
Azusa
Baldwin Park
Bradbury
Claremont
Covina
Diamond Bar
Duarte
El Monte
Glendora
Industry
Irwindale
La Puente
La Verne
Monrovia
Monterey Park
Pomona
Rosemead
San Dimas
Sierra Madre
South El Monte
Temple City
Walnut
West Covina

Area E
Fan Abel
Area Coordinator

Artesia
Bell
Bell Gardens
Bellflower
Carson
Cerritos
Commerce
Compton
Cudahy
Downey
Hawaiian Gardens
Huntington Park
La Habra Heights
La Mirada
Lakewood
Lynwood
Maywood
Montebello
Norwalk
Paramount
Pico Rivera
Santa Fe Springs
South Gate
Vernon
Whittier

Area F
Casey Chel
Manager, Disaster Management
Division
Cathy Coy, Asst. Coordinator
Long Beach Fire Dept.

Avalon
Long Beach
Signal Hill

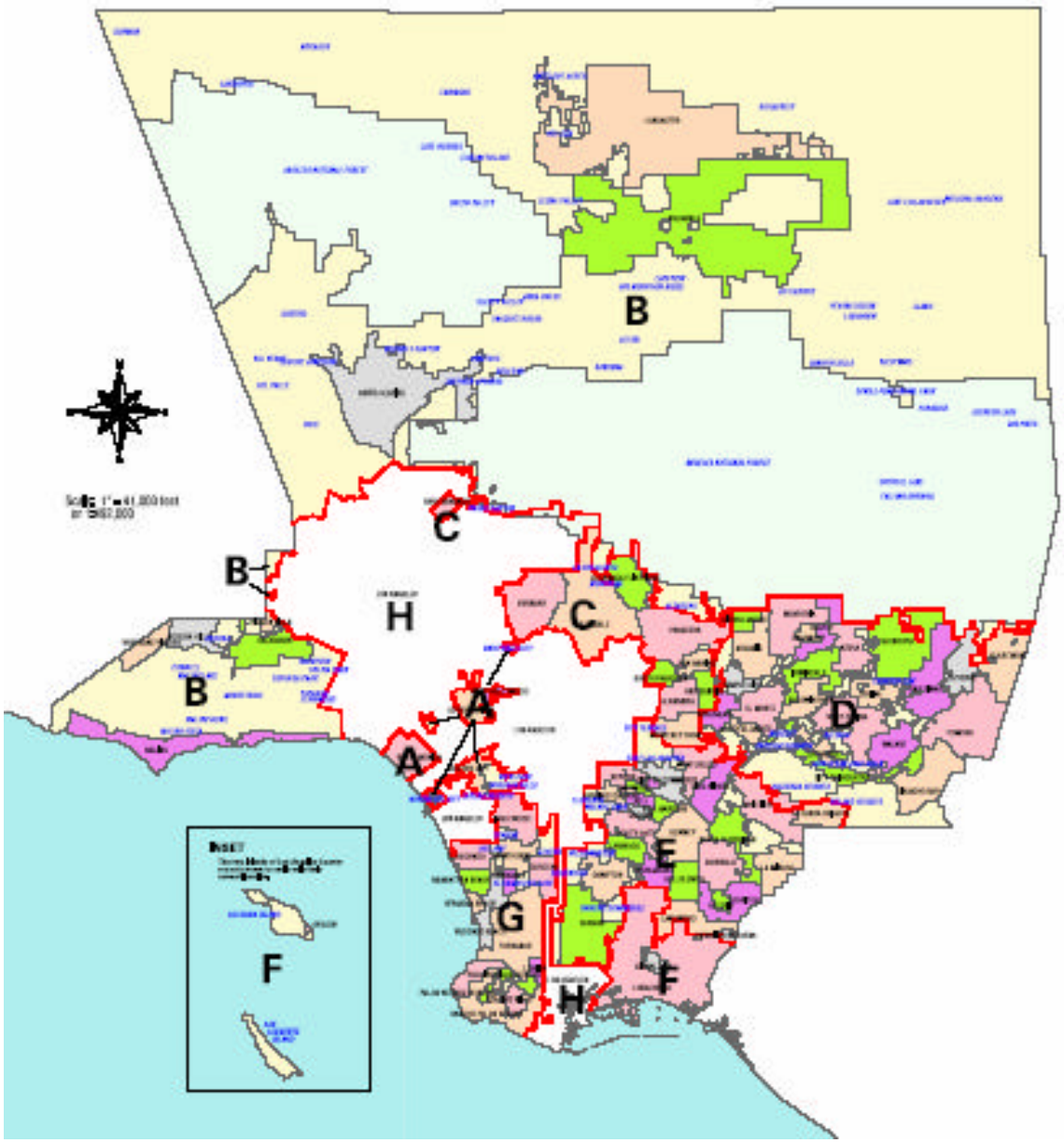
Area G
Mike Martinet
Area Coordinator

El Segundo
Gardena
Hawthorne
Hermosa Beach
Inglewood
Lawndale
Lomita
Manhattan Beach
Palos Verdes Estates
Rancho Palos Verdes
Redondo Beach
Rolling Hills
Rolling Hills Estates
Torrance

Area H
Anna Day Burton
Emergency Preparedness
Department
City of Los Angeles

Los Angeles

Disaster Management Area Map



County of Los Angeles

All-Hazard Mitigation Plan

Version 1.0

October 2004

SECTION 3

Demographics and Statistics

Part B

Assets

Services

Land

Prepared by Dimensions Unlimited, Inc.

Table of Contents

Section 3 – Demographics & Statistics

Part B - Assets, Services, Land

General Facilities

Military Installations in Los Angeles County

U.S. Air Force

Edwards Air Force Base
Edwards Air Force Base 93523, Phone (661) 277-1110
Base activated in 1933
Named for Capt. Glen W. Edwards, killed during crash of a YB-49 "Flying Wing" June 5, 1948
Size: 301,000 acres
Population: 4,900 active duty; 10,850 civilians
Runways: 21 runways
Major Units:
- Air Force Test Flight Center (AFFTC)
- 412th Test Wing
- 95th Air Base Wing

Secondary landing site for space shuttle missions

Los Angeles Air Force Base
El Segundo 90245; Phone (310) 363-1110
Base activated in 1954
Size: 192 acres (including Fort MacArthur Annex and housing areas)
Population: 1,403 active duty; 1,518 civilians
No runways
Major Units:
- HQ, Space and Missile Systems Center
- 61st Air Base Group

Fort MacArthur Military Reservation
San Pedro 90731
Military housing for Air Force personnel and families from Los Angeles Air Force Base.

U.S. Navy

San Clemente Island Naval Test Site
San Clemente Island

U.S. Coast Guard

Marine Safety Office Group, Los Angeles/Long Beach
165 N. Pico Avenue, Long Beach 90802; Phone (562) 732-2000

U.S. Coast Guard Air Station, Los Angeles
7159 World Way West, Los Angeles 90045; Phone (310) 215-2112

U.S. Coast Guard Station - Los Angeles/Long Beach
Terminal Island 90731; Phone (310) 732-7300

U.S. Coast Guard Patrol Station - Marina Del Rey
13871 Fiji Way, Marina Del Rey 90292; Phone (310) 823-2300

Integrated Support Command, San Pedro
Terminal Island Station, San Pedro 90731; Phone (310) 732-7323

California Army National Guard (Los Angeles County Units)

40th Infantry Division (Mechanized)
1st Brigade, 40th Infantry Division (Mechanized)
HQ & HQ Company (Long Beach)
3rd Battalion, 160th Infantry
HQ & HQ Company (Inglewood)
Company C (Mechanized) (San Pedro)
Company D, (Mechanized) (Glendale)
Division Artillery, 40th Infantry Division (Mechanized)
HQ & HQ Battalion, Division Artillery (Long Beach)
1st Battalion, 144th Field Artillery
HQ & HQ Battery (Burbank)
Battery C (Van Nuys)
Battery F (Los Angeles)
240th Signal Battalion
HQ & HQ Company, 240th Signal Battalion (Compton)
Company A, 240th Signal Battalion (Long Beach)
Company B, 240th (Burbank)
Detachment 1, Company B, 240th Signal (Palmdale)
Company C, 240th Signal Battalion (San Pedro)
Division Support Command, 40th Infantry Division (Mechanized)
HQ & HQ Company, Division Support Command (Long Beach)
40th Support Battalion
HQ & HQ Detachment (Bell)
Company A (Supply) (Lynwood)
Company B (Maintenance) (Torrance)
Company C (Medical) (Montebello)
540th Maintenance Support Battalion
HQ & HQ Detachment (Bell)
Company A (S&S) (Bell)
Company B (Bell)
Detachment 1, Company C (Long Beach)
Company D (Hem) (Gardena)
Company F (MSL) (Long Beach)

640th Aviation Division Support Battalion
HQ & HQ Company (Long Beach)
Engineer Brigade, 40th Infantry Division (Mechanized)
578th Engineer Battalion
HQ & HQ Company (Manhattan Beach)
Company A (Glendale)
Company B (Long Beach)
40th Field Support Unit (Compton)
40th Finance Battalion (Compton)
HQ & HQ Detachment (Compton)
223rd Finance Detachment (Compton)
251st Finance Detachment (Compton)
240th Support Battalion (Forward)
HQ & HQ Detachment (Long Beach)
Company C (Medical) (Long Beach)
223rd Military Intelligence Battalion, 100th Troop Command
Company C (Glendale)
1st Battalion, 185th Armor, 81st Heavy Separate Brigade (Armor)
Company B (Palmdale)
18th Air Cavalry
Troop A, 1st Battalion (Pomona)

California Air National Guard (Los Angeles County Units)

261st Combat Communications Squadron (Van Nuys)

Los Angeles County Assets (note)

The next several pages are a listing of County-owned assets and their replac ement value. The information below explains the process for arriving at those values.

County of Los Angeles
Estimate of Real Property Replacement Cost
(not including contents, business interruption, personal property, lease values or infrastructure)

An estimate of real property replacement cost values, including an estimate of maximum foreseeable loss, is part of the Disaster Mitigation Act (DMA) of 2000 plan that must be filed with the Federal Emergency Management Agency (FEMA). This evaluation is being prepared for the County of Los Angeles (County) Multi-Hazard Mitigation Advisory Committee.

To prepare this information a methodology was developed to efficiently provide estimates. These estimates are subject to many assumptions and therefore should not be relied upon to accurately reflect replacement costs for individual structures. It is believed that the total replacement costs are a reasonable estimation for the listed structures as a group.

There are approximately 4,916 structures within the County with a total listed gross square footage of 62,215,550 square feet according to the Chief Administrative Office (CAO) Real Estate list. Using Marshall & Swift valuation data and known data from recent County construction projects, the total building replacement cost is estimated at approximately $15 billion (composite of $240 per square foot).

It has not been determined which of the buildings on the CAO Real Estate list the County is obligated to replace if they are damaged. Some of the facilities are leased (329 structures; 9,112,820 square feet; $2 billion) and the County may not be responsible for these structures. Assuming the County is not responsible for replacing leased properties, the total replacement value at risk is approximately $13 billion.

Please contact Steve NyBlom at (213) 351-5357 for additional information.

Los Angeles County Assets & Replacement Costs

FACILITY NAME	ADDRESS	GROSS SQ FT	FACILITY & BUILDING USE	A	B	C	D	E	F	G
Column Key A=Marshall & Swift Section: B=Class A Base Rate (Average): C=Cost Multiplier; D=Local Multiplier: E=County Multiplier (increases from Average Construction to Recent County Figures: F=Estimated Replacement Cost per Square Ft (based on assumptions): G=Estimated Replacement Cost (based on assumptions)										
MED CTR-GENERAL HOSPITAL	1200 N STATE ST, LOS ANGELES 90033	1,494,627	GENERAL ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$671,213,394
CLARA SHORTRIDGE FOLTZ CRIMINAL JUSTICE CENTR	210 W TEMPLE ST, LOS ANGELES 90012	1,036,283	COURT	15	$118	0.99	1.13	2.2	$289.45	$299,956,959
PKG GARAGE (LOT 16-WALT DISNEY CONCERT HALL)	111 S GRAND AVE, LOS ANGELES 90012	997,000	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$134,477,758
KENNETH HAHN HALL OF ADMINISTRATION	500 W TEMPLE ST, LOS ANGELES 90012-2713	958,090	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$277,323,630
PARKING STRUCTURE (LAC+USC MED CTR-LOT 9)	1950 MARENGO ST BETWEEN KINGSTON AV & BRITANIA ST, LOS ANGELES 90033	909,149	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$79,173,537
STANLEY MOSK COURTHOUSE	111 N HILL ST, LOS ANGELES 90012	794,459	COURT	15	$118	0.99	1.13	2.2	$289.45	$229,959,872
PARKING STRUCTURE (LOT 67-LONG BEACH COURT)	101 S MAGNOLIA AVE, LONG BEACH 90802	777,730	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$67,728,870
CENTRAL JAIL-MAIN JAIL BUILDING	433 BAUCHET ST, LOS ANGELES 90012	704,358	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$253,493,163
PARKING GARAGE (LOT 14-THE MUSIC CENTER)	135 N GRAND AVE, LOS ANGELES 90012	702,820	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$94,798,052

FACILITY NAME	ADDRESS	GROSS SQ FT	FACILITY & BUILDING USE	A	B	C	D	E	F	G
Column Key										
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COMPTON COURTHOUSE	200 W COMPTON BLVD, COMPTON 90220	576,467	COURT	15	$118	0.99	1.13	2.2	$289.45	$166,861,068
HALL OF JUSTICE (NOT HABITABLE)	211 W TEMPLE ST, LOS ANGELES 90012	570,811	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$205,430,599
ML KING-MAIN HOSPITAL/ ACUTE UNIT BUILDING	12021 S WILMINGTON AVE, LOS ANGELES 90059	560,493	GENERAL ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$251,708,559
THOMAS A TIDEMANSON PUBLIC WORKS BUILDING	900 S FREMONT AVE, ALHAMBRA 91803	536,168	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$155,196,334
OLIVE VIEW-MAIN HOSPITAL BUILDING	14445 OLIVE VIEW DR, SYLMAR 91342	519,982	GENERAL ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$233,515,709
PKG STRCT (DPSS-METRO NORTH AP/CALWORKS DIST)	2601 WILSHIRE BLVD (651 CORONADO ST), LOS ANGELES 90057	501,000	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$43,629,748
HARBOR-MAIN HOSPITAL BUILDING	1000 W CARSON ST, TORRANCE 90502	487,137	GENERAL ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$218,765,538
PARKING GARAGE (LOT 18-COUNTY MALL PHASE I)	140 N GRAND AVE, LOS ANGELES 90012	465,310	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$62,762,132
HALL OF RECORDS	320 W TEMPLE ST, LOS ANGELES 90012	438,095	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$126,808,646
TWIN TOWERS-TOWER 1 MAXIMUM SECURITY	450 BAUCHET ST, LOS ANGELES 90012	436,688	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$157,160,737
PARKING STRUCTURE (MED CTR-LOT 12)	2020 ZONAL AVE, LOS ANGELES 90033	434,756	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$37,860,868
NATURAL HISTORY MUSEUM-MAIN MUSEUM BUILDING	900 EXPOSITION BLVD, LOS ANGELES 90007	425,232	MUSEUM	16	$121	1.01	1.13	2.2	$304.89	$129,650,571

FACILITY NAME	ADDRESS	GROSS SQ FT	FACILITY & BUILDING USE	A	B	C	D	E	F	G
Column Key										
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PARKING STRUCTURE(ADAMS/GRAND COMPLEX-LOT 46)	318 W ADAMS BLVD, LOS ANGELES 90007	418,600	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$36,453,917
PARKING STRUCTURE (RANCHO LOS AMIGOS MED CTR)	7601 E IMPERIAL HWY, DOWNEY 90242	412,987	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$35,965,107
TWIN TOWERS-TOWER 2 MAXIMUM SECURITY	450 BAUCHET ST, LOS ANGELES 90012	395,545	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$142,353,680
MED CTR-WOMEN'S AND CHILDREN'S HOSPITAL	1240 N MISSION RD, LOS ANGELES 90033	391,290	GENERAL ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$175,722,163
PARKING STRUCTURE (LOT 75-ARRAIGNMENT COURT)	429 BAUCHET ST, LOS ANGELES 90012	384,756	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$33,506,602
MICHAEL ANTONOVICH ANTELOPE VALLEY COURTHOUSE	42011 4TH ST W, LANCASTER 93534	380,000	COURT	15	$118	0.99	1.13	2.2	$289.45	$109,992,777
CENTRAL JAIL-JAIL ADDITION	441 BAUCHET ST, LOS ANGELES 90012	376,837	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$135,620,811
PKG STRUCT (LOT 82-EDELMAN CHILDREN'S COURT)	201 CENTRE PLAZA DR, MONTEREY PARK 91754	375,000	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$32,656,997
PARKING GARAGE (LOT 60-METROPOLITAN COURTHSE)	1945 S HILL ST, LOS ANGELES 90007	370,466	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$49,969,345
THE MUSIC CENTER-DOROTHY CHANDLER PAVILION	135 N GRAND AVE, LOS ANGELES 90012	364,879	MUSIC CENTER	16	$121	1.01	1.13	2.2	$304.89	$111,249,319
PKG STRUCTURE (LOT 48-VAN NUYS COURT COMPLEX)	6170 SYLMAR AVE (AT DELANO ST), VAN NUYS 91401	360,972	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$31,435,364
PARKING STRUCTURE (COMPTON COURTHOUSE)	220 S ACACIA AVE, COMPTON 90220	333,512	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$29,044,001
LONG BEACH COURTHOUSE	415 W OCEAN BLVD, LONG BEACH 90802	332,226	COURT	15	$118	0.99	1.13	2.2	$289.45	$96,164,369

FACILITY NAME	ADDRESS	GROSS SQ FT	FACILITY & BUILDING USE	A	B	C	D	E	F	G
Column Key										
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DOWNEY ADMIN CTR-ADMINISTRATIVE CENTER BLDG	9150 E IMPERIAL HWY, DOWNEY 90242	327,972	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$94,933,029
PARKING STRUCTURE (LAC+USC MED CTR-LOT 10)	1200 N STATE ST, LOS ANGELES 90033	326,578	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$28,440,152
PARKING STRUCTURE(LOT 53-PASADENA COURTHOUSE)	240 RAMONA ST, PASADENA 91101	322,044	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$28,045,307
VAN NUYS COURTHOUSE - WEST	14400 ERWIN ST (IN MALL), VAN NUYS 91402	320,391	COURT	15	$118	0.99	1.13	2.2	$289.45	$92,738,673
PKG STRUCTURE (NORWALK CIVIC CENTER/COURTHSE)	12720 NORWALK BLVD, NORWALK 90650	315,000	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$27,431,878
PARKING STRUCTURE(CENTRAL JAIL-NEW STAFF PKG)	498 BAUCHET ST, LOS ANGELES 90012	307,636	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$26,790,581
PARKING STRUCTURE (LOT 17-COUNTY COURTHOUSE)	131 S OLIVE ST, LOS ANGELES 90012	306,538	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$26,694,962
METROPOLITAN COURTHOUSE	1945 S HILL ST, LOS ANGELES 90007	303,434	COURT	15	$118	0.99	1.13	2.2	$289.45	$87,830,390
CHATSWORTH COURTHOUSE	9425 PENFIELD AVE (WINNETKA AVE & PRAIRIE ST), CHATSWORTH 91311	302,435	COURT	15	$118	0.99	1.13	2.2	$289.45	$87,541,225
PKG STRUCT (DPSS-SAN GABRIEL VALLEY FAMILY I)		300,000	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$26,125,598
PARKING STRUCTURE (LE SAGE COMPLEX-LOT 68)	523 SHATTO PL, LOS ANGELES 90020	299,775	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$26,106,004
MUSIC CENTER-WALT DISNEY CONCERT HALL	111 S GRAND AVE, LOS ANGELES 90012	293,000	MUSIC CENTER	16	$121	1.01	1.13	2.2	$935.15	$274,000,000

FACILITY NAME	ADDRESS	GROSS SQ FT	FACILITY & BUILDING USE	A	B	C	D	E	F	G
Column Key										
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LOS ANGELES AIRPORT COURTHOUSE	11701 S LA CIENEGA BLVD (PACIFIC CONCOURSE DR), LOS ANGELES 90045	292,000	COURT	15	$118	0.99	1.13	2.2	$289.45	$84,520,765
EDMUND D EDELMAN CHILDREN'S COURT	201 CENTRE PLAZA DR, MONTEREY PARK 91754	275,530	COURT	15	$118	0.99	1.13	2.2	$289.45	$79,753,447
PARKING STRUCTURE (MUSEUM OF ART-LACMA WEST)	6067 WILSHIRE BLVD, LOS ANGELES 90036	270,000	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$23,513,038
DHS-FERGUSON ADMINISTRATIVE SERVICES CENTER	5555 FERGUSON DR, CITY OF COMMERCE 90022	268,400	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$77,689,635
MUSEUM OF ART-LACMA WEST (FORMER MAY CO BLDG)	6067 WILSHIRE BLVD, LOS ANGELES 90036	265,000	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$34,063,396
HARRY HUFFORD REGISTRAR-RECORDER/CO CLERK BLD	12400 E IMPERIAL HWY, NORWALK 90650	262,510	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$75,984,747
PARKING STRUCTURE (HEALTH SERVICES HQ-LOT 29)	346 N FREMONT AVE, LOS ANGELES 90012	260,548	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$22,689,907
MUSEUM OF ART-ANDERSON GALLERY	5905 WILSHIRE BLVD, LOS ANGELES 90036	250,000	MUSEUM	16	$121	1.01	1.13	2.2	$304.89	$76,223,432
PARKING STRUCTURE (THE ALHAMBRA COMPLEX)	1000 S FREMONT AVE, ALHAMBRA 91803	245,000	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$21,335,905
ML KING-AUGUSTUS F HAWKINS MENTAL HEALTH CTR	1720 E 120TH ST, LOS ANGELES 90059	235,657	ACUTE PSYCHIATRIC CARE	15	$176	0.99	1.13	2.2	$434.17	$102,315,131
ISD-EASTERN AVE COMPLEX VEHICLE REPAIR SHOPS	1104 N EASTERN AVE, LOS ANGELES 90063	230,668	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$31,113,055
PASADENA COURTHOUSE	300 E WALNUT ST, PASADENA 91101	228,638	COURT	15	$118	0.99	1.13	2.2	$289.45	$66,180,338

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DHS-EDWARD ROYBAL COMPREHENSIVE HEALTH CENTER	245 S FETTERLY AVE, EAST LOS ANGELES 90022	227,617	INTERMEDIATE CARE	15	$182	0.99	1.13	2.2	$449.08	$102,219,202
NORWALK COURTHOUSE	12720 NORWALK BLVD, NORWALK 90650	225,008	COURT	15	$118	0.99	1.13	2.2	$289.45	$65,129,618
HEALTH SERVICES ADMINISTRATION BUILDING	313 N FIGUEROA ST, LOS ANGELES 90012	221,359	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$64,073,397
RANCHO-JACQUELYN PERRY INSTITUTE	7601 E IMPERIAL HWY, DOWNEY 90242	220,000	GENERAL ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$98,798,527
LOS ANGELES COUNTY LAW LIBRARY	301 W 1ST ST, LOS ANGELES 90012	215,960	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$65,184,116
MED CTR-OUTPATIENT CLINIC BUILDING	1175 N CUMMINGS ST, LOS ANGELES 90033	215,480	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$71,631,193
THE ADAMS & GRAND BUILDING	2615 S GRAND AVE, LOS ANGELES 90007	215,439	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$62,359,826
SYBIL BRAND-MAIN JAIL BUILDING (CLOSED)	4500 E CITY TERRACE DR, MONTEREY PARK 91754	213,009	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$76,660,342
PARKING/MAINT GARAGE (ALAMEDA STREET GARAGE)	1055 N ALAMEDA ST, LOS ANGELES 90021	212,442	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$28,654,688
PARKING GARAGE (LOT 10-COUNTY MALL PHASE II)	145 N BROADWAY, LOS ANGELES 90012	211,347	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$28,506,992
INGLEWOOD COURTHOUSE	ONE E REGENT ST, INGLEWOOD 90301	210,648	COURT	15	$118	0.99	1.13	2.2	$289.45	$60,973,048
PARKING (DPSS-HAWTHORNE WFP&I/IHSS OFFICES)	12000 HAWTHORNE BLVD HAWTHORNE PLAZA PARKING STRUCTURE, HAWTHORNE 90250	210,000	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$18,287,918

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POMONA COURTHOUSE - SOUTH	400 CIVIC CENTER PLZA, POMONA 91766	207,831	COURT	15	$118	0.99	1.13	2.2	$289.45	$60,157,655
SAN FERNANDO COURTHOUSE	900 3RD ST, SAN FERNANDO 91340	203,225	COURT	15	$118	0.99	1.13	2.2	$289.45	$58,824,426
ML KING-TRAUMA CARE AND DIAGNOSTIC CENTER	12021 S WILMINGTON AVE, LOS ANGELES 90059	192,243	GENERAL ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$86,333,297
PARKING STRUCTURE (ML KING/DREW MEDICAL CTR)	12021 S WILMINGTON AVE, LOS ANGELES 90059	186,080	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$16,204,837
PARKING STRUCT (WEST COVINA COURT/PUB HEALTH)	501 S SUNSET AVE WEST COVINA CIVIC CENTER, WEST COVINA 91790	183,558	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$15,985,208
PARKING GARAGE (INGLEWOOD COURTHOUSE-EAST)	ONE E REGENT ST, INGLEWOOD 90301	182,611	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$15,902,738
PARKING STRUCT/BUS MAINTENANCE (CENTRAL JAIL)	481 BAUCHET ST, LOS ANGELES 90012	182,236	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$15,870,081
TWIN TOWERS-INMATE RECEPTION CENTER	450 BAUCHET ST, LOS ANGELES 90012	182,158	VISITORS BUILDING/INMATE RECEPTION CENTER	16	$106	1.01	1.13	2.2	$265.20	$48,307,761
CENTURY DETENTION-WEST TOWER (CLOSED)	11705 S ALAMEDA ST, LYNWOOD 90262	181,061	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$65,162,496
THE MUSIC CENTER-AHMANSON THEATRE	215 N GRAND AVE, LOS ANGELES 90012	180,941	MUSIC CENTER	16	$121	1.01	1.13	2.2	$304.89	$55,167,776
VAN NUYS COURTHOUSE - EAST	6230 SYLMAR AVE, VAN NUYS 91401	180,296	COURT	15	$118	0.99	1.13	2.2	$289.45	$52,187,520
CENTURY DETENTION-EAST TOWER	11705 S ALAMEDA ST, LYNWOOD 90262	175,931	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$63,316,248

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MENTAL HEALTH-LE SAGE COMPLEX TOWER	550 S VERMONT AVE, LOS ANGELES 90020-1991	171,651	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$49,685,184
ISD-EASTERN AVE COMPLEX CRAFTS SHOPS/WAREHSE	1102 N EASTERN AVE, LOS ANGELES 90063	167,584	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$22,604,133
PCHS DT CTR-OLD MAXIMUM SECURITY FACILITY	29310 THE OLD RD, CASTAIC 91384	165,096	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$59,416,813
PCHS DT CTR-VOCATIONAL PGRMS/KITCHEN/MESSHALL	29340 THE OLD RD, CASTAIC 91384	165,067	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$36,742,465
PKG STRUCT (LYNWOOD REGIONAL JUSTICE CENTER)	11704 S MONA BLVD, LYNWOOD 90262	156,312	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$13,612,481
TORRANCE COURTHOUSE	825 MAPLE AVE, TORRANCE 90503-5058	155,368	COURT	15	$118	0.99	1.13	2.2	$289.45	$44,971,994
DPSS-SOUTHWEST SPEC DIST/ PROBATION-CENTINELA	1326 W IMPERIAL HWY, LOS ANGELES 90044	153,986	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$19,793,532
HOLLYWOOD BOWL-SEATING AREA	2301 N HIGHLAND AVE, HOLLYWOOD 90068	150,575	AMPHITHEATER	16	$125	1.01	1.13	2.2	$312.93	$47,119,206
PARKING GARAGE (INGLEWOOD COURTHOUSE-WEST)	ONE E REGENT ST, INGLEWOOD 90301	148,270	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$12,912,141
DHS-H H HUMPHREY COMPREHENSIVE HEALTH CENTER	5850 S MAIN ST, LOS ANGELES 90003	143,209	INTERMEDIATE CARE	15	$182	0.99	1.13	2.2	$449.08	$64,312,901
MED CTR-INTERNS & RESIDENTS BUILDING	2020 ZONAL AVE, LOS ANGELES 90033	142,448	DOCTORS-NURSES-OFFICERS QUARTERS	11	$92	1.01	1.13	2.2	$231.50	$32,976,896
EL MONTE COURTHOUSE	11234 E VALLEY BLVD, EL MONTE 91731	136,512	COURT	15	$118	0.99	1.13	2.2	$289.45	$39,514,037
DPSS-SOUTH FAMILY AP/SPECIAL DISTRICT OFFICES	17600 A/B S SANTA FE AVE, RANCHO DOMINGUEZ 90221	133,000	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$13,911,759

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DPSS-HAWTHORNE WFP&I/IHSS REGIONAL OFFICES	12000 HAWTHORNE BLVD, HAWTHORNE 90250	132,996	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$17,095,454
RANCHO-BUILDING 100/ MEDICAL CLINIC	7601 E IMPERIAL HWY, DOWNEY 90242	132,912	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$44,183,428
DCFS-THE U S BORAX BUILDING	3075 WILSHIRE BLVD, LOS ANGELES 90010	132,488	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$38,349,271
PARKING STRUCTURE (EL MONTE COURTHOUSE)	11228 E VALLEY BLVD, EL MONTE 91731	129,480	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$11,275,808
PARKING STRUCTURE (DPSS-BELVEDERE DISTRICT)	759 S BELDEN AVE, EAST LOS ANGELES 90022	128,100	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$11,155,630
DPSS-EXPOSITION PARK FAMILY SERVICE CENTER	3833 S VERMONT AVE AT 38TH STREET, LOS ANGELES 90037	127,511	SERVICE CENTER	14	$52	1.04	1.13	2.2	$134.88	$17,198,990
EAST LOS ANGELES COURTHOUSE	214 S FETTERLY AVE, EAST LOS ANGELES 90022	126,972	COURT	15	$118	0.99	1.13	2.2	$289.45	$36,752,639
PARKING STRUCTURE (DPSS-GLENDALE FAMILY CTR)	4680 SAN FERNANDO RD, GLENDALE 91204	126,945	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$11,055,047
SHERMAN BLOCK SHERIFF'S HEADQUARTERS BUILDING	4700 W RAMONA BLVD, MONTEREY PARK 91754	125,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$36,181,834
CENTRAL CIVIL WEST COURTHOUSE	600 S COMMONWEALTH AVE, LOS ANGELES 90005	124,914	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$36,156,941
SANTA MONICA COURTHOUSE	1725 MAIN ST, SANTA MONICA 90401	122,988	COURT	15	$118	0.99	1.13	2.2	$289.45	$35,599,452

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SAN GABRIEL VALLEY FAMILY SERVICE CENTER II	3400 AEROJET AVE, EL MONTE 91731	122,792	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$35,542,719
ML KING-INTERNS & RESIDENTS BUILDING	12012 S COMPTON AVE, LOS ANGELES 90059	122,600	DOCTORS-NURSES-OFFICERS QUARTERS	11	$92	1.01	1.13	2.2	$231.50	$28,382,058
DPSS-GAIN PROGRAM REG IV/ MEDI-CAL OUTSTATION	2910 W BEVERLY BLVD, LOS ANGELES 90057	120,327	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$34,829,213
SAN GABRIEL VALLEY FAMILY SERVICE CENTER I	3350 AEROJET AVE, EL MONTE 91731	120,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$34,734,561
PRKING STRUCTURE (LOT 76-EAST L A COURTHOUSE)	146 S FETTERLY AVE, EAST LOS ANGELES 90022	119,350	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$10,393,634
PKG STRUCT(LOT 94-LOS ANGELES AIRPORT CRTHSE)	11701 S LA CIENEGA BLVD (PACIFIC CONCOURSE DR), LOS ANGELES 90045	116,541	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$10,149,011
WEST COVINA COURTHOUSE	1427 WEST COVINA PKWY, WEST COVINA 91790	115,964	COURT	15	$118	0.99	1.13	2.2	$289.45	$33,566,322
BOB HOPE PATRIOTIC HALL	1816 S FIGUEROA ST, LOS ANGELES 90015	115,686	HALL	15	$106	0.99	1.13	2.2	$260.46	$30,131,859
DPSS-METRO SPECIAL DISTRICT OFFICE	2707 S GRAND AVE, LOS ANGELES 90007	115,242	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$33,357,336
PARKING GARAGE (BEVERLY HILLS COURT-LOT 57)	9355 BURTON WAY, BEVERLY HILLS 90210	112,947	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$15,234,563
ALHAMBRA COURTHOUSE	150 W COMMONWEALTH AVE, ALHAMBRA 91801	111,727	COURT	15	$118	0.99	1.13	2.2	$289.45	$32,339,903
BELLFLOWER COURTHOUSE	10025 E FLOWER ST, BELLFLOWER 90706	110,286	COURT	15	$118	0.99	1.13	2.2	$289.45	$31,922,798

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MUSEUM OF ART-AHMANSON BUILDING	5905 WILSHIRE BLVD, LOS ANGELES 90036	108,708	MUSEUM	16	$121	1.01	1.13	2.2	$304.89	$33,144,388
PARKING STRUCTURE (PUBLIC WORKS HEADQUATERS)	900 S FREMONT AVE, ALHAMBRA 91803	107,502	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$9,361,847
DOWNEY COURTHOUSE	7500 E IMPERIAL HWY, DOWNEY 90242	103,502	COURT	15	$118	0.99	1.13	2.2	$289.45	$29,959,138
TWIN TOWERS-MEDICAL SERVICES BUILDING	450 BAUCHET ST, LOS ANGELES 90012	101,034	GENERAL ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$45,372,775
COUNTY RECORDS CENTER (COUNTY MALL PHASE II)	222 N HILL ST (BENEATH COURT OF THE FLAGS), LOS ANGELES 90012	99,945	RECORDS STORAGE	14	$41	1.03	1.13	2.2	$104.60	$10,454,216
DPSS-WEST VALLEY CALWORKS/GAIN REG II PROGRAM	21415 PLUMMER ST, CHATSWORTH 91311	97,280	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$28,158,151
HIGH DESERT-MAIN HOSPITAL BUILDING	44900 N 60TH ST W, LANCASTER 93536	97,051	GENERAL ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$43,584,072
PKG STRUCTURE (LOT 93-BELLFLOWER CIVIC CENTR)	9951 E FLOWER ST, BELLFLOWER 90706	96,700	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$8,421,151
DPSS-EAST VALLEY WS DISTRICT OFFICE	14545 LANARK ST, PANORAMA CITY 91402	96,360	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$27,891,853
PARKING STRUCTURE (DCFS-THE U S BORAX BLDG)	3075 WILSHIRE BLVD, LOS ANGELES 90010	94,500	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$8,229,563
WHITEMAN AIRPORT-PORT-A-PORT 1	12653 OSBORNE ST, PACOIMA 91331	91,540	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$8,387,627
WHITTIER COURTHOUSE (CIVIC CENTR BLDGS A & B)	7339 S PAINTER AVE, WHITTIER 90602	91,402	COURT	15	$118	0.99	1.13	2.2	$289.45	$26,456,736

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DHS-EL MONTE COMPREHENSIVE HEALTH CENTER	10953 RAMONA BLVD, EL MONTE 91731	90,149	INTERMEDIATE CARE	15	$182	0.99	1.13	2.2	$449.08	$40,484,493
DCFS-REGION I HEADQUARTERS/COVINA SVCS OFFICE	800 S BARRANCA AVE, COVINA 91723	89,513	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$25,909,956
RANCHO-BUILDING 900/ PEDIATRIC CLINIC	7601 E IMPERIAL HWY, DOWNEY 90242	89,242	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$29,666,377
PKG STRUCTURE(EASTLAKE JUVENILE COURT-LOT 55)	1605 EASTLAKE AVE, LOS ANGELES 90033	89,054	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$7,755,297
PARKING STRUCT (BARRY J NIDORF JUVENILE HALL)	16350 FILBERT ST, SYLMAR 91342	88,200	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$7,680,926
RANCHO-HOSPITAL OFFICE BLDG 500,501,502 & 503	7601 E IMPERIAL HWY, DOWNEY 90242	88,104	GENERAL ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$39,566,116
PARKING STRUCTURE (THE ALHAMBRA COMPLEX)	1000 S FREMONT AVE, ALHAMBRA 91803	87,850	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$7,650,446
DCFS-REGION VII LAKEWOOD SERVICES OFFICE	4060 WATSON PLAZA DR, LAKEWOOD 90712	87,200	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$25,240,448
PCHS DT CTR-NORTH MEDIUM SECURITY HOUSING 1	29340 THE OLD RD, CASTAIC 91384	86,688	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$31,198,361
PCHS DT CTR-NORTH MEDIUM SECURITY HOUSING 2	29340 THE OLD RD, CASTAIC 91384	86,688	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$31,198,361
PCHS DT CTR-NORTH MEDIUM SECURITY HOUSING 3	29340 THE OLD RD, CASTAIC 91384	86,688	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$31,198,361
PARKING (DCFS-U S BORAX BLDG-ADDITIONAL SPCS)	3223 W 6TH ST (AT NEW HAMPSHIRE), LOS ANGELES 90020	86,100	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$7,498,047
RANCHO-HARRIMAN BUILDING 400 - ADMINISTRATION	7601 E IMPERIAL HWY, DOWNEY 90242	85,879	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$24,858,078

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CENTRAL ARRAIGNMENT COURTHOUSE	429 BAUCHET ST, LOS ANGELES 90012	83,692	COURT	15	$118	0.99	1.13	2.2	$289.45	$24,225,041
MED CTR-SUPPLIES WAREHOUSE/ MEDICAL RECORDS	2011 N SOTO ST, LOS ANGELES 90032	83,665	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$8,751,333
OTIS GARAGE (DPSS-WILSHIRE SPECIAL DISTRICT)	611 S CARONDELET ST, LOS ANGELES 90057	83,636	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$7,283,468
RANCHO-BUILDING 800	7601 E IMPERIAL HWY, DOWNEY 90242	83,412	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$27,728,333
DISTRICT ATTORNEY -FIGUEROA PLAZA	201 N FIGUEROA ST, LOS ANGELES 90012	83,164	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$24,072,209
DHS-H CLAUDE HUDSON COMPREHENSIVE HEALTH CTR	2829 S GRAND AVE, LOS ANGELES 90007	82,740	INTERMEDIATE CARE	15	$182	0.99	1.13	2.2	$449.08	$37,157,228
PARKING STRUCTURE (DPSS-CIVIC CENTER GR DIST)	321 S HEWITT ST (AT 4TH PLACE), LOS ANGELES 90013	82,250	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$7,162,768
DHS-LONG BEACH COMPREHENSIVE HEALTH CENTER	1333 CHESTNUT AVE, LONG BEACH 90813	82,155	INTERMEDIATE CARE	15	$182	0.99	1.13	2.2	$449.08	$36,894,514
DCFS-DEPARTMENTAL HEADQUARTERS BUILDING	425 SHATTO PL, LOS ANGELES 90020	80,756	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$23,375,202
BEVERLY HILLS COURTHOUSE	9355 BURTON WAY, BEVERLY HILLS 90210	80,566	COURT	15	$118	0.99	1.13	2.2	$289.45	$23,320,205
ISD-ADMINISTRATIVE HEADQUARTERS	1100 N EASTERN AVE, LOS ANGELES 90063	80,309	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$23,245,816
DHS/DPSS/DCFS-TELSTAR EL MONTE COUNTY CENTER	9320 TELSTAR AVE, EL MONTE 91731	80,098	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$23,184,741

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DPSS-GLENDALE FAMILY SERVICE CENTER	4680 SAN FERNANDO RD, GLENDALE 91204	80,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$23,156,374
CHILD SUPPORT SERVICES-ADMINISTRATIVE HDQTERS	5770 S EASTERN AVE, CITY OF COMMERCE 90040-2924	80,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$23,156,374
PARKING (MENTAL HEALTH-LONG BEACH M H SERVCS)	1841 LONG BEACH BLVD, LONG BEACH 90806	78,889	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$6,870,074
HEALTH-EVIRONMENTAL HEALTH HEADQUARTERS	5050 COMMERCE DR OFF LIVE OAK AVE, BALDWIN PARK 91706	77,700	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$22,490,628
PARKING STRUCTURE (LOS PADRINOS JUV HALL-18)	7285 E QUILL DR, DOWNEY 90242	76,626	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$6,673,000
JUVENILE HALL-ADMINISTRATION BUILDING-4	1605 EASTLAKE AVE, LOS ANGELES 90033	75,907	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$27,318,360
DCFS-REGION V PASADENA SERVICES OFFICE	532 E COLORADO BLVD, PASADENA 91101	75,235	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$21,777,123
TREAS & TAX COLLECTOR-PUBLIC ADMIN WAREHOUSE	4821 GREGG RD, PICO RIVERA 90660	75,000	RECORDS STORAGE	14	$41	1.03	1.13	2.2	$104.60	$7,844,977
WHITEMAN AIRPORT-NUNNO 1080T	12653 OSBORNE ST, PACOIMA 91331	74,313	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$6,809,151
PCHS DT CTR-NORTH LOW-MAX SECURITY HOUSING	29340 THE OLD RD, CASTAIC 91384	73,335	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$26,392,717
MACLAREN CHILDREN'S CTR-ADMIN BLDG/ WINGS A-E	4024 N DURFEE AVE, EL MONTE 91732	71,733	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$20,763,452
SHERIFF-CENTURY STATION	11703 S ALAMEDA ST, LYNWOOD 90262	71,631	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$18,519,676
DCFS-ADOPTIONS DIVISION OFFICES	695 S VERMONT AVE, LOS ANGELES 90010	71,370	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$20,658,380

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DPSS-BELVEDERE AP DISTRICT OFFICE	5445 E WHITTIER BLVD, EAST LOS ANGELES 90022	70,493	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$20,404,528
BARRY J NIDORF JUV HALL-BLDG A/BOYS DORM-	16350 FILBERT ST, SYLMAR 91342	70,072	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$16,221,759
BARRY J NIDORF JUV HALL-BLDG B/BOYS DORM-	16350 FILBERT ST, SYLMAR 91342	70,072	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$16,221,759
PARKING (BURBANK COURTHOUSE)	301 E ANGELENO AVE, BURBANK 91502	70,000	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$6,095,973
DPSS-NEW RANCHO PARK DISTRICT OFFICE	11110 W PICO BLVD, LOS ANGELES 90064	69,450	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$20,102,627
MALIBU ADMINISTRATIVE CENTER AND COURTHOUSE	23519 W CIVIC CENTER WAY, MALIBU 90265	69,397	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$20,087,286
GLENDALE COURTHOUSE	600 E BROADWAY, GLENDALE 91205	69,071	COURT	15	$118	0.99	1.13	2.2	$289.45	$19,992,924
DC&FS\DPSS\DMH-WEST LOS ANGELES DIST OFFICES	11390 W OLYMPIC BLVD, WEST LOS ANGELES 90064	68,200	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$19,740,809
PUBLIC LIBRARY-ADMINISTRATION HEADQUARTERS	7400 E IMPERIAL HWY, DOWNEY 90242	68,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$19,682,918
COMMUNITY DEVELOPMENT COMMISSION HEADQUARTERS	2 CORAL CIR, MONTEREY PARK 91755	67,500	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$19,538,191
DPSS-WEST VALLEY CALWORKS/IHSS PROGRAM OFFICE	21615 PLUMMER ST, CHATSWORTH 91311	67,220	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$19,457,143
PW ROAD-HOLLYDALE DIV #445 MAINTENANCE YARD	11282 GARFIELD AVE, DOWNEY 90242	66,926	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$9,027,140
BURBANK COURTHOUSE	300 E OLIVE AVE, BURBANK 91502	66,698	COURT	15	$118	0.99	1.13	2.2	$289.45	$19,306,048

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FORMER EXPOSITION PARK BUILDING/PKG STRUCTURE	3965 S VERMONT AVE, LOS ANGELES 90037	66,484	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$19,244,105
RANCHO-SUPPORT SERVICES ADMINISTRATION BLDG	7601 E IMPERIAL HWY, DOWNEY 90242	66,200	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$19,161,900
DPSS-EQUITABLE PLAZA BUILDING	3435 WILSHIRE BLVD, LOS ANGELES 90010	65,871	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$19,066,669
DCFS-REGION IV OFFICES AND TRAINING CENTER	10355 SLUSHER DR, SANTA FE SPRINGS 90670	65,568	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$18,978,964
RANCHO-BUILDING 700	7601 E IMPERIAL HWY, DOWNEY 90242	63,535	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$21,120,697
DPSS-METRO EAST AP DISTRICT OFFICE	2855 E OLYMPIC BLVD, LOS ANGELES 90023	63,066	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$18,254,749
HEALTH-WILSHIRE METROPLEX BUILDING	3530 WILSHIRE BLVD (AT NORMANDIE), LOS ANGELES 90010	62,901	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$18,206,989
LYNWOOD REGIONAL JUSTICE CENTER COURT(CLOSED)	11701 S ALAMEDA ST, LYNWOOD 90262	62,078	COURT	15	$118	0.99	1.13	2.2	$289.45	$17,968,767
DPSS-METRO NORTH AP/ CALWORKS DISTRICT OFFICE	2601 WILSHIRE BLVD, LOS ANGELES 90057	62,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$17,946,190
HOLLYWOOD COURTHOUSE	5925 HOLLYWOOD BLVD, HOLLYWOOD 90028	61,571	COURT	15	$118	0.99	1.13	2.2	$289.45	$17,822,014
GEORGE C PAGE MUSEUM AT THE LA BREA TAR PITS	5801 WILSHIRE BLVD (HANCOCK PARK), LOS ANGELES 90036	61,529	MUSEUM	16	$121	1.01	1.13	2.2	$304.89	$18,759,806
DHS/DPSS/DCFS-TELSTAR EL MONTE COUNTY CENTER	9320 TELSTAR AVE, EL MONTE 91731	61,402	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$17,773,096

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CHILD SUPPORT SERVICES-INTERSTATE DIVISION	5701 S EASTERN AVE, CITY OF COMMERCE 90040	61,130	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$17,694,364
DHS-CENTRAL PUBLIC HEALTH CENTER	241 N FIGUEROA ST, LOS ANGELES 90012	60,924	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$17,084,448
DCFS-REGION II HEADQUARTERS/ TORRANCE OFFICE	2325 CRENSHAW BLVD (PARK DEL AMO), TORRANCE 90501	60,804	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$17,600,002
MENTAL HEALTH-HEADQUARTERS OFFICE ANNEX	3160 W 6TH ST, LOS ANGELES 90020	60,800	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$17,598,844
PCHS DT CTR-LAUNDRY BUILDING/LAUNDRY ADDITION	29350 THE OLD RD, CASTAIC 91384	60,796	LAUNDRY -SUPPLIES-IRONING STORAGE	13	$50	1.05	1.13	2.2	$130.70	$7,945,899
DPSS-DISTRIBUTION CENTER/ MULTI-USE WAREHOUSE	2700 GARFIELD AVE, COMMERCE 90040	60,140	RECORDS STORAGE	14	$41	1.03	1.13	2.2	$104.60	$6,290,626
DPSS-FLORENCE AP DISTRICT OFFICE	1740 E GAGE AVE, LOS ANGELES 90001	60,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$17,367,281
PW CENTRAL YARD-MAIN WAREHOUSE	1537 ALCAZAR ST, LOS ANGELES 90033	59,594	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$6,233,514
MID VALLEY-PROBATION RESIDENTIAL YOUTH CENTER	7533 VAN NUYS BLVD MID VALLEY COMPLEX, VAN NUYS 91405	58,766	GENERAL ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$26,390,883
NORWALK IMPERIAL CENTRE (AKA BECHTEL BLDG)	12440 E IMPERIAL HWY, NORWALK 90650	58,642	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$16,974,201
NORWALK IMPERIAL CENTRE (AKA BECHTEL BLDG)	12440 E IMPERIAL HWY, NORWALK 90650	58,642	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$16,974,201
NORWALK IMPERIAL CENTRE (AKA BECHTEL BLDG)	12440 E IMPERIAL HWY, NORWALK 90650	58,642	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$16,974,201

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HARBOR-PRIMARY CARE & DIAGNOSTIC CENTER	1000 W CARSON ST, TORRANCE 90502	57,350	GENERAL ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$25,754,980
CORONER-FORENSIC MEDICINE/LAB/PUBLIC SERVICES	1104 N MISSION RD, LOS ANGELES 90033	55,093	MORGUE	15	$118	0.99	1.13	2.2	$289.45	$15,946,926
DPSS-ADMINISTRATIVE HEADQUARTERS	12860 CROSSROADS PKWY SO, CITY OF INDUSTRY 91745	55,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$15,920,007
SHERIFF-CENTRAL PROPERTY WAREHOUSE	14201 TELEGRAPH RD MONTE VISTA COMPLEX, SOUTH WHITTIER 90604	55,000	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$5,752,983
DPSS-POMONA WS DISTRICT OFFICE	2040 W HOLT AVE, POMONA 91768	54,265	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$15,707,258
PCHS DT CTR-NORTH HIGH-MAX SECURITY HOUSING	29340 THE OLD RD, CASTAIC 91384	54,200	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$19,506,174
DPSS-PARAMOUNT AP DISTRICT/GAIN PROGRAM REG V	2959 E VICTORIA ST, RANCHO DOMINGUEZ 90221	54,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$15,630,552
ML KING-LEROY WEEKS MEDICAL SUPPORT BLD-NORTH	12021 S WILMINGTON AVE, LOS ANGELES 90059	53,362	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$7,197,595
CENTRAL CIVIL WEST COURTHOUSE	600 S COMMONWEALTH AVE, LOS ANGELES 90005	53,180	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$15,393,200
MACLAREN CHILDREN'S CTR-SCHOOL/ MAINT BLDG	4024 N DURFEE AVE, EL MONTE 91732	52,948	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$14,505,631
EASTLAKE SALVAGE WAREHOUSE (CONDEMNED)	1660 EASTLAKE AVE, LOS ANGELES 90033	52,697	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$5,512,090

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DCFS-REGION II SERVICES - WATERIDGE BUILDING	5100 W GOLDLEAF CIR BUILDING C, LOS ANGELES 90056	52,370	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$15,158,741
DA-CRIMINAL FILE STORAGE/ FRAUD INVESTIGATORS	5300 HARBOR ST, CITY OF COMMERCE 90040	52,300	RECORDS STORAGE	14	$41	1.03	1.13	2.2	$104.60	$5,470,564
DCSS-LE SAGE COMPLEX 4 STORY BUILDING	3175 W 6TH ST, LOS ANGELES 90020	52,230	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$15,118,218
DPSS-SOUTH CENTRAL AP DISTRICT OFFICE	10728 S CENTRAL AVE, LOS ANGELES 90002	51,991	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$15,049,038
MUSEUM OF ART-HAMMER BUILDING	5905 WILSHIRE BLVD, LOS ANGELES 90036	51,238	MUSEUM	16	$121	1.01	1.13	2.2	$304.89	$15,622,145
ANTELOPE VALLEY SERVICE CENTER-BUILDING B	335 A E. AVE K-6 A-B-C, LANCASTER 93534	51,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$14,762,188
ANTELOPE VALLEY SERVICE CENTER-BUILDING A	349 A-B E. AVE K-6, LANCASTER 93534	51,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$14,762,188
POMONA COURTHOUSE - NORTH	350 W MISSION BLVD, POMONA 91766	50,934	COURT	15	$118	0.99	1.13	2.2	$289.45	$14,743,084
PUBLIC LIBRARY-MONTEBELLO REGIONAL LIBRARY	1550 W BEVERLY BLVD, MONTEBELLO 90640	50,530	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$15,251,683
SAN PEDRO COURTHOUSE	505 S CENTRE ST, SAN PEDRO 90731	50,216	COURT	15	$118	0.99	1.13	2.2	$289.45	$14,535,256
DPSS-AIRPORT/WESTSIDE GAIN REGION I OFFICE	5200 W CENTURY BLVD, WESTCHESTER 90045	50,147	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$14,515,284
MID VALLEY COMPREHENSIVE HEALTH CENTER (NEW)	7515 VAN NUYS BLVD MID VALLEY COMPLEX, VAN NUYS 91405	50,000	INTERMEDIATE CARE	15	$182	0.99	1.13	2.2	$449.08	$22,454,211

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PKG STRUCT (DPSS-EXPOSITION PARK FAMILY CTR)	3833 S VERMONT AVE, LOS ANGELES 90037	50,000	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$4,354,266
PARKING STRUCTURE (TELSTAR E M COUNTY CENTER)	9320 TELSTAR AVE, EL MONTE 91731	49,350	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$4,297,661
MED CTR-PHARMACY BUILDING	1100 N MISSION RD, LOS ANGELES 90033	49,063	PHARMACY	15	$118	0.99	1.13	2.2	$289.45	$14,201,515
JUVENILE HALL-BOYS DORMS-16/17	1605 EASTLAKE AVE, LOS ANGELES 90033	49,056	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$11,356,527
PUBLIC LIBRARY-LANCASTER REGIONAL LIBRARY	601 W LANCASTER BLVD, LANCASTER 93534	48,721	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$14,705,665
DPSS-COMPTON AP DISTRICT OFFICE	211 E ALONDRA BLVD, COMPTON 90220	48,135	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$13,932,901
CIVIC CENTER COGENERATION PLANT	301 N BROADWAY, LOS ANGELES 90012	47,848	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$13,849,827
WEST COVINA REGIONAL SERVICES BUILDING	2934 E GARVEY AVE, WEST COVINA 91791-2191	47,750	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$13,821,461
CHALLENGER-YOUTH CENTER SCHOOL BUILDING (A&B)	5300 W AVE I, LANCASTER 93536	47,680	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$13,062,410
CHILD SUPPORT SERVICES-DIVISION IV HDQUARTERS	621 HAWAII ST, EL SEGUNDO 90245-4825	47,576	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$16,279,094
PKG STRUCTURE (EASTLAKE JUVENILE COURT-NEW)	1605 EASTLAKE AVE AT BIGGY ST, LOS ANGELES 90033	47,420	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$4,129,586
EASTLAKE JUVENILE COURT-1	1601 EASTLAKE AVE, LOS ANGELES 90033	47,379	COURT	15	$118	0.99	1.13	2.2	$289.45	$13,714,073

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LOS PADRINOS JUVENILE COURTHOUSE-1	7281 E QUILL DR, DOWNEY 90242	47,231	COURT	15	$118	0.99	1.13	2.2	$289.45	$13,671,234
CSSD-DIVISION V HDQTERS/ TORRANCE HEALTH CTR	20221 HAMILTON ST, TORRANCE 90502-1321	47,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$13,604,370
DPSS-WILSHIRE SPECIAL DISTRICT OFFICE	2415 W 6TH ST, LOS ANGELES 90057	46,228	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$13,380,911
PARKING STRUCTURE (LOT 59-WHITTIER ADMIN CTR)	7621 S PAINTER AVE, WHITTIER 90602	46,075	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$4,012,456
CHILD SUPPORT SERVICES-DIVISION I HDQUARTERS	15531 VENTURA BLVD, ENCINO 91436-3157	45,775	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$13,249,788
MUSEUM OF ART-BING BUILDING	5905 WILSHIRE BLVD, LOS ANGELES 90036	45,599	MUSEUM	16	$121	1.01	1.13	2.2	$304.89	$13,902,849
SHERIFF-CENTRAL SUPPLY WAREHOUSE	14205 TELEGRAPH RD MONTE VISTA COMPLEX, SOUTH WHITTIER 90604	45,000	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$4,706,986
DPSS-CANOGA PARK REGIONAL MEDI-CAL OFFICE	9035 CANOGA AVE, CANOGA PARK 91304	44,835	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$12,977,700
DPSS-COMPUTER SERVICES/ LEADER PROGRAM OFFICE	14714 CARMENITA RD, NORWALK 90650	44,250	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$12,808,369
REGISTRA R-RECORDER-SUPPLIES WAREHOUSE	1050 S MAPLE AVE, MONTEBELLO 90640	44,000	RECORDS STORAGE	14	$41	1.03	1.13	2.2	$104.60	$4,602,386
PUBLIC LIBRARY-COMPTON LIBRARY	240 W COMPTON BLVD, COMPTON 90220	43,842	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$13,233,015
LANCASTER COURTHOUSE	1040 W AVE J, LANCASTER 93534	43,784	COURT	15	$118	0.99	1.13	2.2	$289.45	$12,673,484
THOMAS A TIDEMANSON BUILDING-ANNEX BUILDING	900 S FREMONT AVE, ALHAMBRA 91803	43,500	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$12,591,278

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WEST LOS ANGELES COURTHOUSE	1633 PURDUE AVE, WEST LOS ANGELES 90025	43,404	COURT	15	$118	0.99	1.13	2.2	$289.45	$12,563,491
DCFS-REGION V NORTH HOLLYWOOD SERVICE OFFICE	12020 CHANDLER BLVD, NORTH HOLLYWOOD 91607	43,268	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$12,524,125
PUBLIC LIBRARY-WEST COVINA REGIONAL LIBRARY	1601 WEST COVINA PKWY, WEST COVINA 91790	42,345	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$12,781,170
CHILD SUPPORT SERVICES-COMPUTER SYSTEMS DIV	5500 S EASTERN AVE, CITY OF COMMERCE 90040	42,250	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$12,229,460
DPSS-SAN GABRIEL VALLEY GAIN PROGRAM REG III	3216 ROSEMEAD BLVD, EL MONTE 91731	41,836	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$12,109,626
PCHS DT CTR-ADMINISTRATION / VISITOR CENTER	29340 THE OLD RD, CASTAIC 91384	41,736	VISITORS BUILDING/INMATE RECEPTION CENTER	16	$106	1.01	1.13	2.2	$265.20	$11,068,263
MED CTR-TUNNEL	1200 N STATE ST, LOS ANGELES 90033	41,717	TUNNEL-CULVERT	17	$16	1.03	1.13	2.2	$41.92	$1,748,639
RANCHO-CASA CONSUELO (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	41,643	DOCTORS-NURSES-OFFICERS QUARTERS	11	$92	1.01	1.13	2.2	$231.50	$9,640,408
DPSS-NORWALK WS DISTRICT OFFICE	12727 NORWALK BLVD, NORWALK 90650	40,500	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$11,722,914
DPSS-SOUTHWEST FAMILY WS DISTRICT OFFICE	923 E REDONDO BLVD (905-921 REDONDO BLVD), INGLEWOOD 90302	40,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$11,578,187
FIRE-CAMP 17-PROBATION CAMP SITE FACILITIES	6555 N STEPHENS RANCH RD, LA VERNE 91750-1144	40,000	FORESTRY-FIRE-FLOOD CONT CAMP	11	$92	1.01	1.13	2.2	$231.50	$9,260,052
DPSS-CIVIC CENTER DISTRICT/GROW CENTER OFFICE	813 E 4TH PL, LOS ANGELES 90013	39,956	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$11,565,451

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JUVENILE HALL-BOYS SCHOOL BLDG-9	1605 EASTLAKE AVE, LOS ANGELES 90033	39,017	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$10,689,095
FIRE-ADMINISTRATIVE HEADQUARTERS BUILDING	1320 N EASTERN AVE, LOS ANGELES 90063-3294	39,015	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$11,293,074
DC&FS-REGION III HEADQTRS/ BELVEDERE SERVICES	5835 S EASTERN AVE, CITY OF COMMERCE 90040	38,814	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$11,234,894
OLIVE VIEW-STORAGE BLDG 124/126	14445 OLIVE VIEW DR, SYLMAR 91342	38,376	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$12,757,187
RANCHO-CHRONIC DISEASE BUILDING 1100 (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	38,229	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$12,708,320
BARRY J NIDORF JUV HALL-BOYS SCHOOL-3	16350 FILBERT ST, SYLMAR 91342	37,819	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$10,360,891
ISD-EASTERN AVE COMPLEX TELECOM BRANCH BLDG	1110 N EASTERN AVE, LOS ANGELES 90063	37,742	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$5,090,732
DPSS-FORMER RANCHO PARK DIST OFFICE(FOR SALE)	10961 W PICO BLVD, LOS ANGELES 90064	37,597	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$10,882,627
SHERIFF-PERSONNEL AND RECRUITMENT CENTER	101 CENTRE PLAZA DR, MONTEREY PARK 91754	37,590	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$10,880,601
MIRA LOMA-KITCHEN/MESS HALL	45100 N 60TH ST W, LANCASTER 93536	37,330	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$8,309,330
DCFS-POMONA WASHINGTON MUTUAL BUILDING	100 W 2ND ST, POMONA 91766	37,315	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$10,801,001
HARBOR-CENTRAL PLANT/ CEMTRAL WAREHOUSE #1	1000 W CARSON ST, TORRANCE 90502	37,075	LAUNDRY-SUPPLIES-IRONING STORAGE	13	$50	1.05	1.13	2.2	$130.70	$4,845,618
NORWALK IMPERIAL CENTRE (AKA BECHTEL BLDG)	12440 E IMPERIAL HWY, NORWALK 90650	37,038	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$10,720,822
ASSESSOR-NORTH DISTRICT OFFICE	13800 BALBOA BLVD, SYLMAR 91344	37,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$10,709,823

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NATURAL HISTORY MUSEUM-WAREHOUSE I	2847 S GRAND AVE, LOS ANGELES 90007	36,776	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$3,846,758
DHS-YVONNE BRATHWAITE BURKE HEALTH CENTER	2509 W PICO BLVD, SANTA MONICA 90404	36,557	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$10,251,398
PARKING (DMH-SAN FERNANDO MENTAL HEALTH SVCS)	10605 BALBOA BLVD, GRANADA HILLS 91344	36,400	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$3,169,906
HIGH DESERT-MUNSIE BUILDING/ WAREHOUSE/LINENS	45120 N 60TH ST W, LANCASTER 93536	36,392	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$4,908,640
DPSS-PASADENA AP DISTRICT OFFICE	955 N LAKE AVE, PASADENA 91104	36,224	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$10,485,206
CAO-COUNTY EMERGENCY OPERATIONS CENTER (EOC)	1275 N EASTERN AVE, LOS ANGELES 90063	36,000	EMERGENCY OPERATIONS CENTER	15	$118	0.99	1.13	2.2	$289.45	$10,420,368
DPSS-MEDI-CAL CENTRAL OFFICE	17171 E GALE AVE, CITY OF INDUSTRY 91745	36,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$10,420,368
CAO-COUNTY EMERGENCY OPERATIONS CENTER (TEST)		36,000	EMERGENCY OPERATIONS CENTER	15	$118	0.99	1.13	2.2	$289.45	$10,420,368
MENTAL HEALTH-LONG BEACH ADULT M H SERVICES	1975 LONG BEACH BLVD, LONG BEACH 90806	36,000	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$4,627,480
CENTURY DETENTION-MOVEMENT / BOOKING CENTER	11705 S ALAMEDA ST, LYNWOOD 90262	35,997	VISITORS BUILDING/INMATE RECEPTION CENTER	16	$106	1.01	1.13	2.2	$265.20	$9,546,298
MIRA LOMA-ISD HANGAR#2/CRAFTS MAINTENCE SHOP	45000 N 60TH ST W, LANCASTER 93536	35,993	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$3,297,966
AG COMM/WTS & MEAS HQ/ PROBATION SPECIAL SVCS	12300 LOWER AZUSA RD (RIVERVIEW BUSINESS CENTER), ARCADIA 91706	35,878	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$10,385,055

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DPSS-EAST SAN FERNA NDO GAIN REGION VII OFFICE	3307 N GLENOAKS BLVD, BURBANK 91504	35,772	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$10,354,373
EL PUEBLO REDEVELOPMENT PROPERTY-OLD BRUNSWIG	510 NEW HIGH ST, LOS ANGELES 90012	35,683	COURT	15	$118	0.99	1.13	2.2	$289.45	$10,328,611
RANCHO-CENTRAL PLANT (NEW)	7601 E IMPERIAL HWY, DOWNEY 90242	35,000	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$10,130,914
SHERIFF-SCIENTIFIC SERVICES BUREAU LABORATORY	2020 W BEVERLY BLVD, LOS ANGELES 90057	34,511	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$9,989,370
EL PUEBLO REDEVELOPMENT PROPERTY-VICKREY BLDG	501 N MAIN ST, LOS ANGELES 90012	34,350	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$11,753,550
SHERIFF-COMPTON STATION	301 S WILLOWBROOK AVE, COMPTON 90220	34,156	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$8,830,786
ASSESSOR-SOUTH DISTRICT OFFICE BUILDING	1401 E WILLOW ST, SIGNAL HILL 90806	34,051	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$9,856,221
ML KING-SERVICE AND SUPPLY BUILDING-SOUTH	12021 S WILMINGTON AVE, LOS ANGELES 90059	33,805	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$3,535,993
PUBLIC LIBRARY-NORWALK REGIONAL LIBRARY	12350 E IMPERIAL HWY, NORWALK 90650	33,749	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$10,186,603
MED CTR-BUILDING 10/20 - PEDIATRIC CLINIC	1237 N MISSION RD, LOS ANGELES 90031	33,738	ACUTE PSYCHIATRIC CARE	15	$176	0.99	1.13	2.2	$434.17	$14,648,018
HEALTH-WILSHIRE METROPLEX BUILDING	3530 WILSHIRE BLVD (AT NORMANDIE), LOS ANGELES 90010	33,521	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$9,702,810
PUBLIC LIBRARY-HUNTINGTON PARK LIBRARY	6518 MILES AVE, HUNTINGTON PARK 90255	33,482	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$10,106,013

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DPSS-ADMINISTRATIVE HEADQUARTERS WEST ANNEX	12820 CROSSROADS PKWY SO, CITY OF INDUSTRY 91745	33,331	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$9,647,814
SHERIFF-LANCASTER STATION	501 W LANCASTER BLVD, LANCASTER 93534	33,156	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$8,572,244
PUBLIC LIBRARY-CARSON REGIONAL LIBRARY	151 E CARSON ST, CARSON 90745	33,112	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$9,994,334
SHERIFF-NORWALK STATION	12335 CIVIC CENTER DR, NORWALK 90650	33,061	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$8,547,682
SANTA CLARITA COURTHOUSE	23747 W VALENCIA BLVD, SANTA CLARITA 91355	32,950	COURT	15	$118	0.99	1.13	2.2	$289.45	$9,537,532
DCFS-REGION VIII SANTA CLARITA SERVICES	28490 AVE STANFORD, SANTA CLARITA 91355	32,743	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$9,477,614
SHERIFF-MALIBU/ LOST HILLS STATION	27050 W AGOURA RD, AGOURA HILLS 91301	32,709	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$8,456,675
PARKING STRUCTURE (TELSTAR E M COUNTY CENTER)	9320 TELSTAR AVE, EL MONTE 91731	32,550	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$2,834,627
PARKING STRUCTURE (TELSTAR E M COUNTY CENTER)	9320 TELSTAR AVE, EL MONTE 91731	32,350	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$2,817,210
SHERIFF-CARSON STATION	21356 S AVALON BLVD, CARSON 90745	32,311	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$8,353,775
ISD-DIST 2 FACILITIES OPERATIONS SERVICE BLDG	13811 DEL SUR ST, SAN FERNANDO 91340	32,071	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$3,354,617
FIRE-COMMAND & CONTROL FACILITY	1320 N EASTERN AVE, LOS ANGELES 90063-3294	32,000	DISPATCH CENTER	15	$118	0.99	1.13	2.2	$289.45	$9,262,550
SHERIFF-WALNUT/ DIAMOND BAR REGIONAL STATION	21695 E VALLEY BLVD, WALNUT 91789	32,000	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$8,273,368

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PARKS & RECREATION-HEADQUARTERS BUILDING	433 S VERMONT AVE, LOS ANGELES 90020	31,862	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$9,222,605
DCFS-REGION VI HAWTHORNE SERVICES OFFICE	11539 S HAWTHORNE BLVD, HAWTHORNE 90250	31,832	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$9,213,921
PKS-LESAGE COMPLEX 2 STORY BUILDING (REMODEL)	510 S VERMONT AVE, LOS ANGELES 90020	31,540	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$9,129,400
HUMAN RESOURCES-WILSHIRE SQUARE TWO BUILDING	3333 WILSHIRE BLVD, LOS ANGELES 90010-4109	31,500	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$9,117,822
OLIVE VIEW-STORAGE BUILDING 401/402	14445 OLIVE VIEW DR, SYLMAR 91342	31,474	GENERA L ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$14,134,477
DPSS-GAIN PROGRAM REGION VI OFFICE	5460 BANDINI BLVD, BELL 90201	31,400	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$9,088,877
PARKING (DPSS-REGION VI GAIN PROGRAM)	5500 S EASTERN AVE (BEHIND BUILDING), CITY OF COMMERCE 90040	31,400	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$2,734,479
THE ALHAMBRA COMPLEX - EAST TOWER	1000 S FREMONT AVE, ALHAMBRA 91803	31,299	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$9,059,642
THE ALHAMBRA COMPLEX - EAST TOWER	1000 S FREMONT AVE, ALHAMBRA 91803	31,299	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$9,059,642
THE ALHAMBRA COMPLEX - EAST TOWER	1000 S FREMONT AVE, ALHAMBRA 91803	31,299	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$9,059,642
THE ALHAMBRA COMPLEX - EAST TOWER	1000 S FREMONT AVE, ALHAMBRA 91803	31,299	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$9,059,642
DPSS-SANTA ANITA REG III SUB OFFICE/ IHSS OFF	3629 N SANTA ANITA AVE, EL MONTE 91731	30,893	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$8,942,123

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DPSS-CUDAHY A/P DISTRICT OFFICE	8130 S ATLANTIC AVE, CUDAHY 90201	30,873	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$8,936,334
SHERIFF-WEST HOLLYWOOD STATION	720 N SAN VICENTE BLVD, WEST HOLLYWOOD (BR P.O. N 90069	30,702	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$7,937,780
ISD-DIST 3 FACILITIES OPERATIONS SERVICE BLDG	11236 PLAYA CT, CULVER CITY 90230	30,660	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$3,207,027
LOMITA ADMINISTRATIVE CENTER	24330 NARBONNE AVE, LOMITA 90717	30,517	SERVICE CENTER	14	$52	1.04	1.13	2.2	$134.88	$4,116,206
ASSESSOR-WEST DISTRICT OFFICE	6120 BRISTOL PKWY FOX HILLS BUSINESS PARK, CULVER CITY 90230	30,507	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$8,830,394
RANCHO-FURNITURE WAREHOUSE (CONDEMNED)	7601 E IMPERIAL HWY, DOWNEY 90242	30,080	SPECIAL CONDITION WAREHOUSE	14	$41	1.03	1.13	2.2	$104.60	$3,146,359
MUSEUM OF ART-SHIN EN' KAN JAPANESE PAVILION	5905 WILSHIRE BLVD, LOS ANGELES 90036	30,000	MUSEUM	16	$121	1.01	1.13	2.2	$304.89	$9,146,812
MENTAL HEALTH-ED EDELMAN WESTSIDE M H CENTER	11080 W OLYMPIC BLVD, WEST LOS ANGELES 90025	30,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$8,683,640
PUBLIC LIBRARY-ROSEMEAD LIBRARY	8800 VALLEY BLVD, ROSEMEAD 91770	29,860	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$9,012,769
RANCHO-MATERIALS MANAGEMENT WAREHOUSE	7601 E IMPERIAL HWY, DOWNEY 90242	29,795	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$3,116,548
DOWNEY ADMIN CTR-ISD/FOS DIST 4 SERVICE BLDG	9230 E IMPERIAL HWY, DOWNEY 90242	29,563	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$3,987,529
DC&FS-CORPORATE PLACE MONTEREY PARK OFFICE	2525 CORPORATE PL, MONTEREY PARK 91754	29,542	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$8,551,070
DCFS-REGION I COVINA SERVICES OFFICE ANNEX	1373 E CENTER COURT DR, COVINA 91724	29,525	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$8,546,149

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THE MUSIC CENTER-MARK TAPER FORUM	205 N GRAND AVE, LOS ANGELES 90012	29,425	MUSIC CENTER	16	$121	1.01	1.13	2.2	$304.89	$8,971,498
HUNTINGTON PARK COURTHOUSE	6548 MILES AVE, HUNTINGTON PARK 90255	29,295	COURT	15	$118	0.99	1.13	2.2	$289.45	$8,479,575
DHS-DR RUTH TEMPLE PUBLIC HEALTH CENTER	3834 S WESTERN AVE, LOS ANGELES 90016	29,023	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$8,138,696
PUBLIC WORKS-VAN PELT BRIDGE MAINTENANCE YARD	1126 VAN PELT AVE, EAST LOS ANGELES 90063	28,973	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$3,907,948
SYLMAR JUVENILE COURTHOUSE-1	16350 FILBERT ST, SYLMAR 91342	28,960	COURT	15	$118	0.99	1.13	2.2	$289.45	$8,382,607
PCHS DT CTR-NORTH COUNTY FACILITY CORRIDORS	29340 THE OLD RD, CASTAIC 91384	28,843	CORRIDOR (ENCLOSED)	17	$16	1.03	1.13	2.2	$41.92	$1,209,003
PARKING GARAGE (LE SAGE COMPLEX LOT B/TUNNEL)	3185 W 6TH ST, LOS ANGELES 90020	28,827	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$3,888,255
EL MONTE AIRPORT-HANGAR ROW A	4233 N SANTA ANITA AVE, EL MONTE 91731	28,813	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$2,640,077
MIRA LOMA - HANGAR #1 MAINTENANCE BLDG (REDTAG)	45100 N 60TH ST W, LANCASTER 93536	28,812	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$2,639,986
DHS-CURTIS TUCKER PUBLIC HEALTH CENTER	123 W MANCHESTER BLVD, INGLEWOOD 90301	28,734	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$8,057,654
MENTAL HEALTH COURTHOUSE	1150 N SAN FERNANDO RD, LOS ANGELES 90065	28,523	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$3,666,378
DCSS-EAST LOS ANGELES SERVICE CENTER	133 N SUNOL DR, EAST LOS ANGELES 90063	28,514	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$5,468,400
FIRE-ADMINISTRATIVE HEADQUARTERS OFFICE ANNEX	5801 S EASTERN AVE, CITY OF COMMERCE 90040	28,474	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$8,241,932

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MED CTR-BUILDING CRAFTS SHOPS AND WAREHOUSE	1358 N MISSION RD, LOS ANGELES 90033	28,371	SHOP	17	$20	1.03	1.13	2.2	$50.67	$1,437,669
MID VALLEY-FORMER BOWLING ALLEY(NONHABITABLE)	7501 VAN NUYS BLVD FRONT OF LOT, VAN NUYS 91405	28,269	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$5,421,414
SHERIFF-TEMPLE CITY STATION ADDITION	8838 E LAS TUNAS DR, TEMPLE CITY (RUDELL) 91780	28,249	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$7,303,574
EL MONTE AIRPORT-HANGAR ROW D	4233 N SANTA ANITA AVE, EL MONTE 91731	28,032	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$2,568,516
MED CTR-AIDS OUTPATIENT CLINIC	1300 N MISSION RD, LOS ANGELES 90033	28,000	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$9,307,933
RANCHO-LAUNDRY STORAGE BUILDING	7601 E IMPERIAL HWY, DOWNEY 90242	27,952	LAUNDRY-SUPPLIES-IRONING STORAGE	13	$50	1.05	1.13	2.2	$130.70	$3,653,263
MED CTR-GENERAL HOSPITAL MINI WAREHOUSE	1900 ZONAL AVE, LOS ANGELES 90033	27,899	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$2,918,227
NORTH SERVICES AGENCY-SERVICE BUILDING	31320 N CASTAIC RD, CASTAIC 91384	27,690	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$3,734,894
DMH-RIO HONDO MENTAL HEALTH SERVICES	17707 STUDEBAKER RD, CERRITOS (DAIRY VALLEY) 90701	27,640	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$8,000,527
THE MUSIC CENTER-DE LISA BUILDING/ THE ANNEX	301 N GRAND AVE, LOS ANGELES 90012	27,582	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$7,983,739
DHS-HOLLYWOOD/WILSHIRE PUBLIC HEALTH CENTER	5205 MELROSE AVE, LOS ANGELES 90038	27,578	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$7,733,486
SHERIFF-CENTRAL COMMUNICATIONS CENTER	1277 N EASTERN AVE, LOS ANGELES 90063	27,227	DISPATCH CENTER	15	$118	0.99	1.13	2.2	$289.45	$7,880,982

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CENTURY DETENTION-CENTRAL PLANT / LAUNDRY	11705 S ALAMEDA ST, LYNWOOD 90262	27,109	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$7,846,827
EL MONTE AIRPORT-HANGAR ROW C	4233 N SANTA ANITA AVE, EL MONTE 91731	27,072	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$2,480,553
CENTURY DETENTION-FOOD SERVICES / INFIRMARY	11705 S ALAMEDA ST, LYNWOOD 90262	27,061	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$6,023,541
DCFS-REGION VI CENTURY SERVICES OFFICE	5767 W CENTURY BLVD BUILDING 2, WESTCHESTER 90045	27,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$7,815,276
AVALON-CARVER SERVICE CENTER (SOLD)	4920 S AVALON BLVD ACROSS STREET FROM SOUTH PARK, LOS ANGELES 90011	26,822	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$7,521,487
EL MONTE AIRPORT-HANGAR ROW E	4233 N SANTA ANITA AVE, EL MONTE 91731	26,600	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$2,437,305
SHERIFF-EAST LOS ANGELES STATION	5019 E 3RD ST, EAST LOS ANGELES 90022	26,507	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$6,853,193
HEALTH-ADMIN STORAGE/OFFICE BUILDINGS 307/308	12817 DAHLIA AVE, DOWNEY 90242	26,475	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$6,128,997
CIVIC CENTER COGENERATION PLANT SYSTEM TUNNEL	301 N BROADWAY, LOS ANGELES 90012	26,297	TUNNEL-CULVERT	17	$16	1.03	1.13	2.2	$41.92	$1,102,283
PARKING STRUCTURE (SHERIFF SCIENTIFIC SVCS)	107 S MOUNTAIN VIEW AVE, LOS ANGELES 90057	26,140	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$2,276,410
DPSS-LINCOLN HEIGHTS WS DISTRICT OFFICE	4077 N MISSION RD, LOS ANGELES 90032	26,094	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$7,553,030

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PW ROAD-HOLLYDALE MAINT YARD SERVICE BUILDING	11282 GARFIELD AVE, DOWNEY 90242	26,020	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$3,509,640
SHERIFF-CERRITOS STATION (COMM SAFETY CENTER)	18135 S BLOOMFIELD AVE, CERRITOS (DAIRY VALLEY) 90703	26,000	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$6,722,112
MENTAL HEALTH-SAN FERNANDO MENTAL HEALTH SVCS	10605 BALBOA BLVD, GRANADA HILLS 91344	25,996	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$7,524,664
PCHS DT CTR-MEDIUM SECURITY ADMINISTRATION	29310 THE OLD RD, CASTAIC 91384	25,726	DISPENSARY -FIRST AID	15	$88	0.99	1.13	2.2	$216.21	$5,562,248
RANCHO-BUILDINGS 303/304 KINESIOLOGY (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	25,689	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$8,790,013
SANTA CLARITA VALLEY -SHERIFF STATION	23740 W MAGIC MOUNTAIN PKWY, SANTA CLARITA 91355	25,594	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$6,617,143
BRACKETT FIELD-HANGAR A	1615 W MCKINLEY AVE, LA VERNE 91750	25,415	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$2,658,401
DPSS-ADMINISTRATIVE HEADQUARTERS EAST ANNEX	12900 CROSSROADS PKWY SO, CITY OF INDUSTRY 91745	25,358	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$7,339,992
DHS-ALHAMBRA HEALTH CENTER (CLOSED)	612 W SHORB ST, ALHAMBRA 91803	25,344	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$7,107,023
SHERIFF-INTERNAL AFFAIRS BUREAU/RISK MANAGEMT	4900 S EA STERN AVE, CITY OF COMMERCE 90040	25,140	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$7,276,891
CAO-REAL ESTATE DIVISION/ SERVICE INTEGRATION	222 S HILL ST (KAWADA BUILDING), LOS ANGELES 90012-3503	25,137	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$7,276,022

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MED CTR-OFFICE EQUIPMENT & SALVAGE WAREHOUSE	1808 GRIFFIN AVE, LOS ANGELES 90031	25,114	RECORDS STORAGE	14	$41	1.03	1.13	2.2	$104.60	$2,626,917
BISCAILUZ-KITCHEN (CLOSED)/ DINING ROOMS	1060 N EASTERN AVE, LOS ANGELES 90063	25,032	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$5,571,903
MED CTR-INGLESIDE PSYCHIATRIC HOSPITAL (TEMP)	7500 E HELLMAN AVE, ROSEMEAD 91770	25,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$7,236,367
TWIN TOWERS-VEHICLE SALLYPORT	450 BAUCHET ST, LOS ANGELES 90012	25,000	BUS SHELTER-TRUCK SHELTER	16	$106	1.01	1.13	2.2	$265.20	$6,629,926
MED CTR-GENERAL LABORATORY BUILDING	1801 MARENGO ST, LOS ANGELES 90033	24,878	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$8,512,513
SHERIFF-LOMITA STATION	26123 NARBONNE AVE, LOMITA 90717	24,756	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$6,400,484
DCSS-WILLOWBROOK ONE-STOP CAREER CENTER	12700 AVALON BLVD WEST OF MAGIC JOHNSON PARK, LOS ANGELES 90061	24,706	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$7,151,267
MACLAREN CHILDREN'S CENTER-COVERED WALKWAY		24,666	CORRIDOR (OPEN)-CANOPY	17	$16	1.03	1.13	2.2	$41.92	$1,033,917
SHERIFF-CRESCENTA VALLEY STATION	4554 N BRIGGS AVE, LA CRESCENTA 91214	24,432	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$6,316,717
OLIVE VIEW-SERVICE & SUPPLIES WAREHOUSE	14445 OLIVE VIEW DR, SYLMAR 91342	24,430	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$2,555,370
CHALLENGER-GYMNASIUM/ KITCHEN/MESS HALL (A&B)	5300 W AVE I, LANCASTER 93536	24,303	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$4,660,817
JUVENILE HALL-SERVICE BUILDING/WAREHOUSE-14	1605 EASTLAKE AVE, LOS ANGELES 90033	24,202	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$3,264,424

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EL MONTE AIRPORT-HANGAR ROW B	4233 N SANTA ANITA AVE, EL MONTE 91731	24,192	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$2,216,664
PUBLIC LIBRARY-VALENCIA LIBRARY	23743 W VALENCIA BLVD, SANTA CLARITA 91355	24,144	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$7,287,485
SHERIFF-INDUSTRY STATION	150 N HUDSON AVE, CITY OF INDUSTRY 91744	24,039	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$6,215,109
ML KING-CENTRAL POWER PLANT	12021 S WILMINGTON AVE, LOS ANGELES 90059	23,800	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$6,889,021
MALIBU ADMIN CENTER-FORMER SHERIFF STATION	23555 W CIVIC CENTER WAY, MALIBU 90265	23,774	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$6,146,596
BRACKETT FIELD-HANGAR B (ACFT)	1615 W MCKINLEY AVE, LA VERNE 91750	23,750	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$2,484,243
DPSS-EAST L A GROW EMPLOYMENT SERVICES CENTER	2200 N HUMBOLDT ST, LOS ANGELES 90031	23,655	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$3,190,643
AG COMM/WTS MEAS-ENVIRONMENTAL LAB/WAREHOUSE	11012 GARFIELD AVE, SOUTH GATE 90280	23,623	SPECIAL CONDITION WAREHOUSE	14	$41	1.03	1.13	2.2	$104.60	$2,470,959
DMH-HIV/ HOLLYWOOD MENTAL HEALTH SERVICES	1224 N VINE ST, HOLLYWOOD 90038	23,400	AUDITORIUM	16	$114	1.01	1.13	2.2	$286.87	$6,712,659
RANCHO-MAIN KITCHEN	7601 E IMPERIAL HWY, DOWNEY 90242	23,286	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$5,183,259
DCSS-SAN PEDRO SERVICE CENTER	769 W 3RD ST, SAN PEDRO 90731	23,278	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$6,527,670
BONELLI-PICNIC AREA SHELTERS (8)	120 VIA VERDE, SAN DIMAS 91773	23,264	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$975,150
LAKEWOOD GC-CLUBHOUSE	3101 E CARSON ST, LAKEWOOD 90712	23,127	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$3,651,357

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JUVENILE HALL-LATHROP HALL-3	1401 BIGGY ST, LOS ANGELES 90033	23,099	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$5,347,448
PCHS DT CTR-INMATE SERVICES	29340 THE OLD RD, CASTAIC 91384	23,043	MISC CONCESSIONS	13	$50	1.05	1.13	2.2	$129.31	$2,979,789
PUBLIC LIBRARY-CLAREMONT LIBRARY	208 N HARVARD AVE, CLAREMONT 91711	22,921	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$6,918,342
HARBOR-AF PARLOW HEALTH LIBRARY	1000 W CARSON ST, TORRANCE 90502	22,846	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$6,895,704
SANTA CLARITA ADMINISTRATIVE CENTER BUILDING	23757 W VALENCIA BLVD, SANTA CLARITA 91355	22,767	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$6,590,015
WHITEMAN AIRPORT-NUNNO 1530	12653 OSBORNE ST, PACOIMA 91331	22,620	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$2,072,625
CORONER-ADMINISTRATION / INVESTIGATIONS BLDG	1102 N MISSION RD, LOS ANGELES 90033	22,479	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$6,506,652
FIRE-CAMP 9-F&FW CAMP SITE	21521 N SAND CANYON, SANTA CLARITA 91321	22,426	FORESTRY-FIRE-FLOOD CONT CAMP	11	$92	1.01	1.13	2.2	$231.50	$5,191,648
OWENS-BATHHOUSE/ LOCKER ROOM	9651 S WESTERN AVE, LOS ANGELES 90047	22,383	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$3,747,655
SHERIFF-LAKEWOOD STATION	5130 CLARK AVE, LAKEWOOD 90712	22,286	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$5,761,884
DHS-SAN FERNANDO HEALTH CENTER (NEW)	1212 PICO ST, SAN FERNANDO 91340	22,144	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$6,209,671
STAR CENTER-TRAINING BUILDING F	11515 S COLIMA RD, WHITTIER 90604	22,004	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$6,028,214
PUBLIC LIBRARY-ANGELO M IACOBONI LIBRARY	4990 N CLARK AVE, LAKEWOOD 90712	22,000	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$6,640,353
HUMAN RESOURCES-WILSHIRE SQUARE TWO BUILDING	3333 WILSHIRE BLVD, LOS ANGELES 90010-4109	21,945	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$6,352,083

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AG COMM/WTS MEAS-SOUTH GATE ADMINISTRATION	11012 GARFIELD AVE, SOUTH GATE 90280	21,902	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$6,339,636
PUBLIC LIBRARY-A C BILBREW LIBRARY	150 E EL SEGUNDO BLVD, LOS ANGELES 90061	21,843	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$6,592,965
LOS ANGELES SUPERIOR COURT WAREHOUSE	250 W DUARTE RD, MONROVIA 91016	21,753	RECORDS STORAGE	14	$41	1.03	1.13	2.2	$104.60	$2,275,357
OLIVE VIEW-COGENERATION PLANT	14445 OLIVE VIEW DR, SYLMAR 91342	21,675	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$6,273,930
CULVER CITY COURTHOUSE	4130 OVERLAND AVE, CULVER CITY 90230	21,568	COURT	15	$118	0.99	1.13	2.2	$289.45	$6,242,958
INGLEWOOD JUVENILE COURTHOUSE	110 E REGENT ST, INGLEWOOD 90301	21,539	COURT	15	$118	0.99	1.13	2.2	$289.45	$6,234,564
DHS/DPSS/DCFS-TELSTAR EL MONTE COUNTY CENTER	9320 TELSTAR AVE, EL MONTE 91731	21,500	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$6,223,276
PUBLIC LIBRARY-JULIAN DIXON LIBRARY	4975 OVERLAND AVE, CULVER CITY 90230	21,406	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$6,461,063
RANCHO-BLDG 305 (UNUSED)/BLDG 306 MED RECORDS	7601 E IMPERIAL HWY, DOWNEY 90242	21,153	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$7,031,811
ML KING-MEDICAL RECORDS AND LAUNDRY BUILDING	12021 S WILMINGTON AVE, LOS ANGELES 90059	21,000	RECORDS STORAGE	14	$41	1.03	1.13	2.2	$104.60	$2,196,594
ISD-MONROVIA AUTO SHOPS AND WAREHOUSE	1703 S MOUNTAIN AVE, MONROVIA 91010	20,937	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$2,824,033
CENTURY DETENTION-DETENTION ADMININISTRATION	11705 S ALAMEDA ST, LYNWOOD 90262	20,706	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,993,449
LA MIRADA GC-CLUBHOUSE/ PRO SHOP	15501 E ALICANTE RD, LA MIRADA 90638	20,571	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$3,247,809

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FIRE STATION 181	590 S PARK AVE, POMONA 91766-3038	20,562	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$6,161,782
PW FLEET-PALMDALE VEHICLE MAINTENANCE SHOP	38126 N SIERRA HWY, PALMDALE 93550	20,502	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$2,765,359
DPSS-GAIN PROGRAM HEADQUARTERS/DA-CLAIMS UNIT	3220 ROSEMEAD BLVD, EL MONTE 91731	20,435	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,915,006
OWENS-GYMNASIUM	9651 S WESTERN AVE, LOS ANGELES 90047	20,282	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$3,889,672
DA-CRIMINAL JUSTICE INFORMATION SYSTEM/ ISAB	12750 CENTER COURT DR, CERRITOS (DAIRY VALLEY) 90701	20,187	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,843,222
PUBLIC LIBRARY-CLIFTON M BRAKENSIEK LIBRARY	9945 E FLOWER ST, BELLFLOWER 90706	20,160	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$6,084,978
BEACHES/HARBORS & SHERIFF-MARINA DEL REY STN	13851 FIJI WAY, MARINA DEL REY 90292	20,128	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,826,144
RANCHO-MEDICAL SCIENCE BUILDING	7601 E IMPERIAL HWY, DOWNEY 90242	20,110	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$6,881,045
HSG-ASSISTED HOUSING DIVISION OFFICES	4800 CESAR E CHAVEZ AVE, EAST LOS ANGELES 90022	20,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,789,094
OLIVE VIEW-NURSE TRAINING CENTER	14445 OLIVE VIEW DR, SYLMAR 91342	20,000	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$5,479,199
PROBATION-RIO HONDO AREA OFFICE	8240 S BROADWAY, WHITTIER 90606	19,997	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,788,225
STAR CENTER-ACADEMY BUILDING E	11515 S COLIMA RD, WHITTIER 90604	19,984	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$5,474,815

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LOS VERDES GC-CLUBHOUSE	7000 W LOS VERDES DR, RANCHO PALOS VERDES 90275	19,951	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$3,149,921
DMH-WEST CENTRAL MENTAL HEALTH SERVICES	3751 STOCKER ST, LOS ANGELES 90008	19,936	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,770,568
LANCASTER COURT-DELINQUENCY CRT/DETECTIVE DIV	1010 W AVE J, LANCASTER 93534	19,896	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$5,143,967
MED CTR-CANCER RESEARCH LABORATORY	1303 N MISSION RD, LOS ANGELES 90031	19,829	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$6,784,895
CSSD-DIVISION V HDQTERS/ TORRA NCE HEALTH CTR	20221 HAMILTON ST, TORRANCE 90502-1321	19,825	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,738,439
PW ROAD-DIV #233/333/433 MAINTENANCE YARD	5530 W 83RD ST, WESTCHESTER 90045	19,736	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$2,662,039
PCHS DT CTR-INFIRMARY	29340 THE OLD RD, CASTAIC 91384	19,670	DISPENSARY -FIRST AID	15	$88	0.99	1.13	2.2	$216.21	$4,252,873
THE ALHAMBRA COMPLEX - EAST TOWER	1000 S FREMONT AVE, ALHAMBRA 91803	19,593	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,671,285
DHS-PUBLIC HEALTH FACILITIES BUILDING 301/302	12838 ERICKSON AVE, DOWNEY 90242	19,575	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$4,531,638
DPSS-POMONA GAIN PROGRAM REGION III SUBOFFICE	2255 N GAREY AVE, POMONA 91768	19,500	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$2,506,552
MED CTR-COMPLEX CENTRAL POWER PLANT	1635 MARENGO ST, LOS ANGELES 90033	19,469	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$5,635,393
PUBLIC LIBRARY-LELAND R WEAVER LIBRARY	4035 TWEEDY BLVD, SOUTH GATE 90280	19,461	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$5,873,996
MED CTR-PHINNEY HALL CANCER CENTER - BLDG 40	1721 GRIFFIN AVE, LOS ANGELES 90031	19,349	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$6,432,114

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BRACKETT FIELD-HANGAR J (STORAGE)	1615 W MCKINLEY AVE, LA VERNE 91750	19,276	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$2,016,264
F.D. ROOSEVELT-BATHHOUSE/ PUMPHOUSE	7600 GRAHAM AVE, LOS ANGELES 90001	19,241	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$3,221,580
LOS PADRINOS-BOYS DORM-R/ST/U-17	7285 E QUILL DR, DOWNEY 90242	19,200	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$4,444,825
PROBATION-CRENSHAW AREA OFFICE	3606 W EXPOSITION BLVD, LOS ANGELES 90016	19,112	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,532,058
DHS-SOUTH PUBLIC HEALTH CENTER	1522 E 102ND ST, LOS ANGELES 90002	19,060	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$5,344,849
BRACKETT FIELD-HANGAR G (ACFT)	1615 W MCKINLEY AVE, LA VERNE 91750	19,042	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$1,991,787
SHERIFF-YOUTH ATHLETIC PROGRAM-A	7901 S COMPTON AVE, LOS ANGELES 90001	19,004	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$4,913,347
ASSESSOR-EAST DISTRICT OFFICE	1190 DURFEE AVE WHITTIER NARROWS BUSINESS PARK, SOUTH EL MONTE 91733	19,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,499,639
MENTAL HEALTH-DOWNTOWN MENTAL HEALTH SERVICES	529 S MAPLE AVE, LOS ANGELES 90013	19,000	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$1,654,621
DPSS-ANTELOPE VALLEY GAIN REG II SUB-OFFICE	1050 E PALMDALE BLVD, PALMDALE 93550	18,795	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,440,301
MED CTR-OLD ADMINISTRATION BUILDING (UNUSED)	1100 N MISSION RD, LOS ANGELES 90033	18,651	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,398,619

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FORMER METRO NORTH IHSS/SPEC SVCS (PEND SALE)	5026 SANTA MONICA BLVD CORNER OF MARIPOSA AVE, LOS ANGELES 90029-2412	18,645	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,396,882
CERRITOS-GYMNASIUM/ ACTIVITY BUILDING	19700 S BLOOMFIELD AVE, CERRITOS (DAIRY VALLEY) 90703	18,630	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$3,572,852
SOUTH GATE COURTHOUSE	8640 CALIFORNIA AVE, SOUTH GATE 90280	18,610	COURT	15	$118	0.99	1.13	2.2	$289.45	$5,386,752
PALMDALE COURTHOUSE	38256 N SIERRA HWY NEXT TO PALMDALE CITY HALL, PALMDALE 93550	18,528	COURT	15	$118	0.99	1.13	2.2	$289.45	$5,363,016
DHS-WEINGART HEALTHCARE AND DRUG REHAB CENTER	511 E 6TH ST, LOS ANGELES 90021	18,512	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$3,599,027
LANCASTER COURTHOUSE-SERVICES BUILDING	1110 W AVE J, LANCASTER 93534	18,488	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,351,438
CASTAIC LAKE-PICNIC SHELTERS (35)	32132 RIDGE ROUTE RD, CASTAIC 91310	18,432	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$772,609
OLIVE VIEW-OLD SERVICE CENTER (CONDEMNED)	14445 OLIVE VIEW DR, SYLMAR 91342	18,420	SERVICE CENTER	14	$52	1.04	1.13	2.2	$134.88	$2,484,534
DCFS-REGION VIII WEST LANCASTER OFFICE	1150 W AVE J, LANCASTER 93534	18,419	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$5,559,484
EL CARISO GC-CLUBHOUSE	13100 ELDRIDGE ST, SYLMAR 91342	18,374	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$2,900,940
CENTRAL CIVIL WEST COURTHOUSE	600 S COMMONWEALTH AVE, LOS ANGELES 90005	18,322	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,303,389
VETERAN'S MEMORIAL-CULTURAL ARTS CENTER	13000 SAYRE ST, SYLMAR 91342	18,205	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$3,491,346

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FIRE STATION 7 (NEW)	864 N SAN VICENTE BLVD (CORNER OF CYNTHIA ST), WEST HOLLYWOOD (BR P.O. N 90069	18,204	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$5,455,164
PARKING (DPSS-REGION VI GAIN PROGRAM)	5500 S EASTERN AVE (BEHIND BUILDING), CITY OF COMMERCE 90040	18,200	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$1,584,953
DF KIRBY CENTER-ADMINISTRATION BUILDING	1500 S MCDONNELL AVE, COMMERCE 90022	18,169	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,259,102
DAVID V KENYON JUVENILE JUSTICE CENTER	7625 S CENTRAL AVE, LOS ANGELES 90001	18,108	COURT	15	$118	0.99	1.13	2.2	$289.45	$5,241,445
WHITEMAN AIRPORT-PORT-A-PORT 2	12653 OSBORNE ST, PACOIMA 91331	18,105	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$1,658,925
SHERIFF-SOUTH CRIME LABORATORY/BUILDING 1200	7717 GOLONDRINAS ST, DOWNEY 90242	18,082	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$6,187,123
BISCAILUZ-PISTOL RANGE BUILDING	1060 N EASTERN AVE, LOS ANGELES 90063	17,930	PISTOL-TARGET RANGE BLDG	15	$118	0.99	1.13	2.2	$289.45	$5,189,922
PARKING (DCFS-REGION II - WATERIDGE BUILDING)	5100 W GOLDLEAF CIR, LOS ANGELES 90056	17,850	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$1,554,473
DCFS-PROCUREMENT AND SPECIAL SERVICES OFFICE	501 SHATTO PL, LOS ANGELES 90020	17,751	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,138,110
FIRE-FIRE PREVENTION DIV/ FORESTRY DIV HDQTRS	5823 RICKENBACKER RD, CITY OF COMMERCE 90040	17,710	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$1,852,461
MID VALLEY-SAN FERNANDO VALLEY SERVICE CENTER	7555 VAN NUYS BLVD MID VALLEY COMPLEX, VAN NUYS 91405	17,698	GENERAL ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$7,947,892

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NEW SAN GABRIEL VALLEY SERVICE CENTER	1441 SANTA ANITA AVE, SOUTH EL MONTE 91733	17,650	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,108,875
DHS-WHITTIER PUBLIC HEALTH CENTER	7643 S PAINTER AVE, WHITTIER 90602	17,552	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$4,921,972
SHERIFF-HOMICIDE BUREAU OFFICE BUILDING	5747 RICKENBACKER RD, CITY OF COMMERCE 90040	17,460	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$5,053,879
HOLLYWOOD BOWL-MUSEUM	2301 N HIGHLAND AVE IN FRONT OF HOLLYWOOD BOWL, HOLLYWOOD 90068	17,400	MUSEUM	16	$121	1.01	1.13	2.2	$304.89	$5,305,151
BRACKETT FIELD-HANGAR D (ACFT)	1615 W MCKINLEY AVE, LA VERNE 91750	17,400	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$1,820,035
KNOLLWOOD GC-CLUBHOUSE	12040 BALBOA BLVD, GRANADA HILLS 91344	17,250	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$2,723,480
PCHS DT CTR-MESS HALL	29310 THE OLD RD, CASTAIC 91384	17,220	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$3,833,021
SAN FERNANDO COURTHOUSE ANNEX	919 1ST ST, SAN FERNANDO 91340	17,185	COURT	15	$118	0.99	1.13	2.2	$289.45	$4,974,279
STAR CENTER-GOLD STAR RESTAURANT	11515 S COLIMA RD, WHITTIER 90604	17,179	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$3,823,895
STAR CENTER-GYMNASIUM BUILDING I	11515 S COLIMA RD, WHITTIER 90604	17,132	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$3,285,566
DCSS-ALTADENA SENIOR CENTER	560 E MARIPOSA ST, ALTADENA 91001	17,071	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$3,318,874
PUBLIC LIBRARY-AGOURA HILLS LIBRARY	29901 LADYFACE CT, AGOURA HILLS 91301	17,000	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$5,131,182

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CHILD SUPPORT SERVICES-WILSHIRE CENTRE BLDG	3055 WILSHIRE BLVD, LOS ANGELES 90010	17,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,920,729
DMH-SOUTH BAY MENTAL HEALTH SERVICES	2311 W EL SEGUNDO BLVD, HAWTHORNE 90250	17,000	MENTAL HEALTH OUTPATIENT	15	$114	0.99	1.13	2.2	$280.42	$4,767,179
TORRANCE COURTHOUSE-ANNEX	3221 TORRANCE BLVD, TORRANCE 90503	16,996	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,919,572
PUBLIC LIBRARY-HAWTHORNE LIBRARY	12700 S GREVILLEA AVE, HAWTHORNE 90250	16,949	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$5,115,788
DHS-JUV CRT HEALTH SVCS/ MENTAL HEALTH CLINIC	1925 DALY ST, LOS ANGELES 90031	16,878	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,885,416
SHERIFF-AERO BUREAU MAIN HANGAR & ADMIN BLDG	3235 LAKEWOOD BLVD, LONG BEACH 90808	16,805	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$1,539,808
FIRE-PACOIMA WAREHOUSE	12605 OSBORNE ST, PACOIMA 91331	16,800	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$1,757,275
PUBLIC LIBRARY-LA CANADA FLNTRIDGE LIBRARY	4545 N OAKWOOD AVE, LA CANADA FLINTRIDGE 91011	16,791	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$5,068,098
FIRE-HAZARDOUS MATERIALS DIVISION HEADQUARTRS	5825 RICK ENBACKER RD, CITY OF COMMERCE 90040	16,670	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,825,209
BISCAILUZ-ADMINISTRATION BUILDING	1060 N EASTERN AVE, LOS ANGELES 90063	16,571	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,796,553
STAR CENTER-ACADEMY BUILDING D	11515 S COLIMA RD, WHITTIER 90604	16,551	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$4,534,311
EL PUEBLO REDEVELOPMENT PROPERTY-GAS CO BLDG	111 REPUBLIC ST (AKA 502 NEW HIGH), LOS ANGELES 90012	16,517	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$5,651,627

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RANCHO-BUILDINGS 601/602	7601 E IMPERIAL HWY, DOWNEY 90242	16,509	TEACHING & RESEARCH CLINIC	18	$109	1.01	1.13	2.2	$273.96	$4,522,805
PALMDALE CHILD SUPPORT SRVCS/ SHERIFF STATION	1020 E PALMDALE BLVD, PALMDALE 93550	16,500	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,776,002
EL MONTE AIRPORT-HANGAR O	4233 N SANTA ANITA AVE, EL MONTE 91731	16,500	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$1,511,862
EL MONTE AIRPORT-HANGAR P	4233 N SANTA ANITA AVE, EL MONTE 91731	16,500	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$1,511,862
SHERIFF-EAST L A SPECIAL ENFORCEMENT BUREAU	130 S FETTERLY AVE, EAST LOS ANGELES 90022	16,463	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$4,256,389
MIRA LOMA -SEWING BUILDING	45100 N 60TH ST W, LANCASTER 93536	16,442	LINEN ROOM-SEWING ROOM	13	$50	1.05	1.13	2.2	$130.70	$2,148,932
BRACKETT FIELD-HANGAR E (ACFT)	1615 W MCKINLEY AVE, LA VERNE 91750	16,416	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$1,717,109
LOS NIETOS COMMUNITY SENIOR CENTER & LIBRARY	11640 E SLAUSON AVE (SANTA FE SPRINGS), WHITTIER 90606	16,374	SERVICE CENTER	14	$52	1.04	1.13	2.2	$134.88	$2,208,564
TWIN TOWERS-CENTRAL ENERGY PLANT	450 BAUCHET ST, LOS ANGELES 90012	16,300	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$4,718,111
BETHUNE-GYMNASIUM	1244 E 61ST ST, LOS ANGELES 90001	16,202	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$3,107,211
DCSS-ASIAN SERVICE CENTER	14112 S KINGSLEY DR, GARDENA 90249	16,180	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,683,377
FORD AMPHITHEATRE-CULTURAL ARTS THEATRE	2580 CAHUENGA BLVD E, HOLLYWOOD 90068	16,120	THEATER	16	$124	1.01	1.13	2.2	$312.53	$5,037,931

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PARKING STRUCTURE (THE ALHAMBRA COMPLEX)	1000 S FREMONT AVE, ALHAMBRA 91803	16,100	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$1,402,074
NAT HIST MUSEUM-MARINE MAMMAL LAB/ WAREHOUSE	4400 SEVILLE AVE, VERNON 90058	16,038	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$1,677,570
DHS-SAN ANTONIO HEALTH CTR/ EHS DIST (CLOSED)	6538 MILES AVE, HUNTINGTON PARK 90255	16,033	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$4,496,011
ML KING-PLANT MANAGEMENT BUILDING	12021 S WILMINGTON AVE, LOS ANGELES 90059	16,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,631,275
DHS-POMONA PUBLIC HEALTH CENTER	750 S PARK AVE, POMONA 91766	15,980	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$4,481,148
DCSS-FLORENCE / FIRESTONE SERVICE CENTER	7807 S COMPTON AVE, LOS ANGELES 90001	15,928	SERVICE CENTER	14	$52	1.04	1.13	2.2	$134.88	$2,148,407
MENTAL HEALTH-WEST VALLEY MENTAL HEALTH CTR	7621 CANOGA AVE, CANOGA PARK 91304	15,900	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$4,458,714
THE ALHAMBRA COMPLEX - EAST TOWER	1000 S FREMONT AVE, ALHAMBRA 91803	15,872	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,594,225
PW ROAD-MAINT DIST 1 SERVICE BUILDING	14747 E RAMONA BLVD, BALDWIN PARK 91706	15,840	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$2,136,537
PROBATION-EAST SAN FERNANDO VALLEY AREA OFFIC	14414 W DELANO ST, VAN NUYS 91401	15,825	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,580,620
EAST SERVICES AGENCY-POWER MOWER SHOP	265 CLOVERLEAF DR, BALDWIN PARK 91706	15,724	SHOP	17	$20	1.03	1.13	2.2	$50.67	$796,796
PUBLIC LIBRARY-LA MIRADA LIBRARY	13800 LA MIRADA BLVD, LA MIRADA 90638	15,704	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$4,740,004
RANCHO-BUILDINGS 605/606	7601 E IMPERIAL HWY, DOWNEY 90242	15,658	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,532,281

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RANCHO-OFFICE BUILDING/BLDG 70 (CONDEMNED)	7601 E IMPERIAL HWY, DOWNEY 90242	15,648	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$5,201,805
EL PUEBLO REDEVELOPMENT PROPERTY-PLAZA HOUSE	507 N MAIN ST, LOS ANGELES 90012	15,618	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$3,036,387
PROBATION-EAST LOS ANGELES AREA OFFICE	144 S FETTERLY AVE, EAST LOS ANGELES 90022	15,584	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,510,862
STAR CENTER-ACADEMY BUILDING C	11515 S COLIMA RD, WHITTIER 90604	15,578	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$4,267,748
THE ALHAMBRA COMPLEX - EAST TOWER	1000 S FREMONT AVE, ALHAMBRA 91803	15,556	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,502,757
PUBLIC LIBRARY-BALDWIN PARK LIBRARY	4181 BALDWIN PARK BLVD, BALDWIN PARK 91706	15,555	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$4,695,031
BARRY J NIDORF JUV HALL-GIRLS SCHOOL-2	16350 FILBERT ST, SYLMAR 91342	15,529	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$4,254,324
DHS-BELLFLOWER HEALTH CENTER	10005 E FLOWER ST, BELLFLOWER 90706	15,524	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,493,494
PUBLIC SAFETY-HEADQUARTERS/HEALTH SVCS BUREAU	7601 E IMPERIAL HWY, DOWNEY 90242	15,482	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$3,009,947
THE ALHAMBRA COMPLEX - EAST TOWER	1000 S FREMONT AVE, ALHAMBRA 91803	15,481	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,481,048
PROBATION-FIRESTONE AREA OFFICE	8526 S GRAPE ST, LOS ANGELES 90001	15,431	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,466,575
LOS PADRINOS-BOYS CLASSROOM/GYMNASIUM-7	7285 E QUILL DR, DOWNEY 90242	15,388	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$4,215,695
RANCHO-FINANCIAL SERVICES/BLDG 50 (CONDEMNED)	7601 E IMPERIAL HWY, DOWNEY 90242	15,382	INTERMEDIATE CARE	15	$182	0.99	1.13	2.2	$449.08	$6,907,813

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RANCHO-OUTPATIENT CENTER/BLDG 60 (CONDEMNED)	7601 E IMPERIAL HWY, DOWNEY 90242	15,342	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$5,100,082
ASSESSOR-LANCASTER REGIONAL OFFICES	251 E AVE K-6, LANCASTER 93534	15,338	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,439,656
PROBATION-POMONA VALLEY AREA OFFICE	1660 W MISSION BLVD, POMONA 91766	15,280	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$1,964,108
DHS-GLENDALE PUBLIC HEALTH CENTER	501 N GLENDALE AVE, GLENDALE 91206	15,217	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$4,267,186
RANCHO-FINANCIAL SERVICES/BLDG 40 (CONDEMNED)	7601 E IMPERIAL HWY, DOWNEY 90242	15,119	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$4,142,000
CAMP AFFLERBAUGH-SCHOOL/ SHOP BUILDING	6631 N STEPHENS RANCH RD, LA VERNE 91750	15,036	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$4,119,262
HIGH DESERT-GLENCHUR CLINIC	45120 N 60TH ST W, LANCASTER 93536	15,000	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$4,986,393
FOX AIRFIELD-STORAGE HANGAR BUILDING-13	4555 W AVE G, LANCASTER 93536	15,000	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$1,374,420
RANCHO-BLDG 30/PHYSICAL THERAPY (CONDEMNED)	7601 E IMPERIAL HWY, DOWNEY 90242	14,924	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$4,961,128
ADAMS/GRAND COMPLEX-DPSS POWER PLANT	247 W 28TH ST, LOS ANGELES 90007	14,895	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$4,311,427
PUBLIC LIBRARY-ROWLAND HEIGHTS LIBRARY	1850 NOGALES ST, ROWLAND HEIGHTS 91748	14,863	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$4,486,162
PUBLIC LIBRARY-EAST LOS ANGELES LIBRARY	4801 E 3RD ST, EAST LOS ANGELES 90022	14,848	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$4,481,634
CHALLENGER-SPECIAL HOUSING	5300 W AVE I, LANCASTER 93536	14,790	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$3,423,904
CHALLENGER-DORMITORY (A-1)	5300 W AVE I, LANCASTER 93536	14,788	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$3,423,441

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CHALLENGER-DORMITORY (A-2)	5300 W AVE I, LANCASTER 93536	14,788	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$3,423,441
CHALLENGER-DORMITORY (A-3)	5300 W AVE I, LANCASTER 93536	14,788	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$3,423,441
CHALLENGER-DORMITORY (B-1)	5300 W AVE I, LANCASTER 93536	14,788	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$3,423,441
CHALLENGER-DORMITORY (B-2)	5300 W AVE I, LANCASTER 93536	14,788	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$3,423,441
CHALLENGER-DORMITORY (B-3)	5300 W AVE I, LANCASTER 93536	14,788	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$3,423,441
BRACKETT FIELD-HANGAR C (ACFT)	1615 W MCKINLEY AVE, LA VERNE 91750	14,762	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$1,544,101
BRACKETT FIELD-HANGAR F (ACFT)	1615 W MCKINLEY AVE, LA VERNE 91750	14,723	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$1,540,021
SHERIFF-PICO RIVERA STATION	6631 S PASSONS BLVD, PICO RIVERA 90660	14,721	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$3,806,008
OLIVE VIEW-LABORATORY BUILDING	14445 OLIVE VIEW DR, SYLMAR 91342	14,667	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$5,018,612
RANCHO-BUILDINGS 603/604	7601 E IMPERIAL HWY, DOWNEY 90242	14,639	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,237,327
MONROVIA COURTHOUSE	300 W MAPLE AVE, MONROVIA 91016	14,638	COURT	15	$118	0.99	1.13	2.2	$289.45	$4,237,038
PCHS DT CTR-LAUNDRY EXPANSION II	29350 THE OLD RD, CASTAIC 91384	14,570	LAUNDRY -SUPPLIES-IRONING STORAGE	13	$50	1.05	1.13	2.2	$130.70	$1,904,266
FIRE STATION 32	605 N ANGELENO AVE, AZUSA 91702-2904	14,532	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$4,354,781
FARNSWORTH-RECREATION BUILDING	568 E MOUNT CURVE AVE, ALTADENA 91001	14,504	RECREATION-GYMNA SIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$2,781,570

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FIRE-STATION TRAINING CENTER	1320 N EASTERN AVE, LOS ANGELES 90063-3294	14,293	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$3,915,709
HARBOR-ENCLOSED WALKWAY	1000 W CARSON ST, TORRANCE 90502	14,260	CORRIDOR (ENCLOSED)	17	$16	1.03	1.13	2.2	$41.92	$597,732
HS-SOUTH BAY DISTRICT EH/HARBOR HEALTH CENTER	122 W 8TH ST, SAN PEDRO 90731	14,250	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$3,996,018
EL MONTE AIRPORT-HANGAR N	4233 N SANTA ANITA AVE, EL MONTE 91731	14,197	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$1,300,843
BEACHES/HARBORS-ADMINISTRATION BUILDING	13837 FIJI WAY, MARINA DEL REY 90292	14,126	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,088,837
DCSS-LE SAGE COMPLEX 1 STORY BUILDING	532 S VERMONT AVE, LOS ANGELES 90020	14,126	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$4,088,837
PUBLIC LIBRARY-GARDENA MAYME DEAR LIBRARY	1731 W GARDENA BLVD, GARDENA 90247	14,122	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$4,262,503
SHERIFF-FIELD OPERATIONS REGION II	3010 E VICTORIA ST, RANCHO DOMINGUEZ 90221	14,040	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$1,468,580
FIRE STATION 73	24875 SAN FERNANDO RD, SANTA CLARITA 91321-1520	14,024	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$4,202,550
DHS-COMPTON HEALTH CENTER (CLOSED)	300 E ROSECRANS AVE AT ALAMEDA STREET, COMPTON 90220	13,966	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$3,916,378
RANCHO-MECHANICAL SHOPS (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	13,964	SHOP	17	$20	1.03	1.13	2.2	$50.67	$707,610
PCHS DT CTR-VEHICLE MAINT FACILITY GARAGE	29310 THE OLD RD, CASTAIC 91384	13,925	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,878,237

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CITY TERRACE-SPORTS SHELL/BLEACHERS	1126 N HAZARD AVE, EAST LOS ANGELES 90063	13,737	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$2,634,475
PUBLIC LIBRARY-SAN GABRIEL LIBRARY	500 S DEL MAR AVE, SAN GABRIEL 91776	13,718	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$4,140,562
ROBINSON GARDENS-MAIN RESIDENCE	1008 ELDEN WAY, BEVERLY HILLS 90210	13,700	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$2,663,498
PALMDALE CHILD SUPPORT SRVCS/ SHERIFF STATION	1020 E PALMDALE BLVD, PALMDALE 93550	13,655	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,952,504
PUBLIC LIBRARY-SAN DIMAS LIBRARY	145 N WALNUT AVE, SAN DIMAS 91773	13,628	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$4,113,397
PROBATION-PROPERTY & SUPPLY WAREHOUSE	4549 TELEGRAPH RD, EAST LOS ANGELES 90022	13,590	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$1,421,510
SHERIFF-TEMPLE CITY STATION	8838 E LAS TUNAS DR, TEMPLE CITY (RUDELL) 91780	13,555	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$3,504,547
PROBATION-VAN NUYS AREA JUVENILE SERVICES	14540 HAYNES ST, VAN NUYS 91411	13,500	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,907,638
SHERIFF-IRMAS YOUTH ACTIVITY CENTER	11911 S V ERMONT AVE, LOS ANGELES 90044	13,487	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,903,875
BARRY J NIDORF JUV HALL-MEDICAL/BOYS ICU-13	16350 FILBERT ST, SYLMAR 91342	13,473	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$3,119,017
DPSS-SAN FERNANDO BRANCH GROW DISTRICT OFFICE	12847 ARROYO ST, SYLMAR 91342	13,400	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,878,693
BARRY J NIDORF JUV HALL-DINING HALL/CHAPEL-5	16350 FILBERT ST, SYLMAR 91342	13,390	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$2,980,496
MED CTR-PATIENT FINANCIAL SERVICES OFFICE	1910 N MAIN ST, LOS ANGELES 90031	13,300	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,849,747
ISD-EASTERN AVE COMPLEX SPECIAL CRAFTS BLDG	1106 N EASTERN AVE, LOS ANGELES 90063	13,260	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$1,386,992

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EL CARISO-PICNIC SHELTERS (10)	13100 HUBBARD ST, SYLMAR 91342	13,208	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$553,636
PW-WATERWORKS NORTH MAINTENANCE AREA HQ BLDG	260 E AVE K-8 BETWEEN AVE K-8 AND K-10, LANCASTER 93535-4527	13,200	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,820,802
CAMP BARLEY FLATS-DORMATORY/SCHOOL BUILDING	23900 STAR ROUTE, LA CANADA FLINTRIDGE 91011	13,149	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$3,044,010
OLIVE VIEW-FINANCE BUILDING	14445 OLIVE VIEW DR, SYLMAR 91342	12,925	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,741,202
WASHINGTON GC-CLUBHOUSE	1930 W 120TH ST, LOS ANGELES 90047	12,922	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$2,040,163
HARBOR-WOMEN'S HEALTH CARE CENTER N28	1000 W CARSON ST, TORRANCE 90502	12,881	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$2,981,968
DCSS-WILLOWBROOK SENIOR CENTER	12915 S JARVIS AVE, LOS ANGELES 90061	12,858	SERVICE CENTER	14	$52	1.04	1.13	2.2	$134.88	$1,734,318
PUBLIC LIBRARY-WAREHOUSE	7309 ADAMS ST, PARAMOUNT 90723	12,825	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$1,341,491
BARRY J NIDORF JUV HALL-MAINTENANCE BLDG-17	16350 FILBERT ST, SYLMAR 91342	12,737	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,717,997
PUBLIC LIBRARY-WALNUT LIBRARY	21155 LA PUENTE RD, WALNUT 91789	12,731	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$3,842,651
HEALTH-WILSHIRE METROPLEX BUILDING	3530 WILSHIRE BLVD (AT NORMANDIE), LOS ANGELES 90010	12,715	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,680,416
HUMAN RESOURCES-WILSHIRE SQUARE TWO BUILDING	3333 WILSHIRE BLVD, LOS ANGELES 90010-4109	12,625	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,654,365
PARKING STRUCTURE (THE ALHAMBRA COMPLEX)	1000 S FREMONT AVE, ALHAMBRA 91803	12,600	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$1,097,275

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FIRE STATION 33 (NEW)	44947 DATE AVE, LANCASTER 93534-3213	12,580	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$3,769,829
HARBOR/UCLA MED CENTER-FAMILY MEDICINE CLINIC	1403 W LOMITA BLVD, HARBOR CITY 90710	12,527	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,625,999
PUB LIBRARY-CYN COUNTRY JO ANNE DARCY LIBRARY	18601 SOLEDAD CANYON RD, SANTA CLARITA 91351	12,500	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$3,772,928
OLIVE VIEW-HELICOPTER PAD	14445 OLIVE VIEW DR, SYLMAR 91342	12,485	HELICOPTER PAD					2.2	$0.00	$0
MED CTR-NORTH HALL - BUILDING 50	1331 N MISSION RD, LOS ANGELES 90031	12,468	TEACHING & RESEARCH CLINIC	18	$109	1.01	1.13	2.2	$273.96	$3,415,732
CAMP HOLTON-DORMITORY C	12653 N LITTLE TUJUNGA CANYON RD, SAN FERNANDO 91342	12,467	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,886,127
DEPT OF ANIMAL CARE AND CONTROL HEADQUARTERS	5898 CHERRY AVE, LONG BEACH 90808	12,450	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,603,711
CENTRAL JAIL-HEATING PLANT	441 BAUCHET ST, LOS ANGELES 90012	12,448	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$3,603,132
JUVENILE HALL-KITCHEN/MESS HALL-12A	1605 EASTLAKE AVE, LOS ANGELES 90033	12,403	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$2,760,799
TED WATKINS MEMORIAL-COMMUNITY BUILDING	1335 E 103RD ST, LOS ANGELES 90002	12,395	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$2,377,107
F.D. ROOSEVELT-GYMNASIUM/ COMMUNITY BUILDING	7600 GRAHAM AVE, LOS ANGELES 90001	12,395	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$2,377,107
JUVENILE HALL-BOYS DORM (CONDEMNED)	1605 EASTLAKE AVE, LOS ANGELES 90033	12,300	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,847,466

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WHITEMAN AIRPORT-NUNNO HANGAR	12653 OSBORNE ST, PACOIMA 91331	12,260	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$1,123,359
EL MONTE AIRPORT-HANGAR ROW K	4233 N SANTA ANITA AVE, EL MONTE 91731	12,240	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$1,121,527
HARBOR-PATIENT FINANCIAL SERVICES 3-SOUTH	1000 W CARSON ST, TORRANCE 90502	12,240	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$513,060
PUBLIC LIBRARY-MANHATTAN BEACH LIBRARY	1320 HIGHLAND AVE, MANHATTAN BEACH 90266	12,188	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$3,678,755
PUBLIC LIBRARY-TEMPLE CITY LIBRARY	5939 GOLDEN WEST AVE, TEMPLE CITY (RUDELL) 91780	12,182	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$3,676,944
WHITTIER NARROWS-PICNIC SHELTERS	750 S SANTA ANITA AVE, SOUTH EL MONTE 91733	12,104	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$507,360
DHS-WEST AREA ENVIRONMENTAL HEALTH SERVICES	6053 BRISTOL PKWY (PARK PLACE BUSINESS PARK), CULVER CITY 90230-6601	12,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,473,456
OLIVE VIEW-HOSPITAL TRAILER #2	14445 OLIVE VIEW DR, SYLMAR 91342	12,000	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$503,000
CAMP HOLTON-DORMITORY A	12653 N LITTLE TUJUNGA CANYON RD, SAN FERNANDO 91342	11,997	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,777,321
DF KIRBY CTR-SECURITY COTTAGE	1500 S MCDONNELL AVE, COMMERCE 90022	11,990	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,775,700
SANTA CLARITA ADMINISTRATIVE CENTER-CANOPY	23743 W VALENCIA BLVD, SANTA CLARITA 91355	11,960	CORRIDOR (OPEN)-CANOPY	17	$16	1.03	1.13	2.2	$41.92	$501,324
DESCANSO GARDENS-EXHIBITION HALL	1418 DESCANSO DR, LA CANADA FLINTRIDGE 91011	11,924	DISPLAY-EXHIBIT-WRKRM (CLOSED)	16	$121	1.01	1.13	2.2	$304.89	$3,635,553

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PCHS DT CTR-OFFICER DORM 7	29310 THE OLD RD, CASTAIC 91384	11,918	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$2,759,032
PUBLIC LIBRARY-EL MONTE LIBRARY	3224 N TYLER AVE, EL MONTE 91731	11,906	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,446,247
MIRA LOMA-BACHELOR OFFICERS QUARTERS	45153 N 60TH ST W, LANCASTER 93536	11,838	DOCTORS-NURSES-OFFICERS QUARTERS	11	$92	1.01	1.13	2.2	$231.50	$2,740,512
EL MONTE AIRPORT-HANGAR ROW M	4233 N SANTA ANITA AVE, EL MONTE 91731	11,820	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$1,083,043
HARBOR-REI ADMINISTRATION BUILDING N-14	1124 W CARSON ST, TORRANCE 90502	11,802	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,416,144
WHITEMAN AIRPORT-ABLE AIR OFFICE	12653 OSBORNE ST, PACOIMA 91331	11,760	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$1,077,545
LOS PADRINOS-BOYS DORM-L/M-13	7285 E QUILL DR, DOWNEY 90242	11,729	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,715,279
LOS PADRINOS-BOYS DORM-N/O-14	7285 E QUILL DR, DOWNEY 90242	11,729	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,715,279
PUBLIC LIBRARY-LYNWOOD LIBRARY	11320 BULLIS RD, LYNWOOD 90262	11,722	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$3,538,101
MENTAL HEALTH-ARCADIA MENTAL HEALTH SERVICES	330 E LIVE OAK AVE, ARCADIA 91732	11,658	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,374,463
RANCHO-CARPENTER SHOP/CRAFTS OFFICES (UNUSED)	12925 JUNIPER ST, DOWNEY 90242	11,624	SHOP	17	$20	1.03	1.13	2.2	$50.67	$589,033
ATHENS-GYMNASIUM	12603 S BROADWAY, LOS ANGELES 90061	11,615	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$2,227,519
HARBOR-MEDICA L OUTPATIENT CLINICS N-24	1000 W CARSON ST, TORRANCE 90502	11,595	GENERAL ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$5,207,131
BONELLI-RAGING WATERS SWIM PARK PAVILION	120 VIA VERDE, SAN DIMAS 91773	11,566	SWIMMING POOL-WATER SLIDES				1.13	2.2	$0.00	$0
VICTORIA-GYMNASIUM	419 E 192ND ST, CARSON 90746	11,525	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$2,210,259

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ML KING-OASIS CLINIC/ GENESIS TRAINING CENTER	12021 S WILMINGTON AVE, LOS ANGELES 90059	11,520	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$482,880
BELVEDERE-COMMUNITY BLDG/PARK SERVICES BUREAU	4914 CESAR E CHAVEZ AVE, EAST LOS ANGELES 90022	11,492	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$2,203,930
HOLLYWOOD BOWL-SHELL BASEMENT	2301 N HIGHLAND AVE, HOLLYWOOD 90068	11,477	DRESSING ROOM	11	$92	1.01	1.13	2.2	$231.50	$2,656,940
OBREGON-GYMNASIUM	4021 E 1ST ST, EAST LOS ANGELES 90063	11,418	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$2,189,738
FOX AIRFIELD-STORAGE HANGAR BLDG-11	4555 W AVE G, LANCASTER 93536	11,400	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$1,044,559
FOX AIRFIELD-HANGAR 300/400-BLDG-12	4555 W AVE G, LANCASTER 93536	11,400	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$1,044,559
FIRE-LIFEGUARD OPERATIONS ADMIN HEADQUARTERS	2300 OCEAN FRONT WALK, VENICE 90291	11,394	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,298,047
CHILD SUPPORT SERVICES-COLLECTIONS OFFICE	5895 RICKENBACKER RD, CITY OF COMMERCE 90040	11,394	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,298,047
BARRY J NIDORF JUV HALL-BOYS DORM-G/H-9	16350 FILBERT ST, SYLMAR 91342	11,351	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,627,771
BARRY J NIDORF JUV HALL-BOYS DORM-E/F-8	16350 FILBERT ST, SYLMAR 91342	11,351	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,627,771
BARRY J NIDORF JUV HALL-BOYS DORM-C/D-7	16350 FILBERT ST, SYLMAR 91342	11,351	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,627,771
BARRY J NIDORF JUV HALL-BOYS DORM-A/B-6	16350 FILBERT ST, SYLMAR 91342	11,351	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,627,771
HS-OLD TORRANCE PUBLIC HEALTH CENTER (CLOSED)	2300 W CARSON ST, TORRANCE 90501	11,306	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$3,170,454

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ARBORETUM-SERVICE BUILDING	301 N BALDWIN AVE, ARCADIA 91007	11,300	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$1,524,171
SYBIL BRA ND-GATEHOUSE/CAR SHELTER (CLOSED)	4500 E CITY TERRACE DR, MONTEREY PARK 91754	11,274	GATEHOUSE	16	$106	1.01	1.13	2.2	$265.20	$2,989,831
PROBATION-CENTRAL TRANSCRIBING OFFICE	200 W WOODWARD AVE, ALHAMBRA 91801	11,273	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,263,023
FIRE STATION 151/AG COMMISSIONER WEED PROGRAM	231 W MOUNTAIN VIEW AVE, GLENDORA 91741-3302	11,269	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$3,376,963
JUVENILE HALL-GIRLS SCHOOL-5A	1605 EASTLAKE AVE, LOS ANGELES 90033	11,260	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$3,084,789
ML KING-TRAILER D (JARON GAMMONS HUB CLINIC)	1721 E 120TH ST, LOS ANGELES 90059	11,220	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$470,305
BASSETT-GYMNASIUM	510 N VINELAND AVE, LA PUENTE 91746	11,180	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$2,144,095
LOS AMIGOS GC-CLUBHOUSE	7295 E QUILL DR, DOWNEY 90242	11,164	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$1,762,604
BARRY J NIDORF JUV HALL-BOYS DORM-J/K-10	16350 FILBERT ST, SYLMAR 91342	11,141	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,579,156
CAMP GONZALES-MAX SECURITY DORM	1301 N LAS VIRGENES RD, CALABASAS 91302	11,105	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,570,822
DIAMOND BAR GC-CLUBHOUSE	22751 GOLDEN SPRINGS DR, DIAMOND BAR 91765	11,102	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$1,752,816

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CAMP HOLTON-DORMITORY B	12653 N LITTLE TUJUNGA CANYON RD, SAN FERNANDO 91342	11,095	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,568,507
RANCHO-EQUIPMENT WAREHOUSE (CONDEMNED)	7601 E IMPERIAL HWY, DOWNEY 90242	11,093	SHOP	17	$20	1.03	1.13	2.2	$50.67	$562,125
PW ROAD-DIV #553 MAINTENANCE BUILDING	17931 SIERRA HWY, SANTA CLARITA 91351	11,073	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,493,553
PW ROAD-DIV #232 MAINTENANCE YARD	4055 W MARINE AVE, LAWNDALE 90260	11,056	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$1,491,260
STAR CENTER-MAINTENANCE GARAGE BUILDING N	11515 S COLIMA RD, WHITTIER 90604	11,046	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,489,911
VAN NUYS COURTHOUSE-TRAILER F	14400 W DELANO ST, VAN NUYS 91401	11,037	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$462,635
MENTAL HEALTH-SAN ANTONIO FAMILY M H CENTER	6450 GARFIELD AVE, BELL GARDENS 90201	11,032	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,193,264
MED CTR-SCIENCE HALL - BUILDING 90	1733 GRIFFIN AVE, LOS ANGELES 90031	11,003	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$3,764,900
ML KING-TED WATKINS OUTPATIENT REGISTRATION	12021 S WILMINGTON AVE, LOS ANGELES 90059	11,000	WAITING ROOM-VISITOR AREA	16	$106	1.01	1.13	2.2	$265.20	$2,917,167
MIRA LOMA - INMATE PROCESSING/ INFIRMARY BLDG 3	45100 N 60TH ST W, LANCASTER 93536	11,000	DISPENSARY - FIRST AID	15	$88	0.99	1.13	2.2	$216.21	$2,378,323
HARBOR-COVERED WALKWAYS	1000 W CARSON ST, TORRANCE 90502	11,000	CORRIDOR (OPEN)-CANOPY	17	$16	1.03	1.13	2.2	$41.92	$461,084
ENTERPRISE-GYMNASIUM	13055 CLOVIS AVE, LOS ANGELES 90059	10,948	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$2,099,602

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BARRY J NIDORF JUV HALL-BOYS DORM-L/M-11	16350 FILBERT ST, SYLMAR 91342	10,921	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,528,226
LOS PADRINOS-KITCHEN/DINING ROOM-8	7285 E QUILL DR, DOWNEY 90242	10,890	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$2,424,018
FIRE-PACOIMA BARTON HELIPORT	12605 OSBORNE ST, PACOIMA 91331	10,884	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$997,279
BARRY J NIDORF JUV HALL-BOYS DORM-R/S-15	16350 FILBERT ST, SYLMAR 91342	10,862	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,514,567
BARRY J NIDORF JUV HALL-BOYS DORM-T/V-16	16350 FILBERT ST, SYLMAR 91342	10,851	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,512,021
MENTAL HEALTH-IMPERIAL CENTRE CAFETERIA BLDG	12440 E IMPERIAL HWY, NORWALK 90650	10,838	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,137,110
EL CARISO-BATHHOUSE	13100 HUBBARD ST, SYLMAR 91342	10,833	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$1,813,803
PW FLEET-ALTADENA YARD MAINTENANCE BUILDING	252 W MOUNTAIN VIEW ST, ALTADENA 91001	10,805	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,457,404
PW CENTRAL YARD-SIGNAL SHOP (BLDG #8)	1525 ALCAZAR ST, LOS ANGELES 90033	10,800	SHOP	17	$20	1.03	1.13	2.2	$50.67	$547,278
PW ROAD-HOLLYDALE MAINTENCE YARD SOUTH GARAGE	11282 GARFIELD AVE, DOWNEY 91242	10,788	HEAVY EQUIPMENT-TRUCK GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,455,111
PW CENTRAL YARD-HEAVY EQUIPMENT/ WELDING SHOP	2275 ALCAZAR ST, LOS ANGELES 90033	10,752	HEAVY EQUIPMENT-TRUCK GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,450,256
CAMP GLENN ROCKEY - MAX SEC DORM	1900 N SYCAMORE CANYON RD, SAN DIMAS 91773	10,744	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,487,250
DHS-LA PUENTE HEALTH CENTER	15930 E CENTRAL AVE, LA PUENTE 91744	10,733	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$3,009,772
RANCHO-OLD PRINT SHOP/ WAREHOUSE (CONDEMNED)	7601 E IMPERIAL HWY, DOWNEY 90242	10,678	GENERAL ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$4,795,321

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DHS-FLORENCE/FIRESTONE HEALTH CENTER (CLOSED)	8019 COMPTON AVE, LOS ANGELES 90001	10,646	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,081,534
FIRE STATION 30	19030 S PIONEER BLVD (SE CORNER OF SOUTH ST), CERRITOS (DAIRY VALLEY) 90703-6602	10,575	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$3,168,993
PUBLIC LIBRARY-LA PUENTE LIBRARY	15920 E CENTRAL AVE, LA PUENTE 91744	10,572	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$3,190,991
PW CENTRAL YARD-MAINTENANCE GROUP WAREHOUSE	1525 ALCAZAR ST, LOS ANGELES 90033	10,560	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$1,424,358
MED CTR-PATIENT FINANCIAL SERVICES T-5	1200 N STATE ST, LOS ANGELES 90033	10,512	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$440,628
FIRE STATION 129 (NEW)	42110 N 6TH ST W, LANCASTER 93534-7134	10,500	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$3,146,518
OLIVE VIEW-ADMINISTRATION BLDG (CONDEMNED)	14445 OLIVE VIEW DR, SYLMAR 91342	10,492	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,036,958
EAST SERVICES AGENCY-PAINT SHOP	265 CLOVERLEAF DR, BALDWIN PARK 91706	10,492	PAINT SHOP-PAINT STORAGE	17	$20	1.03	1.13	2.2	$50.67	$531,670
SOUTH SERVICES AGENCY - MECHANICAL SHOPS BLDG	360 W EL SEGUNDO BLVD, LOS ANGELES 90061	10,473	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$1,412,623
BRACKETT FIELD-FBO ADP BLDG-9	1615 W MCKINLEY AVE, LA VERNE 91750	10,439	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$956,505
PW CENTRAL YARD-DIVISION ADMINISTRATION	1525 ALCAZAR ST, LOS ANGELES 90033	10,438	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$3,021,328

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FIRE STATION 82	352 FOOTHILL BLVD, LA CANADA FLINTRIDGE 91011-3501	10,428	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$3,124,942
EL MONTE AIRPORT-FBO SHOP BLDG 7	4015 N SANTA ANITA AVE, EL MONTE 91731	10,414	SHOP	17	$20	1.03	1.13	2.2	$50.67	$527,718
PCHS DT CTR-VOCATIONAL WORKSHOP	29310 THE OLD RD, CASTAIC 91384	10,403	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$2,850,005
CHALLENGER-ADMINISTRATION/ STAFF HOUSING A	5300 W AVE I, LANCASTER 93536	10,403	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$2,408,308
CHALLENGER-ADMINISTRATION/STAFF HOUSING B	5300 W AVE I, LANCASTER 93536	10,403	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$2,408,308
PW CENTRAL YARD-OFFICE/ MATERIALS TESTING LAB	1537 ALCAZAR ST, LOS ANGELES 90033	10,400	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$3,558,571
LOS PADRINOS-GIRLS CLASSROOM/GYM15	7285 E QUILL DR, DOWNEY 90242	10,375	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$2,842,334
FIRE STATION 154	401 N 2ND AVE (AT SCHOOL ST), COVINA 91723	10,359	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$3,104,265
PUBLIC LIBRARY-LA VERNE LIBRARY	3640 D ST, LA VERNE 91750	10,347	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$3,123,079
CAMP GONZALES-DORMITORY	1301 N LAS VIRGENES RD, CALABASAS 91302	10,332	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,391,871
SOUTH SERVICES AGENCY - WAREHOUSE/PARK SVCS BUR	360 W EL SEGUNDO BLVD, LOS ANGELES 90061	10,332	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$1,080,724
STAR CENTER-MUSEUM/SHERIFF RELIEF BUILDING B	11515 S COLIMA RD, WHITTIER 90604	10,319	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$3,114,627
ARBORETUM-LIBRARY	301 N BALDWIN AVE, ARCADIA 91007	10,304	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,982,541

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PUBLIC LIBRARY-NORWOOD LIBRARY	4550 N PECK RD, EL MONTE 91732	10,303	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$3,109,798
MED CTR-BUILDING 110 - CENTRAL FILES STORAGE	1711 GRIFFIN AVE, LOS ANGELES 90031	10,242	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$3,504,508
HUMAN RESOURCES-WILSHIRE SQUARE TWO BUILDING	3333 WILSHIRE BLVD, LOS ANGELES 90010-4109	10,234	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,962,279
PUBLIC LIBRARY-HACIENDA HEIGHTS LIBRARY	16010 E LA MONDE ST, HACIENDA HEIGHTS 91745	10,223	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$3,085,651
MACLAREN CHILDREN'S CENTER-CAFETERIA (CLOSED)	4024 N DURFEE AVE, EL MONTE 91732	10,212	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$2,273,102
SAN FERNANDO INTERIM HEALTH MODULAR (STORAGE)	10631 BANANA AVE DESIGN SPACE MODULAR YARD-FONTANA, FEDERAL 92337	10,200	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$427,550
CAMP MILLER-DORMITORY	433 S ENCINAL CANYON RD, MALIBU 90265	10,181	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,356,915
EL MONTE AIRPORT-FBO SHOP BLDG 8	4001 N SANTA ANITA AVE, EL MONTE 91731	10,178	SHOP	17	$20	1.03	1.13	2.2	$50.67	$515,759
BARRY J NIDORF JUV HALL-GIRLS DORM-N/O-14	16350 FILBERT ST, SYLMAR 91342	10,163	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,352,748
HARBOR-REI PATHOLOGY/ RESEARCH PHARMACY B-1	1000 W CARSON ST, TORRANCE 90502	10,131	TEACHING & RESEARCH CLINIC	18	$109	1.01	1.13	2.2	$273.96	$2,775,488
ASSESSOR-EAST DISTRICT OFFICE	1190 DURFEE AVE WHITTIER NARROWS BUSINESS PARK, SOUTH EL MONTE 91733	10,129	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,931,886

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RANCHO-OFFICE EQUIPMENT WAREHOUSE (CLOSED)	7601 E IMPERIAL HWY, DOWNEY 90242	10,120	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$1,058,549
CAMP PAIGE-DORMITORY	6601 N STEPHENS RANCH RD, LA VERNE 91750	10,109	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,340,247
CAMP AFFLERBAUGH-DORMITORY	6631 N STEPHENS RANCH RD, LA VERNE 91750	10,108	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,340,015
AG COMM/WTS MEAS-CARPORT/STORAGE BUILDING	11012 GARFIELD AVE, SOUTH GATE 90280	10,055	OPEN CARPORT	17	$16	1.03	1.13	2.2	$41.92	$421,472
HARBOR-REI PEDIATRICS/ EMERGENCY MEDICINE E-4	1000 W CARSON ST, TORRANCE 90502	10,051	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$2,326,819
PUBLIC LIBRARY-DUARTE LIBRARY	1301 BUENA VISTA AVE, DUARTE 91010	10,048	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$3,032,830
WHITEMAN AIRPORT-SVCS HANGAR 1	12653 OSBORNE ST, PACOIMA 91331	10,036	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$919,579
FIRE STATION 28	7733 GREENLEAF AVE, WHITTIER 90602-2195	10,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$2,996,684
CDC-HA-PARK WILLIAMS APARTMENTS	857 WILLIAMS ST, POMONA 91768	10,000	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$1,944,159
NAT HIST MUSEUM-WAREHOUSE II	3005 S GRAND AVE, LOS ANGELES 90007	10,000	SPECIAL CONDITION WAREHOUSE	14	$41	1.03	1.13	2.2	$104.60	$1,045,997
BELVEDERE-PICNIC SHELTERS (4)	4914 CESAR E CHAVEZ AVE, EAST LOS ANGELES 90022	10,000	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$419,167
BISCAILUZ-GYMNASIUM (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	9,992	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$1,916,261
SHERIFF-LAKEWOOD STATION ANNEX	5130 CLARK AVE, LAKEWOOD 90712	9,982	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$2,580,774

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EAST SERVICES AGENCY-CARPENTRY SHOP	265 CLOVERLEAF DR, BALDWIN PARK 91706	9,982	SHOP	17	$20	1.03	1.13	2.2	$50.67	$505,827
EL MONTE AIRPORT-HANGAR ROW L	4233 N SANTA ANITA AVE, EL MONTE 91731	9,941	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$910,874
STAR CENTER-LOCKERS BUILDING J	11515 S COLIMA RD, WHITTIER 90604	9,898	NEEDS DESCRIPTION	15	$118	0.99	1.13	2.2	$289.45	$2,865,022
PW CENTRAL YARD-EQUIPMENT WAREHOUSE	1525 ALCAZAR ST, LOS ANGELES 90033	9,882	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,332,908
SHERIFF-AERO BUREAU NORTH STORAGE HANGAR	3235 LAKEWOOD BLVD, LONG BEACH 90808	9,878	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$905,101
DESCANSO GARDENS-HOSPITALITY HOUSE	1418 DESCANSO DR, LA CANADA FLINTRIDGE 91011	9,877	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$1,920,246
MIRA LOMA-BARRACKS E	45100 N 60TH ST W, LANCASTER 93536	9,863	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,283,297
MIRA LOMA-BARRACKS F	45100 N 60TH ST W, LANCASTER 93536	9,863	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,283,297
PUBLIC LIBRARY-DIAMOND BAR LIBRARY	1061 S GRAND AVE, DIAMOND BAR 91765	9,859	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$2,975,783
HARBOR-INPATIENT PSYCHIATRIC UNIT 1-SOUTH	1000 W CARSON ST, TORRANCE 90502	9,850	ACUTE PSYCHIATRIC CARE	15	$176	0.99	1.13	2.2	$434.17	$4,276,572
VAN NUYS COUNTY ADMINISTRATIVE CENTER BLDG	14340 W SYLVAN ST, VAN NUYS 91401	9,849	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$2,761,879
PW SEWER-SOUTH YARD MAINTENANCE GARAGE	1129 E 59TH ST, LOS ANGELES 90001	9,840	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,327,243
ISD/ITS-PACOIMA WAREHOUSE	12441 OSBORNE ST, PACOIMA 91331	9,696	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,307,820
CAMP SCOTT-DORMITORY	28700 N BOUQUET CANYON RD, SAUGUS 91350	9,670	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,238,617

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CAMP SCUDDER-DORMITORY	28750 N BOUQUET CANYON RD, SAUGUS 91350	9,670	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,238,617
METROPOLITAN COURTHOUSE-VEHICAL INSPECTION	1997 S HILL ST, LOS ANGELES 90007	9,654	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,302,155
CAMP MENDENHALL-DORMITORY	42230 N LAKE HUGHES RD, LAKE HUGHES 93532	9,628	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,228,894
HS-LAWNDALE HEALTH CTR(CLOSED)/PUBLIC LIBRARY	14616 GREVILLEA AVE, LAWNDALE 90260	9,626	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$2,699,345
SOUTH COAST-AUDITORIUM	26300 CRENSHAW BLVD, PALOS VERDES ESTATES 90274	9,614	AUDITORIUM	16	$114	1.01	1.13	2.2	$286.87	$2,757,927
MED CTR-EXPENDITURE MANAGEMENT	2064 MARENGO ST, LOS ANGELES 90033	9,602	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,779,344
PUB DEF-FORMER RANCHO CHAPEL/ RECORDS STORAGE	7601 E IMPERIAL HWY, DOWNEY 90242	9,600	CHAPEL/CHURCH	16	$117	1.01	1.13	2.2	$293.85	$2,820,921
FIRE STATION 16 (NEW)	8010 COMPTON AVE, LOS ANGELES 90002	9,583	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$2,871,722
FIRE STATION 70	3970 CARBON CANYON RD, MALIBU 90265-5005	9,559	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$2,864,530
CAMP GLENN ROCKEY-BOYS DORMITORY	1900 N SYCAMORE CANYON RD, SAN DIMAS 91773	9,498	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,198,799
SHERIFF-SAN DIMAS STATION	122 N SAN DIMAS AVE, SAN DIMAS 91773	9,480	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$2,450,985
MENTAL HEALTH-PALMDALE PLAZA OFFICE BUILDING	1529 E PALMDALE BLVD, PALMDALE 93550	9,479	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,743,741

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SHERIFF-INTERNAL AFFAIRS BUREAU/RISK MANAGEMT	4900 S EASTERN AVE, CITY OF COMMERCE 90040	9,443	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,733,320
SHERIFF-PARAMOUNT SUBSTATION	15001 PARAMOUNT BLVD, PARAMOUNT 90723	9,436	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$1,212,914
DCSS-ANTELOPE VALLEY SENIOR CENTER	777 W JACKMAN ST, LANCASTER 93534	9,424	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$1,807,330
BRACKETT FIELD-ADMINISTRATION BUILDING-1	1615 W MCKINLEY AVE, LA VERNE 91750	9,393	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,718,848
FARNSWORTH-OUTDOOR AMPHITHEATER	568 E MOUNT CURVE AVE, ALTADENA 91001	9,375	AMPHITHEATER	16	$125	1.01	1.13	2.2	$312.93	$2,933,705
FIRE-CAMP 2-FIRE SUPRESSION CAMP	4810 N OAK GROVE DR (OAK GROVE PARK), LA CANADA FLINTRIDGE 91011-3759	9,373	FORESTRY -FIRE-FLOOD CONT CAMP	11	$92	1.01	1.13	2.2	$231.50	$2,169,862
LOS PADRINOS-BOYS DORM-E/F-4	7285 E QUILL DR, DOWNEY 90242	9,351	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,164,769
LOS PADRINOS-BOYS DORM-C/D-5	7285 E QUILL DR, DOWNEY 90242	9,351	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,164,769
LOS PADRINOS-BOYS DORM-A/B-6	7285 E QUILL DR, DOWNEY 90242	9,351	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$2,164,769
PW-WATERWORKS NORTH MAINTENACE AREA WAREHOUSE	260 E AVE K-8 BETWEEN AVE K-8 AND K-10, LANCASTER 93535-4527	9,333	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$976,229
PW CENTRAL YARD-CONSTRUCTION & REPAIR SHOP	1525 ALCAZAR ST, LOS ANGELES 90033	9,316	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,256,564

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BELVEDERE-GYMNASIUM	4914 CESAR E CHAVEZ AVE, EAST LOS ANGELES 90022	9,276	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$1,778,947
SANTA CLARITA VALLEY SENIOR CENTER	22900 MARKET ST, SANTA CLARITA 91321	9,240	SERVICE CENTER	14	$52	1.04	1.13	2.2	$134.88	$1,246,313
FIRE STATION 64	164 S WALNUT AVE, SAN DIMAS 91773-2620	9,200	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$2,756,949
JUVENILE HALL-BOYS CLSD UNIT-10	1605 EASTLAKE AVE, LOS ANGELES 90033	9,191	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$3,307,772
CAMP GLENN ROCKEY -SCHOOL BUILDING	1900 N SYCAMORE CANYON RD, SAN DIMAS 91733	9,149	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$2,506,459
MENTAL HEALTH-NORTHEAST FAMILY M H SERVICES	5321 VIA MARISOL RD, LOS ANGELES 90042	9,135	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,644,168
DHS-PICO RIVERA HEALTH CENTER (CLOSED)	6336 S PASSONS BLVD, PICO RIVERA 90660	9,112	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$2,555,208
CHALLENGER-WAREHOUSE/SERVICES BUILDING A	5300 W AVE I, LANCASTER 93536	9,099	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$951,753
CHALLENGER-WAREHOUSE/SERVICES BUILDING B	5300 W AVE I, LANCASTER 93536	9,099	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$951,753
STAR CENTER-ACADEMY BUILDING M	11515 S COLIMA RD, WHITTIER 90604	9,097	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$2,492,214
LOS PADRINOS-MAINTENANCE BLDG-12	7285 E QUILL DR, DOWNEY 90242	9,072	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,223,653
DHS-WILMINGTON HEALTH CENTER	1325 BROAD AVE, WILMINGTON 90744	9,034	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$2,533,335

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RANCHO-AUDITORIUM (UNUSED)	7601 E IMPERIAL HWY (ERICKSON AV AT DESCANSO ST), DOWNEY 90242	9,010	AUDITORIUM	16	$114	1.01	1.13	2.2	$286.87	$2,584,660
COMPTON AIRPORT-AERO AVIATION BLDG-3	1001 W ALONDRA BLVD, COMPTON 90220	9,000	SHOP	17	$20	1.03	1.13	2.2	$50.67	$456,065
COMPTON AIRPORT-AIRCRAFT RECOVERY SRVC BLDG-4	1014 W ALONDRA BLVD, COMPTON 90220	9,000	SHOP	17	$20	1.03	1.13	2.2	$50.67	$456,065
COMPTON AIRPORT-LEASED AVN BLD-2	961 W ALONDRA BLVD, COMPTON 90220	9,000	SHOP	17	$20	1.03	1.13	2.2	$50.67	$456,065
PCHS DT CTR-WAREHOUSE	29310 THE OLD RD, CASTAIC 91384	8,957	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$936,899
PUBLIC LIBRARY-LOMITA LIBRARY	24200 NARBONNE AVE, LOMITA 90717	8,928	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$2,694,776
RANCHO-SHOP MATERIALS WAREHOUSE	7601 E IMPERIAL HWY, DOWNEY 90242	8,920	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,203,151
SHERIFF-ALTADENA STATION	780 E ALTADENA DR, ALTADENA 91001	8,904	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$2,302,065
AG COMM/WTS&MEAS-PICO RIVERA WAREHOUSE(CLSED)	8841 E SLAUSON AVE, PICO RIVERA 90660	8,902	FLAMMABLE LIQUID STORAGE BLDG	14	$41	1.03	1.13	2.2	$104.60	$931,146
WEST HOLLYWOOD RON STONE HEALTH CLINIC	621 N SAN VICENTE BLVD, WEST HOLLYWOOD (BR P.O. N 90069	8,897	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$2,494,917
RANCHO-ORTHOPEDIC/PROSTHETICS SHOP	7601 E IMPERIAL HWY, DOWNEY 90242	8,892	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$2,058,509
ACTON REHAB-KITCHEN/DINING ROOM	30500 ARRASTRE CANYON RD, ACTON 93510	8,888	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$1,978,391

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STAR CENTER-ADMINISTRATION BUILDING	11515 S COLIMA RD, WHITTIER 90604	8,884	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$2,433,860
ASSESSOR-EAST DISTRICT OFFICE	1190 DURFEE AVE WHITTIER NARROWS BUSINESS PARK, SOUTH EL MONTE 91733	8,871	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,567,752
CERRITOS-BATHHOUSE	19700 S BLOOMFIELD AVE, CERRITOS (DAIRY VALLEY) 90703	8,861	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$1,483,625
OLIVE VIEW-MAINTENANCE BUILDING	14445 OLIVE VIEW DR, SYLMAR 91342	8,860	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,195,058
FIRE STATION 8	7643 W SANTA MONICA BLVD, WEST HOLLYWOOD (BR P.O. N 90046-6408	8,843	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$2,649,968
CAMP GONZALES-SCHOOL BUILDING	1301 N LAS VIRGENES RD, CALABASAS 91302	8,824	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$2,417,422
PUBLIC LIBRARY-PARAMOUNT LIBRARY	16254 COLORADO AVE, PARAMOUNT 90723	8,750	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$2,641,049
SHERIFF-LENNOX STATION	4331 LENNOX BLVD, LENNOX 90304	8,709	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$2,251,649
MIRA LOMA-RECREATION CENTER/ COMMISSARY 24	45100 N 60TH ST W, LANCASTER 93536	8,702	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$1,936,989
FIRE-CAMP 16-MAIN DORMITORY	26652 ANGELES FOREST HWY NORTH OF MOUNT GLEASON RD, PALMDALE 93550-9206	8,688	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$2,011,283
PW CENTRAL YARD-AUTO PARTS WAREHOUSE (BLDG-1)	2275 ALCAZAR ST, LOS ANGELES 90033	8,640	SHOP	17	$20	1.03	1.13	2.2	$50.67	$437,822

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HARBOR-REI ADMIN RECORDS/RADIOLOGY B2/B2 EAST	1000 W CARSON ST, TORRANCE 90502	8,636	TEACHING & RESEARCH CLINIC	18	$109	1.01	1.13	2.2	$273.96	$2,365,918
PUBLIC LIBRARY-NEW SAN FERNANDO LIBRARY	217 N MACLAY AVE, SAN FERNANDO 91340	8,601	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$2,596,076
RANCHO-TRUNK STORAGE/OFFICE (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	8,526	STABLE	17	$16	1.03	1.13	2.2	$41.92	$357,382
DHS-EAST AREA ENVIRONMENTAL HEALTH PROGRAMS	1435 WEST COVINA PKWY, WEST COVINA 91790	8,500	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,460,365
WEST COVINA REGIONAL SERVICES BUILDING	2934 E GARVEY AVE, WEST COVINA 91791-2191	8,500	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,460,365
FIRE-PACOIMA MAINTENANCE OFFICE/ SERVICE BLDG	12605 OSBORNE ST, PACOIMA 91331	8,461	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$1,141,240
COMPTON AIRPORT-HANGAR A	901 W ALONDRA BLVD, COMPTON 90220	8,450	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$774,257
COMPTON AIRPORT-HANGAR B	901 W ALONDRA BLVD, COMPTON 90220	8,450	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$774,257
COMPTON AIRPORT-HANGAR C	901 W ALONDRA BLVD, COMPTON 90220	8,450	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$774,257
COMPTON AIRPORT-HANGAR D	901 W ALONDRA BLVD, COMPTON 90220	8,450	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$774,257
COMPTON AIRPORT-HANGAR E	901 W ALONDRA BLVD, COMPTON 90220	8,450	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$774,257
COMPTON AIRPORT-HANGAR F	901 W ALONDRA BLVD, COMPTON 90220	8,450	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$774,257

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COMPTON AIRPORT-HANGAR G	901 W ALONDRA BLVD, COMPTON 90220	8,450	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$774,257
COMPTON AIRPORT-HANGAR H	901 W ALONDRA BLVD, COMPTON 90220	8,450	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$774,257
COMPTON AIRPORT-HANGAR I	901 W ALONDRA BLVD, COMPTON 90220	8,450	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$774,257
COMPTON AIRPORT-HANGAR M	901 W ALONDRA BLVD, COMPTON 90220	8,450	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$774,257
COMPTON AIRPORT-HANGAR N	901 W ALONDRA BLVD, COMPTON 90220	8,450	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$774,257
COMPTON AIRPORT-HANGAR O	901 W ALONDRA BLVD, COMPTON 90220	8,450	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$774,257
COMPTON AIRPORT-HANGAR Q	901 W ALONDRA BLVD, COMPTON 90220	8,450	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$774,257
MIRA LOMA - COMPLEX ADMINISTRATION BUILDING 1	45100 N 60TH ST W, LANCASTER 93536	8,430	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,440,103
MONA - GYMNASIUM	2291 E 121ST ST, COMPTON 90222	8,428	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$1,616,318
PW CENTRAL YARD-STORAGE BLDG #3	2275 ALCAZAR ST, LOS ANGELES 90033	8,413	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$879,997
DPSS-SANTA CLARITA BRANCH / LANCASTER AP DIST	27233 CAMP PLENTY RD, SANTA CLARITA 91351	8,400	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,431,419
JUVENILE HALL-BOYS DORMITORY - 6C	1605 EASTLAKE AVE, LOS ANGELES 90033	8,379	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,939,749

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FIRE-CAMP 14-CDC FIRE SUPPRESSION CAMP SITE	35100 SAN FRANCISQUITO CANYON RD, SAUGUS 91350-1116	8,323	FORESTRY - FIRE-FLOOD CONT CAMP	11	$92	1.01	1.13	2.2	$231.50	$1,926,785
LOS PADRINOS-GIRLS DORM-J/K-2	7285 E QUILL DR, DOWNEY 90242	8,322	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,926,554
LOS PADRINOS-BOYS DORM-G/H-3	7285 E QUILL DR, DOWNEY 90242	8,322	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,926,554
PUBLIC LIBRARY - SUNKIST LIBRARY	840 N PUENTE AVE, LA PUENTE 91746	8,314	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$2,509,450
EL MONTE AIRPORT-HANGAR Q	4233 N SANTA ANITA AVE, EL MONTE 91731	8,268	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$757,580
MIRA LOMA - FACILITIES MAINTENANCE SHOPS BLDG 6	45100 N 60TH ST W, LANCASTER 93536	8,262	BRIEFING SHELTER	16	$106	1.01	1.13	2.2	$265.20	$2,191,058
MIRA LOMA - VISITORS CENTER/MAIN CONTROL BLDG 2	45100 N 60TH ST W, LANCASTER 93536	8,262	VISITORS BUILDING/INMATE RECEPTION CENTER	16	$106	1.01	1.13	2.2	$265.20	$2,191,058
MIRA LOMA - INMATE SERVICES BUILDING 25	45100 N 60TH ST W, LANCASTER 93536	8,262	MISC CONCESSIONS	13	$50	1.05	1.13	2.2	$129.31	$1,068,394
MIRA LOMA - SUPPLIES WAREHSE/ LAUNDRY WAREHSE 5	45100 N 60TH ST W, LANCASTER 93536	8,262	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$864,203
MIRA LOMA - CHAPEL/LIBRARY/CLASSROOM BUILDING 4	45100 N 60TH ST W, LANCASTER 93536	8,262	SHOP	17	$20	1.03	1.13	2.2	$50.67	$418,668
OLIVE VIEW - PROPERTY WAREHOUSE	14445 OLIVE VIEW DR, SYLMAR 91342	8,242	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$862,111
THE ALHAMBRA COMPLEX - SHERIFF'S STORAGE BLDG	1000 S FREMONT AVE, ALHAMBRA 91803	8,240	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$861,901
DHS-AZUSA HEALTH CENTER (CLOSED)	150 N AZUSA AVE, AZUSA 91702	8,220	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$2,305,071
SYBIL BRAND-AUDITORIUM (CLOSED)	4500 E CITY TERRACE DR, MONTEREY PARK 91754	8,192	AUDITORIUM	16	$114	1.01	1.13	2.2	$286.87	$2,350,004

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BARRY J NIDORF JUV HALL-ADMINISTRATION BLDG-1	16350 FILBERT ST, SYLMAR 91342	8,164	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,363,108
SHERIFF-LENNOX DETENTION UNIT	4341 LENNOX BLVD, LENNOX 90304	8,160	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$2,109,709
COMPTON AIRPORT-HANGAR AA/STORAG	901 W ALONDRA BLVD, COMPTON 90220	8,160	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$853,533
COMPTON AIRPORT-HANGAR BB/STORAG	901 W ALONDRA BLVD, COMPTON 90220	8,160	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$853,533
COMPTON AIRPORT-HANGAR R/STORAGE	901 W ALONDRA BLVD, COMPTON 90220	8,160	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$853,533
DF KIRBY CTR-SERVICE BUILDING	1500 S MCDONNELL AVE, COMMERCE 90022	8,139	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$1,097,808
ARBORETUM-RESEARCH LABORATORY	301 N BALDWIN AVE, ARCADIA 91007	8,131	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$2,782,187
ALONDRA-AUDITORIUM	3535 REDONDO BEACH BLVD, LAWNDALE 90260	8,128	AUDITORIUM	16	$114	1.01	1.13	2.2	$286.87	$2,331,645
SALAZAR-GYMNASIUM/AUDITORIUM	3864 E WHITTIER BLVD, EAST LOS ANGELES 90023	8,128	AUDITORIUM	16	$114	1.01	1.13	2.2	$286.87	$2,331,645
VAN NUYS COURTHOUSE-TRAILER D	6230 SYLMAR AVE, VAN NUYS 91401	8,116	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$340,196
ALT PD & PUB DEFENDER-TORRANCE BRANCH OFFICES	3655 TORRANCE BLVD, TORRANCE 90503	8,106	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,346,320
MENTAL HEALTH-S F VALLEY CHILDREN'S SERVICES	19231 VICTORY BLVD, RESEDA 91335	8,085	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,340,241

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FIRE-PACOIMA TRUCK/TRANSPORT STR	12605 OSBORNE ST, PACOIMA 91331	8,064	HEAVY EQUIPMENT-TRUCK GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,087,692
SANTA MONICA COURTHOUSE-MODULAR COURT ANNEX	1725 MAIN ST, SANTA MONICA 90401	8,064	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$338,016
PW CENTRAL YARD-RADIO SHOP/STORAGE	2275 ALCAZAR ST, LOS ANGELES 90033	8,050	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$842,028
WILLOWBROOK COMPREHENSIVE CHILD CARE CENTER	12829 S JARVIS AVE, LOS ANGELES 90061	8,016	CHILD DAY CARE CENTER	18	$99	1.01	1.13	2.2	$247.97	$1,987,748
JUVENILE HALL-BOYS DORMITORY -6A	1605 EASTLAKE AVE, LOS ANGELES 90033	8,009	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,854,094
JUVENILE HALL-BOYS DORMITORY -6B	1605 EASTLAKE AVE, LOS ANGELES 90033	8,009	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,854,094
PUBLIC LIBRARY-CITY TERRACE LIBRARY	4025 E CITY TERRACE DR, EAST LOS ANGELES 90063	8,007	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$2,416,787
DHS-WORKFORCE DEVELOPMENT PROGRAM	500 S VIRGIL AVE, LOS ANGELES 90020	8,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,315,637
MIRA LOMA -ISD VEHICLE REPAIR SHOP	45000 N 60TH ST W, LANCASTER 93536	8,000	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$733,024
PW ROAD-DIV #336 MAINTENANCE YRD	3637 WINTER CANYON RD, MALIBU 90265	7,992	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$1,077,980
FIRE STATION 124 (NEW)	25870 HEMINGWAY AVE, STEVENSON RANCH 91381	7,924	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$2,374,572
OLIVE VIEW-NORTH ANNEX BUILDING	14445 OLIVE VIEW DR, SYLMAR 91342	7,920	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,292,481
OLIVE VIEW-HOSPITAL TRAILER #1	14445 OLIVE VIEW DR, SYLMAR 91342	7,920	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$331,980

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OLIVE VIEW-PAINT SHOP (UNUSED)	14445 OLIVE VIEW DR, SYLMAR 91342	7,900	PAINT SHOP-PAINT STORAGE	17	$20	1.03	1.13	2.2	$50.67	$400,324
RANCHO-CENTRAL STEAM PLANT (CLOSED)	7601 E IMPERIAL HWY, DOWNEY 90242	7,894	CENTRAL HEATING PLANT					2.2	$0.00	$0
WHITEMAN AIRPORT-HANGAR BLDG F	12653 OSBORNE ST, PACOIMA 91331	7,865	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$720,654
PKS & REC-CAPITAL PROJECTS/PROJECT MGT OFFICE	680 WILSHIRE PL, LOS ANGELES 90005	7,852	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,272,798
CAMP MUNZ-DORMITORY	42220 N LAKE HUGHES RD, LAKE HUGHES 93532	7,793	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,804,090
DHS-MONROVIA PUBLIC HEALTH CENTER	330 W MAPLE AVE, MONROVIA 91016	7,786	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$2,183,368
CAMP KILPATRICK-SCHOOL BUILDING	427 S ENCINAL CANYON RD, MALIBU 90265	7,782	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$2,131,956
PUBLIC LIBRARY-INFORMATION SYSTEMS BUILDING	2150 W 120TH ST (HOLLY PARK AT VAN NESS), HAWTHORNE 90250	7,776	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,250,800
STAR CENTER-TRAINING BUILDING K	11515 S COLIMA RD, WHITTIER 90604	7,770	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$1,490,127
CHILD SUPPORT SERVICES-WILSHIRE CENTRE BLDG	3055 WILSHIRE BLVD, LOS ANGELES 90010	7,755	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,244,721
COMPTON AIRPORT-HANGAR J	901 W ALONDRA BLVD, COMPTON 90220	7,750	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$710,117
COMPTON AIRPORT-HANGAR K	901 W ALONDRA BLVD, COMPTON 90220	7,750	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$710,117
COMPTON AIRPORT-HANGAR L	901 W ALONDRA BLVD, COMPTON 90220	7,750	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$710,117

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FIRE STATION 166	3615 SANTA ANITA AVE, EL MONTE 91731	7,715	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$2,311,942
PUBLIC LIBRARY-PICO RIVERA LIBRARY	9001 MINES AVE AT ROSEMEAD BLVD, PICO RIVERA 90660	7,700	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$2,324,123
WHITEMAN AIRPORT-HANGAR BLDG E	12653 OSBORNE ST, PACOIMA 91331	7,680	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$703,703
WHITEMAN AIRPORT-T HANGAR 2	12653 OSBORNE ST, PACOIMA 91331	7,680	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$703,703
ATLANTIC AVE-BATHHOUSE	570 S ATLANTIC AVE, EAST LOS ANGELES 90022	7,671	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$1,284,379
PUBLIC SAFETY-RANCHO'S LOS AMIGOS HALL	12951 JUNIPER ST, DOWNEY 90242	7,657	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$1,468,456
CAMP AFFLERBAUGH-SCHOOL BUILDING	6631 N STEPHENS RANCH RD, LA VERNE 91750	7,633	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$2,091,136
HARBOR-REI PEDIATRICS LAB E-6	1000 W CARSON ST, TORRANCE 90502	7,629	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,766,123
CENTRAL CIVIL WEST COURTHOUSE	600 S COMMONWEALTH AVE, LOS ANGELES 90005	7,603	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,200,724
FIRE STATION 164	6301 S SANTA FE AVE, HUNTINGTON PARK 90255-3805	7,588	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$2,273,884
HARBOR-REI VIVARIUM F-1	1000 W CARSON ST, TORRANCE 90502	7,577	TEACHING & RESEARCH CLINIC	18	$109	1.01	1.13	2.2	$273.96	$2,075,794
SHERIFF-LANCASTER ADMINISTRATIVE OFFICE	501 W LANCASTER BLVD, LANCASTER 93534	7,557	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,187,409
MENTAL HEALTH-COMPTON MENTAL HEALTH SERVICES	322 W COMPTON BLVD, COMPTON 90220	7,545	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,183,936

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RANCHO-METHADONE RESEARCH/BUILDING 209	7601 E IMPERIAL HWY, DOWNEY 90242	7,544	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,746,446
DHS-SAN FERNANDO DISTRICT ENVIRONMENTAL HLTH	6851 LENNOX AVE, VAN NUYS 91405	7,537	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,181,620
DHS-NORTH HOLLYWOOD PUBLIC HEALTH CENTER	5300 TUJUNGA AVE, NORTH HOLLYWOOD 91601	7,511	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$2,106,252
PW CENTRAL YARD-AUTO REPAIR SHOP	2275 ALCAZAR ST, LOS ANGELES 90033	7,511	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$1,013,102
EAST SERVICES AGENCY-WAREHOUSE	265 CLOVERLEAF DR, BALDWIN PARK 91706	7,499	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$784,393
JUVENILE HALL-GIRLS SCHOOL-5B	1605 EASTLAKE AVE, LOS ANGELES 90033	7,483	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$2,050,042
ML KING-PEDIATRIC ACUTE CARE/CHILD CARE CENTR	12021 S WILMINGTON AVE, LOS ANGELES 90059	7,483	CHILDRENS SERVICES	15	$97	0.99	1.13	2.2	$238.39	$1,783,843
EASTSIDE ED HEREDIA BOXING CLUB	5127 E OLYMPIC BLVD, EAST LOS ANGELES 90022	7,481	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$2,241,819
EAST SAN GABRIEL VALLEY MENTAL HEALTH CENTER	1517 W GARVEY AVE -N, WEST COVINA 91790	7,478	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,164,542
MED CTR-LIVINGSTON REPRODUCTIVE BIOLOGY LAB	1321 N MISSION RD, LOS ANGELES 90031	7,476	TEACHING & RESEARCH CLINIC	18	$109	1.01	1.13	2.2	$273.96	$2,048,124
SHERIFF-LAKEWOOD CITY HALL ANNEX	5130 CLARK AVE, LAKEWOOD 90712	7,466	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,161,069
PW WWD#29-TOPANGA BEACH SERVICE BUILDING	3800 S TOPANGA CANYON BLVD, MALIBU 90265	7,456	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$1,005,683

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OLIVE VIEW-FINANCE STORAGE BUILDING	14445 OLIVE VIEW DR, SYLMAR 91342	7,410	RECORDS STORAGE	14	$41	1.03	1.13	2.2	$104.60	$775,084
SHERIFF-BELLFLOWER SUBSTATION	16615 BELLFLOWER BLVD, BELLFLOWER 90706	7,400	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,141,965
MARSHALL CANYON GC-CLUBHOUSE	6100 N STEPHENS RANCH RD, LA VERNE 91750	7,379	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$1,165,018
MARSHALL CANYON TREE FARM-NURSERY BUILDING	6550 N STEPHENS RANCH RD, LA VERNE 91750	7,348	NURSERY BLDG-STRUCTURE	16	$7	1.02	1.13	2.2	$16.96	$124,651
WHITTIER NARROWS-PARK HDQTRS/SERVICE BUILDING	750 S SANTA ANITA AVE, SOUTH EL MONTE 91733	7,324	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$987,879
HARBOR-RADIOLOGY RECORDS STORAGE / SECURITY	826 W 220TH ST, TORRANCE 90502	7,320	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,118,808
COMPTON CIVIC CENTER-M L KING JR MONUMENT	200 W COMPTON BLVD, COMPTON 90220	7,286	SIGN-MONUMENT-DISPLAY	17	$16	1.03	1.13	2.2	$41.92	$305,405
PUBLIC LIBRARY-ANTHONY QUINN LIBRARY	3965 CESAR E CHAVEZ AVE, CITY TERRACE 90063	7,275	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$2,195,844
RANCHO-GENERAL SERVICES/BLDG 201 (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	7,271	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$2,417,071
PUBLIC LIBRARY-WOODCREST LIBRARY	1340 W 106TH ST, LOS ANGELES 90044	7,254	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$2,189,505
SOUTH SERVICES AGENCY - MAINTNCE BLD/PAINT SHOP	360 W EL SEGUNDO BLVD, LOS ANGELES 90061	7,248	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$977,628
CAMP MUNZ-SCHOOL BUILDING	42220 N LAKE HUGHES RD, LAKE HUGHES 93532	7,239	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$1,983,196

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OLIVE VIEW-MORGUE STORAGE (CONDEMNED)	14445 OLIVE VIEW DR, SYLMAR 91342	7,200	MORGUE	15	$118	0.99	1.13	2.2	$289.45	$2,084,074
DCSS-ALTADENA COMMUNITY CENTER	730 E ALTADENA DR TRIANGLE PARK, ALTADENA 91001	7,200	SERVICE CENTER	14	$52	1.04	1.13	2.2	$134.88	$971,153
DPSS-GR JOB SKILLS TRAINING PROGRAM CENTER	2701 FIRESTONE BLVD, SOUTH GATE 90280	7,200	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$925,496
ISD-EASTERN COMPLEX PROJECT MANAGEMENT TRAILR	1100 N EASTERN AVE, LOS ANGELES 90063	7,200	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$301,800
BARRY J NIDORF JUV HALL-INTAKE/RELEASE BLD-19	16350 FILBERT ST, SYLMAR 91342	7,199	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$2,590,866
FIRE-MAPPING & ENGINEERING SECTION OFFICES	5847 RICKENBACKER RD, CITY OF COMMERCE 90040	7,177	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,077,416
PLACERITA CANYON-NATURE STUDY MUSEUM	19152 PLACERITA CANYON RD, NEWHALL 91321	7,168	MUSEUM	16	$121	1.01	1.13	2.2	$304.89	$2,185,478
CAMP SCOTT-SCHOOL BUILDING	28700 N BOUQUET CANYON RD, SAUGUS 91350	7,156	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,071,338
SOUTH SERVICES AGENCY - WAREHOUSE	360 W EL SEGUNDO BLVD, LOS ANGELES 90061	7,156	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$748,515
PUBLIC DEFENDER-L.A. LAW CENTER BUILDING	207 S BROADWAY, LOS ANGELES 90012	7,100	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,055,128
PUBLIC LIBRARY-GEORGE NYE, JR LIBRARY	6600 DEL AMO BLVD, LAKEWOOD 90713	7,100	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,055,128
BEACHES/HARBORS-MAINTENANCE WAREHOUSE	516 N BROADWAY, REDONDO BEACH 90277	7,093	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$956,721

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COMPTON AIRPORT-HANGAR P	901 W ALONDRA BLVD, COMPTON 90220	7,085	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$649,184
ROBINSON GARDENS-GUEST PAVILLION	1008 ELDEN WAY, BEVERLY HILLS 90210	7,077	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$1,375,881
MIRA LOMA-BARRACKS A	45100 N 60TH ST W, LANCASTER 93536	7,056	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,633,473
MIRA LOMA-BARRACKS D	45100 N 60TH ST W, LANCASTER 93536	7,056	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,633,473
MIRA LOMA-BARRACKS C	45100 N 60TH ST W, LANCASTER 93536	7,056	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,633,473
MIRA LOMA-BARRACKS B	45100 N 60TH ST W, LANCASTER 93536	7,056	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,633,473
PW ROAD-PALMDALE MAINTENANCE DIST NO.5 BLDG	38126 N SIERRA HWY, PALMDALE 93550	7,040	SHOP	17	$20	1.03	1.13	2.2	$50.67	$356,744
SANTA CLARITA MENTAL HEALTH/ ENVIRON HEALTH	25050 PEACHLAND AVE, SANTA CLARITA 91321	7,030	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,034,866
VAL VERDE-BATHHOUSE/CERAMIC CLASSROOM	30300 W ARLINGTON ST, SAUGUS 91350	7,015	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$1,174,543
HART-RESIDENCE MUSEUM AND PATIOS	24151 SAN FERNANDO RD, SANTA CLARITA 91321	7,006	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$1,362,078
FIRE-CAMP 16-INCAMP DORMITORY	26652 ANGELES FOREST HWY NORTH OF MOUNT GLEASON RD, PALMDALE 93550-9206	7,000	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,620,509
PARKING (ALT PUB DEF-THE WILSHIRE-BIXEL BLDG)	1127 WILSHIRE BLVD, LOS ANGELES 90017	7,000	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$609,597

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PUBLIC LIBRARY-VIEW PARK LIBRARY	3854 W 54TH ST, LOS ANGELES 90043	6,983	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$2,107,708
SHERIFF-SAN DIMAS STATION ANNEX	114 E 1ST ST, SAN DIMAS 91773	6,978	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$1,804,111
ISD-DIST 4/FOS MONROVIA CRAFTS SHOPS BUILDING	1703 S MOUNTAIN AVE, MONROVIA 91010	6,975	SHOP	17	$20	1.03	1.13	2.2	$50.67	$353,450
LYNWOOD JUSTICE CENTER-CRAFTS BUILDING	11707 S ALAMEDA ST, LYNWOOD 90262	6,947	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$937,028
ARBORETUM-ADMINISTRATION BUILDING	301 N BALDWIN AVE, ARCADIA 91007	6,929	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,005,631
BISCAILUZ-RELOCATABLE DORMITORY (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	6,912	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,600,137
FIRE-L.A. COUNTY LIFEGUARD TRAINING CENTER	2600 THE STRAND, MANHATTAN BEACH 90266	6,910	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$2,000,132
FLORENCE-FIRESTONE COMPREH CHILD CARE CENTER	7217 S MACE PL, LOS ANGELES 90001	6,903	CHILD DAY CARE CENTER	18	$99	1.01	1.13	2.2	$247.97	$1,711,754
SANTA ANITA GC-CLUBHOUSE	405 S SANTA ANITA AVE, ARCADIA 91007	6,902	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$1,089,708
CENTRO MARAVILLA SERVICE CENTER-BLDG A	4716 CESAR E CHAVEZ AVE E, EAST LOS ANGELES 90022	6,901	SERVICE CENTER	14	$52	1.04	1.13	2.2	$134.88	$930,823
CHALLENGER-MECHANICAL CENTRAL PLANT BUILDING	5300 W AVE I, LANCASTER 93536	6,900	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$1,997,237
SAN GABRIEL SERVICE CENTER(C) & PKG LOT(SOLD)	3035 N TYLER AVE, EL MONTE 91731	6,863	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,986,527
WARM SP REHAB-GEN SVCS/KITCHEN	38200 N LAKE HUGHES RD, CASTAIC 91310	6,859	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$1,526,753

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FIRE-HENNINGER FLATS FORESTRY UNIT	2260 PINECREST DR, ALTADENA 91001-2123	6,856	FORESTRY - FIRE-FLOOD CONT CAMP	11	$92	1.01	1.13	2.2	$231.50	$1,587,173
ARCADIA-BATHHOUSE	405 S SANTA ANITA AVE, ARCADIA 91007	6,852	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$1,147,252
ROBINSON GARDENS-GARAGE	1008 ELDEN WAY, BEVERLY HILLS 90210	6,850	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$923,944
DISTRICT ATTORNEY -AUTO INSURANCE FRAUD UNIT	5901 E SLAUSON AVE, COMMERCE 90040	6,840	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,979,870
BRACKETT FIELD-ACFT RADIO BUILDING-7	1615 W MCKINLEY AVE, LA VERNE 91750	6,825	TRANSMITTER BLDG-MICROWAVE SITE	15	$118	0.99	1.13	2.2	$289.45	$1,975,528
WHITTIER NARROWS GC-CLUBHOUSE	8640 E RUSH ST, ROSEMEAD 91770	6,809	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$1,075,025
PUBLIC LIBRARY-ALONDRA LIBRARY	11949 E ALONDRA BLVD, NORWALK 90650	6,808	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,970,607
ARCADIA-SENIOR CITIZENS BUILDING/ CLUB HOUSE	405 S SANTA ANITA AVE, ARCADIA 91007	6,806	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$1,074,551
CITY TERRACE-ACTIVITIES BUILDING	1126 N HAZARD AVE, EAST LOS ANGELES 90063	6,805	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$1,305,059
DALTON-RECREATION BUILDING	18867 E ARMSTEAD ST, AZUSA 91702	6,789	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$1,301,991
CHARTER OAK-RECREATION BUILDING	20261 E COVINA BLVD, COVINA 91724	6,789	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$1,301,991
FOX AIRFIELD-ADMINISTRATION BLDG-1	4555 W AVE G, LANCASTER 93536	6,785	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,963,950
CAMP MENDENHALL-SCHOOL BUILDING	42230 N LAKE HUGHES RD, LAKE HUGHES 93532	6,778	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$1,856,900

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MED CTR-CARLSON CENTER SKILLS LAB TRAILER	1700 SICHEL ST, LOS ANGELES 90031	6,750	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$282,938
FIRE STATION 78	17021 ELIZABETH LAKE RD, LAKE HUGHES 93532-9519	6,732	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$2,017,368
PUBLIC LIBRARY-RIVERA LIBRARY	7828 S SERAPIS AVE, PICO RIVERA 90660	6,724	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$2,029,533
OLIVE VIEW-COTTAGE #4 (EQUIP STORAGE)(CONDMD)	14445 OLIVE VIEW DR, SYLMAR 91342	6,678	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$1,298,309
MED CTR-TOWER HALL - BUILDING 30 (NURSING)	1711 GRIFFIN AVE, LOS ANGELES 90031	6,668	TEACHING & RESEARCH CLINIC	18	$109	1.01	1.13	2.2	$273.96	$1,826,765
HEALTH SERVICES-FOOTHILL CENTER BUILDING	12502 VAN NUYS BLVD, PACOIMA 91331	6,664	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,928,926
DF KIRBY CTR-COTTAGES A & B	1500 S MCDONNELL AVE, COMMERCE 90022	6,649	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,539,252
DF KIRBY CTR-COTTAGE C & D	1500 S MCDONNELL AVE, COMMERCE 90022	6,649	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,539,252
DF KIRBY CTR-COTTAGE E & F	1500 S MCDONNELL AVE, COMMERCE 90022	6,649	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,539,252
PUBLIC LIBRARY-MASAO W SATOW LIBRARY	14433 S CRENSHAW BLVD, GARDENA 90249	6,639	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$2,003,877
RANCHO-BONITA HALL (REHAB ENGINEERING)	7601 E IMPERIAL HWY, DOWNEY 90242	6,612	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$2,198,002
PW-SAN GABRIEL VALLEY DISTRICT OFFICE	125 S BALDWIN AVE, ARCADIA 91006	6,570	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,901,717
OLIVE VIEW-COTTAGE #1	14445 OLIVE VIEW DR, SYLMAR 91342	6,510	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$1,265,647

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ALT PUBLIC DEF-WILSHIRE-BIXEL BUILDING	1055 WILSHIRE BLVD, LOS ANGELES 90017	6,500	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,881,455
DIAMOND BAR GC-PRO SHOP/ STORE	22751 GOLDEN SPRINGS DR, DIAMOND BAR 91765	6,500	PROSHOP	11	$63	1.01	1.13	2.2	$157.88	$1,026,239
OLIVE VIEW-ACCOUNTING 301	14445 OLIVE VIEW DR, SYLMAR 91343	6,497	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$2,159,773
PUBLIC LIBRARY-HERMOSA BEACH LIBRARY	550 PIER AVE, HERMOSA BEACH 90254	6,496	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$1,960,715
FIRE STATION 110	4433 ADMIRALTY WAY, MARINA DEL REY 90292-5415	6,482	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,942,451
HIGH DESERT-AMBULATORY CARE CLINIC TRAILER	44900 N 60TH ST W, LANCASTER 93536	6,480	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$271,620
RANCHO-CARPENTER'S OFFICE	7601 E IMPERIAL HWY, DOWNEY 90242	6,467	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$676,446
RANCHO-NURSING EDUCATION/BLDG 210 (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	6,462	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$2,148,138
RANCHO-SHOP MATERIALS WAREHOUSE	7601 E IMPERIAL HWY, DOWNEY 90242	6,453	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$870,396
SANTA CLARITA-MAINTENANCE GARAGE/POWER PLANT	23740 W MAGIC MOUNTAIN PKWY, SANTA CLARITA 91355	6,448	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$869,722
CAMP GLENN ROCKEY - MAINTENANCE BUILDING	1900 N SYCAMORE CANYON RD, SAN DIMAS 91773	6,443	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$869,047
PUBLIC LIBRARY-SOUTH EL MONTE LIBRARY	1430 N CENTRAL AVE, SOUTH EL MONTE 91733	6,416	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$1,936,568

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PW ROAD-DIV #553A MAINTENANCE YARD	27500 ANGELES FOREST HWY (MILL CREEK RANGER STN), PALMDALE 93550	6,403	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$863,652
PCHS DT CTR-VEHICLE MAINT FACILITY OFF-ROAD	29310 THE OLD RD, CASTAIC 91384	6,400	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$863,247
PROBATION-ANTELOPE VALLEY AREA OFFICES	321 E AVE K-4, LANCASTER 93535	6,400	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$822,663
MALIBU ADMIN CENTER-DPW GARAGE/ POWER PLANT	23555 W CIVIC CENTER WAY, MALIBU 90265	6,399	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$863,113
CAMP HOLTON-SCHOOL BUILDING	12653 N LITTLE TUJUNGA CANYON RD, SAN FERNANDO 91342	6,382	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$1,748,412
RANCHO-HISTOPATHOLOGY LAB/BLDG 311 (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	6,381	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$2,121,211
DF KIRBY CTR-RECREATION BLDG	1500 S MCDONNELL AVE, COMMERCE 90022	6,378	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$1,223,170
CAMP KILPATRICK-KITCHEN/ MESS HALL	427 S ENCINAL CANYON RD, MALIBU 90265	6,371	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$1,418,129
HARBOR-REI MEDICAL RESEARCH LAB C-1	1000 W CARSON ST, TORRANCE 90502	6,348	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$1,234,152
RANCHO-PURCHASING OFFICE/ BLDG 203 (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	6,339	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$2,107,250
RANCHO-SNACK BAR #1/ BUILDING 204 (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	6,325	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$2,102,596
RANCHO-NURSING STORAGE/BUILDING 207 (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	6,325	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$2,102,596

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BISCAILUZ-DORMITORIES A-1/A-2 (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	6,320	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,463,088
BISCAILUZ-MENTAL HEALTH RECOVERY CTR (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	6,320	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,463,088
BISCAILUZ-DORMITORIES A-5/A-6 (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	6,320	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,463,088
BISCAILUZ-DORMITORY #9 (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	6,320	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,463,088
BISCAILUZ-DORMITORY #10 (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	6,320	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,463,088
BISCAILUZ-DORMITORY #11 (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	6,320	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,463,088
HOLLYWOOD BOWL-NURSERY 5A	2301 N HIGHLAND AVE, HOLLYWOOD 90068	6,300	NURSERY BLDG-STRUCTURE	16	$7	1.02	1.13	2.2	$16.96	$106,873
BISCAILUZ-WOODSHOP BUILDING (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	6,289	SHOP	17	$20	1.03	1.13	2.2	$50.67	$318,688
PCHS DT CTR-AUDITORIUM	29310 THE OLD RD, CASTAIC 91384	6,280	AUDITORIUM	16	$114	1.01	1.13	2.2	$286.87	$1,801,517
RANCHO-RECREATION SERVICES/ BLDG 205 (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	6,245	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$2,076,001
RANCHO-DIETARY OFFICE/BUILDING 206 (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	6,245	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$2,076,001
RANCHO-CLASSROOM BUILDING/ BLDG 208 (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	6,245	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$2,076,001

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VICTORIA-BATHHOUSE	419 E 192ND ST, CARSON 90746	6,240	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$1,044,783
RANCHO-HOUSEKEEPING/ BUILDING 202 (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	6,219	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$2,067,358
PW FLOOD-EATON MAINTENANCE YARD	2986 E NEW YORK DR, PASADENA 91101	6,201	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$836,406
FIRE STATION 3	930 S EASTERN AVE, EAST LOS ANGELES 90022-4801	6,192	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,855,547
SHERIFF-LOST HILLS MAINTENANCE GARAGE	27050 W AGOURA RD, AGOURA HILLS 91301	6,157	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$830,471
ARBORETUM-COACH BARN	301 N BALDWIN AVE, ARCADIA 91007	6,150	CLOSED BARN	17	$19	1.03	1.13	2.2	$47.58	$292,590
PW CENTRAL YARD-WELDING SHOP/ WASH ROOM	2275 ALCAZAR ST, LOS ANGELES 90033	6,138	SHOP	17	$20	1.03	1.13	2.2	$50.67	$311,036
MED CTR-LEARNING CENTER	1200 N STATE ST, LOS ANGELES 90033	6,136	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$257,201
HARBOR-REI WOMEN'S HEALTH INITIATIVE/SURG J-3	1000 W CARSON ST, TORRANCE 90502	6,096	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,411,232
LOS PADRINOS-BOYS SCHOOL BLDG-16	7285 E QUILL DR, DOWNEY 90242	6,078	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$1,665,128
EATON CANYON-ROBERT M MCCURDY NATURE CENTER	1750 N ALTADENA DR, PASADENA 91107	6,030	MUSEUM	16	$121	1.01	1.13	2.2	$304.89	$1,838,509
MENTAL HEALTH-FAMILY RESOURCE CENTER	4701 CESAR E CHAVEZ AVE, EAST LOS ANGELES 90022	6,000	MENTAL HEALTH OUTPATIENT	15	$114	0.99	1.13	2.2	$280.42	$1,682,534

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MED CTR-LIVINGSTON REPRODUCTIVE BIO LAB ANNEX	1331 N MISSION RD, LOS ANGELES 90031	6,000	TEACHING & RESEARCH CLINIC	18	$109	1.01	1.13	2.2	$273.96	$1,643,760
OLIVE VIEW-COTTAGE #3	14445 OLIVE VIEW DR, SYLMAR 91342	6,000	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$1,166,495
MENTAL HEALTH-DOWNTOWN MENTAL HEALTH SERVICES	529 S MAPLE AVE, LOS ANGELES 90013	6,000	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$522,512
FIRE STATION 186	280 E BONITA AVE, POMONA 91767-1924	5,952	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,783,626
FORMER MID-VALLEY-MODULAR CLINIC (IN STORAGE)	14445 OLIVE VIEW DR WEST SIDE OF OLIVE VIEW CAMPUS, SYLMAR 91342	5,940	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$248,985
HARBOR-REI PSYCHIATRY/ NEUROLOGY CLINIC B-4	1000 W CARSON ST, TORRANCE 90502	5,938	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,374,655
FIRE STATION 131 (NEW)	2629 E AVE S AT 27TH ST. EAST, PALMDALE 93550-4790	5,925	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,775,535
DOCKWEILER-LIFEGUARD HEADQUARTERS	8255 VISTA DEL MAR, PLAYA DEL REY 90293	5,919	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,713,282
OLIVE VIEW-VIVARIUM	14445 OLIVE VIEW DR, SYLMAR 91342	5,915	VIVARIUM (LAB-SHELTER)	17	$16	1.03	1.13	2.2	$41.92	$247,937
DPSS-GAIN PROGRAM HEADQUARTERS/DA-CLAIMS UNIT	3220 ROSEMEAD BLVD, EL MONTE 91731	5,900	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,707,783
SHERIFF-PALMDALE AUTOMOTIVE REPAIR GARAGE	1817 E AVE Q, PALMDALE 90212	5,900	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$795,806
BRACKETT FIELD-CONTROL TOWER	1615 W MCKINLEY AVE, LA VERNE 91750	5,897	COMMUNICATIONS-CONTROL TOWER	15	$118	0.99	1.13	2.2	$289.45	$1,706,914

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FOX AIRFIELD-HANGAR FBO BLDG-10	4555 W AVE G, LANCASTER 93536	5,880	SHOP	17	$20	1.03	1.13	2.2	$50.67	$297,962
DCFS-KINSHIP SUPPORT SERVICES PROGRAM CENTER	9834 NORWALK BLVD, SANTA FE SPRINGS 90670	5,875	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,700,546
DHS-BURBANK PUBLIC HEALTH CENTER	1101 W MAGNOLIA BLVD, BURBANK 91502	5,864	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$1,644,396
EAST SERVICES AGENCY-TRANSPORTATION BUILDING	265 CLOVERLEAF DR, BALDWIN PARK 91706	5,864	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$790,950
FIRE STATION 182	1059 N WHITE AVE, POMONA 91768-3038	5,840	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,750,063
BARRY J NIDORF JUV HALL-HIGH RISK OFFENDER-12	16350 FILBERT ST, SYLMAR 91342	5,821	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$2,094,934
EAST L.A. CIVIC CENTER-AMPHITHEATRE	4901 E 3RD ST, EAST LOS ANGELES 90022	5,807	AMPHITHEATER	16	$125	1.01	1.13	2.2	$312.93	$1,817,176
HARBOR-PEDIATRIC OUTPATIENT PSYCHIATRY D-6	1000 W CARSON ST, TORRANCE 90502	5,806	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,344,097
HARBOR-HOSPITAL PLANNING & ARCH/MECHANICAL F4	1000 W CARSON ST, TORRANCE 90502	5,804	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$607,097
PW ROAD-DIV #555 MAINTENCE YARD SERVICE BLDG	17341 AVE J, LANCASTER 95536	5,800	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$782,318
PW FLOOD-HANSEN YARD WAREHOUSE	10179 GLENOAKS BLVD, SUN VALLEY 91352	5,800	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$606,678
DCFS-KINSHIP RESOURCE CENTER #2 NORTH	5035 W SLAUSON AVE, LOS ANGELES 90056	5,788	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$743,996
CAMP GONZALES-ADMINISTRATION BUILDING	1301 N LAS VIRGENES RD, CALABASAS 91302	5,781	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,673,337

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FIRE STATION 183	708 N SAN ANTONIO AVE, POMONA 91767-4910	5,776	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,730,885
PW CENTRAL YARD-CARPENTRY SHOP	1525 ALCAZAR ST, LOS ANGELES 90033	5,775	SHOP	17	$20	1.03	1.13	2.2	$50.67	$292,642
DMH-PATIENT EMERGENCY COORDINATION SERVICES	11401 BLOOMFIELD AVE METRO STATE HOSPITAL, NORWALK 90650	5,773	ACUTE PSYCHIATRIC CARE	15	$176	0.99	1.13	2.2	$434.17	$2,506,462
CAMP KILPATRICK-DORMITORY C	427 S ENCINAL CANYON RD, MALIBU 90265	5,736	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,327,891
CAMP KILPATRICK-DORMITORY B	427 S ENCINAL CANYON RD, MALIBU 90265	5,736	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,327,891
DCSS-BURBANK ADULT PROTECTIVE SERVICES	2501 W BURBANK BLVD, BURBANK 91502	5,702	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,650,471
DCSS-SANTA CLARITA VALLEY SERVICE CENTER	24269 SAN FERNANDO RD, SANTA CLARITA 91321	5,700	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,649,892
RANCHO-BUILDING 800 MODULAR ANNEX	7601 E IMPERIAL HWY, DOWNEY 90242	5,700	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$238,925
RANCHO-BUILDING 900 ANNEX 'A'	7601 E IMPERIAL HWY, DOWNEY 90242	5,700	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$238,925
RANCHO-BUILDING 900 ANNEX 'B'	7601 E IMPERIAL HWY, DOWNEY 90242	5,700	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$238,925
FIRE STATION 31	7521 E SOMERSET BLVD, PARAMOUNT 90723-4003	5,688	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,704,514

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LANCASTER JUVENILE COURTHOUSE	1000 W AVE J, LANCASTER 93534	5,685	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$238,296
FIRE STATION 144	31981 W FOXFIELD DR, WESTLAKE VILLAGE 91361-4203	5,675	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,700,618
FIRE STATION 125	5215 N LAS VIRGENES RD, CALABASAS 91302-1061	5,675	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,700,618
SHERIFF-CENTURY STN YOUTH CTR B/SE BOS OFFICE	7116 S MAKEE AVE (FORMER FIRE STATION 9), LOS ANGELES 90001-2552	5,672	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,699,719
FIRE STATION 120	1051 S GRAND AVE, DIAMOND BAR 91765-2210	5,665	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,697,622
RANCHO-BUILDING 700 MODULAR ANNEX	7601 E IMPERIAL HWY, DOWNEY 90242	5,665	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$237,458
OLIVE VIEW-WARD 110 (STORAGE)	14445 OLIVE VIEW DR, SYLMAR 91342	5,664	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$1,588,312
OLIVE VIEW-WARD 106 (STORAGE)	14445 OLIVE VIEW DR, SYLMAR 91342	5,664	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,311,223
OLIVE VIEW-WARD 108 (STORAGE)	14445 OLIVE VIEW DR, SYLMAR 91342	5,664	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$1,101,172
FIRE STATION 36	127 W 223RD ST, CARSON 90745-3702	5,663	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,697,022
REDONDO BEACH COURTHOUSE-ANNEX	105 W TORRANCE BLVD (ROOF OF GARAGE), REDONDO BEACH 90277	5,642	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,633,103
DPSS-EXPOSITION PARK FAMILY CHILD CARE CENTER	1024 W 38TH ST, LOS ANGELES 90037	5,636	CHILD DAY CARE CENTER	18	$99	1.01	1.13	2.2	$247.97	$1,397,573

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FIRE STATION 127	2049 E 223RD ST, CARSON 90810-1061	5,624	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,685,335
SYBIL BRAND-ACTIVITIES BUILDING (CLOSED)	4500 E CITY TERRACE DR, MONTEREY PARK 91754	5,616	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$1,077,034
PW ROAD-DIV #558A JACKSON LAKE MAINTENANCE YD	22201 BIG PINES HWY BALL FLAT ROAD, BIG PINES 92397	5,612	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$756,960
PW ROAD-HOLLYDALE MAINTENCE YARD NORTH GARAGE	11282 GARFIELD AVE, DOWNEY 90242	5,611	HEAVY EQUIPMENT-TRUCK GARAGE	14	$52	1.04	1.13	2.2	$134.88	$756,825
FIRE STATION 29	14334 E LOS ANGELES ST, BALDWIN PARK 91706-2603	5,605	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,679,641
FIRE STATION 163	6320 PINE AVE, BELL 90201-1221	5,605	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,679,641
FIRE STATION 44	1105 S HIGHLAND AVE, DUARTE 91010-2546	5,604	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,679,342
FIRE STATION 135 (NEW)	1846 E AVE K-4, LANCASTER 93535	5,600	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,678,143
FIRE STATION 134 (NEW)	43225 N 25TH ST W NEAR CORNER OF AVE K-8, LANCASTER 93534	5,600	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,678,143
DISTRICT ATTORNEY - HUNTINGTON PARK AREA OFFICE	2958 E FLORENCE AVE, HUNTINGTON PARK 90255	5,600	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,620,946
PARKING STRUCTURE (THE ALHAMBRA COMPLEX)	1000 S FREMONT AVE, ALHAMBRA 91803	5,600	PARKING STRUCTURE	14	$34	1.03	1.13	2.2	$87.09	$487,678
FIRE STATION 106	27413 INDIAN PEAK RD, ROLLING HILLS ESTATES 90274	5,596	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,676,944

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OLIVE VIEW-STORAGE BUILDING	14445 OLIVE VIEW DR, SYLMAR 91342	5,592	BOILER ROOM	17	$16	1.03	1.13	2.2	$41.92	$234,398
JUVENILE HALL-GIRLS CLSD UNIT-4C	1605 EASTLAKE AVE, LOS ANGELES 90033	5,585	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$2,010,000
FIRE STATION 43	921 S STIMSON AVE, CITY OF INDUSTRY 91745-1687	5,571	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,669,453
FIRE STATION 49	13820 S LA MIRADA BLVD, LA MIRADA 90638-3029	5,569	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,668,853
MIRA LOMA-COMPLEX POWER PLANT	45100 N 60TH ST W, LANCASTER 93536	5,569	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$1,611,973
FIRE STATION 76	27223 HENRY MAYO DR, VALENCIA 91355-1009	5,568	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,668,554
FIRE-PACOIMA OIL/TRANSPORTATION GARAGE	12605 OSBORNE ST, PACOIMA 91331	5,561	HEAVY EQUIPMENT-TRUCK GARAGE	14	$52	1.04	1.13	2.2	$134.88	$750,081
PCHS DT CTR-OFFICER DORM 1	29310 THE OLD RD, CASTAIC 91384	5,558	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,286,684
PW SEWER-EAST YARD TRUCK GARAGE	2849 S MYRTLE AVE, IRWINDALE 91707	5,553	BUS SHELTER-TRUCK SHELTER	16	$106	1.01	1.13	2.2	$265.20	$1,472,639
WHITEMAN AIRPORT-SVCS HANGAR 2	12653 OSBORNE ST, PACOIMA 91331	5,549	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$508,444
MED CTR-TELEPHONE EXCHANGE BUILDING	1200 N STATE ST, LOS ANGELES 90033	5,530	TELEPHONE EXCHANGE BUILDING/SWITCHBOARD ROOM	15	$118	0.99	1.13	2.2	$289.45	$1,600,684
PUBLIC LIBRARY-CHET HOLIFIELD LIBRARY	1060 S GREENWOOD AVE, MONTEBELLO 90640	5,500	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,592,001
ALTADENA GC-CLUBHOUSE	1456 E MENDOCINO ST, ALTADENA 91001	5,472	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$863,935
FIRE STATION 187	3325 TEMPLE AVE, POMONA 91766-3256	5,460	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,636,189

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HARBOR-CARPENTER SHOP F-3	1000 W CARSON ST, TORRANCE 90502	5,454	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,262,608
DHS-PACOIMA PUBLIC HEALTH CENTER	13300 VAN NUYS BLVD, PACOIMA 91331	5,404	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$1,515,402
FIRE STATION 4	2644 N SAN GABRIEL BLVD, ROSEMEAD 91770-3254	5,400	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,618,209
FIRE STATION 130	44558 N 40TH ST W, LANCASTER 93536-9575	5,400	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,618,209
PW ROAD-MAINT DIST 1 OFFICE	14747 E RAMONA BLVD, BALDWIN PARK 91706	5,400	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,563,055
WHITEMAN AIRPORT-HANGAR BLDG 46	12653 OSBORNE ST, PACOIMA 91331	5,400	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$494,791
FIRE STATION 10	1860 E DEL AMO BLVD, CARSON 90746-2940	5,385	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,613,714
NORWALK IMPERIAL CENTRE (AKA BECHTEL BLDG)	12440 E IMPERIAL HWY, NORWALK 90650	5,383	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,558,135
HARBOR-REI OBSTETRICS & GYNECOLOGY CLINIC D-3	1000 W CARSON ST, TORRANCE 90502	5,359	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,240,615
PW FLEET-ALTADENA YARD SERVICE BUILDING	252 W MOUNTAIN VIEW ST, ALTADENA 91001	5,350	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$721,621
SHERIFF-LANCASTER REGIONAL CRIME LABORATORY	45021 N SIERRA HWY, LANCASTER 93534	5,345	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$1,828,900
HARBOR-REI MEDICAL RESEARCH LAB C-1 ANNEX	1000 W CARSON ST, TORRANCE 90502	5,338	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,235,754
FIRE-PACOIMA PLANE PARTS HANGAR	12605 OSBORNE ST, PACOIMA 91331	5,326	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$488,011

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STAR CENTER-LOCKERS BUILDING L	11515 S COLIMA RD, WHITTIER 90604	5,325	LOCKER ROOM BUILDING	11	$76	1.01	1.13	2.2	$191.78	$1,021,226
SHERIFF-VEHICLE THEFT PROGRAM HEADQUARTERS	9040 TELSTAR AVE, EL MONTE 91731	5,320	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,539,899
FIRE CAMP 19-BOYS DORMITORY	22550 EAST FORK RD (SAN GABRIEL RIVER), AZUSA 91702	5,313	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,229,966
DHS-CANOGA PARK HEALTH CENTER (P/PP SITE)	7107 REMMET AVE, CANOGA PARK 91303	5,308	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$1,488,482
JUVENILE HALL-MODULAR MEDICAL CLINIC	1605 EASTLAKE AVE, LOS ANGELES 90033	5,300	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$222,158
PCHS DT CTR-STEAMFITTER SHOP	29310 THE OLD RD, CASTAIC 91384	5,264	SHOP	17	$20	1.03	1.13	2.2	$50.67	$266,747
SANTA ANITA GC-OFFICE/ MAINTENANCE BUILDING	405 S SANTA ANITA AVE, ARCADIA 91007	5,260	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$709,481
TED WATKINS MEMORIAL-BATHHOUSE	1335 E 103RD ST, LOS ANGELES 90002	5,255	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$879,861
DOWNEY ADMIN CTR-ISD/ITS DATA RECORDS STORAGE	9230 E IMPERIAL HWY, DOWNEY 90242	5,255	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$549,671
AG COMM/WTS MEAS-GARAGE/WORKSHOP	11012 GARFIELD AVE, SOUTH GATE 90280	5,244	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$707,323
PW FLOOD-LONGDEN YARD STORAGE BUILDING	160 E LONGDEN AVE, IRWINDALE 91706	5,240	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$548,102
DESCANSO GARDENS-LATHHOUSE	1418 DESCANSO DR, LA CANADA FLINTRIDGE 91011	5,232	LATH HOUSE	17	$16	1.03	1.13	2.2	$41.92	$219,308
OLIVE VIEW-DAY CARE CENTER BUILDING 120	14445 OLIVE VIEW DR, SYLMAR 91342	5,230	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$1,738,589

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DPSS-FOOD STAMPS/ FISCAL SERVICES OFFICE	6367 S HOLMES AVE, LOS ANGELES 90001	5,220	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,510,953
MED CTR-EMPLOYEES CHILD CARE CTR TRAILER T-14	1401 N MISSION RD, LOS ANGELES 90031	5,220	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$218,805
PW ROAD-BALDWIN PARK WAREHOUSE	14747 E RAMONA BLVD, BALDWIN PARK 91706	5,200	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$543,918
RANCHO-C.A.R.T. MODULAR BUILDING	7601 E IMPERIAL HWY, DOWNEY 90242	5,195	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$217,757
MED CTR-PATIENT FINANCIAL SRVICES OFFICE T-16	1240 N MISSION RD, LOS ANGELES 90033	5,190	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$217,548
HARBOR-REI NEUROLOGY BUILDING F-9	1000 W CARSON ST, TORRANCE 90502	5,184	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$1,723,297
FIRE STATION 45	4020 E CANDLEWOOD ST, LAKEWOOD 90712-1620	5,184	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,553,481
EATON CANYON GC-CLUBHOUSE	1150 N SIERRA MADRE VILLA, PASADENA 91107	5,184	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$818,465
PUBLIC LIBRARY-WEST HOLLYWOOD LIBRARY	715 N SAN VICENTE BLVD, WEST HOLLYWOOD (BR P.O. N 90069	5,170	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$1,560,483
ARBORETUM-PLANT LATH HOUSE	301 N BALDWIN AVE, ARCADIA 91007	5,170	LATH HOUSE	17	$16	1.03	1.13	2.2	$41.92	$216,709
FIRE STATION 58	5757 S FAIRFAX AVE AT SLAUSON, LOS ANGELES 90056-1243	5,168	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,548,686

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OLIVE VIEW-DOCTORS' OFFICE BUILDING	14445 OLIVE VIEW DR, SYLMAR 91342	5,165	DOCTORS-NURSES-OFFICERS QUARTERS	11	$92	1.01	1.13	2.2	$231.50	$1,195,704
BARRY J NIDORF JUV HALL-N AREA SCHOOL OFFIC-4	16350 FILBERT ST, SYLMAR 91342	5,158	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,493,007
PUBLIC LIBRARY-ARTESIA LIBRARY	18722 S CLARKDALE AVE, ARTESIA 90701	5,150	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,490,692
MED CTR-WOMENS HOSPITAL MINI WAREHOUSE	1240 N MISSION RD, LOS ANGELES 90033	5,150	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$538,688
BELVEDERE-BATHHOUSE	4914 CESAR E CHAVEZ AVE, EAST LOS ANGELES 90022	5,149	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$862,113
HOLLYWOOD BOWL-ADMINISTRATION BUILDING	2301 N HIGHLAND AVE, HOLLYWOOD 90068	5,137	DINING HALL-RESTAURANT	13	$87	1.03	1.13	2.2	$222.59	$1,143,451
FIRE STATION 145	1525 S NOGALES ST, ROWLAND HEIGHTS 91748-2256	5,134	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,538,498
MIRA LOMA-BARRACKS G / MAXIMUM SECURITY	45100 N 60TH ST W, LANCASTER 93536	5,127	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$1,845,169
PUBLIC LIBRARY-GRAHAM LIBRARY	1900 E FIRESTONE BLVD, LOS ANGELES 90001	5,125	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,483,455
PUBLIC LIBRARY-FLORENCE LIBRARY	1610 E FLORENCE AVE, LOS ANGELES 90001	5,124	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,483,166
PUBLIC LIBRARY-BELL GARDENS LIBRARY	7110 GARFIELD AVE, BELL GARDENS 90201	5,119	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$1,545,089
CAMP KILPATRICK-ADMINISTRATION BUILDING	427 S ENCINAL CANYON RD, MALIBU 90265	5,115	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,480,561

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LA MIRADA-BATHHOUSE	13701 S ADELFA DR, LA MIRADA 90638	5,105	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$854,746
CAMP MILLER-OFFICE/ CLASSROOM #1	433 S ENCINAL CANYON RD, MALIBU 90265	5,100	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$1,397,196
PW FLOOD-HANSEN YARD WAREHOUSE	10179 GLENOAKS BLVD, SUN VALLEY 91352	5,100	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$533,458
JUVENILE HALL-CHAPEL-2	1605 EASTLAKE AVE, LOS ANGELES 90033	5,094	CHAPEL/CHURCH	16	$117	1.01	1.13	2.2	$293.85	$1,496,851
PUBLIC LIBRARY-WISEBURN LIBRARY	5335 W 135TH ST, HAWTHORNE 90250	5,088	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$1,535,732
CAMP GLENN ROCKEY - ADMINISTRATION BUILDING	1900 N SYCAMORE CANYON RD, SAN DIMAS 91773	5,083	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,471,298
ARBORETUM-HEADHOUSE #2	301 N BALDWIN AVE, ARCADIA 91007	5,082	GREENHOUSE-HOT HOUSE	16	$7	1.02	1.13	2.2	$16.96	$86,211
ARBORETUM-HEADHOUSE #1	301 N BALDWIN AVE, ARCADIA 91007	5,082	GREENHOUSE-HOT HOUSE	16	$7	1.02	1.13	2.2	$16.96	$86,211
FIRE STATION 15	11460 SANTA GERTRUDES AVE, WHITTIER 90604-3411	5,054	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,514,524
OLIVE VIEW-WARD 3 (CONDEMNED)	14445 OLIVE VIEW DR, SYLMAR 91342	5,054	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,170,008
PUB LIB-FORMER CANYON COUNTRY LIBRARY (SOLD)	18538 SOLEDAD CANYON RD, SANTA CLARITA 91351	5,050	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$1,524,263
SHERIFF-AVALON STATION	215 SUMNER AVE, AVALON 90704	5,050	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$1,305,641
FIRE STATION 87	140 S 2ND AVE, CITY OF INDUSTRY 91744-2413	5,039	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,510,029

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HARBOR-SPEECH PATHOLOGY/AUDIOLOGY CLINIC N-1	1000 W CARSON ST, TORRANCE 90502	5,037	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,166,072
FIRE STATION 20	12110 E ADOREE ST, NORWALK 90650-3002	5,036	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,509,130
DISTRICT ATTORNEY - OCEANGATE TOWER	100 OCEANGATE, LONG BEACH 90802	5,035	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,457,404
W ROGERS BEACH-GLADSTONES 4-FISH RESTAURANT	17300 PACIFIC COAST HWY, PACIFIC PALISADES 90272	5,027	DINING HALL-RESTAURANT	13	$87	1.03	1.13	2.2	$222.59	$1,118,966
PUBLIC LIBRARY-VICTORIA PARK LIBRARY	17906 S AVALON BLVD, CARSON 90746	5,024	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$1,516,415
SHERIFF-EAST L A SPECIAL ENFORCEMENT GARAGE	130 S FETTERLY AVE, EAST LOS ANGELES 90022	5,016	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$676,570
PCHS DT CTR-OFFICER DORM 2	29310 THE OLD RD, CASTAIC 91384	5,011	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,160,053
PCHS DT CTR-OFFICER DORM 3	29310 THE OLD RD, CASTAIC 91384	5,011	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,160,053
OLIVE VIEW-WARD 114 (STORAGE)	14445 OLIVE VIEW DR, SYLMAR 91342	5,009	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$1,404,635
MIRA LOMA - THEATER	45100 N 60TH ST W, LANCASTER 93536	5,002	THEATER	16	$124	1.01	1.13	2.2	$312.53	$1,563,259
PUBLIC LIBRARY-EAST RANCHO DOMINGUEZ LIBRARY	4205 E COMPTON BLVD, RANCHO DOMINGUEZ 90221	5,000	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$1,509,171
FIRE STATION 118 (NEW)	17056 GALE AVE NEAR 'A' STREET, CITY OF INDUSTRY 91748	5,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,498,342
DPSS-POMONA ADULT JOB SKILLS TRAINING CENTER	416 N GAREY AVE, POMONA 91768	5,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,447,273

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RANCHO-HOLLYDALE AMERICAN LEGION HALL	11269 GARFIELD AVE, DOWNEY 90242	5,000	HALL	15	$106	0.99	1.13	2.2	$260.46	$1,302,312
CDC-HA-IMPERIAL COURTS APARTMENTS-JOBS PLUS	11534 CROESUS AVE, LOS ANGELES 90059	5,000	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$972,079
PW ROAD-DIV #141/241 MAINTENANCE YARD GARAGE	2120 E 90TH ST, LOS ANGELES 90002	5,000	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$674,412
HARBOR-SUPPLIES STORAGE BUILDING F-10	1000 W CARSON ST, TORRANCE 90502	4,980	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$1,655,482
PUBLIC LIBRARY-MARINA DEL REY LIBRARY	4533 ADMIRALTY WAY, MARINA DEL REY 90292	4,972	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$1,500,720
ISD-EASTERN AVE COMPLEX TELECOM BUTLER BLDG	1112 N EASTERN AVE, LOS ANGELES 90063	4,960	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,435,695
LOS PADRINOS-BOYS DORM-X/Y-10	7285 E QUILL DR, DOWNEY 90242	4,939	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,143,385
PCHS DT CTR-TV ROOM/ WEIGHT TRAINING BUILDING	29310 THE OLD RD, CASTAIC 91384	4,933	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$946,048
CAMP SCUDDER-MAINTENANCE BLDG	28750 N BOUQUET CANYON RD, SAUGUS 91350	4,923	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$664,026
HARBOR-REI RADIOLOGY MEDICINE CLINIC N-2	1000 W CARSON ST, TORRANCE 90502	4,909	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,136,440
DIST ATTY-POMONA INTERVALLEY OFFICE BUILDING	300 S PARK AVE, POMONA 91766	4,895	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,416,881
GEORGE LANE-ACTIVITIES BUILDING	5520 W AVE L-8, QUARTZ HILL 93536	4,884	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$936,651
ALONDRA GC-CLUBHOUSE	16400 S PRAIRIE AVE, LAWNDALE 90260	4,875	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$769,679

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VAL VERDE-RECREATION BUILDING	30300 W ARLINGTON ST, SAUGUS 91350	4,874	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$934,733
FIRE-SAUGUS FORESTRY UNIT	28760 N BOUQUET CANYON RD, SAUGUS 91350	4,864	NURSERY BLDG-STRUCTURE	16	$7	1.02	1.13	2.2	$16.96	$82,513
PUBLIC LIBRARY-BELL LIBRARY	4411 E GAGE AVE, BELL 90201	4,863	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,407,618
ALONDRA-RECREATION BUILDING	3850 MANHATTAN BEACH BLVD, LAWNDALE 90260	4,856	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$931,281
PW SEWER-CENTRAL YARD GARAGE	12015 SHOEMAKER AVE, SANTA FE SPRINGS 90670	4,848	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$653,910
DHS-NORWALK HEALTH CENTER (CLOSED)	12360 FIRESTONE BLVD, NORWALK 90650	4,844	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$1,358,366
PUBLIC LIBRARY-NEWHALL LIBRARY	22704 W 9TH ST, SANTA CLARITA 91321	4,842	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$1,461,481
CAMP MENDENHALL-MAINTENANCE BUILDING	42230 N LAKE HUGHES RD, LAKE HUGHES 93532	4,826	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$650,942
SHERIFF-LANCASTER SERVICE GARAGE	501 W LANCASTER BLVD, LANCASTER 93534	4,818	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$649,863
HIGH DESERT-GIBBONS SUPPORT ANNEX	44900 N 60TH ST W, LANCASTER 93536	4,818	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$201,955
LOS AMIGOS GC-PRO SHOP	7295 E QUILL DR, DOWNEY 90242	4,815	NEEDS DESCRIPTION	15	$118	0.99	1.13	2.2	$289.45	$1,393,724
FIRE STATION 14	1401 W 108TH ST, LOS ANGELES 90044-4905	4,808	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,440,806
VETERANS MEMORIAL-DISABLED RECREATION CENTER	13000 SAYRE ST, SYLMAR 91342	4,801	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$920,733

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PUBLIC LIBRARY-HOLLYDALE LIBRARY	12000 GARFIELD AVE, SOUTH GATE 90280	4,800	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,389,382
PCHS DT CTR-VEHICLE MAINT FACILITY CANOPY 2	29310 THE OLD RD, CASTAIC 91384	4,800	BUS SHELTER-TRUCK SHELTER	16	$106	1.01	1.13	2.2	$265.20	$1,272,946
PW ROAD-DIV #551 MAINTENANCE YARD GARAGE	4859 W AVE L-12, QUARTZ HILL 93536	4,800	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$647,436
HARBOR-OCCUPATIONAL & PHYSICAL THERAPY N-31	1000 W CARSON ST, TORRANCE 90502	4,800	PROSTHETIC SHOP-PROTOTYPE	17	$20	1.03	1.13	2.2	$50.67	$243,235
HARBOR-REI PITUITARY HORMONE CENTER E-3	1000 W CARSON ST, TORRANCE 90502	4,796	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,110,280
FIRE STATION 103	7300 S PARAMOUNT BLVD, PICO RIVERA 90660-3714	4,795	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,436,910
PCHS DT CTR-WAREHOUSE	29310 THE OLD RD, CASTAIC 91384	4,794	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$501,451
CENTRAL CIVIL WEST COURTHOUSE	600 S COMMONWEALTH AVE, LOS ANGELES 90005	4,780	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,383,593
MIRA LOMA -ISOLATION/ DISCIPLINE BARRACKS 23	45100 N 60TH ST W, LANCASTER 93536	4,767	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$1,715,608
RANCHO-BUILDING MATERIALS WAREHOUSE	7601 E IMPERIAL HWY, DOWNEY 90242	4,765	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$498,418
THE MUSIC CENTER-K HAHN HALL OF ADMIN TUNNEL	145 N GRAND AVE, LOS ANGELES 90012	4,763	TUNNEL-CULVERT	17	$16	1.03	1.13	2.2	$41.92	$199,649
CAMP KILPATRICK-DORMITORY A	427 S ENCINAL CANYON RD, MALIBU 90265	4,747	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,098,937
CAMP HOLTON-GARAGE/ LAUNDRY BUILDING	12653 N LITTLE TUJUNGA CANYON RD, SAN FERNANDO 91342	4,746	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$640,152

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VAN NUYS COURTHOUSE-BUILDING A	6280 SYLMAR AVE, VAN NUYS 91401	4,740	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$198,685
VAN NUYS COURTHOUSE-BUILDING B	6280 SYLMAR AVE, VAN NUYS 91401	4,740	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$198,685
VAN NUYS COURTHOUSE-BUILDING C	6280 SYLMAR AVE, VAN NUYS 91401	4,740	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$198,685
HOLLYWOOD BOWL-SHELL STAGE AREA	2301 N HIGHLAND AVE, HOLLYWOOD 90068	4,717	AMPHITHEATER	16	$125	1.01	1.13	2.2	$312.93	$1,476,084
PUBLIC SAFETY-RANCHO HARRIMAN HOUSE STORAGE	7600 CONSUELO ST, DOWNEY 90242	4,710	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$915,699
FIRE-PACOIMA WELDING SHOP	12605 OSBORNE ST, PACOIMA 91331	4,709	SHOP	17	$20	1.03	1.13	2.2	$50.67	$238,623
DOCKWEILER-BEACH MAINTENANCE BUILDING	8254 VISTA DEL MAR, PLAYA DEL REY 90293	4,708	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$635,026
DEANE DANA FRIENDSHIP REG PARK NATURE CENTER	1805 W 9TH ST, SAN PEDRO 90732	4,700	DISPLAY-EXHIBIT-WRKRM (CLOSED)	16	$121	1.01	1.13	2.2	$304.89	$1,433,001
BARRY J NIDORF JUV HALL-POWER PLANT-18	16350 FILBERT ST, SYLMAR 91342	4,699	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$1,360,148
DHS-DOLLARHIDE HEALTH CENTER (P/PP SITE)	1108 N OLEANDER AVE, COMPTON 90222	4,685	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,356,095
WASHINGTON-BATHHOUSE	8908 S MAIE AVE, LOS ANGELES 90002	4,668	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$781,578
DIST ATTY-VICTIM-WITNESS ASSISTANCE PROGRAM	3204 ROSEMEAD BLVD, EL MONTE 91731	4,667	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,350,885
ACTON REHAB-DORMS 18 & 19	30500 ARRASTRE CANYON RD, ACTON 93510	4,663	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,079,491
AG COMM/WTS MEAS-METER CALIBRATION LABORATORY	11012 GARFIELD AVE, SOUTH GATE 90280	4,661	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$1,594,856

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MED CTR-PATIENT FINANCIAL SERVICES T-17	1200 N STATE ST, LOS ANGELES 90033	4,661	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$195,374
PUBLIC LIBRARY-LENNOX LIBRARY	4359 LENNOX BLVD, LENNOX 90304	4,657	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$1,405,642
WHITEMAN AIRPORT-ADMIN BLDG 5	12653 OSBORNE ST, PACOIMA 91331	4,657	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,347,990
COMPTON AIRPORT-MARTIN AVIATION BLDG-1	901 W ALONDRA BLVD, COMPTON 90220	4,610	SHOP	17	$20	1.03	1.13	2.2	$50.67	$233,607
PCHS DT CTR-VEHICLE MAINT FACILITY TIRE SHOP	29310 THE OLD RD, CASTAIC 91384	4,608	SHOP	17	$20	1.03	1.13	2.2	$50.67	$233,505
OLIVE VIEW-MECHANICAL OFFICE	14445 OLIVE VIEW DR, SYLMAR 91342	4,607	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$481,891
FIRE-CENTRAL SECTION LIFEGUARD HEADQUARTERS	1642 THE PROMENADE, SANTA MONICA 90401	4,605	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,332,939
LANCASTER COURTHOUSE-ANNEX ADDITION	1040 W AVE J, LANCASTER 93534	4,600	COURT	15	$118	0.99	1.13	2.2	$289.45	$1,331,492
ALONDRA-PICNIC SHELTERS (3)	3850 MANHATTAN BEACH BLVD, LAWNDALE 90260	4,593	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$192,523
VICTORIA-MULTIPURPOSE BUILDING	419 E 192ND ST, CARSON 90746	4,588	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$879,884
CAROLYN ROSAS-ACTIVITY BUILDING	18500 FARJARDO ST, ROWLAND HEIGHTS 91748	4,563	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$875,090
BASSETT-MULTIPURPOSE BUILDING	510 N VINELAND AVE, LA PUENTE 91746	4,558	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$874,131
REDONDO BCH-KNOB HILL FACILITY	811 S ESPLANADE AVE (W/O KNOBHILL), REDONDO BEACH 90277	4,556	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$614,524

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FIRE STATION 153	1577 E CYPRESS ST, COVINA 91724	4,552	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,364,091
FIRE STATION 152	807 W CYPRESS ST (AT AZUSA AVE), COVINA 91725	4,552	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,364,091
HARBOR-ADULT OUTPATIENT PSYCHIATRY CLINIC D-5	1000 W CARSON ST, TORRANCE 90502	4,532	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,049,164
PROBATION-KENYON JUSTICE CENTER OFFICE	7672 S CENTRAL AVE, LOS ANGELES 90001	4,505	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,303,993
FIRE STATION 41	1815 E 120TH ST, LOS ANGELES 90059-3005	4,504	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,349,707
FIRE STATION 62 (NEW)	3701 N MILLS AVE, CLAREMONT 91711-1423	4,500	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,348,508
FIRE STATION 117 (NEW)	44851 30TH ST E, LANCASTER 93535-1338	4,500	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,348,508
MIRA LOMA-ISD MILLWRIGHT SHOP	45000 N 60TH ST W, LANCASTER 93536	4,500	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$606,971
HOLLYWOOD BOWL-WAREHOUSE	2301 N HIGHLAND AVE, HOLLYWOOD 90068	4,500	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$470,699
FIRE STATION 65	4206 N CORNELL RD, AGOURA 91301-2528	4,486	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,344,312
PCHS DT CTR-LIBRARY	29310 THE OLD RD, CASTAIC 91384	4,477	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,036,431
PCHS DT CTR-REHABILITATION OFFICE	29310 THE OLD RD, CASTAIC 91384	4,477	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,036,431
PCHS DT CTR-EDUCATIONAL BUILDING	29310 THE OLD RD, CASTAIC 91384	4,477	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,036,431
FOX AIRFIELD-MAINTENANCE GARAGE/OFFICE-6	4555 W AVE G, LANCASTER 93536	4,460	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,290,968

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HARBOR-REI ANESTHESIOLOGY LAB D-4	1000 W CARSON ST, TORRANCE 90502	4,451	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,030,412
DCSS-EAST RANCHO DOMINGUEZ SERVICE CENTER	4513 E COMPTON BLVD, RANCHO DOMINGUEZ 90221	4,436	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,284,021
HARBOR-REI PATHOLOGY RESEARCH CLINIC C-2	1000 W CARSON ST, TORRANCE 90502	4,430	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,025,551
DF KIRBY CTR-KITCHEN/CAFETERIA	1500 S MCDONNELL AVE, COMMERCE 90022	4,428	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$985,634
ROY CAMPANELLA-RECREATION/ACTIVITIES BUILDING	14812 STANFORD AVE, COMPTON 90220	4,424	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$848,432
PW-CALABASAS DISTRICT OFFICE	4111 N LAS VIRGENES RD, CALABASAS 91302	4,420	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$1,210,903
FIRE STATION 141	1124 W PUENTE ST, SAN DIMAS 91773-4414	4,416	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,323,336
SALAZAR-CLUBHOUSE	3864 E WHITTIER BLVD, EAST LOS ANGELES 90023	4,414	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$696,895
FIRE-SAN DIMAS FORESTRY UNIT	1910 N SYCAMORE CANYON RD, SAN DIMAS 91773-1220	4,411	NURSERY BLDG-STRUCTURE	16	$7	1.02	1.13	2.2	$16.96	$74,828
PW FLOOD-EATON YARD WAREHOUSE	2986 E NEW YORK DR, PASADENA 91104	4,410	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$461,285
KNOLLWOOD GC-PRO SHOP/ GOLF CART STORAGE	12040 BALBOA BLVD, GRANADA HILLS 91344	4,406	PROSHOP	11	$63	1.01	1.13	2.2	$157.88	$695,632
PW ROAD-DIV #146 MAINTENANCE YARD	13671 TELEGRAPH RD, SOUTH WHITTIER 90604	4,403	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$593,887
PUBLIC LIBRARY-CUDAHY LIBRARY	5218 SANTA ANA ST, CUDAHY 90201	4,396	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,272,443

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BISCAILUZ-VISUAL AIDS WAREHOUSE (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	4,393	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$977,843
MIRA LOMA - OFFICE BUILDING	45100 N 60TH ST W, LANCASTER 93536	4,389	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,270,417
SYBIL BRAND-POWER PLANT (CLOSED)	4500 E CITY TERRACE DR, MONTEREY PARK 91754	4,368	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$1,264,338
HARBOR-REI PEDIATRIC RESEARCH CLINIC C-3	1000 W CARSON ST, TORRANCE 90502	4,365	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,010,503
HARBOR-EMPLOYEES CHILD CARE CENTER	975 W CARSON ST, TORRANCE 90502	4,360	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$182,757
PCHS DT CTR-DORM 30	29310 THE OLD RD, CASTAIC 91384	4,358	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$1,008,883
CENTURY STATION-FUELING STATION	11707 S ALAMEDA ST, LYNWOOD 90262	4,356	GAS STATION	14	$52	1.04	1.13	2.2	$134.88	$587,548
FIRE STATION 105	18915 S SANTA FE AVE, COMPTON 90221-5907	4,354	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,304,756
SUNSHINE-RECREATION BUILDING	515 S DEEPMEAD AVE, LA PUENTE 91744	4,348	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$833,857
CAMP SCUDDER-ADMINISTRATION BUILDING	28750 N BOUQUET CANYON RD, SAUGUS 91350	4,343	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,257,102
CERRITOS-SERVICE BUILDING	19700 S BLOOMFIELD AVE, CERRITOS (DAIRY VALLEY) 90703	4,339	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$585,255
LOS PADRINOS-POWER PLANT-9	7285 E QUILL DR, DOWNEY 90242	4,338	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$1,255,654
FIRE STATION 122	2600 GREENMEADOW RD, LAKEWOOD 90712-3906	4,336	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,299,362

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MED CTR-QUALITY ASSURANCE/UTILIZATION REVIEW	1200 N STATE ST, LOS ANGELES 90033	4,334	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$181,667
FIRE STATION 60 (OLD FIRE STATION 154)	2300 E 27TH ST, SIGNAL HILL 90806	4,330	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,297,564
WARM SP REHAB-DORM #6/DORM #7	38200 N LAKE HUGHES RD, CASTAIC 91310	4,320	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$1,000,086
CAMP PAIGE-KITCHEN/MESS HALL	6601 N STEPHENS RANCH RD, LA VERNE 91750	4,318	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$961,149
CAMP AFFLERBAUGH-KITCHEN/MESS HALL	6631 N STEPHENS RANCH RD, LA VERNE 91750	4,318	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$961,149
ML KING-COOLING TOWER #1	12021 S WILMINGTON AVE, LOS ANGELES 90059	4,313	COOLING TOWER	17	$16	1.03	1.13	2.2	$41.92	$180,787
SHERIFF-LAKEWOOD MAINTENANCE GARAGE	5130 CLARK AVE, LAKEWOOD 90712	4,307	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$580,939
SHERIFF-CARSON MAINTENANCE BUILDING	21356 S AVALON BLVD, CARSON 90745	4,303	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$580,399
PUBLIC LIBRARY-LA CRESCENTA LIBRARY	4521 LA CRESCENTA AVE, LA CRESCENTA 91214	4,300	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$1,297,887
CARPORT (LE SAGE COMPLEX-LOT A)(REMODELING)	508 S VERMONT AVE, LOS ANGELES 90020	4,300	OPEN CARPORT	17	$16	1.03	1.13	2.2	$41.92	$180,242
LOMA ALTA-RECREATION BUILDING ANNEX	3330 N LINCOLN AVE, ALTADENA 91001	4,271	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,236,261
PW FLOOD-REDONDO STORAGE SHED	615 E ANITA ST, REDONDO BEACH 90278	4,270	SHED-SHACK (31/100 SQ FT)	17	$16	1.03	1.13	2.2	$41.92	$178,984

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WASHINGTON-COMMUNITY BUILDING	8908 S MAIE AVE, LOS ANGELES 90002	4,260	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$816,981
ANIMAL CONTROL #1-DOWNEY SHELTER ADMIN BLDG	11258 GARFIELD AVE, DOWNEY 90242	4,257	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,232,209
OLIVE VIEW-WARD 307 (STORAGE)	14445 OLIVE VIEW DR, SYLMAR 91343	4,255	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$1,193,197
CAMP GLENN ROCKEY - KITCHEN/MESS HALL	1900 N SYCAMORE CANYON RD, SAN DIMAS 91773	4,241	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$944,009
FIRE STATION 24	1050 W AVE P, PALMDALE 93550-2932	4,230	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,267,597
FIRE STATION 83	83 MIRALESTE PLZ, RANCHO PALOS VERDES 90275-6525	4,220	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,264,601
FOX AIRFIELD-OFFICE/FAA SFO BLDG-2	4555 W AVE G, LANCASTER 93536	4,220	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,221,499
MENTAL HEALTH-COURT PROGRAM OFFICES	1499 HUNTINGTON DR, SOUTH PASADENA 91030	4,210	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,218,604
FIRE STATION 61	20011 LA PUENTE RD, WALNUT 91789-1719	4,200	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,258,607
FIRE STATION 101	606 W BONITA AVE, CLAREMONT 91711-4512	4,200	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,258,607
HIGH DESERT-BUILDING CRAFTS BUILDING	44900 N 60TH ST W, LANCASTER 93536	4,200	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$566,506
FIRE STATION 111	26829 N SECO CANYON RD, SANTA CLARITA 91354-2217	4,195	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,257,109
FIRE STATION 99	32550 PACIFIC COAST HWY (BASE OF ENCINAL CYN RD), MALIBU 90265	4,192	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,256,210

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MOUNTAIN MEADOWS GC-PRO SHOP	1875 FAIRPLEX DR, POMONA 91768	4,182	PROSHOP	11	$63	1.01	1.13	2.2	$157.88	$660,266
GEORGE LANE-BATHHOUSE	5520 W AVE L-8, QUARTZ HILL 93536	4,177	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$699,368
PCHS DT CTR-DORM 38	29310 THE OLD RD, CASTAIC 91384	4,172	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$965,823
FIRE STATION 37	38318 N 9TH ST E, PALMDALE 93550-4790	4,156	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,245,422
ANIMAL CONTROL #3-KENNEL #2	216 W VICTORIA ST, CARSON 90248	4,153	KENNEL	15	$61	1	1.13	2.2	$151.55	$629,373
ANIMAL CONTROL #3-KENNEL #1	216 W VICTORIA ST, CARSON 90248	4,153	KENNEL	15	$61	1	1.13	2.2	$151.55	$629,373
ANIMAL CONTROL #3-KENNEL #3	216 W VICTORIA ST, CARSON 90248	4,153	KENNEL	15	$61	1	1.13	2.2	$151.55	$629,373
FIRE STATION 38	3907 W 54TH ST, LOS ANGELES 90043-2203	4,151	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,243,924
FIRE-CAMP 16-CDC OFFICE	26652 ANGELES FOREST HWY NORTH OF MOUNT GLEASON RD, PALMDALE 93550-9206	4,144	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,199,500
FIRE STATION 11	2521 N EL MOLINO AVE, ALTADENA 91001-2317	4,138	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,240,028
BARRY J NIDORF JUV HALL-VISITORS CENTER	16350 FILBERT ST, SYLMAR 91342	4,134	VISITORS BUILDING/INMATE RECEPTION CENTER	16	$106	1.01	1.13	2.2	$265.20	$1,096,325
OLIVE VIEW-GENERAL STORAGE BUILDING	14445 OLIVE VIEW DR, SYLMAR 91342	4,131	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$432,101
PW WWD#04-NORTH ADMINISTRATION BUILDING	419 W AVE J, LANCASTER 93534	4,128	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,194,869
FIRE STATION 184	1980 W ORANGE GROVE AVE, POMONA 91768	4,125	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,236,132

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EL CARISO GC-SERVICE BUILDING	13100 ELDRIDGE ST, SYLMAR 91342	4,123	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$556,120
FIRE STATION 1	1108 N EASTERN AVE, LOS ANGELES 90063	4,110	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,231,637
VETERAN'S MEMORIAL-PICNIC SHELTER	13000 SAYRE ST, SYLMAR 91342	4,108	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$172,194
CAMP BARLEY FLATS-ADMINISTRATION BUILDING	23900 STAR ROUTE, LA CANADA FLINTRIDGE 91011	4,107	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,188,790
CAMP MUNZ-KITCHEN/MESS HALL	42220 N LAKE HUGHES RD, LAKE HUGHES 93532	4,095	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$911,511
CAMP MENDENHALL-KITCHEN/MESS HALL	42230 N LAKE HUGHES RD, LAKE HUGHES 93532	4,095	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$911,511
DEXTER-GYMNASIUM/RECREATION BUILDING	11053 N TRAIL RD (KAGEL CYN), SAN FERNANDO 91342	4,094	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$785,145
SHERIFF-NORWALK STATION MAINTENANCE GARAGE	12335 CIVIC CENTER DR, NORWALK 90650	4,092	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$551,939
BEACHES/HARBORS-CHACE PARK COMMUNITY BUILDING	13650 MINDANAO WAY, MARINA DEL REY 90292	4,090	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$784,378
ANIMAL CONTROL #6-KENNEL	31044 N CHARLEY CANYON RD, CASTAIC 91384	4,086	KENNEL	15	$61	1	1.13	2.2	$151.55	$619,219
HARBOR-REI CLINICAL TRIALS/ MEDICINE LAB E-5	1000 W CARSON ST, TORRANCE 90502	4,084	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$945,451
PW FLOOD-IMPERIAL YARD SERVICE BUILDING	5525 E IMPERIAL HWY, SOUTH GATE 90280	4,080	SHOP	17	$20	1.03	1.13	2.2	$50.67	$206,749
CENTRO MARAVILLA SERVICE CENTER-BLDG C	4716 CESAR E CHAVEZ AVE, EAST LOS ANGELES 90022	4,073	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$781,118

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FIRE STATION 47	5946 N KAUFFMAN AVE, TEMPLE CITY (RUDELL) 91780-2234	4,068	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,219,051
OBREGON-BATHHOUSE	4021 E 1ST ST, EAST LOS ANGELES 90063	4,063	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$680,281
CAMP HOLTON-KITCHEN/ MESS HALL	12653 N LITTLE TUJUNGA CANYON RD, SAN FERNANDO 91342	4,060	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$903,720
PW FLOOD-IMPERIAL YARD	5525 E IMPERIAL HWY, SOUTH GATE 90280	4,060	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$547,623
PW ROAD-DIV #116 MAINTENANCE YARD	14959 E PROCTOR AVE, CITY OF INDUSTRY 91746	4,056	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$547,083
CAMP MENDENHALL-ADMINISTRATION BUILDING	42230 N LAKE HUGHES RD, LAKE HUGHES 93532	4,053	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,173,160
PW ROAD-DIV #555 YRD OFFICE/SHOP	45122 N 70TH ST E, LANCASTER 93534	4,050	SHOP	17	$20	1.03	1.13	2.2	$50.67	$205,229
LOMA ALTA-BATHHOUSE/PUMPHOUSE	3330 N LINCOLN AVE, ALTADENA 91001	4,049	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$677,937
CAMP HOLTON-ADMINISTRATION BUILDING	12653 N LITTLE TUJUNGA CANYON RD, SAN FERNANDO 91342	4,048	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,171,713
CAMP GONZALES-KITCHEN/MESS HALL	1301 N LAS VIRGENES RD, CALABASAS 91302	4,048	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$901,049
RANCHO-BUILDING MATERIALS WAREHOUSE	7601 E IMPERIAL HWY, DOWNEY 90242	4,048	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$546,004
PCHS DT CTR-VISITORS BUILDING (OLD)	29310 THE OLD RD, CASTAIC 91384	4,045	VISITORS BLDG-INMATE RECEPTION CNTR	16	$106	1.01	1.13	2.2	$265.20	$1,072,722

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FIRE STATION 98	9814 MAPLEWOOD AVE, BELLFLOWER 90706-3103	4,043	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,211,559
HARBOR-MEDICAL RECORDS OFFICE F-8	1000 W CARSON ST, TORRANCE 90502	4,040	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,169,397
CASTAIC LAKE-OPS-PARK SVCS BUR/MAINTENCE BLDG	32132 RIDGE ROUTE RD (ACROSS FROM PARK ENTRANCE), CASTAIC 91310	4,032	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$543,846
HIGH DESERT-DOCTORS' OFFICES/ LIBRARY TRAILER	44900 N 60TH ST W, LANCASTER 93536	4,023	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$168,631
DPSS-LANCASTER OFFICE CENTER	43770 N 15TH ST W, LANCASTER 93534	4,020	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,163,608
FIRE-PUMPER TEST AND STORAGE BUILDING	1320 N EASTERN AVE, LOS ANGELES 90063-3294	4,019	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$1,375,182
HARBOR-REI MEDICINE OFFICES E-2	1000 W CARSON ST, TORRANCE 90502	4,007	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$927,626
PCHS DT CTR-DORM 31	29310 THE OLD RD, CASTAIC 91384	4,003	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$926,700
PCHS DT CTR-DORM 32	29310 THE OLD RD, CASTAIC 91384	4,003	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$926,700
PCHS DT CTR-DORM 33	29310 THE OLD RD, CASTAIC 91384	4,003	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$926,700
PCHS DT CTR-DORM 34	29310 THE OLD RD, CASTAIC 91384	4,003	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$926,700
OLIVE VIEW-SEWING/LINEN STORAGE	14445 OLIVE VIEW DR, SYLMAR 91342	4,001	LINEN ROOM-SEWING ROOM	13	$50	1.05	1.13	2.2	$130.70	$522,922
FIRE STATION 171	141 W REGENT ST, INGLEWOOD 90301	4,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,198,674
FIRE STATION 149	31770 RIDGE ROUTE RD, CASTAIC 91384-3329	4,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,198,674
FIRE STATION 77	46833 PEACE VALLEY RD, GORMAN 93243	4,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,198,674

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FIRE STATION 54	4867 SOUTHERN AVE, SOUTH GATE 90280-3466	4,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,198,674
MIRA LOMA-VISITORS BUILDING	45100 N 60TH ST W, LANCASTER 93536	4,000	VISITORS BUILDING/INMATE RECEPTION CENTER	16	$106	1.01	1.13	2.2	$265.20	$1,060,788
WILLOWBROOK EMERGENCY FAMILY SHELTER (UNUSED)	12721 S CENTRAL AVE, LOS ANGELES 90059	4,000	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$777,664
WASHINGTON GC-SERVICE BUILDING	1930 W 120TH ST, LOS ANGELES 90047	4,000	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$539,530
ML KING-H CLAUDE HUDSON CONFERENCE CENTER	12021 S WILMINGTON AVE, LOS ANGELES 90059	3,996	AUDITORIUM	16	$114	1.01	1.13	2.2	$286.87	$1,146,316
PUBLIC LIBRARY-HAWAIIAN GARDENS LIBRARY	12100 E CARSON ST, HAWAIIAN GARDENS 90716	3,992	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,155,503
OLIVE VIEW-WARD 103	14445 OLIVE VIEW DR, SYLMAR 91342	3,981	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$921,607
FIRE STATION 185	925 E LEXINGTON AVE, POMONA 91766-5204	3,980	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,192,680
VICTORIA-DIRECTOR'S BUILDING	419 E 192ND ST, CARSON 90746	3,980	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$763,282
VETERAN'S MEMORIAL-AMPHITHEATER	13000 SAYRE ST, SYLMAR 91342	3,978	AMPHITHEATER	16	$125	1.01	1.13	2.2	$312.93	$1,244,830
PCHS DT CTR-DORM 49	29310 THE OLD RD, CASTAIC 91384	3,973	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$919,755
PCHS DT CTR-HOBBY SHOP	29310 THE OLD RD, CASTAIC 91384	3,969	CLASSROOM	18	$104	1.01	1.13	2.2	$259.97	$1,031,839
JUVENILE HALL-RECREATION BUILDING-12B	1605 EASTLAKE AVE, LOS ANGELES 90033	3,969	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$883,465

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PW FLOOD-LONGDEN YARD WAREHOUSE	160 E LONGDEN AVE, IRWINDALE 91706	3,969	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$415,156
PW WWD#04-NORTH MAINTENANCE SHOPS/ WAREHOUSE	419 W AVE J, LANCASTER 93534	3,968	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$415,052
OLIVE VIEW-CONFERENCE CENTER	14445 OLIVE VIEW DR, SYLMAR 91342	3,960	BRIEFING SHELTER	16	$106	1.01	1.13	2.2	$265.20	$1,050,180
REDONDO BEACH COURTHOUSE	117 W TORRANCE BLVD (ROOF OF GARAGE), REDONDO BEACH 90277	3,959	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,145,951
FIRE STATION 40	4864 S DURFEE AVE, PICO RIVERA 90660-2459	3,954	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,184,889
FIRE STATION 35	13717 ARTESIA BLVD, CERRITOS (DAIRY VALLEY) 90701-4804	3,946	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,182,492
VICTORIA GC-GOLF PRO SHOP	348 E 192ND ST, CARSON 90745	3,930	PROSHOP	11	$63	1.01	1.13	2.2	$157.88	$620,480
CAMP GLENN ROCKEY - RECREATION BUILDING	1900 N SYCAMORE CANYON RD, SAN DIMAS 91773	3,915	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$750,817
FIRE-PACOIMA ROOFING MATERIALS	12605 OSBORNE ST, PACOIMA 91331	3,910	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$408,985
CAMP GONZALES-MAINTENANCE BUILDING	1301 N LAS VIRGENES RD, CALABASAS 91302	3,904	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$526,581
KENNETH HAHN STATE REC AREA-COMMUNITY CENTER	4100 S LA CIENEGA BLVD, LOS ANGELES 90056	3,893	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$746,598
FIRE STATION 107	18239 SOLEDAD CANYON RD, SANTA CLARITA 91351-3521	3,892	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,166,309

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VALLEYDALE-ACTIVITIES BUILDING	5525 N LARK ELLEN AVE, AZUSA 91702	3,890	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$746,022
THE MUSIC CENTER-COUNTY COURTHOUSE TUNNEL	145 N GRAND AVE, LOS ANGELES 90012	3,889	TUNNEL-CULVERT	17	$16	1.03	1.13	2.2	$41.92	$163,014
RANCHO-HVAC/MECHANICAL FACILITY SHOPS(UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	3,888	SHOP	17	$20	1.03	1.13	2.2	$50.67	$197,020
CAMP MILLER-MAINTENANCE BUILDING	433 S ENCINAL CANYON RD, MALIBU 90265	3,881	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$523,479
HARBOR-REI PEDIATRIC SURGERY CLINIC F-7	1000 W CARSON ST, TORRANCE 90502	3,877	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$1,288,816
PCHS DT CTR-COGENERATION PLANT	29300 THE OLD RD, CASTAIC 91384	3,868	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$1,119,611
FIRE STATION 116	755 E VICTORIA ST, CARSON 90746-1534	3,866	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,158,518
FIRE STATION 119	20480 PATHFINDER RD, WALNUT 91789-4620	3,865	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,158,218
PW ROAD-DIV #553A YARD GARAGE	27500 ANGELES FOREST HWY (MILL CREEK RANGER STN), PALMDALE 93550	3,850	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$519,297
CAMP SCUDDER-SCHOOL BUILDING	28750 N BOUQUET CANYON RD, SAUGUS 91350	3,846	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$1,053,650
FIRE STATION 48	15546 E ARROW HWY, IRWINDALE 91706-2001	3,840	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,150,727
SHERIFF-TEMPLE CITY STATION WAREHOUSE	8838 E LAS TUNAS DR, TEMPLE CITY (RUDELL) 91780	3,840	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$517,948

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PW FLOOD-HAMILTON BOWL PUMP STN	1810 N GAVIOTA AVE, LONG BEACH 90806	3,840	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$160,960
ARBORETUM-CENTRAL ORCHID HOUSE	301 N BALDWIN AVE, ARCADIA 91007	3,838	GREENHOUSE-HOT HOUSE	16	$7	1.02	1.13	2.2	$16.96	$65,108
CAMP SCOTT-KITCHEN/MESS HALL	28700 N BOUQUET CANYON RD, SAUGUS 91350	3,837	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$854,083
CAMP SCUDDER-KITCHEN/MESS HALL	28750 N BOUQUET CANYON RD, SAUGUS 91350	3,837	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$854,083
FIRE STATION 26	15336 E ELLIOTT AVE, LA PUENTE 91744-2710	3,836	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,149,528
MIRA LOMA - LIBRARY/ INMATE SERVICES	45100 N 60TH ST W, LANCASTER 93536	3,820	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$1,153,007
HARBOR-REI PSYCHIATRY F-5	1000 W CARSON ST, TORRANCE 90502	3,818	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$1,269,203
PCHS DT CTR-DORM 35	29310 THE OLD RD, CASTAIC 91384	3,817	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$883,640
PCHS DT CTR-DORM 36	29310 THE OLD RD, CASTAIC 91384	3,817	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$883,640
PCHS DT CTR-DORM 37	29310 THE OLD RD, CASTAIC 91384	3,817	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$883,640
PCHS DT CTR-DORM 39	29310 THE OLD RD, CASTAIC 91384	3,817	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$883,640
FIRE STATION 90	10115 E RUSH ST, SOUTH EL MONTE 91733-3223	3,816	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,143,535
ANIMAL CONTROL #7-KENNEL	29525 W AGOURA RD, AGOURA HILLS 91301	3,798	KENNEL	15	$61	1	1.13	2.2	$151.55	$575,574
SOUTH COAST-SERVICE BUILDING	26300 CRENSHAW BLVD, PALOS VERDES ESTATES 90274	3,795	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,098,480

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SHERIFF-HARBOR REGIONAL AUTO THEFT PREVENTION	785 EDISON AVE PORT OF LONG BEACH, LONG BEACH 90813	3,793	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$511,609
CENTURY DETENTION-JUSTICE CENTER SALLYPORT	11705 S ALAMEDA ST, LYNWOOD 90262	3,790	BUS SHELTER-TRUCK SHELTER	16	$106	1.01	1.13	2.2	$265.20	$1,005,097
CAMP MILLER-ADMINISTRATION BLDG	433 S ENCINAL CANYON RD, MALIBU 90265	3,783	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,133,646
LOS PADRINOS-CHAPEL-11	7285 E QUILL DR, DOWNEY 90242	3,780	CHAPEL/CHURCH	16	$117	1.01	1.13	2.2	$293.85	$1,110,738
EL PORTO BCH-ROSECRANS LIFEGUARD HEADQUARTERS	3700 THE STRAND, MANHATTAN BEACH 90266	3,777	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,093,270
THE ALHAMBRA COMPLEX - SHERIFF'S OMBUDSMAN	1000 S FREMONT AVE, ALHAMBRA 91803	3,774	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,092,402
BETHUNE-BATHHOUSE	1244 E 61ST ST, LOS ANGELES 90001	3,774	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$631,892
FIRE STATION 23	9548 E FLOWER ST, BELLFLOWER 90706-5708	3,772	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,130,349
PW CENTRAL YARD-PAINT STORAGE	1525 ALCAZAR ST, LOS ANGELES 90033	3,772	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$394,550
PEARBLOSSOM-PICNIC SHELTER	33922 N 121ST ST E, PEARBLOSSOM 93553	3,766	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$157,858
LOMA ALTA-RECREATION BUILDING	3330 N LINCOLN AVE, ALTADENA 91001	3,759	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$720,899
ISD-EASTERN AVENUE COMPLEX FUELING STATION	1104 N EASTERN AVE, LOS ANGELES 90063	3,750	GAS STATION	14	$52	1.04	1.13	2.2	$134.88	$505,809

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PW FLOOD-LONGDEN YARD SURVEY BUILDING	160 E LONGDEN AVE, IRWINDALE 91706	3,750	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$505,809
JUVENILE HALL-DORM TRAILER #1	1605 EASTLAKE AVE, LOS ANGELES 90033	3,750	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$157,188
JUVENILE HALL-DORM TRAILER #2	1605 EASTLAKE AVE, LOS ANGELES 90033	3,750	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$157,188
FIRE STATION 108 (LEASED TO CITY)	1901 N STONE HOUSE RD, SIERRA MADRE 91024	3,738	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,120,161
FIRE-INFORMATION MANAGEMENT DIVISION OFFICES	5815 RICKENBACKER RD, CITY OF COMMERCE 90040	3,722	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,077,350
CAMP MILLER-ADMINISTRATION BUILDING	433 S ENCINAL CANYON RD, MALIBU 90265	3,719	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$860,953
ROY CAMPANELLA-BATHHOUSE	14812 STANFORD AVE, COMPTON 90220	3,718	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$622,516
FIRE STATION 123	26321 N SAND CANYON RD, SANTA CLARITA 91351-4020	3,715	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,113,268
CAMP PAIGE-ADMINISTRATION BUILDING	6601 N STEPHENS RANCH RD, LA VERNE 91750	3,715	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,075,324
CAMP AFFLERBAUGH-ADMINISTRATION BUILDING	6631 N STEPHENS RANCH RD, LA VERNE 91750	3,715	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,075,324
FIRE STATION 68	24130 CALABASAS RD, CALABASAS 91302-1511	3,714	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,112,968
DHS-NORTH DISTRICT HEALTH FACILITIES OFFICE	15643 SHERMAN WAY, VAN NUYS 91406	3,712	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,074,456

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CAMP PAIGE-RECREATION BUILDING	6601 N STEPHENS RANCH RD, LA VERNE 91750	3,707	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$710,927
CAMP AFFLERBAUGH-RECREATION BUILDING	6631 N STEPHENS RANCH RD, LA VERNE 91750	3,707	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$710,927
FIRE STATION 79	33957 LONGVIEW RD, PEARBLOSSOM 93553-9704	3,700	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,108,773
FIRE STATION 86	520 S AMELIA AVE, GLENDORA 91741-4027	3,690	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,105,776
EVERETT MARTIN-BATHHOUSE	35548 N 92ND ST E, LITTLEROCK 93543	3,686	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$617,158
PUBLIC LIBRARY-NEW LITTLEROCK LIBRARY	35119 80TH ST E, LITTLEROCK 93543	3,680	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,065,193
PW-FLOOD-17TH STREET PUMPING PLANT	1601 SAN FRANCISCO AVE, LONG BEACH 90813	3,668	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$153,750
CAMP GONZALES-RECREATION BUILDING	1301 N LAS VIRGENES RD, CALABASAS 91302	3,663	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$702,488
ML KING-TRASH CLEANUP SERVICES AND COMPACTOR	12021 S WILMINGTON AVE, LOS ANGELES 90059	3,645	GARBAGE GRINDER	15	$118	0.99	1.13	2.2	$289.45	$1,055,062
ENTERPRISE-BATHHOUSE	13055 CLOVIS AVE, LOS ANGELES 90059	3,644	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$610,126
SAN PEDRO COURTHOUSE-ANNEX	638 S BEACON ST, SAN PEDRO 90731	3,642	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,054,194
CAMP HOLTON-RECREATION BUILDING	12653 N LITTLE TUJUNGA CANYON RD, SAN FERNANDO 91342	3,639	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$697,886

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CAMP MUNZ-RECREATION BUILDING	42220 N LAKE HUGHES RD, LAKE HUGHES 93532	3,634	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$696,927
CAMP MENDENHALL-RECREATION BUILDING	42230 N LAKE HUGHES RD, LAKE HUGHES 93532	3,634	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$696,927
HIGH DESERT-ANCILLARY SERVICES TRAILER	44900 N 60TH ST W, LANCASTER 93536	3,630	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$152,158
PW ROAD-DIV #514 MAINTENANCE YARD	3916 DUNSMORE AVE (CRESCENTA VALLEY PARK), LA CRESCENTA 91214	3,626	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$489,084
CAMP SCOTT-ADMINISTRATION BUILDING	28700 N BOUQUET CANYON RD, SAUGUS 91350	3,625	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,049,273
FIRE STATION 57	5720 GARDENDALE ST, SOUTH GATE 90280-7806	3,623	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,085,699
GEORGE W CARVER-BATHHOUSE	1400 E 118TH ST, LOS ANGELES 90059	3,622	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$606,443
MONA-BATHHOUSE	2291 E 121ST ST, COMPTON 90222	3,622	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$606,443
PAMELA-RECREATION BUILDING	2236 GOODALL AVE, DUARTE 91010	3,621	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$694,434
DISTRICT ATTORNEY-OCEANGATE TOWER	100 OCEANGATE, LONG BEACH 90802	3,620	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,047,826
FIRE-PACOIMA MECHANICAL SHOP	12605 OSBORNE ST, PACOIMA 91331	3,617	SHOP	17	$20	1.03	1.13	2.2	$50.67	$183,287
CENTRO MARAVILLA SERVICE CENTER-BLDG B	4716 CESAR E CHAVEZ AVE, EAST LOS ANGELES 90022	3,612	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,045,510
MIRA LOMA-INMATE BARRACKS 7	45100 N 60TH ST W, LANCASTER 93536	3,609	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$835,488

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MIRA LOMA - INMATE BARRACKS 8	45100 N 60TH ST W, LANCASTER 93536	3,609	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$835,488
MIRA LOMA - INMATE BARRACKS 9	45100 N 60TH ST W, LANCASTER 93536	3,609	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$835,488
MIRA LOMA - INMATE BARRACKS 10	45100 N 60TH ST W, LANCASTER 93536	3,609	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$835,488
MIRA LOMA - INMATE BARRACKS 11	45100 N 60TH ST W, LANCASTER 93536	3,609	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$835,488
MIRA LOMA - INMATE BARRACKS 12	45100 N 60TH ST W, LANCASTER 93536	3,609	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$835,488
MIRA LOMA - INMATE BARRACKS 13	45100 N 60TH ST W, LANCASTER 93536	3,609	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$835,488
MIRA LOMA - INMATE BARRACKS 14	45100 N 60TH ST W, LANCASTER 93536	3,609	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$835,488
MIRA LOMA - INMATE BARRACKS 15	45100 N 60TH ST W, LANCASTER 93536	3,609	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$835,488
MIRA LOMA - INMATE BARRACKS 16	45100 N 60TH ST W, LANCASTER 93536	3,609	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$835,488
MIRA LOMA - INMATE BARRACKS 17	45100 N 60TH ST W, LANCASTER 93536	3,609	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$835,488
MIRA LOMA - INMATE BARRACKS 18	45100 N 60TH ST W, LANCASTER 93536	3,609	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$835,488
MIRA LOMA - INMATE BARRACKS 19	45100 N 60TH ST W, LANCASTER 93536	3,609	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$835,488
MIRA LOMA - INMATE BARRACKS 20	45100 N 60TH ST W, LANCASTER 93536	3,609	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$835,488
MIRA LOMA - INMATE BARRACKS 21	45100 N 60TH ST W, LANCASTER 93536	3,609	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$835,488
MIRA LOMA - INMATE BARRACKS 22	45100 N 60TH ST W, LANCASTER 93536	3,609	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$835,488
HARBOR-HIV/ IMMUNOLOGY CLINIC N-24A	1000 W CARSON ST, TORRANCE 90502	3,600	SKILLED NURSING	15	$135	0.99	1.13	2.2	$332.43	$1,196,734
DPSS-GLENDALE IHSS OFFICE ANNEX	145 N VISTA AVE, PASADENA 91107	3,600	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,042,037

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CAMP MILLER-CLASSROOM #2	433 S ENCINAL CANYON RD, MALIBU 90265	3,600	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$986,256
HARBOR-ENVIRONMENTAL HEALTH & SAFETY BLD N-32	1000 W CARSON ST, TORRANCE 90502	3,600	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$150,900
MACLAREN CHILDREN'S CTR-R.U.M. TRAILER	4024 N DURFEE AVE, EL MONTE 91732	3,600	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$150,900
CHALLENGER-STAFF DORMITORY	5300 W AVE I, LANCASTER 93536	3,600	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$150,900
MACLAREN CHILDREN'S CTR-RESIDENCE COTTAGE F	4024 N DURFEE AVE, EL MONTE 91732	3,588	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$830,627
MACLAREN CHILDREN'S CTR-RESIDENCE COTTAGE G	4024 N DURFEE AVE, EL MONTE 91732	3,588	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$830,627
MACLAREN CHILDREN'S CTR-RESIDENCE COTTAGE H	4024 N DURFEE AVE, EL MONTE 91732	3,588	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$830,627
MACLAREN CHILDREN'S CTR-RESIDENCE COTTAGE I	4024 N DURFEE AVE, EL MONTE 91732	3,588	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$830,627
MACLAREN CHILDREN'S CTR-RESIDENCE COTTAGE J	4024 N DURFEE AVE, EL MONTE 91732	3,588	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$830,627
MACLAREN CHILDREN'S CTR-RESIDENCE COTTAGE K	4024 N DURFEE AVE, EL MONTE 91732	3,588	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$830,627
PCHS DT CTR-CHAPEL	29310 THE OLD RD, CASTAIC 91384	3,586	CHAPEL/CHURCH	16	$117	1.01	1.13	2.2	$293.85	$1,053,732
MENTAL HEALTH-MONTEREY STREET HOMES FOR LIFE	423 S MONTEREY ST, ALHAMBRA 91801-2533	3,584	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$696,787
MENTAL HEALTH-FAIRVIEW AVENUE HOME FOR LIFE	506 E FAIRVIEW AVE, SAN GABRIEL 91776	3,584	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$696,787

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SHERIFF-INDUSTRY MAINTENANCE GARAGE	150 N HUDSON AVE, CITY OF INDUSTRY 91744	3,576	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$482,339
OLIVE VIEW-TRANSCRIPT BUILDING (CONDEMNED)	14445 OLIVE VIEW DR, SYLMAR91342	3,574	RECORDS STORAGE	14	$41	1.03	1.13	2.2	$104.60	$373,839
ARBORETUM-PEACOCK PAVILION	301 N BALDWIN AVE, ARCADIA 91007	3,566	MISC CONCESSIONS	13	$50	1.05	1.13	2.2	$129.31	$461,135
PCHS DT CTR-OFFICER DORM 6	29310 THE OLD RD, CASTAIC 91384	3,560	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$824,145
FIRE-NORTHERN SECTION LIFEGUARD HEADQUARTERS	30050 PACIFIC COAST HWY, MALIBU 90265	3,554	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$1,028,722
FIRE STATION 165	3255 SATURN AVE, HUNTINGTON PARK 90255-5449	3,549	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,063,523
RANCHO-TRANSPORTATION OFFICE (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	3,542	SHOP	17	$20	1.03	1.13	2.2	$50.67	$179,487
ANIMAL CONTROL #4-KENNEL #1	4275 N ELTON AVE, BALDWIN PARK 91706	3,541	KENNEL	15	$61	1	1.13	2.2	$151.55	$536,626
ANIMAL CONTROL #4-KENNEL #2	4275 N ELTON AVE, BALDWIN PARK 91706	3,541	KENNEL	15	$61	1	1.13	2.2	$151.55	$536,626
ANIMAL CONTROL #4-KENNEL #3	4275 N ELTON AVE, BALDWIN PARK 91706	3,541	KENNEL	15	$61	1	1.13	2.2	$151.55	$536,626
SHERIFF-CRESCENTA VALLEY MAINTENANCE GARAGE	4554 N BRIGGS AVE, LA CRESCENTA 91214	3,530	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$476,135
PUBLIC LIBRARY-QUARTZ HILL LIBRARY	42018 N 50TH ST W, QUARTZ HILL 93536	3,530	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$453,750
PW ROAD-DIV #232 MAINTENANCE YARD (SUBYARD)	24309 WALNUT ST, LOMITA 90717	3,526	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$475,595

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HARBOR-MENTAL HEALTH DAY TREATMENT CLINIC D-2	1000 W CARSON ST, TORRANCE 90502	3,523	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$815,579
SHERIFF-YOUTH ATHLETIC PROGRAM-B	7901 S COMPTON AVE, LOS ANGELES 90001	3,520	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$474,786
RANCHO-AUTO SHED (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	3,520	OPEN CARPORT	17	$16	1.03	1.13	2.2	$41.92	$147,547
FIRE STATION 167	11567 BRYANT RD (AT PECK RD), EL MONTE 91732	3,515	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,053,334
CAMP SCOTT-RECREATION BLDG	28700 N BOUQUET CANYON RD, SAUGUS 91350	3,510	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$673,146
CAMP SCUDDER-RECREATION BUILDING	28750 N BOUQUET CANYON RD, SAUGUS 91350	3,510	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$673,146
FIRE STATION 81	8710 SIERRA HWY, AGUA DULCE 91350-2814	3,500	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,048,839
SAN DIST-P V GAS-TO-ENERGY PLANT	25704 HAWTHORNE BLVD, ROLLING HILLS ESTATES 90274	3,500	GENERATOR BUILDING	15	$118	0.99	1.13	2.2	$289.45	$1,013,091
ANIMAL CONTROL #4-KENNEL #4	4275 N ELTON AVE, BALDWIN PARK 91706	3,500	KENNEL	15	$61	1	1.13	2.2	$151.55	$530,413
PCHS DT CTR-VEHICLE FUELING FACILITY CANOPY 1	29310 THE OLD RD, CASTAIC 91384	3,500	GAS STATION	14	$52	1.04	1.13	2.2	$134.88	$472,088
ADVENTURE PARK-RECREATION BUILDING	10130 S GUNN AVE, WHITTIER 90605	3,488	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$668,927
CASTAIC LAKE-PICNIC SHELTERS (13)	32132 RIDGE ROUTE RD, CASTAIC 91310	3,480	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$145,870
SHERIFF-DUARTE SUBSTATION	1042 E HUNTINGTON DR, DUARTE 91010	3,475	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$446,680

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PCHS DT CTR-DORM 22	29310 THE OLD RD, CASTAIC 91384	3,473	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$804,004
PCHS DT CTR-DORM 20	29310 THE OLD RD, CASTAIC 91384	3,473	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$804,004
PCHS DT CTR-DORM 24	29310 THE OLD RD, CASTAIC 91384	3,473	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$804,004
PCHS DT CTR-DORM 26	29310 THE OLD RD, CASTAIC 91384	3,473	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$804,004
HOLLYWOOD BOWL-CONCESSION/COMFORT STATION	2301 N HIGHLAND AVE, HOLLYWOOD 90068	3,467	COMFORT STATION	16	$106	1.01	1.13	2.2	$265.20	$919,438
FIRE STATION 69	401 S TOPANGA CANYON BLVD, TOPANGA 90290-9774	3,456	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,035,654
ATHENS-PICNIC SHELTERS (2)	12603 S BROADWAY, LOS ANGELES 90061	3,456	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$144,864
CAMP MUNZ-ADMINISTRATION BUILDING	42220 N LAKE HUGHES RD, LAKE HUGHES 93532	3,451	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$998,908
PW CENTRAL YARD-TIRE SHOP (BLDG #9)	2275 ALCAZAR ST, LOS ANGELES 90033	3,448	SHOP	17	$20	1.03	1.13	2.2	$50.67	$174,724
PCHS DT CTR-DORM 44	29310 THE OLD RD, CASTAIC 91384	3,443	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$797,059
PCHS DT CTR-DORM 45	29310 THE OLD RD, CASTAIC 91384	3,443	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$797,059
PCHS DT CTR-DORM 46	29310 THE OLD RD, CASTAIC 91384	3,443	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$797,059
PCHS DT CTR-DORM 47	29310 THE OLD RD, CASTAIC 91384	3,443	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$797,059
PCHS DT CTR-DORM 48	29310 THE OLD RD, CASTAIC 91384	3,443	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$797,059
PCHS DT CTR-DORM 50	29310 THE OLD RD, CASTAIC 91384	3,443	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$797,059

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PCHS DT CTR-DORM 51	29310 THE OLD RD, CASTAIC 91384	3,443	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$797,059
PCHS DT CTR-DORM 40	29310 THE OLD RD, CASTAIC 91384	3,443	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$797,059
PCHS DT CTR-DORM 41	29310 THE OLD RD, CASTAIC 91384	3,443	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$797,059
PCHS DT CTR-DORM 42	29310 THE OLD RD, CASTAIC 91384	3,443	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$797,059
PCHS DT CTR-DORM 43	29310 THE OLD RD, CASTAIC 91384	3,443	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$797,059
DC&FS-FAMILY RECEPTION & CONFERENCING CENTER	15312 S PARAMOUNT BLVD, PARAMOUNT 90723	3,442	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$965,214
BARRY J NIDORF JUV HALL-DORM TRAILER ANNEX #1	16350 FILBERT ST, SYLMAR 91342	3,440	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$144,193
BARRY J NIDORF JUV HALL-DORM TRAILER ANNEX #2	16350 FILBERT ST, SYLMAR 91342	3,440	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$144,193
LOS PADRINOS-BOYS DORM TRAILER W	7285 E QUILL DR, DOWNEY 90242	3,440	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$144,193
ARBORETUM-PLANT NURSERY COMPOUND	301 N BALDWIN AVE, ARCADIA 91007	3,434	NURSERY BLDG-STRUCTURE	16	$7	1.02	1.13	2.2	$16.96	$58,254
FARNSWORTH-PERGOLAS (4)	568 E MOUNT CURVE AVE, ALTADENA 91001	3,428	PERGOLA	15	$118	0.99	1.13	2.2	$289.45	$992,251
PCHS DT CTR-OFFICER'S DORM 4	29310 THE OLD RD, CASTAIC 91384	3,424	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$792,660
FIRE STATION 42	9319 E VALLEY BLVD, ROSEMEAD 91770-1923	3,422	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$1,025,465
PW FLOOD-HANSEN YARD & SPREADING GROUNDS	10179 GLENOAKS BLVD, SUN VALLEY 91352	3,410	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$459,949
DHS-EL MONTE HEALTH CENTER STORAGE BUILDING	10953 RAMONA BLVD, EL MONTE 91731	3,402	RECORDS STORAGE	14	$41	1.03	1.13	2.2	$104.60	$355,848

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BISCAILUZ-FALLOUT SHELTER (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	3,402	TUNNEL-CULVERT	17	$16	1.03	1.13	2.2	$41.92	$142,601
SHERIFF-LADERA CENTER SUB-STATION	5377 CENTINELA AVE, LOS ANGELES 90056	3,400	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$437,040
PW FLEET-ALTADENA YARD SHOP/WAREHOUSE	252 W MOUNTAIN VIEW ST, ALTADENA 91001	3,400	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$355,639
PW ROAD-BALDWIN PARK YARD SHOP	14747 E RAMONA BLVD, BALDWIN PARK 91706	3,400	SHOP	17	$20	1.03	1.13	2.2	$50.67	$172,291
PCHS DT CTR-POWER EQUIPMENT SHOP	29310 THE OLD RD, CASTAIC 91384	3,400	SHOP	17	$20	1.03	1.13	2.2	$50.67	$172,291
LANCASTER COURTHOUSE-CENTRAL PLANT	1121 W AVE J-2, LANCASTER 93534	3,395	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$982,699
DF KIRBY CTR-CLASSROOM A	1500 S MCDONNELL AVE, COMMERCE 90022	3,380	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$925,985
DF KIRBY CTR-CLASSROOM B	1500 S MCDONNELL AVE, COMMERCE 90022	3,380	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$925,985
VAN NUYS COURTHOUSE-BUILDING E	6280 SYLMAR AVE, VAN NUYS 91401	3,373	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$141,385
SHERIFF-LENNOX STATION ANNEX (B)	4353 LENNOX BLVD, LENNOX 90304	3,369	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$975,173
PUBLIC LIBRARY-MAYWOOD CESAR CHAVEZ LIBRARY	4323 E SLAUSON AVE, MAYWOOD 90270	3,362	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$1,014,767
LAKEWOOD GC-SERVICE BUILDING	3101 E CARSON ST, LAKEWOOD 90712	3,361	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$453,340
STEINMETZ-RECREATION BUILDING	1545 S STIMSON AVE, HACIENDA HEIGHTS 91745	3,358	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$643,996
PCHS DT CTR-DORM 21	29310 THE OLD RD, CASTAIC 91384	3,356	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$776,918

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PCHS DT CTR-DORM 23	29310 THE OLD RD, CASTAIC 91384	3,356	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$776,918
PCHS DT CTR-DORM 25	29310 THE OLD RD, CASTAIC 91384	3,356	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$776,918
PCHS DT CTR-DORM 27	29310 THE OLD RD, CASTAIC 91384	3,356	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$776,918
VAN NUYS COURTHOUSE-BUILDING D	6280 SYLMAR AVE, VAN NUYS 91401	3,355	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$140,631
ROWLAND HTS-ACTIVITIES BUILDING	1500 S BANIDA AVE, ROWLAND HEIGHTS 91748	3,348	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$642,078
ROBINSON-CARROLL MULTIPURPOSE BUILDING	8773 E AVE R, LITTLEROCK 93543	3,340	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$640,543
MED CTR-EXPENDITURE MANAGEMENT ANNEX	1063 N CHICAGO ST, LOS ANGELES 90033	3,338	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$648,960
FIRE STATION 188	18 "A" VILLAGE LOOP RD, POMONA 91766-4811	3,330	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$997,896
CAMP KILPATRICK-RECREATION BLDG	427 S ENCINAL CANYON RD, MALIBU 90265	3,321	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$636,900
CAMP MILLER-RECREATION BUILDING	433 S ENCINAL CANYON RD, MALIBU 90265	3,321	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$636,900
PW ROAD-EL TOVAR SUBYARD MAINT BLDG (CLOSED)	8752 N EL TOVAR PL, WEST HOLLYWOOD (BR P.O. N 90069	3,319	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$447,675
HARBOR-REI SURGERY/ ONCOLOGY LAB F-6	1000 W CARSON ST, TORRANCE 90502	3,315	TEACHING & RESEARCH CLINIC	18	$109	1.01	1.13	2.2	$273.96	$908,177
FIRE STATION 50	2327 S SAYBROOK AVE, COMMERCE 90040-1721	3,310	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$991,902
PCHS DT CTR-DORM 8	29310 THE OLD RD, CASTAIC 91384	3,306	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$765,343

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PW FLOOD-ALAMITOS MAINTENCE YARD	881 IROQUOIS AVE, LONG BEACH 90815	3,306	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$445,921
PCHS DT CTR-DORM 16	29310 THE OLD RD, CASTAIC 91384	3,305	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$765,112
PCHS DT CTR-DORM 18	29310 THE OLD RD, CASTAIC 91384	3,305	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$765,112
PW FLOOD-CLARETTA PUMPING PLANT	226TH ST (END OF STREET AT COYOTE CREEK), HAWAIIAN GARDENS 90716	3,302	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$138,409
FIRE STATION 18	4518 LENNOX BLVD, LENNOX 90304-2216	3,300	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$988,906
SORENSEN-ACTIVITIES BUILDING	11419 ROSEHEDGE DR, WHITTIER 90606	3,300	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$632,872
CAMP LOUIS ROUTH-ADMINISTRATION	12500 BIG TUJUNGA CANYON RD, TUJUNGA 91042	3,299	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$954,911
PUBLIC LIBRARY-SOUTH WHITTIER LIBRARY	14433 LEFFINGWELL RD, WHITTIER 90604-2966	3,294	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$423,414
PW-CITY OF INDUSTRY/LA PUENTE DISTRICT OFFICE	16005 E CENTRAL AVE, LA PUENTE 91744	3,283	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$950,280
PUBLIC LIBRARY-EL CAMINO REAL LIBRARY	4264 E WHITTIER BLVD, EAST LOS ANGELES 90023	3,280	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$949,411
PEARBLOSSOM-ACTIVITY BUILDING	33922 N 121ST ST E, PEARBLOSSOM 93553	3,280	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$629,037
HOLLYWOOD BOWL-CONCESSION/ GIFT SHOP	2301 N HIGHLAND AVE, HOLLYWOOD 90068	3,280	MISC CONCESSIONS	13	$50	1.05	1.13	2.2	$129.31	$424,151
ACTON REHAB-DISPENSARY	30500 ARRASTRE CANYON RD, ACTON 93510	3,277	DISPENSARY -FIRST AID	15	$88	0.99	1.13	2.2	$216.21	$708,524

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CAO-COUNTY LEGISLATIVE REPRESENTATIVE OFFICE	1100 K ST, SACRAMENTO 95814	3,264	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$944,780
ROBINSON GARDENS-SERVANTS' WING	1008 ELDEN WAY, BEVERLY HILLS 90210	3,256	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$633,018
FIRE STATION 74	12587 DEXTER PARK RD, SAN FERNANDO 91342-5613	3,255	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$975,421
LAKE LOS ANGELES LIBRARY/ COMMUNITY CLINIC	16921 E AVE O (SADDLEBACK PLAZA), LAKE LOS ANGELES 93535	3,245	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$417,116
FIRE STATION 85	650 E GLADSTONE ST, GLENDORA 91740-5726	3,242	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$971,525
FIRE-CAMP 16-OFFICERS QUARTERS (BOQ)	26652 ANGELES FOREST HWY NORTH OF MOUNT GLEASON RD, PALMDALE 93550-9206	3,240	DOCTORS-NURSES-OFFICERS QUARTERS	11	$92	1.01	1.13	2.2	$231.50	$750,064
HIGH DESERT-PEDIATRIC OUTPATIENT CLINIC	44900 N 60TH ST W, LANCASTER 93536	3,240	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$135,810
ANIMAL CONTROL #7-SERVICE BUILDING	29525 W AGOURA RD, AGOURA HILLS 91301	3,231	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$435,805
SHERIFF-PARAMOUNT VEHICLE THEFT PROGRAM	15155 GARFIELD AVE, PARAMOUNT 90723	3,223	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$337,125
ATHENS-BATHHOUSE	12603 S BROADWAY, LOS ANGELES 90061	3,221	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$539,302
PCHS DT CTR-PAINT/WOOD SHOP	29310 THE OLD RD, CASTAIC 91384	3,210	SHOP	17	$20	1.03	1.13	2.2	$50.67	$162,663

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PW-SEWER MAINTENANCE NORTH YARD	45712 N DIVISION ST, LANCASTER 93534	3,201	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$431,759
ALT PUBLIC DEFENDER-PASADENA OFFICE	221 E WALNUT ST, PASADENA 91101	3,200	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$926,255
SHERIFF-LAWNDALE SUB-STATION	15331 S PRAIRIE AVE, LAWNDALE 90260	3,200	SHERIFF-POLICE STATION	15	$105	0.99	1.13	2.2	$258.54	$827,337
HEALTH-LITTLEROCK HEALTH CENTER	8201 PEARBLOSSOM HWY, LITTLEROCK 93543	3,200	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$411,332
PCHS DT CTR-LATH HOUSE	29310 THE OLD RD, CASTAIC 91384	3,200	LATH HOUSE	17	$16	1.03	1.13	2.2	$41.92	$134,133
RANCHO-LANDSCAPE MAINT GARAGE	7601 E IMPERIAL HWY, DOWNEY 90242	3,197	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$431,219
WHITEMAN AIRPORT-AIR MOBILE	12653 OSBORNE ST, PACOIMA 91331	3,195	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$292,751
PCHS DT CTR-DORM 10	29310 THE OLD RD, CASTAIC 91384	3,191	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$738,721
BONELLI-RAGING WATERS SWIM PARK CONCESSION #1	120 VIA VERDE, SAN DIMAS 91773	3,182	SNACKBAR	13	$50	1.05	1.13	2.2	$129.31	$411,478
WARM SP REHAB-MANAGER RESIDENCE	38200 N LAKE HUGHES RD, CASTAIC 91310	3,181	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$618,437
VAN NUYS COURTHOUSE-TRAILER C	6230 SYLMAR AVE, VAN NUYS 91401	3,164	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$132,624
CENTURY STATION-FLEET MAINTENANCE GARAGE	11707 S ALAMEDA ST, LYNWOOD 90262	3,161	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$426,363
MED CTR-FLAMMABLE STORAGE	1200 N STATE ST, LOS ANGELES 90033	3,150	FLAMMABLE LIQUID STORAGE BLDG	14	$41	1.03	1.13	2.2	$104.60	$329,489
BRACKETT FIELD-OFFICE BUILDING-4	1615 W MCKINLEY AVE, LA VERNE 91750	3,146	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$910,624

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ANIMAL CONTROL #6-UTILITY BLDG	31044 N CHARLEY CANYON RD, CASTAIC 91384	3,146	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$424,340
PW-EAST LOS ANGELES DISTRICT OFFICE	5119 E BEVERLY BLVD, EAST LOS ANGELES 90022	3,142	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$909,467
SANTA CATALINA ISLAND NATURE CENTER	1202 AVALON CANYON RD, AVALON 90704	3,136	DISPLAY-EXHIBIT-WRKRM (CLOSED)	16	$121	1.01	1.13	2.2	$304.89	$956,147
FIRE STATION 80	1533 W SIERRA HWY, ACTON 93510-9740	3,135	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$939,460
FIRE CAMP 8-DORMITORY	1900 S RAMBLA PACIFICO, MALIBU 90265	3,127	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$723,905
OLIVE VIEW-MEDICAL RECORDS STORAGE UNIT S-5	14445 OLIVE VIEW DR, SYLMAR 91342	3,120	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$130,780
OLIVE VIEW-MEDICAL TRANSCRIBER TRAILER F-1	14445 OLIVE VIEW DR, SYLMAR 91342	3,120	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$130,780
OLIVE VIEW-EXPENDITURE MANAGEMENT TRAILER F-3	14445 OLIVE VIEW DR, SYLMAR 91342	3,120	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$130,780
OLIVE VIEW-PATIENTS ACCOUNTS TRAILER F-6	14445 OLIVE VIEW DR, SYLMAR 91342	3,120	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$130,780
OLIVE VIEW-PATIENT ACCOUNTS TRAILER F-7	14445 OLIVE VIEW DR, SYLMAR 91342	3,120	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$130,780
OLIVE VIEW-PATIENT ACCOUNTS TRAILER F-8	14445 OLIVE VIEW DR, SYLMAR 91342	3,120	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$130,780
DHS-DR RUTH TEMPLE PUBLIC HLTH ANNEX (UNUSED)	3822 S WESTERN AVE, LOS ANGELES 90016	3,120	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$130,780
HIGH DESERT-FAMILY MEDICINE TRAILER	44900 N 60TH ST W, LANCASTER 93536	3,120	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$130,780
SAN GABRIEL VALLEY SERVICE CENTER(A) (SOLD)	3017 N TYLER AVE, EL MONTE 91731	3,114	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$901,362

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PCHS DT CTR-CARPENTRY SHOP	29310 THE OLD RD, CASTAIC 91384	3,102	SHOP	17	$20	1.03	1.13	2.2	$50.67	$157,190
HIGHLAND CAMROSE-BUNGALOW D /PARK SVCS BUR HQ	2101 N HIGHLAND AVE, HOLLYWOOD 90068	3,101	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$602,884
FIRE STATION 121	346 ARMITOS PL, DIAMOND BAR 91765-1838	3,100	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$928,972
PW ROAD-MAINTENANCE DISTRICT NO.4 OFFICE	11282 GARFIELD AVE, DOWNEY 90242	3,100	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$897,309
ALT PUBLIC DEFENDER-VAN NUYS OFFICE	6320 VAN NUYS BLVD, VAN NUYS 91401	3,100	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$897,309
ARBORETUM-SHADE STRUCTURES (5)	301 N BALDWIN AVE, ARCADIA 91007	3,099	PATIO-PATIO SHELTER	17	$16	1.03	1.13	2.2	$41.92	$129,900
FIRE-EMPLOYEE RELATIONS OFFICE	1255 CORPORATE CENTER DR, MONTEREY PARK 91754	3,079	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$891,231
DA-JUVENILE/BD OF SUPERVISOR-THE WALNUT PLAZA	215 N MARENGO AVE, PASADENA 91101-1505	3,074	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$889,784
ATHENS-ACTIVITIES BUILDING	12603 S BROADWAY, LOS ANGELES 90061	3,070	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$588,763
DHS-BELL GARDENS HEALTH CENTER (CLOSED)	6912 AJAX AVE, BELL GARDENS 90201	3,052	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$855,849
FIRE-FIRE COMBAT TRAINING TOWER	1320 N EASTERN AVE, LOS ANGELES 90063-3294	3,047	GUARD-FIREWATCH-PATROL TOWER	15	$118	0.99	1.13	2.2	$289.45	$881,968
DHS-CREMATORY	3301 E 1ST ST, LOS ANGELES 90063	3,043	CREMATORY	15	$118	0.99	1.13	2.2	$289.45	$880,811

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ALT PUBLIC DEFENDER-SAN FERNANDO OFFICE	303 N MACLAY AVE, SAN FERNANDO 91340	3,040	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$879,942
HARBOR-PATHOLOGY LAB D-7	1000 W CARSON ST, TORRANCE 90502	3,028	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$700,986
HARBOR-PATHOLOGY LAB D-8	1000 W CARSON ST, TORRANCE 90502	3,028	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$700,986
PW SEWER-EAST YARD SHOP/STORAGE	2849 S MYRTLE AVE, IRWINDALE 91707	3,024	SHOP	17	$20	1.03	1.13	2.2	$50.67	$153,238
WHITTIER NARROWS GC-SERVICE BUILDING	8640 E RUSH ST, ROSEMEAD 91770	3,006	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$405,457
KELLER-BATHHOUSE	1045 W 126TH ST, LOS ANGELES 90044	3,004	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$502,969
SOUTH COAST-ADMINISTRATION BUILDING	26300 CRENSHAW BLVD, PALOS VERDES ESTATES 90274	3,003	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$869,232
FIRE STATION 2	340 PALOS VERDES DR W, PALOS VERDES ESTATES 90274-1226	3,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$899,005
FIRE STATION 161	4475 W EL SEGUNDO BLVD, HAWTHORNE 90250-4411	3,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$899,005
BEACHES/HARBORS-OLD PHYSICAL THERAPY BUILDING	4601 LINCLON BLVD, MARINA DEL REY 90292	3,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$868,364
DPSS-NORTH HOLLYWOOD BRANCH GROW TRAINING CTR	5077 LANKERSHIM BLVD, NORTH HOLLYWOOD 91606	3,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$868,364
SHERIFF-IRMAS YOUTH ACTIVITY CENTER ANNEX	11911 S VERMONT AVE, LOS ANGELES 90044	3,000	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$575,338

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HIGH DESERT-CARPENTER SHOP	44900 N 60TH ST W, LANCASTER 93536	3,000	SHOP	17	$20	1.03	1.13	2.2	$50.67	$152,022
PW FLOOD-AVALON PUMPING STATION	20101 S GALWAY AVE, CARSON 90745	2,997	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$125,624
FIRE-MALIBU FORESTRY UNIT	942 N LAS VIRGENES RD, CALABASAS 91302-2137	2,994	FORESTRY -FIRE-FLOOD CONT CAMP	11	$92	1.01	1.13	2.2	$231.50	$693,115
MOUNTAIN MEADOWS GC-CLUBHOUSE	1875 FAIRPLEX DR, POMONA 91768	2,981	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$470,649
MED CTR-PERSONNEL OFFICE BUILDING	1200 N STATE ST, LOS ANGELES 90033	2,980	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$862,575
MED CTR-QUALITY ASSURANCE UTILIZATION REVIEW	1200 N STATE ST, LOS ANGELES 90033	2,980	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$862,575
MED CTR-PATIENT FINANCIAL SERVICES TRAILER	1200 N STATE ST, LOS ANGELES 90033	2,973	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$124,618
SAYBROOK-RECREATION BUILDING	6300 E NORTHSIDE DR, EAST LOS ANGELES 90022	2,970	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$569,585
WARM SP REHAB-SWIMMING POOL	38200 N LAKE HUGHES RD, CASTAIC 91310	2,952	SWIMMING POOL-WATER SLIDES				1.13	2.2	$0.00	$0
SHERIFF-PICO RIVERA SERVICE BUILDING	6631 S PASSONS BLVD, PICO RIVERA 90660	2,916	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$393,317
MED CTR-LABORATORY	1200 N STATE ST, LOS ANGELES 90033	2,906	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$994,347
FIRE-PACOIMA SEED BARN	12605 OSBORNE ST, PACOIMA 91331	2,900	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$303,339
PUBLIC LIBRARY-LIVE OAK LIBRARY	4153 E LIVE OAK AVE, ARCADIA 91006	2,891	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$836,813

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ALT PD & PUB DEFENDER-TORRANCE BRANCH OFFICES	3655 TORRANCE BLVD, TORRANCE 90503	2,888	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$835,945
BISCAILUZ-DORMITORY #5 (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	2,888	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$668,576
PW FLOOD-EATON YARD OFFICE	2986 E NEW YORK DR, PASADENA 91104	2,880	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$833,629
COMPTON AIRPORT-ADMIN BUILDING-8	901 W ALONDRA BLVD, COMPTON 90220	2,880	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$833,629
PW FLOOD-LONGDEN YARD GARAGE	160 E LONGDEN AVE, IRWINDALE 91706	2,880	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$388,461
OLIVE VIEW-MEDICAL RECORDS BUILDING	14445 OLIVE VIEW DR, SYLMAR 91342	2,880	RECORDS STORAGE	14	$41	1.03	1.13	2.2	$104.60	$301,247
PW FLOOD-83RD ST YARD SUPPLIES WAREHSE/GARAGE	5520 W 83RD ST, WESTCHESTER 90045	2,880	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$301,247
JUVENILE HALL-MODULAR MOVEMENT CONTROL BLDG	1605 EASTLAKE AVE, LOS ANGELES 90033	2,880	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$120,720
PW ROAD-DIV #556 ROCK STORAGE BIN	27624 W PARKER RD, CASTAIC 91384	2,880	ROCK STORAGE BLDG-CEMENT	17	$16	1.03	1.13	2.2	$41.92	$120,720
TORRANCE COURTHOUSE-TRAFFIC DIVISION	3221 TORRANCE BLVD, TORRANCE 90503	2,880	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$120,720
TORRANCE COURT-STEPHEN E O'NEIL JURY ASSEMBLY	825 MAPLE AVE, TORRANCE 90503-5058	2,880	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$120,720
OLIVE VIEW-SUPPLIES STORAGE BLDG	14445 OLIVE VIEW DR, SYLMAR 91342	2,876	CANTEEN	13	$87	1.03	1.13	2.2	$222.59	$640,172
ML KING-TRAILER F (#1)(COMMUNITY HEALTH PLAN)	1741 E 120TH ST, LOS ANGELES 90059	2,872	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$120,385

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JUVENILE HALL-PEDESTRIAN SALLYPORT	1605 EASTLAKE AVE, LOS ANGELES 90033	2,861	BUS SHELTER-TRUCK SHELTER	16	$106	1.01	1.13	2.2	$265.20	$758,729
LOS AMIGOS GC-SERVICE BUILDING	7295 E QUILL DR, DOWNEY 90242	2,861	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$385,899
SHERIFF-INTERNAL AFFAIRS BUREAU/RISK MANAGEMT	4900 S EASTERN AVE, CITY OF COMMERCE 90040	2,850	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$824,946
FIRE STATION 25	9209 E SLAUSON AVE, PICO RIVERA 90660-4524	2,848	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$853,456
BONELLI-REGIONAL PARK SERVICE BUILDING A-1	120 VIA VERDE, SAN DIMAS 91773	2,848	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$384,145
FIRE STATION 94	6421 E TURNERGROVE DR, LAKEWOOD 90713-2706	2,847	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$853,156
PW ROAD-DIV #141/241 MAINTENANCE YARD	2120 E 90TH ST, LOS ANGELES 90001	2,845	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$383,740
OLIVE VIEW-HEALTH CENTER RECORDS	14445 OLIVE VIEW DR, SYLMAR 91342	2,840	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$119,043
FOX AIRFIELD-OFFICE/HANGAR FBO BLDG	4555 W AVE G, LANCASTER 93536	2,839	SHOP	17	$20	1.03	1.13	2.2	$50.67	$143,863
HIGH DESERT-INFORMATION SYSTEMS (IBAX) TRAILR	44900 N 60TH ST W, LANCASTER 93536	2,832	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$118,708
JUVENILE HALL-STORAGE BLDG-12C	1605 EASTLAKE AVE, LOS ANGELES 90033	2,831	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$296,122
DHS-HAWAIIAN GARDENS HEALTH CENTER	22300 WARDHAM AVE, HAWAIIAN GARDENS 90716	2,828	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$818,578
ASSESSOR-SOUTH DISTRICT STORAGE BUILDING	1401 E WILLOW ST, SIGNAL HILL 90806	2,818	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$294,762
PW EATON YARD-MAINTENANCE OFFICE	2811 WOODLYN RD, PASADENA 91107	2,816	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$815,104

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KNOLLWOOD GC-SERVICE BUILDING	12040 BALBOA BLVD, GRANADA HILLS 91344	2,805	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$378,345
PCHS DT CTR-REPAIR GARAGE	29310 THE OLD RD, CASTAIC 91384	2,802	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$377,940
PW FLOOD-EL SEGUNDO YARD	2155 EL SEGUNDO BLVD, EL SEGUNDO 90245	2,800	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$377,671
EL PUEBLO-FORMER FAR EAST BANK(NOT HABITABLE)	300 W CESAR E CHAVEZ AVE AT NORTH BROADWAY/SPRING ST, LOS ANGELES 90012	2,800	MISC CONCESSIONS	13	$50	1.05	1.13	2.2	$129.31	$362,080
BETHUNE-INDOOR SWIMMING POOL	1244 E 61ST ST, LOS ANGELES 90001	2,800	SWIMMING POOL-WATER SLIDES				1.13	2.2	$0.00	$0
OWENS-INDOOR SWIMMING POOL	9651 S WESTERN AVE, LOS ANGELES 90047	2,800	SWIMMING POOL-WATER SLIDES				1.13	2.2	$0.00	$0
OLIVE VIEW-WARD 305	14445 OLIVE VIEW DR, SYLMAR 91343	2,799	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$784,902
FIRE STATION 51	3900 N LANKERSHIM BLVD, UNIVERSAL CITY (MOVIE STUD 91608-1085	2,795	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$837,573
FIRE STATION 169	5112 N PECK RD, EL MONTE 91732	2,792	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$836,674
FIRE STATION 19	1729 W FOOTHILL BLVD, LA CANADA FLINTRIDGE 91011-2950	2,783	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$833,977
BISCAILUZ-DORMITORY #3 (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	2,783	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$644,268

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PW ROAD-DIV #514 MAINTENANCE YARD GARAGE	3916 DUNSMORE AVE (CRESCENTA VALLEY PARK), LA CRESCENTA 91214	2,781	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$375,108
ALONDRA GC-SERVICE BUILDING	16400 S PRAIRIE AVE, LAWNDALE 90260	2,774	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$374,164
PW ROAD-DIV #146 SUBYARD GARAGE	13671 TELEGRAPH RD, SOUTH WHITTIER 90604	2,759	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$372,141
CAO-REAL ESTATE DIVISION/ SERVICE INTEGRATION	222 S HILL ST (KAWADA BUILDING), LOS ANGELES 90012-3503	2,758	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$798,316
SALAZAR-BATHHOUSE	3864 E WHITTIER BLVD, EAST LOS ANGELES 90023	2,758	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$461,780
BISCAILUZ-DORMITORY #1 (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	2,745	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$635,471
BISCAILUZ-DORMITORY #2 (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	2,745	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$635,471
BISCAILUZ-DORMITORY #4 (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	2,745	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$635,471
RANCHO-STATE REHAB CANTEEN	7601 E IMPERIAL HWY, DOWNEY 90242	2,741	CANTEEN	13	$87	1.03	1.13	2.2	$222.59	$610,123
ANIMAL CONTROL #3-MAINTENANCE BUILDING	216 W VICTORIA ST, CARSON 90248	2,741	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$369,713
OLIVE VIEW-TRANSPORTATION GARAGE (CONDEMNED)	14445 OLIVE VIEW DR, SYLMAR 91342	2,739	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$369,443
FIRE CAMP 8-FOREMAN/TOOL ROOM	1900 S RAMBLA PACIFICO, MALIBU 90265	2,727	TOOL SHED-TOOL BUILDING	17	$16	1.03	1.13	2.2	$41.92	$114,307

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PW ROAD-DIV #518 MAINTENANCE YARD	161 N VALENCIA ST, GLENDORA 91740	2,726	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$367,689
DESCANSO GARDENS-SERVICE BUILDING	1418 DESCANSO DR, LA CANADA FLINTRIDGE 91011	2,724	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$367,420
OBREGON-MULTIPURPOSE BUILDING	4021 E 1ST ST, EAST LOS ANGELES 90063	2,722	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$522,024
FIRE STATION 115	11317 E ALONDRA BLVD, NORWALK 90650-6225	2,700	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$809,105
FIRE STATION 168	3207 COGSWELL RD, EL MONTE 91732	2,700	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$809,105
CAO-EOC EMERGENCY GENERATORS' BUILDING	1275 N EASTERN AVE, LOS ANGELES 90063	2,700	GENERATOR BUILDING	15	$118	0.99	1.13	2.2	$289.45	$781,528
PW ROAD-DIV #557 MAINTNCE YARD OFFICE/ GARAGE	38126 N SIERRA HWY, PALMDALE 93550	2,700	HEAVY EQUIPMENT-TRUCK GARAGE	14	$52	1.04	1.13	2.2	$134.88	$364,182
PW ROAD-DIV #232 GARAGE/ CREW ROOM	4055 W MARINE AVE, LAWNDALE 90260	2,700	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$364,182
FIRE STATION 91	2691 S TURNBULL CANYON RD, HACIENDA HEIGHTS 91745-5135	2,699	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$808,805
CAMP BARLEY FLATS-MESS HALL	23900 STAR ROUTE, LA CANADA FLINTRIDGE 91011	2,699	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$600,774
FIRE STATION 67	25801 PIUMA RD, CALABASAS 91302-1511	2,696	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$807,906
PROBATION-INTERNAL AUDITS OFFICE	7639 S PAINTER AVE, WHITTIER 90602	2,694	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$779,791

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LANCASTER COURT-SHERIFF MAINT GARAGE (CLOSED)	1010 W AVE J, LANCASTER 93534	2,693	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$363,238
PW SEWER-CENTRAL YARD SERVICE BUILDING	12015 SHOEMAKER AVE, SANTA FE SPRINGS 90670	2,690	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$362,834
PCHS DT CTR-QUONSET STORAGE BUILDING 1	29310 THE OLD RD, CASTAIC 91384	2,688	QUONSET HUT	17	$14	1.04	1.13	2.2	$36.48	$98,060
LENNOX-RECREATION BUILDING	10828 S CONDON AVE, LENNOX 90304	2,686	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$515,120
PW ROAD-DIV #142 MAINTENANCE YARD GARAGE	4304 EUGENE ST, EAST LOS ANGELES 90022	2,670	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$360,136
RANCHO-ORTHOTICS CLINIC	7601 E IMPERIAL HWY, DOWNEY 90242	2,668	PROSTHETIC SHOP-PROTOTYPE	17	$20	1.03	1.13	2.2	$50.67	$135,198
FIRE STATION 102	4370 N SUMNER AVE, CLAREMONT 91711-2403	2,667	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$799,216
MED CTR-CHP (24 HOUR NURSING TRIAGE) T-21	1200 N STATE ST, LOS ANGELES 90033	2,664	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$111,666
RANCHO-HOSPITAL LANDSCAPE CONTRACTOR'S OFFICE	7601 E IMPERIAL HWY, DOWNEY 90242	2,663	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$770,818
HARBOR-PUBLIC HEALTH PROGRAMS BLDG N-22	1000 W CARSON ST, TORRANCE 90502	2,650	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$767,055
ISD/ITS-PACOIMA SHOPS / OFFICE	12441 OSBORNE ST, PACOIMA 91331	2,648	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$766,476
BONELLI-REGIONAL PARK HEADQUARTERS BUILDING	120 VIA VERDE, SAN DIMAS 91773	2,646	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$765,897
DCFS-HOLLYWOOD R.A.P.P. OFFICE	6464 SUNSET BLVD, HOLLYWOOD 90028	2,644	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$765,318

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CASTAIC LAKE-ADMINISTRATION BUILDING	32132 RIDGE ROUTE RD, CASTAIC 91310	2,642	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$764,739
SHERIFF-NEW SAN DIMAS METROLINK BUREAU GARAGE	118 PONY EXPRESS CT, SAN DIMAS 91773	2,640	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$356,090
PW OPSV-TRAFFIC SIGNAL/SIGN PAINTERS GARAGE	14514 E CENTRAL AVE, BALDWIN PARK 91706	2,640	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$356,090
PW ROAD-DIV #416 GARAGE/ CREW ROOM	14959 E PROCTOR AVE, CITY OF INDUSTRY 91746	2,640	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$356,090
PW ROAD-DIV #417 GARAGE/CREW ROOM	19865 S WALNUT DR, WALNUT 91789	2,640	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$356,090
PW ROAD-DIV #146/446 MAINTENANCE GARAGE	9521 E BEVERLY BLVD, PICO RIVERA 90660	2,640	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$356,090
ANIMAL CONTROL #4-KENNEL #5 CAT FACILITY	4275 N ELTON AVE, BALDWIN PARK 91706	2,638	KENNEL	15	$61	1	1.13	2.2	$151.55	$399,780
DEL AIRE-RECREATION BUILDING	12601 S ISIS AVE, HAWTHORNE 90250	2,636	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$505,531
PW CENTRAL YARD-SIGN SHOP (BLDG #5)	1525 ALCAZAR ST, LOS ANGELES 90033	2,629	SHOP	17	$20	1.03	1.13	2.2	$50.67	$133,222
PW ROAD-DIV #556 MAINT GARAGE	27624 W PARKER RD, CASTAIC 91384	2,628	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$354,471
SANTA CLARITA MENTAL HEALTH/ ENVIRON HEALTH	25050 PEACHLAND AVE, SANTA CLARITA 91321	2,625	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$759,819
VICTORIA-PERGOLA	419 E 192ND ST, CARSON 90746	2,625	PERGOLA	15	$118	0.99	1.13	2.2	$289.45	$759,819
PW ROAD-DIV #114 MAINT GARAGE	9521 E BEVERLY BLVD, PICO RIVERA 90660	2,625	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$354,066

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MENTAL HEALTH-ALMANSOR STREET HOME FOR LIFE-A	26 S ALMANSOR ST, ALHAMBRA 91801-3921	2,624	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$510,147
FIRE STATION 6	25517 NARBONNE AVE, LOMITA 90717-2511	2,620	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$785,131
FIRE-HEADQUARTERS COMMUNICATIONS/TRANSMITTER	1320 N EASTERN AVE, LOS ANGELES 90063-3294	2,613	TRANSMITTER BLDG-MICROWAVE SITE	15	$118	0.99	1.13	2.2	$289.45	$756,345
RANCHO-LUMBER STORAGE BUILDING (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	2,611	STORAGE RACKS-OPEN SHELTER	17	$16	1.03	1.13	2.2	$41.92	$109,444
PW FLOOD-IMPERIAL YARD OFFICE	5525 E IMPERIAL HWY, SOUTH GATE 90280	2,600	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$752,582
EL CARISO-RECREATION BUILDING	13100 HUBBARD ST, SYLMAR 91342	2,592	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$497,092
MAYBERRY-ACTIVITIES BUILDING	13201 E MEYER RD, WHITTIER 90605	2,592	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$497,092
MED CTR-PATIENT FINANCIAL SERVICES T-15	1240 N MISSION RD, LOS ANGELES 90033	2,588	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$108,480
CITY TERRACE-BATHHOUSE	1126 N HAZARD AVE, EAST LOS ANGELES 90063	2,587	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$433,149
SOUTH SERVICES AGENCY-ADMINISTRATION BUILDING	360 W EL SEGUNDO BLVD, LOS ANGELES 90061	2,584	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$747,951
PCHS DT CTR-VISITOR REGISTRY BUILDING	29310 THE OLD RD, CASTAIC 91384	2,575	VISITORS BUILDING/INMATE RECEPTION CENTER	16	$106	1.01	1.13	2.2	$265.20	$682,882
PASADENA COURTHOUSE-TUNNEL	300 E WALNUT ST, PASADENA 91101	2,574	TUNNEL-CULVERT	17	$16	1.03	1.13	2.2	$41.92	$107,894

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FIRE CAMP 11-KITCHEN/MESS HALL	8800 W SOLEDAD CANYON RD, ACTON 93510	2,572	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$572,505
SAMOAN FEDERATION SERVICE CENTER	404 E CARSON ST, CARSON 90745	2,568	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$769,548
WASHINGTON GC-PRO SHOP	1930 W 120TH ST, LOS ANGELES 90047	2,563	PROSHOP	11	$63	1.01	1.13	2.2	$157.88	$404,654
DESCANSO GARDENS-CANYON LODGE	1418 DESCANSO DR, LA CANADA FLINTRIDGE 91011	2,560	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$497,705
FIRE STATION 66	2764 E EATON CANYON DR, PASADENA 91107-1005	2,550	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$764,154
HARBOR-REI VIVARIUM F-2	1000 W CARSON ST, TORRANCE 90502	2,546	TEACHING & RESEARCH CLINIC	18	$109	1.01	1.13	2.2	$273.96	$697,502
LENNOX-BATHHOUSE	10828 S CONDON AVE, LENNOX 90304	2,542	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$425,615
PW SEWER-TRANCAS TREATMENT PLANT	6338 PASEO CANYON DR, MALIBU 90265	2,537	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$868,086
LYNWOOD JUSTICE CENTER-EMERGENCY GENERATOR	11705 S ALAMEDA ST, LYNWOOD 90262	2,535	GENERATOR BUILDING	15	$118	0.99	1.13	2.2	$289.45	$733,768
BONELLI-REGIONAL PARK MAINTENANCE STORAGE A-3	120 VIA VERDE, SAN DIMAS 91773	2,533	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$264,951
SAN GABRIEL VALLEY FAMILY SERVICE CENTER II	3400 AEROJET AVE, EL MONTE 91731	2,514	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$727,689
RANCHO-HEALTH SERVICES BUREAU SECURITY OFFICE	7601 E IMPERIAL HWY, DOWNEY 90242	2,507	SECURITY OFFICE	15	$106	0.99	1.13	2.2	$259.95	$651,684
DF KIRBY CTR-POWER PLANT	1500 S MCDONNELL AVE, COMMERCE 90022	2,501	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$723,926

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FIRE PREVENTION OFFICE (FORMER FIRE STN 46)	14425 OLIVE VIEW DR, SYLMAR 91343	2,500	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$749,171
FIRE STATION 39 (NEW)	7000 GARFIELD AVE, BELL GARDENS 90201-3242	2,500	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$749,171
PUBLIC LIBRARY-CHARTER OAK LIBRARY	20540 E ARROW HWY, COVINA 91724	2,500	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$321,353
MED CTR-BUENA CARE / ALTAMED TRAILER	1701 ZONAL AVE, LOS ANGELES 90033	2,500	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$104,792
CABRILLO BEACH-PICNIC STRUCTURES (4)	3720 STEPHEN WHITE DR, SAN PEDRO 90731	2,500	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$104,792
SHERIFF-DRIVER TRAINING CENTER	1101 W MCKINLEY AVE (CO-FAIRPLEX), POMONA 91768	2,498	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$723,058
FIRE STATION 12	2760 N LINCOLN AVE, ALTADENA 91002-4961	2,496	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$747,972
ACTON REHAB-ADMINISTRATION BUILDING	30500 ARRASTRE CANYON RD, ACTON 93510	2,493	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$721,611
SHERIFF-LASER VILLAGE VI	1060 N EASTERN AVE (OPPOSITE BISCAILUZ CTR), LOS ANGELES 90063	2,490	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$104,373
FIRE STATION 56	12 CREST RD W, ROLLING HILLS 90274-5058	2,482	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$743,777
PCHS DT CTR-ELECTRIC SHOP	29310 THE OLD RD, CASTAIC 91384	2,481	SHOP	17	$20	1.03	1.13	2.2	$50.67	$125,722
VICTORIA GC-LOCKER ROOM	348 E 192ND ST, CARSON 90746	2,479	LOCKER ROOM BUILDING	11	$76	1.01	1.13	2.2	$191.78	$475,421

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FIRE CAMP 8-ADMINISTRATION BLDG	1900 S RAMBLA PACIFICO, MALIBU 90265	2,475	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$716,400
OLIVE VIEW-BUNGALOW T	14445 OLIVE VIEW DR, SYLMAR 91342	2,474	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$480,985
FIRE CAMP 11-TRUCK GARAGE	8800 W SOLEDAD CANYON RD, ACTON 93510	2,474	HEAVY EQUIPMENT-TRUCK GARAGE	14	$52	1.04	1.13	2.2	$134.88	$333,699
ROWLAND HTS-MAINTENANCE BUILDING	1500 S BANIDA AVE, ROWLAND HEIGHTS 91748	2,461	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$331,946
PCHS DT CTR-DORM 1	29310 THE OLD RD, CASTAIC 91384	2,459	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$569,262
PCHS DT CTR-DORM 5	29310 THE OLD RD, CASTAIC 91384	2,459	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$569,262
PCHS DT CTR-DORM 9	29310 THE OLD RD, CASTAIC 91384	2,459	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$569,262
PCHS DT CTR-DORM 13	29310 THE OLD RD, CASTAIC 91384	2,459	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$569,262
PCHS DT CTR-DORM 17	29310 THE OLD RD, CASTAIC 91384	2,459	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$569,262
LAKE LOS ANGELES LIBRARY/ COMMUNITY CLINIC	16921 E AVE O (SADDLEBACK PLAZA), LAKE LOS ANGELES 93535	2,457	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$315,826
MANHATTAN BCH-LIFEGUARD STATION/BATHHOUSE	1122 THE STRAND, MANHATTAN BEACH 90266	2,450	LIFEGUARD STN-TOWER-PLATFORM	15	$118	0.99	1.13	2.2	$289.45	$709,164
CENTURY STATION-REGIONAL CRIME LABORATORY	11707 S ALAMEDA ST, LYNWOOD 90262	2,446	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$836,949
FIRE STATION 97	18453 E SIERRA MADRE AVE (DALTON), AZUSA 91702-1552	2,444	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$732,390

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PW FLOOD-BIG TUJUNGA DAM RESIDNCE	809 W BIG TUJUNGA CANYON RD, SUNLAND 91040	2,440	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$474,375
THE ALHAMBRA COMPLEX - EAST TOWER	1000 S FREMONT AVE, ALHAMBRA 91803	2,432	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$703,954
W ROGERS STATE BEACH-LIFEGUARD HEADQUARTERS	15100 PACIFIC COAST HWY, PACIFIC PALISADES 90272	2,429	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$703,085
SHERIFF-ALTADENA STATION ANNEX	2565 N EL MOLINO AVE, ALTADENA 91001	2,426	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$471,653
LANCASTER COURTHOUSE-ANNEX	1040 W AVE J, LANCASTER 93534	2,420	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$101,438
PW SEWER-SOUTH YARD OFFICE	1129 E 59TH ST, LOS ANGELES 90001	2,416	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$699,322
FIRE-CABRILLO LIFEGUARD OPERATIONS HEADQRTERS	3720 STEPHEN WHITE DR, SAN PEDRO 90731	2,416	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$699,322
PW FLOOD-EL DORADO PUMPING PLANT	7390 E SPRING ST, LONG BEACH 90815	2,415	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$101,229
HART-RECREATION BUILDING	24151 SAN FERNANDO RD, SANTA CLARITA 91321	2,412	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$462,572
FIRE STATION 55 AND RESIDENCE	945 AVALON CANYON RD (P.O. BOX 663), AVALON 90704-0663	2,412	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$325,336
VETERAN'S MEMORIAL-NATURE CENTER	13000 SAYRE ST, SYLMAR 91342	2,405	DISPLAY-EXHIBIT-WRKRM (CLOSED)	16	$121	1.01	1.13	2.2	$304.89	$733,269
SHERIFF-EAST L A STATION MAINTENANCE GARAGE	5019 E 3RD ST, EAST LOS ANGELES 90022	2,403	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$324,122

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ALT PUB DEF-TEMPORARY POMONA COURTS' OFFICE	2350 S GAREY AVE, POMONA 91766	2,400	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$694,691
DPSS-LANCASTER IHSS PROGRAM OFFICE ANNEX	43424 COPELAND CIR, LANCASTER 93535	2,400	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$694,691
SALAZAR-RECREATION BUILDING	3864 E WHITTIER BLVD, EAST LOS ANGELES 90023	2,400	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$460,271
FIRE-PACOIMA CONST SUPPLY SHED	12605 OSBORNE ST, PACOIMA 91331	2,400	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$251,039
PW OPSV-PALMDALE YARD SIGN PAINTING BUILDING	38126 N SIERRA HWY, PALMDALE 93550	2,400	SHOP	17	$20	1.03	1.13	2.2	$50.67	$121,617
PW CENTRAL YARD-CARPENTER'S STORAGE BUILDING	1525 ALCAZAR ST, LOS ANGELES 90033	2,400	PATIO-PATIO SHELTER	17	$16	1.03	1.13	2.2	$41.92	$100,600
DHS-CLAUDE HUDSON COMPREHEN HEALTH CTR CLINIC	2901 S HOPE ST, LOS ANGELES 90007	2,400	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$100,600
ACTON REHAB-ACTIVITY CENTER	30500 ARRASTRE CANYON RD, ACTON 93510	2,397	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$459,695
DCSS-ALTADENA SENIOR FITNESS BUILDING	560 E MARIPOSA ST, ALTADENA 91001	2,365	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$453,558
FIRE STATION 16 (FOR SALE)	8614 S HOLMES AVE, LOS ANGELES 90002-1437	2,360	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$707,217
FIRE-CAMP 16-CAMP KITCHEN	26652 ANGELES FOREST HWY NORTH OF MOUNT GLEASON RD, PALMDALE 93550-9206	2,360	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$525,315
FIRE STATION 22	928 S GERHART AVE, COMMERCE 90022-4108	2,355	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$705,719

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PW ROAD-DIV #417 MAINTENANCE YARD	19865 S WALNUT DR, WALNUT 91789	2,351	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$317,109
SHERIFF-LASER VILLAGE III	1060 N EASTERN AVE (OPPOSITE BISCAILUZ CTR), LOS ANGELES 90063	2,350	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$98,504
FIRE STATION 5	7225 N ROSEMEAD BLVD AT HUNTINGTON DR, SAN GABRIEL 91775-3254	2,342	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$701,823
PW ROAD-HOLLYDALE MAINTENANCE YARD RESIDENCE	11282 GARFIELD AVE, DOWNEY 90242	2,340	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$454,933
OLIVE VIEW-BUNGALOW U (STORAGE)	14445 OLIVE VIEW DR, SYLMAR 91342	2,340	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$454,933
PCHS DT CTR-SHEET METAL SHOP	29310 THE OLD RD, CASTAIC 91384	2,340	SHOP	17	$20	1.03	1.13	2.2	$50.67	$118,577
ANIMAL CONTROL #5-KENNEL	5210 W AVE I, LANCASTER 93536	2,335	KENNEL	15	$61	1	1.13	2.2	$151.55	$353,861
FIRE CAMP 19-GIRLS DORMITORY	22550 EAST FORK RD (SAN GABRIEL RIVER), AZUSA 91702	2,331	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$539,630
BOARD OF SUP-EAST LOS ANGELES FIELD OFFICE	5262 E BEVERLY BLVD, EAST LOS ANGELES 90022	2,328	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$673,850
CAMP LOUIS ROUTH-MESS HALL	12500 BIG TUJUNGA CANYON RD, TUJUNGA 91042	2,323	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$517,079
WARM SP REHAB-DORM #4	38200 N LAKE HUGHES RD, CASTAIC 91310	2,320	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$537,083
WARM SP REHAB-DORM #3	38200 N LAKE HUGHES RD, CASTAIC 91310	2,320	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$537,083

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WARM SP REHAB-DORM #2	38200 N LAKE HUGHES RD, CASTAIC 91310	2,320	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$537,083
WARM SP REHAB-DORM #1	38200 N LAKE HUGHES RD, CASTAIC 91310	2,320	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$537,083
FIRE CAMP 13-KITCHEN/MESS HALL	1250 S ENCINAL CANYON RD, MALIBU 90265	2,320	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$516,412
FIRE STATION 72	1832 S DECKER RD, MALIBU 90265-9613	2,307	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$691,335
PW FLOOD-MARKET STREET PUMPING PLANT	229 W MARKET ST (AT LOS ANGELES RIVER), NORTH LONG BEACH (LAKEWOOD 90805	2,304	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$96,576
FIRE STATION 92	8905 E AVE U, LITTLEROCK 93543-9520	2,300	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$689,237
WARM SP REHAB-CANTEEN/TOOL ROOM	38200 N LAKE HUGHES RD, CASTAIC 91310	2,300	CANTEEN	13	$87	1.03	1.13	2.2	$222.59	$511,960
PCHS DT CTR-GARAGE	29310 THE OLD RD, CASTAIC 91384	2,299	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$310,095
MOUNTAIN MEADOWS GC-SERVICE BUILDING	1875 FAIRPLEX DR, POMONA 91768	2,296	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$309,690
ACTON REHAB-WARD L	30500 ARRASTRE CANYON RD, ACTON 93510	2,291	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$530,369
ACTON REHAB-WARD Z	30500 ARRASTRE CANYON RD, ACTON 93510	2,291	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$530,369
RANCHO-SIGN SHOP (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	2,280	LAUNDRY - SUPPLIES-IRONING STORAGE	13	$50	1.05	1.13	2.2	$130.70	$297,991

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ARCADIA-COMFORT STATION/ BBQ SHELTER	405 S SANTA ANITA AVE, ARCADIA 91007	2,279	COMFORT STATION	16	$106	1.01	1.13	2.2	$265.20	$604,384
SAN GABRIEL VALLEY SERVICE CENTER(B) (SOLD)	3017 N TYLER AVE, EL MONTE 91731	2,278	SERVICE CENTER	14	$52	1.04	1.13	2.2	$134.88	$307,262
DISTRICT ATTORNEY - OCEANGATE TOWER	100 OCEANGATE, LONG BEACH 90802	2,277	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$659,088
PW FLOOD-HANSEN YARD WAREHOUSE	10179 GLENOAKS BLVD, SUN VALLEY 91352	2,272	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$237,651
FIRE STATION 71	28722 PACIFIC COAST HWY, MALIBU 90265-3902	2,271	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$680,547
FOX AIRFIELD-ISD/ITS TRANSMISSION SYSTEMS-7	4555 W AVE G, LANCASTER 93536	2,270	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$657,062
SHERIFF-TRAFFIC SERVICES ENFORCEMENT OFFICE	18300 GRIDLEY RD, ARTESIA 90701	2,266	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$655,904
DPW-SOUTH WHITTIER DISTRICT/SHERIFF'S SUB-STN	13523 TELEGRAPH RD, SOUTH WHITTIER 90605	2,262	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$290,760
HARBOR-MEDICAL RECORDS BLDG N-6	1000 W CARSON ST, TORRANCE 90502	2,257	GENERAL ACUTE HOSPITAL	15	$182	0.99	1.13	2.2	$449.08	$1,013,583
DOCKWEILER-COMFORT STATION #1	10800 VISTA DEL MAR (KILGORE), PLAYA DEL REY 90293	2,246	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$376,055
AG COMM/WTS MEAS-GENERAL SERVICES BUILDING	14445 OLIVE VIEW DR, SYLMAR 91343	2,241	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$302,271
ANIMAL CONTROL #5-ADMINISTRATION	5210 W AVE I, LANCASTER 93536	2,237	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$647,510
PW FLOOD-HANSEN YARD OFFICE	10179 GLENOAKS BLVD, SUN VALLEY 91352	2,236	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$647,221
FIRE STATION 84	5030 W AVE L-14 (AT 51ST ST WEST), QUARTZ HILL 93536-3622	2,234	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$669,459

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RANCHO-BUILDING MATERIALS WAREHOUSE	7601 E IMPERIAL HWY, DOWNEY 90242	2,233	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$301,192
FIRE-PACOIMA CONSOLIDATED WAREHOUSE	12605 OSBORNE ST, PACOIMA 91331	2,233	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$233,571
CENTRAL JAIL-COOLING TOWER	441 BAUCHET ST, LOS ANGELES 90012	2,232	COOLING TOWER	17	$16	1.03	1.13	2.2	$41.92	$93,558
FIRE CAMP 11-BOQ DORMITORY	8800 W SOLEDAD CANYON RD, ACTON 93510	2,230	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$516,248
HART-SWIMMING POOL HOUSE AND DECK	24151 SAN FERNANDO RD, SANTA CLARITA 91321	2,228	PATIO-PATIO SHELTER	17	$16	1.03	1.13	2.2	$41.92	$93,390
PCHS DT CTR-DORM 12	29310 THE OLD RD, CASTAIC 91384	2,221	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$514,164
PCHS DT CTR-DORM 14	29310 THE OLD RD, CASTAIC 91384	2,221	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$514,164
PW CENTRAL YARD-SURVEY OFFICE (CLOSED)	1525 ALCAZAR ST, LOS ANGELES 90033	2,219	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$642,300
CAMP PAIGE-MAINTENANCE BUILDING	6601 N STEPHENS RANCH RD, LA VERNE 91750	2,218	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$299,169
MED CTR-THRIFT SHOP	1100 N MISSION RD, LOS ANGELES 90033	2,217	GATEHOUSE	16	$106	1.01	1.13	2.2	$265.20	$587,942
SHERIFF-WEST HOLLYWOOD STN MAINTENANCE GARAGE	720 N SAN VICENTE BLVD, WEST HOLLYWOOD (BR P.O. N 90069	2,209	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$297,955
MAYBERRY-RECREATION BUILDING	13201 E MEYER RD, WHITTIER 90605	2,207	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$423,257

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PUBLIC LIBRARY-WILLOWBROOK LIBRARY	11838 S WILMINGTON AVE, LOS ANGELES 90059	2,200	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$664,035
WARM SP REHAB-MAINTENANCE BUILDING	38200 N LAKE HUGHES RD, CASTAIC 91310	2,191	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$295,527
LAKEWOOD GC-TENNIS PRO SHOP	3101 E CARSON ST, LAKEWOOD 90712	2,186	PROSHOP	11	$63	1.01	1.13	2.2	$157.88	$345,132
FIRE-CAMP 16-FAMILY VISITORS CENTER	26652 ANGELES FOREST HWY NORTH OF MOUNT GLEASON RD, PALMDALE 93550-9206	2,184	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$424,604
ISD-DIST 5/FACILITY OPERATIONS ADMIN (UNUSED)	1703 S MOUNTAIN AVE, MONROVIA 91010	2,183	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$631,880
TED WATKINS MEMORIAL-PUMPHOUSE #1	1335 E 103RD ST, LOS ANGELES 90002	2,177	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$91,253
TED WATKINS MEMORIAL-PUMPHOUSE #2	1335 E 103RD ST, LOS ANGELES 90002	2,177	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$91,253
PCHS DT CTR-HONOR RANCHO ADMINISTRATION BLDG	29310 THE OLD RD, CASTAIC 91384	2,171	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$628,406
PW-INCORPORATED CITY OFFICE (COMMERCE)	2535 COMMERCE WAY (CITY HALL), CITY OF COMMERCE 90040	2,170	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$628,117
STAR CENTER-VEHICLE GARAGE B	11515 S COLIMA RD, WHITTIER 90604	2,170	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$292,695
PW ROAD-VINCENT GRADE/ACTON METROLINK STATION	730 W SIERRA HWY AT ANGELES FOREST HWY, PALMDALE 93550	2,170	TRAIN STATION	17	$16	1.03	1.13	2.2	$41.92	$90,959

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HOLLYWOOD BOWL-COMFORT STATION 1	2301 N HIGHLAND AVE, HOLLYWOOD 90068	2,164	COMFORT STATION	16	$106	1.01	1.13	2.2	$265.20	$573,886
HARBOR-NURSING PRACTICE AFFAIRS BUILDING N-18	1000 W CARSON ST, TORRANCE 90502	2,160	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$419,938
CAMP KILPATRICK-LAUNDRY BUILDING	427 S ENCINAL CANYON RD, MALIBU 90265	2,160	LAUNDRY - SUPPLIES-IRONING STORAGE	13	$50	1.05	1.13	2.2	$130.70	$282,307
PCHS DT CTR-REFRIGERATED WAREHOUSE	29310 THE OLD RD, CASTAIC 91384	2,160	SPECIAL CONDITION WAREHOUSE	14	$41	1.03	1.13	2.2	$104.60	$225,935
HARBOR-PAYROLL TRAILER L-4	1000 W CARSON ST, TORRANCE 90502	2,160	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$90,540
BISCAILUZ-TRAILER S COMFORT STATION (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	2,160	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$90,540
BISCAILUZ-TRAILER S (A UNIT) (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	2,160	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$90,540
PW FLOOD-ELECTRIC AVE PUMP STATION	314 BROOKS AVE, VENICE 90291	2,160	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$90,540
PW FLOOD-BELMONT PUMPING STATION	222 CLAREMONT AVE, LONG BEACH 90803	2,155	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$90,330
ALT PUB DEFENDER-NORWALK OFFICE	12440 (A) FIRESTONE BLVD, NORWALK 90650	2,150	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$622,328
FIRE STATION 88	23720 W MALIBU RD, MALIBU 90265-4603	2,142	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$641,890
LOMA ALTA-PICNIC SHELTERS	3330 N LINCOLN AVE, ALTADENA 91001	2,128	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$89,199
PW FLOOD-PARAMOUNT PUMPING PLANT	500 E 72ND ST (AT LOS ANGELES RIVER), LONG BEACH 90805	2,127	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$89,157

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RANCHO-PROPERTY WAREHOUSE (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	2,121	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$491,014
LADERA-RECREATION BUILDING/ OFFICE	6027 LADERA PARK AVE, LOS ANGELES 90056	2,117	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$405,997
CAMP AFFLERBAUGH-MAINTENANCE BUILDING	6631 N STEPHENS RANCH RD, LA VERNE 91750	2,117	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$285,546
PCHS DT CTR-OFFICERS RECREATION BUILDING	29310 THE OLD RD, CASTAIC 91384	2,112	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$405,038
SHERIFF-AVALON RESIDENCE & GARAGE	20 AVALON CANYON RD CATALINA ISLAND, AVALON 90704	2,103	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$408,857
ANIMAL CONTROL #1-KENNEL 2	11258 GARFIELD AVE, DOWNEY 90242	2,100	KENNEL	15	$61	1	1.13	2.2	$151.55	$318,248
ANIMAL CONTROL #1-KENNEL 1	11258 GARFIELD AVE, DOWNEY 90242	2,100	KENNEL	15	$61	1	1.13	2.2	$151.55	$318,248
AG COMM/WTS MEAS-TRUCK SHELTER	11012 GARFIELD AVE, SOUTH GATE 90280	2,100	HEAVY EQUIPMENT-TRUCK GARAGE	14	$52	1.04	1.13	2.2	$134.88	$283,253
BELVEDERE-MAINTENANCE BUILDING	4914 CESAR E CHAVEZ AVE, EAST LOS ANGELES 90022	2,100	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$283,253
LA MIRADA GC-MAINTENANCE BUILDING	15501 E ALICANTE RD, LA MIRADA 90638	2,080	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$280,555
DIAMOND BAR GC-SERVICE BUILDING	22751 GOLDEN SPRINGS DR, DIAMOND BAR 91765	2,080	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$280,555

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VICTORIA GC-SERVICE BUILDING	348 E 192ND ST, CARSON 90746	2,080	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$280,555
MARSHALL CANYON GC-SERVICE BUILDING	6100 N STEPHENS RANCH RD, LA VERNE 91750	2,080	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$280,555
LOS VERDES GC-SERVICE BUILDING	7000 W LOS VERDES DR, RANCHO PALOS VERDES 90275	2,080	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$280,555
OLIVE VIEW-FINANCIAL SYSTEMS TRAILER F-2	14445 OLIVE VIEW DR, SYLMAR 91342	2,080	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$87,187
SYBIL BRAND-CLASSROOM TRAILER (CLOSED)	4500 E CITY TERRACE DR, MONTEREY PARK 91754	2,080	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$87,187
DCSS-GLENDORA ADULT PROTECTIVE SERVICES	130 W ROUTE 66, GLENDORA 91740	2,070	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$599,171
DPSS-HARBOR ONE-STOP GAIN REGION V SUB-OFFICE	1851 N GAFFEY ST, SAN PEDRO 90731	2,070	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$599,171
HART-RANCH HOUSE MUSEUM	24151 SAN FERNANDO RD, SANTA CLARITA 91321	2,063	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$401,080
CABRILLO BEACH-SNACK BAR	3720 STEPHEN WHITE DR, SAN PEDRO 90731	2,063	SNACKBAR	13	$50	1.05	1.13	2.2	$129.31	$266,775
REDONDO BCH-LIFEGUARD HEADQUARTERS/ BATHHOUSE	1109 S ESPLANADE AVE (AT AVE C), REDONDO BEACH 90277	2,062	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$345,247
MACLAREN CHILDREN'S CTR-TRI-CITIES TRAILER	4024 N DURFEE AVE, EL MONTE 91732	2,060	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$86,348
CAMP SCOTT-SCOUTING BUILDING	28700 N BOUQUET CANYON RD, SAUGUS 91350	2,055	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$394,107

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BEACHES & HARBORS-NORTH DIST BEACH MAINT BLDG	16300 PACIFIC COAST HWY, PACIFIC PALISADES 90272	2,053	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$276,914
CAMP MUNZ-MAINTENANCE BUILDING	42220 N LAKE HUGHES RD, LAKE HUGHES 93532	2,053	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$276,914
OLIVE VIEW-STORAGE GARAGE	14445 OLIVE VIEW DR, SYLMAR 91342	2,052	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$276,779
FIRE-SOUTHERN SECTION LIFEGUARD HEADQUARTERS	1201 THE STRAND (BASE OF PIER), HERMOSA BEACH 90254	2,049	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$593,093
ANTELOPE DVC-ADMINISTRATION BUILDING	45133 N 60TH ST W, LANCASTER 93536	2,049	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$398,358
PW FLOOD-BIG TUJUNGA DAM RESIDNCE	809 W BIG TUJUNGA CANYON RD, SUNLAND 91040	2,040	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$396,608
TORRANCE BEACH-LIFEGUARD SUBSTATION/BATHHOUSE	389 PASEO DE LA PLAYA (VIA RIVERA), TORRANCE 90277	2,033	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$340,391
HARBOR-NURSING QUALITY/ SNACK BAR BLDG N-17	1000 W CARSON ST, TORRANCE 90502	2,030	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$587,593
PCHS DT CTR-WORKSHOP	29310 THE OLD RD, CASTAIC 91384	2,016	SHOP	17	$20	1.03	1.13	2.2	$50.67	$102,159
RANCHO-CARPORT	7601 E IMPERIAL HWY, DOWNEY 90242	2,008	OPEN CARPORT	17	$16	1.03	1.13	2.2	$41.92	$84,169
HOLLYWOOD BOWL-NURSERY 5B	2301 N HIGHLAND AVE, HOLLYWOOD 90068	2,008	NURSERY BLDG-STRUCTURE	16	$7	1.02	1.13	2.2	$16.96	$34,064
OLIVE VIEW-BUNGALOW S	14445 OLIVE VIEW DR, SYLMAR 91342	2,007	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$390,193
ARBORETUM-QUEEN ANNE COTTAGE	301 N BALDWIN AVE, ARCADIA 91007	2,005	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$389,804

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COMMUN DEVEL COMM/ BD OF SUP-2ND DIST OFFICE	12329 S WILMINGTON AVE, COMPTON 90222	2,001	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$579,199
FIRE STATION 59	10021 SCOTT AVE, WHITTIER 90603-2119	2,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$599,337
FIRE STATION 170	10701 CRENSHAW BLVD, INGLEWOOD 90304	2,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$599,337
FIRE STATION 17	12006 HADLEY ST, WHITTIER 90601-3910	2,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$599,337
FIRE STATION 162	12151 CRENSHAW BLVD (HAWTHORNE AIRPORT), HAWTHORNE 90250-3301	2,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$599,337
FIRE STATION 158	1650 W 162ND ST, GARDENA 90247	2,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$599,337
FIRE STATION 159	2030 W 135TH ST, GARDENA 90247	2,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$599,337
FIRE STATION 75	23310 LAKE MANOR DR, CHATSWORTH 91311-6418	2,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$599,337
FIRE STATION 147	3161 E IMPERIAL HWY, LYNWOOD 90262	2,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$599,337
FIRE STATION 148	4264 MARTIN LUTHER KING JR BLVD, LYNWOOD 90262	2,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$599,337
FIRE STATION 160	5323 W ROSECRANS AVE, HAWTHORNE 90250-6622	2,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$599,337

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FIRE STATION 172	810 CENTINELA AVE, INGLEWOOD 90302	2,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$599,337
FIRE STATION 173	9001 CRENSHAW BLVD, INGLEWOOD 90303	2,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$599,337
MED CTR-IMAGING SCIENCES MRI CENTER	1720 ZONAL AVE, LOS ANGELES 90033	2,000	RADIOLOGICAL IMAGING(MRI)	15	$118	0.99	1.13	2.2	$289.45	$578,909
PW ROAD-DIV #558A JACKSON LAKE YARD OFFICE	22201 BIG PINES HWY BALL FLAT ROAD, BIG PINES 92397	2,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$578,909
SHERIFF-EAST LOS ANGELES YOUTH CENTER	4405 CESAR E CHAVEZ AVE, EAST LOS ANGELES 90022	2,000	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$388,832
PAMELA-GYMNASIUM	2236 GOODALL AVE, DUARTE 91010	2,000	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$383,559
CDC-HA-UJIMA VILLAGE COMPUTER TRAINING CENTER	941 E 126TH ST, WILLOWBROOK (RR NAME WILLO 90059	2,000	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$383,559
ANIMAL CONTROL #1-WAREHOUSE	11258 GARFIELD AVE, DOWNEY 90242	2,000	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$269,765
SHERIFF-POMONA AUTO MAINTENANCE GARAGE	1447 FAIRPLEX DR (CO-FAIRPLEX), POMONA 91768	2,000	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$269,765
PW ROAD-DIV #141/241 MAINTENANCE YARD GARAGE	2120 E 90TH ST, LOS ANGELES 90002	2,000	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$269,765
PW ROAD-DIV #232 SUBYARD GARAGE	24309 WALNUT ST, LOMITA 90717	2,000	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$269,765
MED CTR-SHEET METAL SHOP	1100 N MISSION RD, LOS ANGELES 90033	2,000	SHOP	17	$20	1.03	1.13	2.2	$50.67	$101,348

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PW ROAD-BALDWIN PARK YARD SHOP	14765 E RAMONA BLVD, BALDWIN PARK 91706	2,000	SHOP	17	$20	1.03	1.13	2.2	$50.67	$101,348
MED CTR-PREMATURE INFANT CLINIC TRAILER	1711 GRIFFIN AVE, LOS ANGELES 90031	2,000	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$83,833
CAMP MUNZ-SWIMMING POOL	42220 N LAKE HUGHES RD, LAKE HUGHES 93532	2,000	SWIMMING POOL-WATER SLIDES				1.13	2.2	$0.00	$0
CAMP SCOTT-MAINTENANCE BLDG	28700 N BOUQUET CANYON RD, SAUGUS 91350	1,995	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$269,090
PCHS DT CTR-BATHHOUSE 2	29310 THE OLD RD, CASTAIC 91384	1,990	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$333,192
PCHS DT CTR-BATHHOUSE 1	29310 THE OLD RD, CASTAIC 91384	1,990	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$333,192
PCHS DT CTR-BATHHOUSE 3	29310 THE OLD RD, CASTAIC 91384	1,990	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$333,192
SHERIFF-NORTH REG SURVEILLANCE & APPREHENSION	2239 E GARVEY AVE N., WEST COVINA 91791	1,989	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$575,725
PW EATON YARD-STORAGE WAREHOUSE	2811 WOODLYN RD, PASADENA 91107	1,989	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$208,049
ISD-DEPARTMENTAL OPERATIONS CENTER	1104 N EASTERN AVE, LOS ANGELES 90063	1,989	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$83,372
ANIMAL CONTROL #7-ADMINISTRATION BUILDING	29525 W AGOURA RD, AGOURA HILLS 91301	1,986	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$574,857
RANCHO-MACHINE SHOP STORAGE (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	1,980	TOOL SHED-TOOL BUILDING	17	$16	1.03	1.13	2.2	$41.92	$82,995
PW FLOOD-EATON YARD WAREHOUSE	2986 E NEW YORK DR, PASADENA 91104	1,977	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$206,794

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CATALINA COURTHOUSE	215 SUMNER AVE, AVALON 90704	1,976	COURT	15	$118	0.99	1.13	2.2	$289.45	$571,962
FIRE CAMP 15-MAINTENANCE BUILDNG	12500 BIG TUJUNGA CANYON RD, TUJUNGA 91042	1,976	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$266,528
FIRE STATION 21	4312 W 147TH ST, LAWNDALE 90260-1509	1,974	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$591,545
OLIVE VIEW-BUNGALOW N	14445 OLIVE VIEW DR, SYLMAR 91342	1,971	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$383,194
PW FLOOD-EATON YARD MAINTENANCE BUILDING	2986 E NEW YORK DR, PASADENA 91104	1,971	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$265,853
ANIMAL CONTROL #6-OFFICE	31044 N CHARLEY CANYON RD, CASTAIC 91384	1,962	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$567,910
PW ROAD-DIV #553A YARD RESIDENCE	27500 ANGELES FOREST HWY MILL CREEK RANGER STATION, PALMDALE 93550	1,960	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$381,055
PW ROAD-DIV #518 GARAGE	161 N VALENCIA ST, GLENDORA 91741	1,960	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$264,370
FIRE-CAMP 16-CONSTRUCTION EQUIPMENT WAREHOUSE	26652 ANGELES FOREST HWY NORTH OF MOUNT GLEASON RD, PALMDALE 93550-9206	1,960	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$205,015
REDONDO BEACH COURTHOUSE-ADMIN OFFICES	109 W TORRANCE BLVD (ROOF OF GARAGE), REDONDO BEACH 90277	1,958	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$566,752

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PCHS DT CTR-PISTOL RANGE BUILDING	29310 THE OLD RD, CASTAIC 91384	1,956	PISTOL-TARGET RANGE BLDG	15	$118	0.99	1.13	2.2	$289.45	$566,173
FORD AMPHITHEATRE-COSTUME STORAGE BUILDING	2580 CAHUENGA BLVD E, HOLLYWOOD 90068	1,950	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$379,111
ANIMAL CONTROL #1-KENNEL 3	11258 GARFIELD AVE, DOWNEY 90242	1,950	KENNEL	15	$61	1	1.13	2.2	$151.55	$295,516
PCHS DT CTR-DORM 15	29310 THE OLD RD, CASTAIC 91384	1,945	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$450,270
CHALLENGER-CDC NURSERY GREENHOUSE	5300 W AVE I, LANCASTER 93536	1,944	GREENHOUSE-HOT HOUSE	16	$7	1.02	1.13	2.2	$16.96	$32,978
WHITTIER NARROWS-NATURE STUDY MUSEUM	1000 N DURFEE AVE, SOUTH EL MONTE 91733	1,941	MUSEUM	16	$121	1.01	1.13	2.2	$304.89	$591,799
MED CTR-CHAPLAIN'S CENTER	1200 N STATE ST, LOS ANGELES 90033	1,940	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$561,542
BRACKETT FIELD-WEST AIR BUILDING-2	1615 W MCKINLEY AVE, LA VERNE 91750	1,938	SHOP	17	$20	1.03	1.13	2.2	$50.67	$98,206
PCHS DT CTR-DORM 19	29310 THE OLD RD, CASTAIC 91384	1,936	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$448,187
PCHS DT CTR-DORM 11	29310 THE OLD RD, CASTAIC 91384	1,936	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$448,187
PCHS DT CTR-DORM 7	29310 THE OLD RD, CASTAIC 91384	1,936	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$448,187
PCHS DT CTR-DORM 3	29310 THE OLD RD, CASTAIC 91384	1,936	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$448,187
PCHS DT CTR-DORM 2	29310 THE OLD RD, CASTAIC 91384	1,936	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$448,187
PCHS DT CTR-DORM 4	29310 THE OLD RD, CASTAIC 91384	1,936	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$448,187
PCHS DT CTR-DORM 6	29310 THE OLD RD, CASTAIC 91384	1,936	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$448,187

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DESCANSO GARDENS-GIFT SHOP	1418 DESCANSO DR, LA CANADA FLINTRIDGE 91011	1,934	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$248,599
FIRE-PARAMOUNT HAZARDOUS MATERIALS DIV OFFICE	7300 E ALONDRA BLVD, PARAMOUNT 90723	1,928	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$558,069
MIRA LOMA-CHAPEL	45100 N 60TH ST W, LANCASTER 93536	1,928	BRIEFING SHELTER	16	$106	1.01	1.13	2.2	$265.20	$511,300
FIRE STATION 96	10630 S MILLS AVE, SOUTH WHITTIER 90604-2441	1,926	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$577,161
ACTON REHAB-BATHHOUSE	30500 ARRASTRE CANYON RD, ACTON 93510	1,921	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$321,639
PW FLOOD-83RD ST YARD OFFICE	5520 W 83RD ST, WESTCHESTER 90045	1,920	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$555,753
FIRE-CAMP 16-MECHANICAL REPAIR SHOP	26652 ANGELES FOREST HWY NORTH OF MOUNT GLEASON RD, PALMDALE 93550-9206	1,920	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$258,974
FIRE-CAMP 16-FOOD STORAGE BUILDING	26652 ANGELES FOREST HWY NORTH OF MOUNT GLEASON RD, PALMDALE 93550-9206	1,920	SPECIAL CONDITION WAREHOUSE	14	$41	1.03	1.13	2.2	$104.60	$200,831
DHS-PICO RIVERA HEALTH CENTER ANNEX (CLOSED)	6336 S PASSONS BLVD, PICO RIVERA 90660	1,913	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$80,187
PCHS DT CTR-QUONSET WAREHOUSE	29310 THE OLD RD, CASTAIC 91384	1,906	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$199,367
FIRE STATION 53	6124 PALOS VERDES DR S, RANCHO PALOS VERDES 90275-5935	1,904	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$570,569

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CULVER CITY COURTHOUSE-MODULAR ANNEX	4130 OVERLAND AVE, CULVER CITY 90230	1,902	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$79,726
PROBATION-VAN NUYS JUVENILE SERVICES ANNEX	7100 VAN NUYS BLVD, VAN NUYS 91405	1,900	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$549,964
ANIMAL CONTROL #1-KENNEL 4	11258 GARFIELD AVE, DOWNEY 90242	1,900	KENNEL	15	$61	1	1.13	2.2	$151.55	$287,938
PW FLOOD-ALAMITOS YARD GARAGE	881 IROQUOIS AVE, LONG BEACH 90815	1,900	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$256,277
PW FLOOD-EL SEGUNDO YARD WAREHOUSE	2155 EL SEGUNDO BLVD, EL SEGUNDO 90245	1,900	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$198,739
PW ROAD-DIV #553 MAINTENANCE YARD SHOP	17931 SIERRA HWY, SANTA CLARITA 91351	1,900	SHOP	17	$20	1.03	1.13	2.2	$50.67	$96,280
CAO-REAL ESTATE DIVISION/ SERVICE INTEGRATION	222 S HILL ST (KAWADA BUILDING), LOS ANGELES 90012-3503	1,892	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$547,648
ACTON REHAB-DIRECTORS RESIDENCE	30500 ARRASTRE CANYON RD, ACTON 93510	1,892	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$367,835
ALTADENA GC-MAINTENANCE BUILDING	1456 E MENDOCINO ST, ALTADENA 91001	1,890	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$254,928
FIRE CAMP 19-KITCHEN/ MESS HALL	22550 EAST FORK RD (SAN GABRIEL RIVER), AZUSA 91702	1,888	QUONSET HUT	17	$14	1.04	1.13	2.2	$36.48	$68,875
ISD/ITS-OAT MOUNTAIN NIKE MICROWAVE SITE #3	BROWNS CANYON RD OAT MOUNTAIN, CHATSWORTH 91311	1,887	TRANSMITTER BLDG-MICROWAVE SITE	15	$118	0.99	1.13	2.2	$289.45	$546,201

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HERMOSA BEACH-BOAT STORAGE	1200 THE STRAND (UNDER PIER), HERMOSA BEACH 90254	1,884	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$197,066
FIRE-PACOIMA TRUCK GARAGE/STORAG	12605 OSBORNE ST, PACOIMA 91331	1,880	HEAVY EQUIPMENT-TRUCK GARAGE	14	$52	1.04	1.13	2.2	$134.88	$253,579
FIRE CAMP 8-KITCHEN/MESS HALL	1900 S RAMBLA PACIFICO, MALIBU 90265	1,875	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$417,359
TOPANGA BEACH-LIFEGUARD STATION	18704 PACIFIC COAST HWY, MALIBU 90265	1,872	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$541,859
KELLER-POOL GENERATOR BUILDING	1045 W 126TH ST, LOS ANGELES 90044	1,871	GENERATOR BUILDING	15	$118	0.99	1.13	2.2	$289.45	$541,570
PCHS DT CTR-FIELD OFFICE / STORAGE BUILDING	29310 THE OLD RD, CASTAIC 91384	1,870	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$432,907
PCHS DT CTR-EMPLOYEE DORM	29310 THE OLD RD, CASTAIC 91384	1,864	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$431,518
EATON CANYON GC-SERVICE BUILDING	1150 N SIERRA MADRE VILLA, PASADENA 91107	1,864	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$251,421
ML KING-COOLING TOWER #2	12021 S WILMINGTON AVE, LOS ANGELES 90059	1,863	COOLING TOWER	17	$16	1.03	1.13	2.2	$41.92	$78,091
FIRE STATION 95	137 W REDONDO BEACH BLVD, GARDENA 90248-2220	1,855	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$555,885
PW FLOOD-COGSWELL DAM RESIDENCE	13500 E DEVILS CANYON DAM TKTR, AZUSA 91702	1,850	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$359,669
PW ROAD-DIV #553A KITCHEN/DORM	27500 ANGELES FOREST HWY MILL CR RANGER STA PALMDALE 93550	1,848	KITCHEN-DINING HALL-CAFETERIA	13	$87	1.03	1.13	2.2	$222.59	$411,349

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ACTON REHAB-WELDING SHOP/STORAGE BUILDING	30500 ARRASTRE CANYON RD, ACTON 93510	1,846	SHOP	17	$20	1.03	1.13	2.2	$50.67	$93,544
FIRE-PACOIMA HEAVY EQUIPMENT SHP	12605 OSBORNE ST, PACOIMA 91331	1,842	SHOP	17	$20	1.03	1.13	2.2	$50.67	$93,341
MED CTR-PHARMACY TRAILER	1240 N MISSION RD, LOS ANGELES 90033	1,841	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$77,169
ARBORETUM-SANTA ANITA DEPOT	301 N BALDWIN AVE, ARCADIA 91007	1,840	TRAIN STATION	17	$16	1.03	1.13	2.2	$41.92	$77,127
HARBOR-MECHANICAL TRANSPORTATION OFFICE T-1	1000 W CARSON ST, TORRANCE 90502	1,836	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$247,644
JUVENILE HALL-GIRLS SWIMMING POOL	1605 EASTLAKE AVE, LOS ANGELES 90033	1,835	SWIMMING POOL-WATER SLIDES				1.13	2.2	$0.00	$0
JUVENILE HALL-BOYS SWIMMING POOL	1605 EASTLAKE AVE, LOS ANGELES 90033	1,835	SWIMMING POOL-WATER SLIDES				1.13	2.2	$0.00	$0
PW EATON YARD-MAINTENANCE GARAGE	2811 WOODLYN RD, PASADENA 91107	1,830	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$246,835
MOUNTAIN MEADOWS GC-MATERIAL STORAGE BUILDING	1875 FAIRPLEX DR, POMONA 91768	1,828	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$246,565
PW ROAD-DIV #559B YARD RESIDENCE	MOUNT WILSON RD, MOUNT WILSON (MT. WILSON O 91023	1,824	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$354,615
VASQUEZ ROCKS-RESIDENCE/OFFICE	10700 W ESCONDIDO CANYON RD, AGUA DULCE 91350	1,824	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$354,615
OLIVE VIEW-BUNGALOW O	14445 OLIVE VIEW DR, SYLMAR 91342	1,824	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$354,615
HOLLYWOOD BOWL-COMFORT STATION 3	2301 N HIGHLAND AVE, HOLLYWOOD 90068	1,819	COMFORT STATION	16	$106	1.01	1.13	2.2	$265.20	$482,393

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JUVENILE HALL-STORAGE BUILDING-10A	1605 EASTLAKE AVE, LOS ANGELES 90033	1,816	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$189,953
RANCHO-OPEN SHELTER (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	1,815	PATIO-PATIO SHELTER	17	$16	1.03	1.13	2.2	$41.92	$76,079
DESCANSO GARDENS-EQUIPMENT STORAGE	1418 DESCANSO DR, LA CANADA FLINTRIDGE 91011	1,810	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$244,137
FIRE CAMP 11-DORMITORY 2	8800 W SOLEDAD CANYON RD, ACTON 93510	1,806	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$418,091
FIRE CAMP 11-DORMITORY 3	8800 W SOLEDAD CANYON RD, ACTON 93510	1,806	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$418,091
DA-JUVENILE/BD OF SUPERVISOR-THE WALNUT PLAZA	215 N MARENGO AVE, PASADENA 91101-1505	1,800	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$521,018
FOX A IRFIELD-FAA CONTROL TOWER	4555 W AVE G, LANCASTER 93536	1,800	COMMUNICATIONS-CONTROL TOWER	15	$118	0.99	1.13	2.2	$289.45	$521,018
BONELLI-COMFORT STATION #6	120 VIA VERDE, SAN DIMAS 91773	1,800	COMFORT STATION	16	$106	1.01	1.13	2.2	$265.20	$477,355
PW FLOOD-83RD ST YARD SUPPLIES WAREHSE/GARAGE	5520 W 83RD ST, WESTCHESTER 90045	1,800	DOCTORS-NURSES-OFFICERS QUARTERS	11	$92	1.01	1.13	2.2	$231.50	$416,702
HERMOSA BEACH-GARAGE/ COMFORT STATION	1190 THE STRAND (UNDER PIER), HERMOSA BEACH 90254	1,800	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$242,788
PW FLOOD-SANTA CLARA FLOOD MAINTENANCE YARD	21014 GOLDEN TRIANGLE RD, SANTA CLARITA 91351	1,800	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$242,788
PW ROAD-SAN ANTONIO GARAGE/ CREW QUARTERS	5150 N MOUNT BALDY RD, CLAREMONT 91711	1,800	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$242,788

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DOCKWEILER-SNACKBAR	10800 VISTA DEL MAR, PLAYA DEL REY 90293	1,800	SNACKBAR	13	$50	1.05	1.13	2.2	$129.31	$232,766
PW ROAD-BALDWIN PARK YARD SHOP	14747 E RAMONA BLVD, BALDWIN PARK 91706	1,800	SHOP	17	$20	1.03	1.13	2.2	$50.67	$91,213
CERRITOS-PICNIC SHELTERS (3)	19700 S BLOOMFIELD AVE, CERRITOS (DAIRY VALLEY) 90703	1,800	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$75,450
MONA-PICNIC SHELTER	2291 E 121ST ST, COMPTON 90222	1,800	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$75,450
CAMP KILPATRICK-SWIMMING POOL	427 S ENCINAL CANYON RD, MALIBU 90265	1,800	SWIMMING POOL-WATER SLIDES				1.13	2.2	$0.00	$0
RANCHO-M.R.I. TRAILER	7601 E IMPERIAL HWY, DOWNEY 90242	1,793	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$75,157
DCSS-AIRPORT/VENICE ADULT PROTECTIVE SERVICES	5757 W CENTURY BLVD BUILDING 1, WESTCHESTER 90045	1,792	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$518,703
LANCASTER COURTHOUSE-GARAGE	1110 W AVE J, LANCASTER 93534	1,789	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$241,305
RANCHO-HANDICAPPED MODEL HOME TRAINING	7601 E IMPERIAL HWY, DOWNEY 90242	1,775	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$345,088
CITY TERRACE-PICNIC SHELTER	1126 N HAZARD AVE, EAST LOS ANGELES 90063	1,770	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$74,193
FIRE STATION 187-DISPATCH CENTER	3325 TEMPLE AVE, POMONA 91766	1,762	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$342,561
PW FLOOD-LONGDEN YARD WAREHOUSE	160 E LONGDEN AVE, IRWINDALE 91706	1,760	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$184,095

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PW FLOOD-CENTER STREET PUMP STATION	223 CENTER ST, EL SEGUNDO 90245	1,760	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$73,773
ZUMA BEACH-FOOD CONCESSION STAND #1	29750 PACIFIC COAST HWY, MALIBU 90265	1,755	SNACKBAR	13	$50	1.05	1.13	2.2	$129.31	$226,947
MED CTR-INCINERATOR AND OFFICE	1200 N STATE ST, LOS ANGELES 90033	1,755	INCINERATOR	17	$16	1.03	1.13	2.2	$41.92	$73,564
SAN ANGELO-PICNIC SHELTERS (3)	245 S SAN ANGELO AVE, BASSETT 91746	1,755	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$73,564
PW-SEWER MAINTENANCE NORTH YARD SHOPS	45712 N DIVISION ST, LANCASTER 93534	1,752	SHOP	17	$20	1.03	1.13	2.2	$50.67	$88,781
PW FLOOD-IMPERIAL YARD WAREHOUSE	5525 E IMPERIAL HWY, SOUTH GATE 90280	1,750	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$183,049
SHERIFF-LENNOX STATION ANNEX (A)	4331 LENNOX BLVD, LENNOX 90304	1,743	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$504,519
ISD/ITS-CASTRO PEAK MICROWAVE SITE	928 S LATIGO CANYON RD (CASTRO PEAK), MALIBU 90265	1,741	TRANSMITTER BLDG-MICROWAVE SITE	15	$118	0.99	1.13	2.2	$289.45	$503,941
CAMP SCOTT-CLASSROOM TRAILER #1	28700 N BOUQUET CANYON RD, SAUGUS 91350	1,740	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$72,935
DIST ATTY-VICTIM-WITNESS ASSISTANCE PROGRAM	3204 ROSEMEAD BLVD, EL MONTE 91731	1,738	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$503,072
ANIMAL CONTROL #1-KENNEL 5	11258 GARFIELD AVE, DOWNEY 90242	1,738	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$234,426
WARM SP REHAB-INFIRMARY	38200 N LAKE HUGHES RD, CASTAIC 91310	1,735	DISPENSARY -FIRST AID	15	$88	0.99	1.13	2.2	$216.21	$375,126

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OLIVE VIEW-STATIONERY STORAGE	14445 OLIVE VIEW DR, SYLMAR 91342	1,734	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$523,381
FIRE CAMP 19-SCHOOL BUILDING	22550 EAST FORK RD (SAN GABRIEL RIVER), AZUSA 91702	1,730	SCHOOL BUILDING	18	$109	1.01	1.13	2.2	$273.96	$473,951
PW ROAD-DIV #551 MAINTENANCE YARD	4859 W AVE L-12, QUARTZ HILL 93536	1,728	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$233,077
WARM SP REHAB-GEN SVCS STORAGE	38200 N LAKE HUGHES RD, CASTAIC 91310	1,725	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$399,340
ALONDRA GC-MAINTENANCE GARAGE	16400 S PRAIRIE AVE, LAWNDALE 90260	1,721	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$232,133
FIRE STATION 114	39939 N 170TH ST E, PALMDALE 93550-9618	1,720	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$515,430
FIRE-MAPPING & ENGINEERING SECTION OFFICE	5900 S EASTERN AVE BLDG #16 (3), CITY OF COMMERCE 90040	1,720	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$497,862
ALONDRA-BATHHOUSE	3535 REDONDO BEACH BLVD, LAWNDALE 90260	1,717	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$287,483
RANCHO-VIVARIUM	7601 E IMPERIAL HWY, DOWNEY 90242	1,711	CLOSED STORAGE PEN	17	$19	1.03	1.13	2.2	$47.58	$81,402
HARBOR-PAINT SHOP	1000 W CARSON ST, TORRANCE 90502	1,700	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$393,552
FIRE-AVALON LIFEGUARD BAYWATCH OFFICE/APTMENT	318 A WHITTLEY AVE, AVALON 90704	1,700	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$330,507
PW FLOOD-WALTERIA LAKE PUMP STN	23601 HAWTHORNE BLVD, TORRANCE 90503	1,700	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$71,258
FIRE CAMP 11-DORMITORY 1	8800 W SOLEDAD CANYON RD, ACTON 93510	1,687	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$390,543

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WARM SP REHAB-ADMINISTRATION BUILDING	38200 N LAKE HUGHES RD, CASTAIC 91310	1,685	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$487,731
LOS PADRINOS-GH ANNEX-19	7285 E QUILL DR, DOWNEY 90242	1,681	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$389,154
FIRE CAMP 13-DORMITORY 4	1250 S ENCINAL CANYON RD, MALIBU 90265	1,680	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$388,922
FIRE CAMP 13-RECREATION BUILDING	1250 S ENCINAL CANYON RD, MALIBU 90265	1,680	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$388,922
CAMP LOUIS ROUTH-DORM A	12500 BIG TUJUNGA CANYON RD, TUJUNGA 91042	1,680	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$388,922
CAMP LOUIS ROUTH-DORM B	12500 BIG TUJUNGA CANYON RD, TUJUNGA 91042	1,680	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$388,922
CAMP LOUIS ROUTH-DORM C	12500 BIG TUJUNGA CANYON RD, TUJUNGA 91042	1,680	DETENTION DORM	11	$92	1.01	1.13	2.2	$231.50	$388,922
SHERIFF-FCC COORDINATOR/ CLASSROOM TRAILER A	1277 N EASTERN AVE, LOS ANGELES 90063	1,680	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$70,420
DF KIRBY CTR-PORTABLE CLASSROOM	1500 S MCDONNELL AVE, COMMERCE 90022	1,680	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$70,420
WEST L A COURTHOUSE-TRAILER #1(JURY ASSEMBLY)	1633 PURDUE AVE, WEST LOS ANGELES 90025	1,680	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$70,420
LA MIRADA-TENNIS PRO SHOP	13701 S ADELFA DR, LA MIRADA 90638	1,679	PROSHOP	11	$63	1.01	1.13	2.2	$157.88	$265,085
PCHS DT CTR-PAINT SHOP	29310 THE OLD RD, CASTAIC 91384	1,678	PAINT SHOP-PAINT STORAGE	17	$20	1.03	1.13	2.2	$50.67	$85,031
BISCAILUZ-TRAINING/INTELLIGENCE FACILITY	1060 N EASTERN AVE, LOS ANGELES 90063	1,660	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$480,495

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ARCADIA-COMFORT STATION	405 S SANTA ANITA AVE, ARCADIA 91007	1,658	COMFORT STATION	16	$106	1.01	1.13	2.2	$265.20	$439,697
ARBORETUM-YOUTH EDUCATION CENTER	301 N BALDWIN AVE, ARCADIA 91007	1,648	CLASSROOM	18	$104	1.01	1.13	2.2	$259.97	$428,438
HART-PARK HEADQUARTERS BUILDING	24151 SAN FERNANDO RD, SANTA CLARITA 91321	1,646	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$320,009
FIRE STATION 146	20604 E LOYALTON DR, WALNUT 91789-1216	1,643	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$492,355
STEINMETZ-ACTIVITIES BUILDING	1545 S STIMSON AVE, HACIENDA HEIGHTS 91745	1,640	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$314,518
MANZANITA-RECREATION BUILDING	1747 S KWIS AVE, HACIENDA HEIGHTS 91745	1,640	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$314,518
ACTON REHAB-DORM 1	30500 ARRASTRE CANYON RD, ACTON 93510	1,636	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$378,736
LOS ROBLES-RECREATION BUILDING	14906 E LOS ROBLES AVE, HACIENDA HEIGHTS 91745	1,632	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$312,984
PCHS DT CTR-NURSERY OFFICE	29310 THE OLD RD, CASTAIC 91384	1,629	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$471,522
MENTAL HEALTH-ALMANSOR STREET HOME FOR LIFE-B	28 S ALMANSOR ST, ALHAMBRA 91801-3921	1,624	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$315,731
KELLER-RECREATION BUILDING	1045 W 126TH ST, LOS ANGELES 90044	1,623	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$311,258
ANIMAL CONTROL #4-ADMINISTRATION BUILDING	4275 N ELTON AVE, BALDWIN PARK 91706	1,621	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$469,206

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FIRE STATION 63	4526 RAMSDELL AVE, LA CRESCENTA 91214-2834	1,620	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$485,463
CAMP KILPATRICK-MAINTENANCE BLDG	427 S ENCINAL CANYON RD, MALIBU 90265	1,620	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$218,509
RIMGROVE-PICNIC SHELTERS (2)	747 N RIMGROVE DR, VALINDA 91744	1,620	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$67,905
MONROVIA COURTHOUSE-MODULAR ANNEX COURT	300 W MAPLE AVE, MONROVIA 91016	1,619	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$67,863
MIRA LOMA - POWER PLANT	45100 N 60TH ST W, LANCASTER 93536	1,617	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$468,048
PW ROAD-DIV #555A MAINTENANCE SUBYARD	45122 N 70TH ST E, LANCASTER 93534	1,616	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$217,970
BODGER-RECREATION BUILDING	14900 S YUKON AVE, HAWTHORNE 90250	1,614	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$309,532
PW FLOOD-HANSEN YARD OFFICE	10179 GLENOAKS BLVD, SUN VALLEY 91352	1,612	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$466,601
ACTON REHAB-REHABILATION SERVICES	30500 ARRASTRE CANYON RD, ACTON 93510	1,609	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$465,733
PCHS DT CTR-MACHINE SHOP	29310 THE OLD RD, CASTAIC 91384	1,609	SHOP	17	$20	1.03	1.13	2.2	$50.67	$81,534
PW FLOOD-SEASIDE PUMPING STATION	600 S GOLDEN SHORES BLVD, LONG BEACH 90806	1,608	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$67,402
DPSS-SOTO PLAZA - E.B.T. TRAINING SITE	1241 S SOTO ST, LOS ANGELES 90023	1,600	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$463,127
DCSS-PASADENA ADULT PROTECTIVE SERVICES	1370 E WALNUT ST, PASADENA 91101	1,600	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$463,127
PW FLOOD-EL SEGUNDO YARD OFFICE	2155 EL SEGUNDO BLVD, EL SEGUNDO 90245	1,600	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$463,127

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PW FLOOD-EATON WASH DAM RESIDENCE	2986 E NEW YORK DR, PASADENA 91107	1,600	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$311,065
SOUTH COAST-VOLUNTEERS CLASSROOM	26300 CRENSHAW BLVD, PALOS VERDES ESTATES 90274	1,600	CLUBHOUSE	11	$63	1.01	1.13	2.2	$157.88	$252,613
FIRE-PACOIMA CHEMICAL STORAGE	12605 OSBORNE ST, PACOIMA 91331	1,600	SPECIAL CONDITION WAREHOUSE	14	$41	1.03	1.13	2.2	$104.60	$167,360
ROBINSON-PICNIC SHELTER	8773 E AVE R, LITTLEROCK 93543	1,600	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$67,067
PCHS DT CTR-STORAGE M	29310 THE OLD RD, CASTAIC 91384	1,596	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$166,941
PCHS DT CTR-QUONSET STORA GE 2	29310 THE OLD RD, CASTAIC 91384	1,596	QUONSET HUT	17	$14	1.04	1.13	2.2	$36.48	$58,223
VICTORIA GC-COFFEE SHOP	348 E 192ND ST, CARSON 90746	1,588	DINING HALL-RESTAURANT	13	$87	1.03	1.13	2.2	$222.59	$353,475
ARCADIA-PRO SHOP/ COMFORT STATION	405 S SANTA ANITA AVE, ARCADIA 91007	1,586	PROSHOP	11	$63	1.01	1.13	2.2	$157.88	$250,402
PW FLOOD-LOS ALTOS PUMPING STATION	6560 E ANAHEIM RD, LONG BEACH 90815	1,584	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$66,396
FIRE-PACOIMA BREATHING EQUIPMENT SHOP	12605 OSBORNE ST, PACOIMA 91331	1,581	SHOP	17	$20	1.03	1.13	2.2	$50.67	$80,115
CAMP SCOTT-OFFICE TRAILER	28700 N BOUQUET CANYON RD, SAUGUS 91350	1,581	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$66,270
PCHS DT CTR-RID PROGRAM CLASSROOM TRAILER	29310 THE OLD RD, CASTAIC 91384	1,575	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$66,019
BEACHES/HARBORS-MARINA COAST GUARD STATION	13871 FIJI WAY, MARINA DEL REY 90292	1,568	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$453,865
BEACHES/HARBORS-MARINA MAINTENANCE CENTER	13483 FIJI WAY, MARINA DEL REY 90292	1,568	MAINTENANCE YARD	14	$52	1.04	1.13	2.2	$134.88	$211,496

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PUBLIC LIBRARY-AVALON LIBRARY	215 SUMNER AVE, AVALON 90704	1,560	SERVICE CENTER	14	$52	1.04	1.13	2.2	$134.88	$210,417
OLIVE VIEW-EXPENDITURE MANAGEMENT TRAILER F-5	14445 OLIVE VIEW DR, SYLMAR 91342	1,560	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$65,390
WEST L A COURTHOUSE-TRAILER #3 (SMALL CLAIMS)	1633 PURDUE AVE, WEST LOS ANGELES 90025	1,560	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$65,390
ACTON REHAB-WAREHOUSE/POST OFFIC	30500 ARRASTRE CANYON RD, ACTON 93510	1,557	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$162,862
OLIVE VIEW-BUNGALOW L	14445 OLIVE VIEW DR, SYLMAR 91342	1,555	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$302,317
OLIVE VIEW-BUNGALOW P	14445 OLIVE VIEW DR, SYLMAR 91342	1,555	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$302,317
OLIVE VIEW-BUNGALOW R	14445 OLIVE VIEW DR, SYLMAR 91342	1,555	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$302,317
ARBORETUM-AFRICAN SHADE STRUCTURE	301 N BALDWIN AVE, A RCADIA 91007	1,555	PATIO-PATIO SHELTER	17	$16	1.03	1.13	2.2	$41.92	$65,180
WHITEMAN AIRPORT-HANGAR C01	12653 OSBORNE ST, PACOIMA 91331	1,554	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$142,390
WHITEMAN AIRPORT-HANGAR C10	12653 OSBORNE ST, PACOIMA 91331	1,554	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$142,390
WHITEMAN AIRPORT-HANGAR C11	12653 OSBORNE ST, PACOIMA 91331	1,554	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$142,390
WHITEMAN AIRPORT-HANGAR C12	12653 OSBORNE ST, PACOIMA 91331	1,554	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$142,390
WHITEMAN AIRPORT-HANGAR C13	12653 OSBORNE ST, PACOIMA 91331	1,554	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$142,390
WHITEMAN AIRPORT-HANGAR C14	12653 OSBORNE ST, PACOIMA 91331	1,554	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$142,390
WHITEMAN AIRPORT-HANGAR C15	12653 OSBORNE ST, PACOIMA 91331	1,554	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$142,390
WHITEMAN AIRPORT-HANGAR C02	12653 OSBORNE ST, PACOIMA 91331	1,554	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$142,390

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WHITEMAN AIRPORT-HANGAR C03	12653 OSBORNE ST, PACOIMA 91331	1,554	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$142,390
WHITEMAN AIRPORT-HANGAR C04	12653 OSBORNE ST, PACOIMA 91331	1,554	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$142,390
WHITEMAN AIRPORT-HANGAR C06	12653 OSBORNE ST, PACOIMA 91331	1,554	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$142,390
WHITEMAN AIRPORT-HANGAR C07	12653 OSBORNE ST, PACOIMA 91331	1,554	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$142,390
WHITEMAN AIRPORT-HANGAR C08	12653 OSBORNE ST, PACOIMA 91331	1,554	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$142,390
WHITEMAN AIRPORT-HANGAR C09	12653 OSBORNE ST, PACOIMA 91331	1,554	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$142,390
W ROGERS STATE BEACH-COMFORT STATION #1(A)	14650 PACIFIC COAST HWY, PACIFIC PALISADES 90272	1,552	COMFORT STATION	16	$106	1.01	1.13	2.2	$265.20	$411,586
CERRITOS-TENNIS PRO SHOP	19700 S BLOOMFIELD AVE, CERRITOS (DAIRY VALLEY) 90703	1,552	PROSHOP	11	$63	1.01	1.13	2.2	$157.88	$245,034
DA-JUVENILE/BD OF SUPERVISOR-THE WALNUT PLAZA	215 N MARENGO AVE, PASADENA 91101-1505	1,550	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$448,655
FOX AIRFIELD-NUNNO RECT/BUILDING-23E	4555 W AVE G, LANCASTER 93536	1,548	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$141,840
SHERIFF-EASTERN COMPLEX FLEET SERVICES OFFICE	1104 N EASTERN AVE, LOS ANGELES 90063	1,548	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$64,887
ZUMA BEACH-MAINT/TRACTOR STORAGE	30100 PACIFIC COAST HWY, MALIBU 90265	1,540	HEAVY EQUIPMENT-TRUCK GARAGE	14	$52	1.04	1.13	2.2	$134.88	$207,719
HARBOR-FLOURIDE COOLING TOWER (DEMO)	1000 W CARSON ST, TORRANCE 90502	1,540	COOLING TOWER	17	$16	1.03	1.13	2.2	$41.92	$64,552
RANCHO-CANOPY	7601 E IMPERIAL HWY, DOWNEY 90242	1,537	CORRIDOR (OPEN)-CANOPY	17	$16	1.03	1.13	2.2	$41.92	$64,426

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RANCHO-PATIO SHELTER	7601 E IMPERIAL HWY, DOWNEY 90242	1,537	PATIO-PATIO SHELTER	17	$16	1.03	1.13	2.2	$41.92	$64,426
HARBOR-WOMEN'S HEALTHCARE PROGRAMS BLDG N-35	1000 W CARSON ST, TORRANCE 90502	1,535	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$298,428
OBREGON-DIRECTOR'S BUILDING	4021 E 1ST ST, EAST LOS ANGELES 90063	1,530	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$293,423
BISCAILUZ-SUPPLIES STORAGE TRAILER O (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	1,530	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$64,133
HART-SUNDECK AND DRESSING ROOM	24151 SAN FERNANDO RD, SANTA CLARITA 91321	1,529	DRESSING ROOM	11	$92	1.01	1.13	2.2	$231.50	$353,965
OLIVE VIEW-BUNGALOW M	14445 OLIVE VIEW DR, SYLMAR 91342	1,527	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$296,873
OLIVE VIEW-BUNGALOW Q	14445 OLIVE VIEW DR, SYLMAR 91342	1,527	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$296,873
PW-FLOOD-DORIS COAST PUMPING PLANT	23131 DORIS WAY, TORRANCE 90505	1,527	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$64,007
ANIMAL CONTROL #4-CARPORT	4275 N ELTON AVE, BALDWIN PARK 91706	1,527	OPEN CARPORT	17	$16	1.03	1.13	2.2	$41.92	$64,007
SHERIFF-EASTERN AVENUE COMPLEX CAR WASH	1104 N EASTERN AVE, LOS ANGELES 90063	1,520	CARWASH	17	$16	1.03	1.13	2.2	$41.92	$63,713
ACTON REHAB-BARBER SHOP/CANTEEN	30500 ARRASTRE CANYON RD, ACTON 93510	1,518	BARBER SHOP	13	$62	1.03	1.13	2.2	$158.81	$241,069
DHS-CREMATORY OFFICE/RESIDENCE	3301 E 1ST ST, LOS ANGELES 90063	1,517	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$294,929
AG COMMISSIONER/WEIGHTS & MEASURES-WAREHOUSE	44720 YUCCA AVE, LANCASTER 93534	1,516	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$158,573
ARBORETUM-SOUTH AFRICAN STORAGE WAREHOUSE	301 N BALDWIN AVE ARCADIA 91007	1,512	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$158,155

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CASTAIC LAKE-COMFORT STATION/FIRST AID KIOSK	32132 RIDGE ROUTE RD, CASTAIC 91310	1,510	COMFORT STATION	16	$106	1.01	1.13	2.2	$265.20	$400,448
DCSS-LAWNDALE ADULT PROTECTIVE SERVICES	14623 HAWTHORNE BLVD, LAWNDALE 90260	1,505	HEALTH CENTER	15	$114	0.99	1.13	2.2	$280.42	$422,036
RIMGROVE-RECREATION BUILDING	747 N RIMGROVE DR, VALINDA 91744	1,503	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$288,245
PW FLEET-ALTADENA MAINTENANCE YARD OFFICE	252 W MOUNTAIN VIEW ST, ALTADENA 91001	1,500	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$434,182
SHERIFF-NORTH HILLS T.R.A.P. UNIT	8353 N SEPULVEDA BLVD, NORTH HILLS 91343	1,500	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$434,182
HIGH DESERT-EASY STREET REHABILITATION CLINIC	44900 N 60TH ST W, LANCASTER 93536	1,500	TEACHING & RESEARCH CLINIC	18	$109	1.01	1.13	2.2	$273.96	$410,940
DOCKWEILER-COMFORT STATION #2	8800 VISTA DEL MAR (DEAUVILLE), PLAYA DEL REY 90293	1,500	DRESSING ROOM	11	$92	1.01	1.13	2.2	$231.50	$347,252
DELTA SIGMA THETA HEAD START/ STATE PRESCHOOL	905 E 52ND ST, LOS ANGELES 90011	1,500	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$291,624
MANHATTAN BCH-BATHHOUSE	1164 THE STRAND, MANHATTAN BEACH 90266	1,500	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$251,150
ISD-SOUTH BAY FLEET SERVICES GARAGE	319 W VICTORIA ST, CARSON 90248	1,500	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$202,324
PW ROAD-DIV #558 MAINTNCE YARD STORAGE GARAGE	8505 E AVE T, LITTLEROCK 93543	1,500	SERVICE BUILDING	14	$52	1.04	1.13	2.2	$134.88	$202,324
BISCAILUZ-WEIGHTS & MEASUREMENT BLDG (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	1,500	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$156,900
ISD-SAN FERNANDO VALLEY FLEET SERVICE GARAGE	11614 PENDLETON ST (BETWEEN WEBB AND ROSCOE), SUN VALLEY 91352	1,500	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$156,900

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BISCAILUZ-SUPPLIES STORAGE TRAILER P (CLOSED)	1060 N EASTERN AVE, LOS ANGELES 90063	1,500	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$62,875
SHERIFF-TELESYSTEMS CLASSROOM TRAILER C	1277 N EASTERN AVE, LOS ANGELES 90063	1,500	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$62,875
FIRE-AIR OPERATIONS FIRE STAGING BUILDING	16700 ROSCOE (VAN NUYS AIRPORT) BLVD (NORTH SIDE), VAN NUYS 91406	1,500	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$62,875
ANIMAL CONTROL #3-ADMINISTRATION BUILDING	216 W VICTORIA ST, CARSON 90248	1,495	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$432,735
ACTON REHAB-RECOVERY HOUSE	30500 ARRASTRE CANYON RD, ACTON 93510	1,493	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$290,263
FIRE-STATION 126 OFF/RESIDENCE TRAILR(UNUSED)	27400 TOURNEY RD AT CHAMPIONSHIP WAY, SANTA CLARITA 91355	1,488	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$62,372
SUNSHINE-PICNIC SHELTERS (4)	515 S DEEPMEAD AVE, LA PUENTE 91744	1,488	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$62,372
MONROVIA COURTHOUSE-DIVISION IV	300 W MAPLE AVE, MONROVIA 91016	1,485	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$62,246
RANCHO-HUMAN SYSTEMS DESIGN CENTER - 500 HUT	7601 E IMPERIAL HWY, DOWNEY 90242	1,481	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$428,682
PW ROAD-DIV #559B YARD TRUCK GARAGE AND SHOP	MOUNT WILSON RD, MOUNT WILSON (MT. WILSON O 91023	1,480	HEAVY EQUIPMENT-TRUCK GARAGE	14	$52	1.04	1.13	2.2	$134.88	$199,626
MED CTR-BUILDING 120 - SUPPLIES WAREHOUSE	1711 GRIFFIN ST, LOS ANGELES 90031	1,479	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$506,070

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DHS-ENVIRONMENTAL HEALTH INSPECTIONS GARAGE	2525 CORPORATE PL, MONTEREY PARK 91754	1,475	HEAVY EQUIPMENT-TRUCK GARAGE	14	$52	1.04	1.13	2.2	$134.88	$198,952
BEACHES/HARBORS-VISITOR'S INFORMATION CENTER	4601 LINCOLN BLVD, MARINA DEL REY 90292	1,470	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$425,498
MED CTR-WATER COOLING TOWER	1635 MARENGO ST, LOS ANGELES 90033	1,469	COOLING TOWER	17	$16	1.03	1.13	2.2	$41.92	$61,576
FIRE STATION 34	21207 NORWALK BLVD, HAWAIIAN GARDENS 90716-1020	1,464	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$438,715
FORD AMPHITHEATRE-SOUTH TOWER	2580 CAHUENGA BLVD E, HOLLYWOOD 90068	1,461	GUARD-FIREWATCH-PATROL TOWER	15	$118	0.99	1.13	2.2	$289.45	$422,893
SHERIFF-MARINA BOAT MAINTENANCE BLD (DOCK 52)	13483 FIJI WAY, MARINA DEL REY 90292	1,461	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$197,063
BISCAILUZ-CLASSROOM TRAILER	1060 N EASTERN AVE, LOS ANGELES 90063	1,457	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$61,073
ACTON REHAB-STORAGE/DOORS 1-4 & 6	30500 ARRASTRE CANYON RD, ACTON 93510	1,452	LAUNDRY - SUPPLIES-IRONING STORAGE	13	$50	1.05	1.13	2.2	$130.70	$189,773
SHERIFF-CALABASAS SUBSTATION	5100 PARKVILLE RD (GRAPE ARBOR PARK), CALABASAS 91301	1,451	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$60,821
ALLEN J MARTIN-RECREATION BUILDING	14830 E GIORDANO ST, LA PUENTE 91744	1,450	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$278,080
FIRE-PACOIMA PLUMBING SHOP	12605 OSBORNE ST, PACOIMA 91331	1,450	SHOP	17	$20	1.03	1.13	2.2	$50.67	$73,477
HIGH DESERT-SAFETY/QUALITY ASSURANCE TRAILER	44900 N 60TH ST W, LANCASTER 93536	1,446	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$60,612

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GEORGE W CARVER-RECREATION BUILDING	1400 E 118TH ST, LOS ANGELES 90059	1,445	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$277,121
CASTAIC LAKE-BATHHOUSE #1	32132 RIDGE ROUTE RD, CASTAIC 91310	1,442	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$241,439
CASTAIC LAKE-BATHHOUSE #2	32132 RIDGE ROUTE RD, CASTAIC 91310	1,442	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$241,439
CASTAIC LAKE-BATHHOUSE #3	32132 RIDGE ROUTE RD, CASTAIC 91310	1,442	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$241,439
CASTAIC LAKE-BATHHOUSE #4	32132 RIDGE ROUTE RD, CASTAIC 91310	1,442	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$241,439
EAST SERVICES AGENCY-OFFICE BUILDING	265 CLOVERLEAF DR, BALDWIN PARK 91706	1,440	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$416,815
PW FLOOD-IMPERIAL YARD OFFICE	5525 E IMPERIAL HWY, SOUTH GATE 90280	1,440	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$416,815
HARBOR-SCHOOL OF RADIOLOGIC TECH B-2 WEST	1000 W CARSON ST, TORRANCE 90502	1,440	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$333,362
FIRE-PACOIMA STORAGE WAREHOUSE	12605 OSBORNE ST, PACOIMA 91331	1,440	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$150,624
PW FLOOD-PICKENS YARD WAREHOUSE	4628 N BRIGGS AVE, LA CRESCENTA 91214	1,440	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$150,624
PW FLOOD-IMPERIAL YARD SHOP	5525 E IMPERIAL HWY, SOUTH GATE 90280	1,440	SHOP	17	$20	1.03	1.13	2.2	$50.67	$72,970
LANCASTER COURTHOUSE-JURY ASSEMBLY ROOM	1040 W AVE J, LANCASTER 93534	1,440	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$60,360
MED CTR-LOCAL WORKER HIRING PROGRAM BLDG 304	1200 N STATE ST, LOS ANGELES 90033	1,440	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$60,360
CAMP LOUIS ROUTH-KITCHEN/DINING ROOM	12500 BIG TUJUNGA CANYON RD, TUJUNGA 91042	1,440	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$60,360

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CAMP HOLTON-CLASSROOM TRAILER	12653 N LITTLE TUJUNGA CANYON RD, SAN FERNANDO 91342	1,440	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$60,360
SHERIFF-TELESYSTEMS CLASSROOM TRAILER B	1277 N EASTERN AVE, LOS ANGELES 90063	1,440	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$60,360
FIRE-STATION TRAINING TRAILER	1320 N EASTERN AVE, LOS ANGELES 90063-3294	1,440	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$60,360
BEACHES/HARBORS-BUDGET TRAILER #1	13483 FIJI WAY, MARINA DEL REY 90292	1,440	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$60,360
BEACHES/HARBORS-FINANCE TRAILER #2	13483 FIJI WAY, MARINA DEL REY 90292	1,440	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$60,360
BEACHES/HARBORS-PAYROLL TRAILER #3	13483 FIJI WAY, MARINA DEL REY 90292	1,440	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$60,360
SHERIFF-NEW ISTHMUS SUB-STATION AND RESIDENCE	17 TWO HARBORS RD ISTHMUS (CATALINA ISLAND), TWO HARBORS 90704	1,440	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$60,360
SANTA CLARITA SENIOR CENTER-ANNEX	22900 MARKET ST, SANTA CLARITA 91321	1,440	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$60,360
SANTA CLARITA SENIOR CENTER-OFFICES	22900 MARKET ST, SANTA CLARITA 91321	1,440	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$60,360
DHS-COUNTY AMBULANCE DEPARTMENT HEADQUARTERS	5554 UNION PACIFIC AVE, CITY OF COMMERCE 90022	1,440	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$60,360
WHITEMAN AIRPORT-HANGAR J02	12653 OSBORNE ST, PACOIMA 91331	1,429	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$130,936
WHITEMAN AIRPORT-HANGAR J04	12653 OSBORNE ST, PACOIMA 91331	1,429	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$130,936

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WHITEMAN AIRPORT-HANGAR J10	12653 OSBORNE ST, PACOIMA 91331	1,429	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$130,936
WHITEMAN AIRPORT-HANGAR J06	12653 OSBORNE ST, PACOIMA 91331	1,429	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$130,936
WHITEMAN AIRPORT-HANGAR J08	12653 OSBORNE ST, PACOIMA 91331	1,429	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$130,936
ANIMAL CONTROL #7-BARN	29525 W AGOURA RD, AGOURA HILLS 91301	1,429	CLOSED BARN	17	$19	1.03	1.13	2.2	$47.58	$67,985
PW FLOOD-W LONG BEACH PUMP STN	1436 W 9TH ST, LONG BEACH 90806	1,426	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$59,773
ISD/ITS-PACOIMA SUPRV RESIDENCE	12439 OSBORNE ST, PACOIMA 91331	1,419	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$275,876
ATHENS-SERVICE BUILDING	12603 S BROADWAY, LOS ANGELES 90061	1,410	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$190,184
RANCHO-EMPLOYEES CHILD CARE CENTER (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	1,408	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$273,738
FIRE CAMP 19-ARTS & CRAFTS BUILDING	22550 EAST FORK RD (SAN GABRIEL RIVER), AZUSA 91702	1,406	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$269,642
CAMP BARLEY FLATS-RECREATION BUILDING	23900 STAR ROUTE, LA CANADA FLINTRIDGE 91011	1,405	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$189,510
ANIMAL CONTROL #7-SPAY & NEUTER CLINIC	29525 W AGOURA RD, AGOURA HILLS 91301	1,404	SPAY & NEUTER CLINIC	15	$118	0.99	1.13	2.2	$289.45	$406,394
RANCHO-OPEN SHELTER (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	1,404	PATIO-PATIO SHELTER	17	$16	1.03	1.13	2.2	$41.92	$58,851
RANCHO-RECORDS STORAGE (CONDEMNED)	7601 E IMPERIAL HWY, DOWNEY 90242	1,403	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$272,765

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PW CENTRAL YARD-SHOP OFFICE BLDG	2275 ALCAZAR ST, LOS ANGELES 90033	1,400	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$405,237
ISD/ITS-ROLLING HILLS TRANSMITTER	5741 CRESTRIDGE RD, RANCHO PALOS VERDES 90275	1,400	TRANSMITTER BLDG-MICROWAVE SITE	15	$118	0.99	1.13	2.2	$289.45	$405,237
RANCHO-EMPLOYEE CHILD CARE/ SCHOOL (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	1,400	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$272,182
RANCHO-VOCATIONAL TRAINING FACILITY/LOCK SHOP	7601 E IMPERIAL HWY, DOWNEY 90242	1,399	GUARDHOUSE-GUARD STATION	15	$118	0.99	1.13	2.2	$289.45	$404,947
WARM SP REHAB-LAUNDRY/BATHHOUSE	38200 N LAKE HUGHES RD, CASTA IC 91310	1,397	LAUNDRY - SUPPLIES-IRONING STORAGE	13	$50	1.05	1.13	2.2	$130.70	$182,585
GEORGE W CARVER-ACTIVITY BUILDING	1400 E 118TH ST, LOS ANGELES 90059	1,394	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$267,341
BONELLI-PARK SERVICES BUREAU SUB-STN TRAILER	120 VIA VERDE (EAST OF PARK ADMIN BLDG), SAN DIMAS 91773	1,391	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$58,306
CAMP BARLEY FLATS-CARPORT	23900 STAR ROUTE, LA CANADA FLINTRIDGE 91011	1,386	OPEN CARPORT	17	$16	1.03	1.13	2.2	$41.92	$58,097
WEST COVINA REGIONAL SERVICES BUILDING	2934 E GARVEY AVE, WEST COVINA 91791-2191	1,383	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$400,316
PW ROAD-MOUNTAIN OPERATIONS SECTION GARAGE	35100 SAN FRANCISQUITO CANYON RD, SAUGUS 91350	1,380	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$186,138
MED CTR-HOME CARE TRAILER T-4	1200 N STATE ST, LOS ANGELES 90033	1,376	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$57,677

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FORD AMPHITHEATRE-NORTH TOWER	2580 CAHUENGA BLVD E, HOLLYWOOD 90068	1,369	GUARD-FIREWATCH-PATROL TOWER	15	$118	0.99	1.13	2.2	$289.45	$396,263
CAMP MUNZ-STORAGE TRAILER	42220 N LAKE HUGHES RD, LAKE HUGHES 93532	1,368	CLASSROOM	18	$104	1.01	1.13	2.2	$259.97	$355,645
SORENSEN-RECREATION BUILDING	11419 ROSEHEDGE DR, WHITTIER 90606	1,368	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$262,354
SURFRIDER BCH-BATHHOUSE/COMFORT STATION	23200 PACIFIC COAST HWY, MALIBU 90265	1,364	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$228,379
BONELLI-BOAT RENTAL CONCESSION	120 VIA VERDE, SAN DIMAS 91773	1,363	BOAT CONCESSION-BOATHOUSE	13	$50	1.05	1.13	2.2	$129.31	$176,255
PW FLOOD-BIG DALTON WASH DAM RESIDENCE	2600 BIG DALTON RD, GLENDORA 91740	1,360	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$264,406
ADVENTURE PARK-ACTIVITIES BUILDING	10130 S GUNN AVE, WHITTIER 90605	1,360	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$260,820
HART-FOUR HORSE STABLE	24151 SAN FERNANDO RD, SANTA CLARITA 91321	1,360	STABLE	17	$16	1.03	1.13	2.2	$41.92	$57,007
LENNOX-SENIOR CITIZENS BUILDING	10828 S CONDON AVE, LENNOX 90304	1,357	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$260,245
BONELLI-POOL EQUIPMENT / MAINTENANCE BUILDING	120 VIA VERDE, SAN DIMAS 91773	1,356	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$182,901
SHERIFF-COMMUNICATIONS CENTER BUS GARAGE	1277 N EASTERN AVE, LOS ANGELES 90063	1,352	HEAVY EQUIPMENT-TRUCK GARAGE	14	$52	1.04	1.13	2.2	$134.88	$182,361
DCFS-ANTELOPE JUVENILE CT/SHELTER CARE OFFICE	936 W AVE J-4, LANCASTER 93534	1,350	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$390,764
PW FLOOD-SAWPIT DAM RESIDENCE A	1300 N CANYON TKTR, MONROVIA 91016	1,350	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$262,461

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PW FLOOD-SAN GABRIEL DAM RESIDENCE	9700 SAN GABRIEL CANYON RD, AZUSA 91702	1,350	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$262,461
PW FLOOD-SAN GABRIEL DAM RESIDENCE	9700 SAN GABRIEL CANYON RD, AZUSA 91702	1,350	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$262,461
BONELLI-PARK TRAM SNACKBAR/COMFORT STN G-1	120 VIA VERDE, SAN DIMAS 91773	1,350	SNACKBAR	13	$50	1.05	1.13	2.2	$129.31	$174,574
ARCADIA-DRESSING ROOMS	405 S SANTA ANITA AVE, ARCADIA 91007	1,349	DRESSING ROOM	11	$92	1.01	1.13	2.2	$231.50	$312,295
PW FLOOD-BIG TUJUNGA DAM RESIDNCE	809 W BIG TUJUNGA CANYON RD, SUNLAND 91040	1,348	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$262,073
HS-NORTH HOLLYWOOD PUBLIC HEALTH CENTER ANNEX	5300 TUJUNGA AVE, NORTH HOLLYWOOD 91601	1,347	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$56,462
LADERA-PICNIC SHELTER	6027 LADERA PARK AVE, LOS ANGELES 90056	1,344	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$56,336
ACTON REHAB-OCCUPATIONAL THERAPY ROOM	30500 ARRASTRE CANYON RD, ACTON 93510	1,336	TEACHING & RESEARCH CLINIC	18	$109	1.01	1.13	2.2	$273.96	$366,010
DESCANSO GARDENS-COMFORT STATION	1418 DESCANSO DR, LA CANADA FLINTRIDGE 91011	1,333	COMFORT STATION	16	$106	1.01	1.13	2.2	$265.20	$353,508
MOTHERS BEACH-COMFORT STATION/BATHHOUSE	4101 ADMIRALTY WAY (NEAR PALAWAN WAY), MARINA DEL REY 90292	1,333	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$223,188
DF KIRBY CTR-CHAPEL	1500 S MCDONNELL AVE, COMMERCE 90022	1,332	CHAPEL/CHURCH	16	$117	1.01	1.13	2.2	$293.85	$391,403

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HART-COMFORT STN/CHAUFFEURS QUARTERS & GARAGE	24151 SAN FERNANDO RD, SANTA CLARITA 91321	1,332	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$258,962
CAMP LOUIS ROUTH-CLOTHES STORAGE	12500 BIG TUJUNGA CANYON RD, TUJUNGA 91042	1,332	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$139,327
MIRA LOMA -JAIL CONSTRUCTION OFFICE	45100 N 60TH ST W, LANCASTER 93536	1,328	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$55,665
FIRE CAMP 13-ADMINISTRATION BLDG	1250 S ENCINAL CANYON RD, MALIBU 90265	1,323	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$306,276
FOX AIRFIELD-MAINTENANCE BUILDNG	4555 W AVE G, LANCASTER 93536	1,320	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$138,072
OLIVE VIEW-BUNGALOW C (CONDEMNED)	14445 OLIVE VIEW DR, SYLMAR 91342	1,319	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$256,435
OLIVE VIEW-BUNGALOW J	14445 OLIVE VIEW DR, SYLMAR 91342	1,319	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$256,435
OLIVE VIEW-BUNGALOW I	14445 OLIVE VIEW DR, SYLMAR 91342	1,319	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$256,435
OLIVE VIEW-BUNGALOW H	14445 OLIVE VIEW DR, SYLMAR 91342	1,319	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$256,435
OLIVE VIEW-BUNGALOW G	14445 OLIVE VIEW DR, SYLMAR 91342	1,319	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$256,435
OLIVE VIEW-BUNGALOW F	14445 OLIVE VIEW DR, SYLMAR 91342	1,319	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$256,435
OLIVE VIEW-BUNGALOW E	14445 OLIVE VIEW DR, SYLMAR 91342	1,319	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$256,435
OLIVE VIEW-BUNGALOW D	14445 OLIVE VIEW DR, SYLMAR 91342	1,319	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$256,435
PW-INC CITY OFFICE/AREA 1 FIRE PREVENTION OFF	701 E CARSON ST (CITY HALL), CARSON 90745	1,314	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$380,343
ANIMAL CONTROL #1-SPAY & NEUTER CLINIC	11258 GARFIELD AVE, DOWNEY 90242	1,312	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$54,995

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EL PORTO BEACH-COMFORT STATION/BATHHOUSE	4216 THE STRAND, MANHATTAN BEACH 90266	1,311	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$219,505
ACTON REHAB-DORM 2	30500 ARRASTRE CANYON RD, ACTON 93510	1,310	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$303,267
FIRE CAMP 19-SCHOOL SHOP	22550 EAST FORK RD (SAN GABRIEL RIVER), AZUSA 91702	1,308	SHOP	17	$20	1.03	1.13	2.2	$50.67	$66,281
FIRE CAMP 11-FIRE GEAR STORAGE	8800 W SOLEDAD CANYON RD, ACTON 93510	1,306	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$136,607
DESCANSO GARDENS-RESIDENCE	1418 DESCANSO DR, LA CANADA FLINTRIDGE 91011	1,304	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$253,518
ACTON REHAB-CARPENTER SHOP	30500 ARRASTRE CANYON RD, ACTON 93510	1,304	SHOP	17	$20	1.03	1.13	2.2	$50.67	$66,079
LANCASTER COURTHOUSE-DETENTION ADDITION	1040 W AVE J, LANCASTER 93534	1,302	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$54,576
SHERIFF-ASIAN TASK FORCE CENTER	1380 FULLERTON RD, ROWLAND HEIGHTS 91748	1,300	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$376,291
FIRE-SAN GABRIEL VALLEY HAZ-MAT FIELD OFFICE	5110 N PECK RD, EL MONTE 91732	1,298	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$388,970
PW FLOOD-LONGDEN YARD OFFICE	160 E LONGDEN AVE, IRWINDALE 91706	1,296	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$375,133
FIRE-NEW ISTHMUS BAYWATCH LIFEGUARD STATION	18 A TWO HARBORS RD ISTHMUS (CATALINA ISLAND), TWO HARBORS 90704	1,296	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$54,324

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FIRE-NEW ISTHMUS BAYWATCH LIFEGUARD RESIDENCE	18 B TWO HARBORS RD ISTHMUS (CATALINA ISLAND), 2 HARBORS 90704	1,296	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$54,324
FIRE-NEW ISTHMUS BAYWATCH LIFEGUARD RESIDENCE	18 C TWO HARBORS RD ISTHMUS (CATALINA ISLAND), TWO HARBORS 90704	1,296	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$54,324
RANCHO-NURSERY BUILDING	7601 E IMPERIAL HWY, DOWNEY 90242	1,295	GREENHOUSE-HOT HOUSE	16	$7	1.02	1.13	2.2	$16.96	$21,968
MIRA LOMA - OFFICE TRAILERS 1 & 2	45100 N 60TH ST W, LANCASTER 93536	1,293	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$54,198
MIRA LOMA - OFFICE TRAILERS 3 & 4	45100 N 60TH ST W, LANCASTER 93536	1,293	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$54,198
MIRA LOMA - REACH TRAILERS 5 & 6	45100 N 60TH ST W, LANCASTER 93536	1,293	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$54,198
MIRA LOMA - REACH TRAILERS 7 & 8	45100 N 60TH ST W, LANCASTER 93536	1,293	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$54,198
MIRA LOMA - STORAGE TRAILERS 9 & 10	45100 N 60TH ST W, LANCASTER 93536	1,293	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$54,198
MIRA LOMA - CLASSROOM/DISPENSARY 11 & 12	45100 N 60TH ST W, LANCASTER 93536	1,293	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$54,198
MIRA LOMA - STAFF LOCKER ROOM 13 & 14	45100 N 60TH ST W, LANCASTER 93536	1,293	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$54,198
BOARD OF SUP-5TH DISTRICT FIELD OFFICE	615 E FOOTHILL BLVD, SAN DIMAS 91773	1,292	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$373,975
REDONDO BCH-COMFORT STATION #1/ BATHHOUSE	499 S ESPLANADE AVE (AINSWORTH), REDONDO BEACH 90277	1,291	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$216,156
HOLLYWOOD BOWL-VOLUNTEER COTTAGE	2301 N HIGHLAND AVE, HOLLYWOOD 90068	1,290	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$250,796

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PW FLOOD-SAN GABRIEL DAM RESIDENCE	9700 SAN GABRIEL CANYON RD, AZUSA 91702	1,290	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$250,796
LOS AMIGOS GC-MAINTENANCE BUILDING	7295 E QUILL DR, DOWNEY 90242	1,280	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$172,649
CAMP GLENN ROCKEY - SCHOOL ANNEX	1900 N SYCAMORE CANYON RD, SAN DIMAS 91773	1,280	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$53,653
RANCHO-SOUTHWEST CLUSTER HOUSEKEEPING	7601 E IMPERIAL HWY, DOWNEY 90242	1,279	CLASSROOM	18	$104	1.01	1.13	2.2	$259.97	$332,507
PW SEWER-EAST YARD OFFICE	2849 S MYRTLE AVE, IRWINDALE 91707	1,278	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$369,923
AG COMM-WEED ABATEMENT OFFICE BUILDING 49	14445 OLIVE VIEW DR, SYLMAR 91342	1,275	PHARMACY	15	$118	0.99	1.13	2.2	$289.45	$369,055
WARM SP REHAB-SUPERVISOR'S HOUSE	38200 N LAKE HUGHES RD, CASTAIC 91310	1,275	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$247,880
PW ROAD-RMD 5 PALMDALE DIST SURVEY DIV OFFICE	840 E AVE Q-12, PALMDALE 93550	1,275	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$247,880
WARM SP REHAB-EMPLOYEES QUARTERS	38200 N LAKE HUGHES RD, CASTAIC 91310	1,271	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$294,238
ATHENS-PUMPHOUSE	12603 S BROADWAY, LOS ANGELES 90061	1,269	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$53,192
RANCHO-PROSTHETIC SHOP	7601 E IMPERIAL HWY, DOWNEY 90242	1,266	PROSTHETIC SHOP-PROTOTYPE	17	$20	1.03	1.13	2.2	$50.67	$64,153
PCHS DT CTR-PUMPHOUSE	29310 THE OLD RD, CASTAIC 91384	1,265	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$53,025
WHITEMAN AIRPORT-HANGAR Z3-01	12653 OSBORNE ST, PACOIMA 91331	1,257	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$115,176
WHITEMAN AIRPORT-HANGAR Z3-03	12653 OSBORNE ST, PACOIMA 91331	1,257	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$115,176

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WHITEMAN AIRPORT-HANGAR Z3-05	12653 OSBORNE ST, PACOIMA 91331	1,257	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$115,176
WHITEMAN AIRPORT-HANGAR Z3-07	12653 OSBORNE ST, PACOIMA 91331	1,257	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$115,176
FIRE CAMP 11-TELEVISION ROOM	8800 W SOLEDAD CANYON RD, ACTON 93510	1,251	BRIEFING SHELTER	16	$106	1.01	1.13	2.2	$265.20	$331,761
HOLLYWOOD BOWL-NURSERY 5C	2301 N HIGHLAND AVE, HOLLYWOOD 90068	1,251	NURSERY BLDG-STRUCTURE	16	$7	1.02	1.13	2.2	$16.96	$21,222
PW FLOOD-LONGDEN YARD OFFICE	160 E LONGDEN AVE, IRWINDALE 91706	1,250	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$361,818
PW ROAD-DIV #551 MAINTENANCE YARD OFFICE	4859 W AVE L-12, QUARTZ HILL 93536	1,250	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$361,818
PW ROAD-DIV #558 MAINTENANCE YARD OFFICE	8505 E AVE T, LITTLEROCK 93543	1,250	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$361,818
GEORGE LANE-MAINTENANCE BUILDING	5520 W AVE L-8, QUARTZ HILL 93536	1,245	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$167,929
WARM SP REHAB-GROUNDS MAINTENANCE OFFICE	38200 N LAKE HUGHES RD, CASTAIC 91310	1,244	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$167,794
SHERIFF-LENNOX MAINTENANCE BUILDING	4331 LENNOX BLVD, LENNOX 90304	1,244	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$167,794
F.D. ROOSEVELT-DRESSING ROOM	7600 GRAHAM AVE, LOS ANGELES 90001	1,243	DRESSING ROOM	11	$92	1.01	1.13	2.2	$231.50	$287,756
PW FLOOD-EATON YARD WAREHOUSE	2986 E NEW YORK DR, PASADENA 91104	1,242	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$129,913
BOARD OF SUP-5TH DISTRICT FIELD OFFICE	1113 W AVE M-4, PALMDALE 93550	1,241	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$359,213
BEACHES/HARBORS-VIA DOLCE YD MAINTENANCE BLDG	3170 VIA DOLCE, MARINA DEL REY 90292	1,240	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$167,254

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RANCHO-BLDG 300-HUT STORAGE #2 (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	1,239	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$358,634
ACTON REHAB-LIBRARY	30500 ARRASTRE CANYON RD, ACTON 93510	1,237	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$237,231
ACTON REHAB-GENERAL SERVICES	30500 ARRASTRE CANYON RD, ACTON 93510	1,233	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$166,310
ATHENS-CRAFTS BUILDING	12603 S BROADWAY, LOS ANGELES 90061	1,231	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$236,081
FIRE-PACOIMA SMALL ENGINE REPAIR	12605 OSBORNE ST, PACOIMA 91331	1,230	SHOP	17	$20	1.03	1.13	2.2	$50.67	$62,329
PW ROAD-DIV #559B YARD SAND SHED	MOUNT WILSON RD, MOUNT WILSON (MT. WILSON O 91023	1,230	CAVE BUNKER	17	$16	1.03	1.13	2.2	$41.92	$51,558
BEACHES/HARBORS-MARINA COAST GUARD BOAT DOCK	13871 FIJI WAY, MARINA DEL REY 90292	1,230	DOCK-RAFT-BOAT LANDING	17	$16	1.03	1.13	2.2	$41.92	$51,558
RANCHO-AIR CONDITIONER SHELTER	7601 E IMPERIAL HWY, DOWNEY 90242	1,230	AIR CONDITIONING ENCLOSURE	17	$16	1.03	1.13	2.2	$41.92	$51,558
ZUMA BEACH-RESTROOM/DRESSING #2	29600 PACIFIC COAST HWY, MALIBU 90265	1,229	DRESSING ROOM	11	$92	1.01	1.13	2.2	$231.50	$284,515
ZUMA BEACH-RESTROOM/DRESSING #3	29750 PACIFIC COAST HWY, MALIBU 90265	1,229	DRESSING ROOM	11	$92	1.01	1.13	2.2	$231.50	$284,515
ZUMA BEACH-RESTROOM/DRESSING #4	29850 PACIFIC COAST HWY, MALIBU 90265	1,229	DRESSING ROOM	11	$92	1.01	1.13	2.2	$231.50	$284,515
ZUMA BEACH-RESTROOM/DRESSING #5	30056 PACIFIC COAST HWY, MALIBU 90265	1,229	DRESSING ROOM	11	$92	1.01	1.13	2.2	$231.50	$284,515

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ZUMA BEACH-RESTROOM/DRESSING #6	30066 PACIFIC COAST HWY, MALIBU 90265	1,229	DRESSING ROOM	11	$92	1.01	1.13	2.2	$231.50	$284,515
ZUMA BEACH-RESTROOM/DRESSING #7	30180 PACIFIC COAST HWY, MALIBU 90265	1,229	DRESSING ROOM	11	$92	1.01	1.13	2.2	$231.50	$284,515
ZUMA BEACH-RESTROOM/DRESSING #8	30300 PACIFIC COAST HWY, MALIBU 90265	1,229	DRESSING ROOM	11	$92	1.01	1.13	2.2	$231.50	$284,515
ZUMA BEACH-RESTROOM/DRESSING #9	30490 PACIFIC COAST HWY, MALIBU 90265	1,229	DRESSING ROOM	11	$92	1.01	1.13	2.2	$231.50	$284,515
ZUMA BEACH-RESTROOM/DRESSING #1	6600 S WESTWARD BEACH RD, MALIBU 90265	1,229	DRESSING ROOM	11	$92	1.01	1.13	2.2	$231.50	$284,515
BRACKETT FIELD-SHOP/SERV BLDG-12	1615 W MCKINLEY AVE, LA VERNE 91750	1,225	SHOP	17	$20	1.03	1.13	2.2	$50.67	$62,076
MED CTR-MENTAL HEALTH CONTINUING CARE CLINIC	2020 ZONAL AVE, LOS ANGELES 90033	1,225	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$51,348
BOARD OF SUP-5TH DISTRICT FIELD OFFICE	23920 W VALENCIA BLVD, SANTA CLARITA 91355	1,224	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$354,293
ISD-EASTERN AVE TELECOM CUSTOMER SERVICE BLDG	1110 N EASTERN AVE, LOS ANGELES 90063	1,224	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$51,306
DESCANSO GARDENS-ADMINISTRATION	1418 DESCANSO DR, LA CANADA FLINTRIDGE 91011	1,222	NEEDS DESCRIPTION	15	$118	0.99	1.13	2.2	$289.45	$353,714
CERRITOS-FOOD CONCESSION BUILDING	19700 S BLOOMFIELD AVE, CERRITOS (DAIRY VALLEY) 90703	1,221	SNACKBAR	13	$50	1.05	1.13	2.2	$129.31	$157,893
SHERIFF-ACTON VOLUNTEERS ON PATROL	33336 SANTIAGO RD, ACTON 93510	1,220	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$156,820

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PCHS DT CTR-RESIDENCE 2	29310 THE OLD RD, CASTAIC 91384	1,219	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$236,993
PW FLOOD-SAN DIMAS DAM CONTROL HOUSE	3501 SAN DIMAS CANYON RD, LA VERNE 91773	1,216	GATEHOUSE	16	$106	1.01	1.13	2.2	$265.20	$322,480
FARNSWORTH-RESIDENCE/STORAGE BUILDING	568 E MOUNT CURVE AVE, ALTADENA 91001	1,214	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$236,021
ENTERPRISE-RECREATION BUILDING	13055 CLOVIS AVE, LOS ANGELES 90059	1,213	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$232,629
CITY TERRACE-STAGE DRESSING ROOM	1126 N HAZARD AVE, EAST LOS ANGELES 90063	1,211	DRESSING ROOM	11	$92	1.01	1.13	2.2	$231.50	$280,348
BOARD OF SUP-3RD DISTRICT FIELD OFFICE	26500 W AGOURA RD, CALABASAS 91302	1,202	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$347,925
BISCAILUZ-POWER PLANT	1060 N EASTERN AVE, LOS ANGELES 90063	1,200	POWER-HEAT & REFRIG PLANT	15	$118	0.99	1.13	2.2	$289.45	$347,346
BOARD OF SUP-5TH DISTRICT FIELD OFFICE	21949 PLUMMER ST BUILDING 2, CHATSWORTH 91311	1,200	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$347,346
FIRE-CAMP 16-GENERATOR BUILDING	26652 ANGELES FOREST HWY NORTH OF MOUNT GLEASON RD, PALMDALE 93550-9206	1,200	GENERATOR BUILDING	15	$118	0.99	1.13	2.2	$289.45	$347,346
MIRA LOMA-WATCHTOWER APARTMENTS	45100 N 60TH ST W, LANCASTER 93536	1,200	GUARD-FIREWATCH-PATROL TOWER	15	$118	0.99	1.13	2.2	$289.45	$347,346
PW ROAD-DIV #558 MAINTNCE YARD WASH RACK SHED	8505 E AVE T, LITTLEROCK 93543	1,200	WASH SHED-RACK	15	$118	0.99	1.13	2.2	$289.45	$347,346
ML KING-BUS SHELTER	12021 S WILMINGTON AVE, LA 90059	1,200	BUS SHELTER-TRUCK SHELTER	16	$106	1.01	1.13	2.2	$265.20	$318,236

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PW ROAD-BALDWIN PARK MAINT YARD RESIDENCE	14765 E RAMONA BLVD, BALDWIN PARK 91706	1,200	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$233,299
PW FLOOD-SAN DIMAS DAM RESIDENCE	3331 SAN DIMAS CANYON RD, LA VERNE 91773	1,200	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$233,299
BEACHES/HARBORS-MARINA SEA SCOUT PARDEE BASE	13640 MINDANAO WAY, MARINA DEL REY 90292	1,200	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$230,135
CRESCENTA VALLEY-RECREATION BUILDING	3901 DUNSMORE AVE AT HONOLULU AVE, LA CRESCENTA 91214	1,200	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$230,135
FOX AIRFIELD-ISD/ITS MAINTENANCE BUILDING-8	4555 W AVE G, LANCASTER 93536	1,200	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$161,859
MED CTR-BUILDING CRAFTS PAINT STORAGE BLDG		1,200	PAINT SHOP-PAINT STORAGE	17	$20	1.03	1.13	2.2	$50.67	$60,809
SHERIFF-LASER VILLAGE V	1060 N EASTERN AVE (OPPOSITE BISCAILUZ CTR), LOS ANGELES 90063	1,200	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$50,300
MED CTR-HEALTH RESEARCH ASSOC'N-TRAILER T-25A	1200 N STATE ST, LOS ANGELES 90033	1,200	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$50,300
MED CTR-EMERGENCY MEDICAL SVCS TRAILER T-18	1200 N STATE ST, LOS ANGELES 90033	1,200	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$50,300
CHESEBROUGH-COVERED PICNIC SHELTER (6 TABLES)	23505 SUNSET HILL DR AT MCBEAN PKWY, VALENCIA 91354	1,200	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$50,300
SANTA ANITA GC-FERTILIZER SHELTER	405 S SANTA ANITA AVE, ARCADIA 91007	1,200	STORAGE RACKS-OPEN SHELTER	17	$16	1.03	1.13	2.2	$41.92	$50,300

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CAMP MENDENHALL-CLASSROOM TRAILER	42150 N LAKE HUGHES RD, LAKE HUGHES 93532	1,200	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$50,300
SANTA ANITA GC-CADDY HOUSE	405 S SANTA ANITA AVE, ARCADIA 91007	1,197	GARAGE	14	$52	1.04	1.13	2.2	$134.88	$161,454
CASTAIC LAKE-PICNIC SHELTERS (6)	32132 RIDGE ROUTE RD, CASTAIC 91310	1,196	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$50,132
PW FLOOD-ALAMITOS BAY PUMPING PLANT	5425 E OCEAN BLVD, LONG BEACH 90803	1,193	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$50,007
RANCHO-PEST CONTROL BUILDING	7601 E IMPERIAL HWY, DOWNEY 90242	1,184	FLAMMABLE LIQUID STORAGE BLDG	14	$41	1.03	1.13	2.2	$104.60	$123,846
ARBORETUM-CENTRAL ORCHID HOUSE ANNEX A	301 N BALDWIN AVE, ARCADIA 91007	1,181	PATIO-PATIO SHELTER	17	$16	1.03	1.13	2.2	$41.92	$49,504
FIRE CAMP 13-DORMITORY 3	1250 S ENCINAL CANYON RD, MALIBU 90265	1,180	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$273,172
WARM SP REHAB-LUMBER STORAGE SHED	38200 N LAKE HUGHES RD, CASTAIC 91310	1,180	STORAGE BLDG (100/999 SQ FT)	14	$41	1.03	1.13	2.2	$104.60	$123,428
PW ROAD-DIV #559B YARD DORMITORY AND OFFICE	MOUNT WILSON RD, MOUNT WILSON (MT. WILSON O 91023	1,176	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$272,246
GEORGE LANE-CRAFTS BUILDING/ COMFORT STATION	5520 W AVE L-8, QUARTZ HILL 93536	1,171	RECREATION-GYMNASIUM-CRAFT ROOM	11	$76	1.01	1.13	2.2	$191.78	$224,574
BELVEDERE-FIELDHOUSE/ COMFORT STATION	4914 CESAR E CHAVEZ AVE, EAST LOS ANGELES 90022	1,170	COMFORT STATION	16	$106	1.01	1.13	2.2	$265.20	$310,281
ZUMA BEACH-FOOD CONCESSION STAND #2	30066 PACIFIC COAST HWY, MALIBU 90265	1,165	SNACKBAR	13	$50	1.05	1.13	2.2	$129.31	$150,651

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MED CTR-SICKLE CELL CLINIC TRAILER T-12	1200 N STATE ST, LOS ANGELES 90033	1,164	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$48,791
ROWLAND HTS-PICNIC SHELTERS (2)	1500 S BANIDA AVE, ROWLAND HEIGHTS 91748	1,164	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$48,791
HOLLYWOOD BOWL-EQUIPMENT STORAGE BUILDING	2301 N HIGHLAND AVE, HOLLYWOOD 90068	1,160	TOOL SHED-TOOL BUILDING	17	$16	1.03	1.13	2.2	$41.92	$48,623
DESCANSO GARDENS-YOUTH EDUCATION BUILDING	1418 DESCANSO DR, LA CANADA FLINTRIDGE 91011	1,159	CLASSROOM	18	$104	1.01	1.13	2.2	$259.97	$301,310
RANCHO-BLDG 300-HUT STORAGE #1 (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	1,152	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$333,452
RANCHO-BLDG 300-HUT STORAGE #4 (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	1,152	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$333,452
PW FLOOD-PUDDINGSTONE WAREHOUSE	150 E PUDDINGSTONE DR, SAN DIMAS 91773	1,152	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$120,499
PW ROAD-HOLLYDALE MAINTENANCE YARD PAINT SHOP	11282 GARFIELD AVE, DOWNEY 90242	1,152	PAINT SHOP-PAINT STORAGE	17	$20	1.03	1.13	2.2	$50.67	$58,376
SHERIFF-DIAMOND BAR SERVICE CENTER	23449 GOLDEN SPRINGS DR, DIAMOND BAR 91765	1,150	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$147,822
ARBORETUM-HUGO REID ADOBE	301 N BALDWIN AVE, ARCADIA 91007	1,144	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$222,412
PW FLOOD-COMPTON CREEK PUMP STN	19115 S REYES AVE, COMPTON 90221	1,144	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$47,953
SOUTH SERVICES AGENCY -PARK RESERVATION OFFICE	360 W EL SEGUNDO BLVD, LOS ANGELES 90061	1,144	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$47,953

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EL PORTO BEACH-CONCESSION STAND	4108 THE STRAND, MANHATTAN BEA CH 90266	1,143	SNACKBAR	13	$50	1.05	1.13	2.2	$129.31	$147,806
DCS-INDIVIDUAL LIVING PGM ALUMNI RESOURCE CTR	1100 N GRAND AVE, WALNUT 91789-1399	1,140	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$47,785
OLIVE VIEW-WASTE DISPOSAL BLDG	14445 OLIVE VIEW DR, SYLMAR 91342	1,139	GARBAGE GRINDER	15	$118	0.99	1.13	2.2	$289.45	$329,689
PCHS DT CTR-BATHHOUSE 4	29310 THE OLD RD, CASTAIC 91384	1,139	BATHHOUSE	12	$65	1.04	1.13	2.2	$167.43	$190,706
CHARTER OAK-PICNIC SHELTERS (3)	20261 E COVINA BLVD, COVINA 91724	1,139	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$47,743
PCHS DT CTR-RESIDENCE 6	29310 THE OLD RD, CASTAIC 91384	1,136	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$220,856
MED CTR-PHARMACY STOREROOM	1200 N STATE ST, LOS ANGELES 90033	1,134	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$118,616
HS-FLORENCE/FIRESTONE HLTH CTR TRLR #2(CLOSD)	8019 COMPTON AVE, LOS ANGELES 90001	1,129	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$47,324
PW-INC CITY OFFICE/AREA 1 FIRE PREVENTION OFF	701 E CARSON ST (CITY HALL), CARSON 90745	1,125	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$325,637
DOCKWEILER-COMFORT STATION #4	6800 CULVER BLVD, PLAYA DEL REY 90293	1,125	COMFORT STATION	16	$106	1.01	1.13	2.2	$265.20	$298,347
DHS-CHILD HEALTH DISABILITY & PREVENTION N-34	1000 W CARSON ST, TORRANCE 90502	1,125	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$218,718
TAPIA-RESIDENCE	884 N LAS VIRGENES RD, CALABASAS 91302	1,125	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$218,718
FIRE-PACOIMA ELECTRICAL SHOP	12605 OSBORNE ST, PACOIMA 91331	1,123	SHOP	17	$20	1.03	1.13	2.2	$50.67	$56,907
ANIMAL CONTROL #3-CARPORT	216 W VICTORIA ST, CARSON 90248	1,120	OPEN CARPORT	17	$16	1.03	1.13	2.2	$41.92	$46,947

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PCHS DT CTR-VEHICLE MAINT FACILITY MOTOR POOL	29310 THE OLD RD, CASTAIC 91384	1,120	OPEN CARPORT	17	$16	1.03	1.13	2.2	$41.92	$46,947
RANCHO-BLDG 300-HUT STORAGE #3 (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	1,119	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$323,900
CAO-REAL ESTATE DIVISION/ SERVICE INTEGRATION	222 S HILL ST (KAWADA BUILDING), LOS ANGELES 90012-3503	1,118	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$323,610
PCHS DT CTR-RESIDENCE 1	29310 THE OLD RD, CASTAIC 91384	1,114	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$216,579
MIRA LOMA - SHADY COURT	45100 N 60TH ST W, LANCASTER 93536	1,112	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$333,231
MIRA LOMA - OFFICE/STORAGE (A)	45100 N 60TH ST W, LANCASTER 93536	1,112	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$321,874
MIRA LOMA - VOCATIONAL SHOP (A)	45100 N 60TH ST W, LANCASTER 93536	1,112	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$321,874
MIRA LOMA - OFFICES (C)	45100 N 60TH ST W, LANCASTER 93536	1,112	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$321,874
RANCHO-TRASH STORAGE/EMERGENCY GENERATOR ROOM	7601 E IMPERIAL HWY, DOWNEY 90242	1,111	GENERATOR BUILDING	15	$118	0.99	1.13	2.2	$289.45	$321,584
MIRA LOMA - VOCATIONAL SHOP (B)	45100 N 60TH ST W, LANCASTER 93536	1,111	LOCKER ROOM BUILDING	11	$76	1.01	1.13	2.2	$191.78	$213,067
BOARD OF SUP-4TH DIST INDUSTRY FIELD OFFICE	1199 FAIRWAY DR, CITY OF INDUSTRY 91789	1,108	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$320,716
EAST SERVICES AGENCY - TYPE 5 WAREHOUSE	265 CLOVERLEAF DR, BALDWIN PARK 91706	1,106	EQUIPMENT STORAGE	14	$41	1.03	1.13	2.2	$104.60	$115,687
CAO-COUNTY LEGISLATIVE REPRESENTATIVE OFFICE	440 FIRST ST NW, WASHINGTON 20001	1,105	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$319,847
DEVILS PUNCHBOWL-VISITORS CENTER	28000 DEVILS PUNCHBOWL RD, PEARBLOSSOM 93553	1,104	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$214,635

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DEANE DANA REGIONAL PARK-MAINTENANCE BUILDING	1805 W 9TH ST, SAN PEDRO 90732	1,104	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$148,910
RANCHO-OPEN SHELTER (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	1,102	PATIO-PATIO SHELTER	17	$16	1.03	1.13	2.2	$41.92	$46,192
PW FLOOD-SAWPIT DAM RESIDENCE B	1300 N CANYON TKTR, MONROVIA 91016	1,100	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$213,857
PW FLOOD-PUDDINGSTONE RESIDENCE	150 E PUDDINGSTONE DR, SAN DIMAS 91773	1,100	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$213,857
PW FLOOD-SAN DIMAS DAM RESIDENCE	3371 SAN DIMAS CANYON RD, LA VERNE 91773	1,100	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$213,857
COMPTON AIRPORT-HANGAR T-1	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-2	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-3	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-4	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-5	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-6	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-7	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424

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COMPTON AIRPORT-HANGAR T-8	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-9	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-10	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-11	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-12	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-13	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-14	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-15	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-16	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-17	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-18	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-19	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424

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COMPTON AIRPORT-HANGAR T-20	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-21	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-22	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-23	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-24	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-25	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-26	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-27	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-28	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-29	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
COMPTON AIRPORT-HANGAR T-30	901 W ALONDRA BLVD, COMPTON 90220	1,096	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$100,424
W ROGERS STATE BEACH-CONCESSION #2	16380 PACIFIC COAST HWY, PACIFIC PALISADES 90272	1,094	SNACKBAR	13	$50	1.05	1.13	2.2	$129.31	$141,470

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PW ROAD-HOLLYDALE YARD TREE CREW OFFICE	11282 GARFIELD AVE, DOWNEY 90242	1,092	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$316,085
LENNOX-PUMPHOUSE	10828 S CONDON AVE, LENNOX 90304	1,092	PUMPHOUSE-PUMPING PLANT	17	$16	1.03	1.13	2.2	$41.92	$45,773
HOLLYWOOD BOWL-CARETAKER RESIDENCE TRAILER	2301 N HIGHLAND AVE, HOLLYWOOD 90068	1,092	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$45,773
MED CTR-PHARMACY STORAGE	1200 N STATE ST, LOS ANGELES 90033	1,090	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$114,014
PCHS DT CTR-RESIDENCE 3	29310 THE OLD RD, CASTAIC 91384	1,089	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$211,719
PCHS DT CTR-RESIDENCE 5	29310 THE OLD RD, CASTAIC 91384	1,089	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$211,719
FIRE-PACOIMA ELECTRICAL SHOP	12605 OSBORNE ST, PACOIMA 91331	1,088	TRANSFORMER	15	$118	0.99	1.13	2.2	$289.45	$314,927
VETERAN'S MEMORIAL-MAINTENANCE BUILDING	13000 SAYRE ST, SYLMAR 91342	1,088	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$146,752
PCHS DT CTR-BOILER ROOM	29310 THE OLD RD, CASTAIC 91384	1,084	BOILER ROOM	17	$16	1.03	1.13	2.2	$41.92	$45,438
PW ROAD-DIV #146/446 MAINTENANCE YARD OFFICE	9521 E BEVERLY BLVD, PICO RIVERA 90660	1,080	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$312,611
CAMP LOUIS ROUTH-CLASSROOM	12500 BIG TUJUNGA CANYON RD, TUJUNGA 91042	1,080	CLASSROOM	18	$104	1.01	1.13	2.2	$259.97	$280,772
PCHS DT CTR-SUPPLIES STORAGE	29310 THE OLD RD, CASTAIC 91384	1,080	STORAGE BLDG (100/999 SQ FT)	14	$41	1.03	1.13	2.2	$104.60	$112,968
EL CARISO-MAINTENANCE BUILDING	13100 HUBBARD ST, SYLMAR 91342	1,075	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$144,999
ACTON REHAB-MAINTENANCE BLDG	30500 ARRASTRE CANYON RD, ACTON 93510	1,073	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$144,729

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FIRE CAMP 19-ASSEMBLY ROOM	22550 EAST FORK RD (SAN GABRIEL RIVER), AZUSA 91702	1,068	QUONSET HUT	17	$14	1.04	1.13	2.2	$36.48	$38,961
FIRE CAMP 11-LAUNDRY/GROCERY	8800 W SOLEDAD CANYON RD, ACTON 93510	1,064	MISC CONCESSIONS	13	$50	1.05	1.13	2.2	$129.31	$137,590
HART-BUNKHOUSE MUSEUM	24151 SAN FERNANDO RD, SANTA CLARITA 91321	1,062	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$245,854
PW ROAD-DIV #557 YRD MATERIALS ENG OFFICE/LAB	38126 N SIERRA HWY, PALMDALE 93550	1,060	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$306,822
PW FLOOD-COGSWELL DAM RESIDENCE	13500 E DEVILS CANYON DAM TKTR, AZUSA 91702	1,056	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$205,303
PW FLOOD-COGSWELL DAM RESIDENCE	13500 E DEVILS CANYON DAM TKTR, AZUSA 91702	1,056	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$205,303
EASTLAKE-STORAGE BUILDING (CONDEMNED)	1660 EASTLAKE AVE, LOS ANGELES 90033	1,056	STORAGE BLDG (100/999 SQ FT)	14	$41	1.03	1.13	2.2	$104.60	$110,457
STEINMETZ-PICNIC SHELTERS (3)	1545 S STIMSON AVE, HACIENDA HEIGHTS 91745	1,056	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$44,264
MANZANITA-SHADE STRUCTURES (3)	1747 S KWIS AVE, HACIENDA HEIGHTS 91745	1,056	PATIO-PATIO SHELTER	17	$16	1.03	1.13	2.2	$41.92	$44,264
HIGHLAND CAMROSE-BUNGALOW G	2101 N HIGHLAND AVE, HOLLYWOOD 90068	1,055	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$205,109
FIRE CAMP 13-HOBBY SHOP	1250 S ENCINAL CANYON RD, MALIBU 90265	1,054	SHOP	17	$20	1.03	1.13	2.2	$50.67	$53,410

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SHERIFF-SOUTH BAY VEHICLE THEFT OPERATIONS	ONE SPACE PARK DR TRW - BUILDING S, REDONDO BEACH 90278	1,053	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$304,796
POWDER MAGAZINE-EXPLOSIVES STORAGE BUILDING B	17011 FOOTHILL BLVD, SYLMAR 91342	1,053	STORAGE BLDG (100/999 SQ FT)	14	$41	1.03	1.13	2.2	$104.60	$110,143
SHERIFF-NORTH REGION VEHICLE THEFT PROGRAM	1713 E PALMDALE BLVD, PALMDALE 93550	1,050	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$303,927
MED CTR-TRANSPORTATION BUILDING	1830 GRIFFIN AVE, LOS ANGELES 90033	1,050	STORAGE BLDG (100/999 SQ FT)	14	$41	1.03	1.13	2.2	$104.60	$109,830
RANCHO-OPEN SHELTER	7601 E IMPERIAL HWY, DOWNEY 90242	1,050	PATIO-PATIO SHELTER	17	$16	1.03	1.13	2.2	$41.92	$44,013
PUBLIC LIBRARY-SORENSEN LIBRARY	11405 ROSEHEDGE DR, WHITTIER 90606	1,048	LIBRARY	15	$123	0.99	1.13	2.2	$301.83	$316,322
W ROGERS STATE BEACH-CONCESSION #1	15970 PACIFIC COAST HWY, PACIFIC PALISADES 90272	1,048	SNACKBAR	13	$50	1.05	1.13	2.2	$129.31	$135,521
ENTERPRISE-PICNIC SHELTER	13055 CLOVIS AVE, LOS ANGELES 90059	1,048	PICNIC SHELTER	17	$16	1.03	1.13	2.2	$41.92	$43,929
WARM SP REHAB-REHABILITATION BUILDING #1	38200 N LAKE HUGHES RD, CASTAIC 91310	1,046	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$302,770
RANCHO-PATIO SHELTER	7601 E IMPERIAL HWY, DOWNEY 90242	1,042	PATIO-PATIO SHELTER	17	$16	1.03	1.13	2.2	$41.92	$43,677
MED CTR-MASONRY SHOP OFFICE - BUILDING 100	1739 GRIFFIN AVE, LOS ANGELES 90031	1,040	LABORATORY	14	$134	1.03	1.13	2.2	$342.17	$355,857
SHERIFF-ALTADENA MAINTENANCE GARAGE	780 E ALTADENA DR, ALTADENA 91001	1,040	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$140,278

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RANCHO-FORMER WOMENS GYM STORAGE (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	1,040	LINEN ROOM-SEWING ROOM	13	$50	1.05	1.13	2.2	$130.70	$135,926
PW CENTRAL YARD-BURLAP BAG SHED	2275 ALCAZAR ST, LOS ANGELES 90033	1,040	SUPPLIES STORAGE	14	$41	1.03	1.13	2.2	$104.60	$108,784
BEACHES/HARBORS-WATER OFFICE TRAILER #4	13483 FIJI WAY, MARINA DEL REY 90292	1,040	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$43,593
WEST L A COURTHOUSE-TRAILER #2 (UNUSED)	1633 PURDUE AVE, WEST LOS ANGELES 90025	1,040	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$43,593
WHITEMAN AIRPORT-HANGAR E10	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E11	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E12	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E13	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E14	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E15	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E16	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E17	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E18	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E19	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E02	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E20	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018

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WHITEMAN AIRPORT-HANGAR E21	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E22	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E23	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E24	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E25	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E26	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E27	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E28	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E29	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E03	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E30	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E04	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E05	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E06	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E07	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E08	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR E09	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F10	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018

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WHITEMAN AIRPORT-HANGAR F11	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F12	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F13	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F14	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F15	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F16	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F17	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F18	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F19	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F02	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F20	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F21	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F22	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F23	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F24	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F25	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F26	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F27	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018

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WHITEMAN AIRPORT-HANGAR F28	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F29	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F03	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F30	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F04	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F05	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F06	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F07	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F08	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
WHITEMAN AIRPORT-HANGAR F09	12653 OSBORNE ST, PACOIMA 91331	1,037	HANGAR	14	$35	1.04	1.13	2.2	$91.63	$95,018
HARBOR-HUMAN RESOURCES TRAILERS L-2 & L-3	1000 W CARSON ST, TORRANCE 90502	1,034	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$43,342
ACTON REHAB-DORMS V & W	30500 ARRASTRE CANYON RD, ACTON 93510	1,033	BARRACKS-DORMITORY	11	$92	1.01	1.13	2.2	$231.50	$239,141
MIRA LOMA - WORK FURLOUGH OFFICE	45100 N 60TH ST W, LANCASTER 93536	1,028	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$297,559
MIRA LOMA - VOCATIONAL SHOP (C)	45100 N 60TH ST W, LANCASTER 93536	1,028	LOCKER ROOM BUILDING	11	$76	1.01	1.13	2.2	$191.78	$197,149
LA MIRADA - MAINTENANCE BUILDING	13701 S ADELFA DR, LA MIRADA 90638	1,028	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$138,659
MIRA LOMA - OFFICE/STORAGE (B)	45100 N 60TH ST W, LANCASTER 93536	1,028	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$138,659
FIRE-DEL VALLE REGIONAL TRAINING CENTER	28101 CHIQUITO CANYON RD, CASTAIC 91384-4640	1,027	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$307,759

FACILITY NAME	ADDRESS	GROSS SQ FT	FACILITY & BUILDING USE	A	B	C	D	E	F	G
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CASTAIC LAKE-BOAT LOADING DOCK	32132 RIDGE ROUTE RD, CASTAIC 91310	1,026	DOCK-RAFT-BOAT LANDING	17	$16	1.03	1.13	2.2	$41.92	$43,007
ARBORETUM-SOUTH AFRICAN GREENHOUSE	301 N BALDWIN AVE, ARCADIA 91007	1,026	GREENHOUSE-HOT HOUSE	16	$7	1.02	1.13	2.2	$16.96	$17,405
CAMP BARLEY FLATS-TOOL STORAGE SHED 1	23900 STAR ROUTE, LA CANADA FLINTRIDGE 91011	1,025	TOOL SHED-TOOL BUILDING	17	$16	1.03	1.13	2.2	$41.92	$42,965
RANCHO-CARDIOLOGIST'S OFFICE (UNUSED)	7601 E IMPERIAL HWY, DOWNEY 90242	1,024	LINEN ROOM-SEWING ROOM	13	$50	1.05	1.13	2.2	$130.70	$133,834
ANTELOPE DVC-RESIDENCE (A)	45133 N 60TH ST W, LANCASTER 93536	1,019	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$198,110
ANTELOPE DVC-RESIDENCE (B)	45133 N 60TH ST W, LANCASTER 93536	1,019	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$198,110
ANTELOPE DVC-RESIDENCE (C)	45133 N 60TH ST W, LANCASTER 93536	1,019	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$198,110
ANTELOPE DVC-RESIDENCE (D)	45133 N 60TH ST W, LANCASTER 93536	1,019	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$198,110
ANTELOPE DVC-RESIDENCE (E)	45133 N 60TH ST W, LANCASTER 93536	1,019	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$198,110
ANTELOPE DVC-CHAPLAINS RESIDENCE	45133 N 60TH ST W, LANCASTER 93536	1,019	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$198,110
ANTELOPE DVC-RESIDENCE (F)	45133 N 60TH ST W, LANCASTER 93536	1,019	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$198,110
ANTELOPE DVC-RESIDENCE (G)	45133 N 60TH ST W, LANCASTER 93536	1,019	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$198,110
ANTELOPE DVC-RESIDENCE (H)	45133 N 60TH ST W, LANCASTER 93536	1,019	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$198,110
ANTELOPE DVC-CHILDREN'S CENTER	45133 N 60TH ST W, LANCASTER 93536	1,019	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$198,110
VAN NUYS COURTHOUSE-SHERIFF'S LOCKER ROOM (E)	6230 SYLMAR AVE, VAN NUYS 91401	1,015	JAIL-CELL BLOCK	15	$146	0.99	1.13	2.2	$359.89	$365,291
PCHS DT CTR-OIL STORAGE BUILDING	29310 THE OLD RD, CASTAIC 91384	1,012	FLAMMABLE LIQUID STORAGE BLDG	14	$41	1.03	1.13	2.2	$104.60	$105,855

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WHITTIER NARROWS-NATURE STUDY CENTER	1000 N DURFEE AVE, SOUTH EL MONTE 91733	1,011	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$196,554
HARBOR-REI EMERGENCY MEDICINE OFFICE N-7	1000 W CARSON ST, TORRANCE 90502	1,011	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$196,554
OLIVE VIEW-QUONSET HUT 1	14445 OLIVE VIEW DR, SYLMAR 91342	1,008	QUONSET HUT	17	$14	1.04	1.13	2.2	$36.48	$36,772
OLIVE VIEW-QUONSET HUT 2	14445 OLIVE VIEW DR, SYLMAR 91342	1,008	QUONSET HUT	17	$14	1.04	1.13	2.2	$36.48	$36,772
ARBORETUM-COMFORT STATION #1	301 N BALDWIN AVE, ARCADIA 91007	1,006	COMFORT STATION	16	$106	1.01	1.13	2.2	$265.20	$266,788
MED CTR-STOREROOM	1100 N MISSION RD, LOS ANGELES 90033	1,004	STORAGE BLDG (100/999 SQ FT)	14	$41	1.03	1.13	2.2	$104.60	$105,018
MED CTR-MEDICAL RECORDS/ PHARMACY WAREHOUSE	1200 N STATE ST, LOS ANGELES 90033	1,004	STORAGE BLDG (100/999 SQ FT)	14	$41	1.03	1.13	2.2	$104.60	$105,018
MED CTR-STOREROOM	1200 N STATE ST, LOS ANGELES 90033	1,004	STORAGE BLDG (100/999 SQ FT)	14	$41	1.03	1.13	2.2	$104.60	$105,018
HART-SERVICE BUILDING/GARAGE	24151 SAN FERNANDO RD, SANTA CLARITA 91321	1,001	MAINTENANCE BUILDING-GARAGE	14	$52	1.04	1.13	2.2	$134.88	$135,017
OPS-RANCHO POST OFFICE/WAREHOUSE-PROCUREMENT	13003 DAHLIA ST, DOWNEY 90242	1,000	POST OFFICE	14	$118	1.03	1.13	2.2	$301.46	$301,457
FIRE STATION 126 (NEW)	26320 CITRUS ST MAGIC MOUNTAIN PKWY (SO SIDE), SANTA CLARITA 91355	1,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$299,668
FIRE (TEMP) 126 FIRE EQUIPMENT GARAGE(UNUSED)	27400 TOURNEY RD (AT CHAMPIONSHIP WAY), SANTA CLARITA 91355	1,000	FIRE STATION	15	$122	0.99	1.13	2.2	$299.67	$299,668

FACILITY NAME	ADDRESS	GROSS SQ FT	FACILITY & BUILDING USE	A	B	C	D	E	F	G
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HARBOR-EMERGENCY POWER SYSTEM BUILDING	1000 W CARSON ST, TORRANCE 90502	1,000	GENERATOR BUILDING	15	$118	0.99	1.13	2.2	$289.45	$289,455
PW ROAD-DIV #141/241 MAINTENANCE YARD OFFICE	2120 E 90TH ST, LOS ANGELES 90002	1,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$289,455
PCHS DT CTR-WASHRACK	29310 THE OLD RD, CASTAIC 91384	1,000	WASH SHED-RACK	15	$118	0.99	1.13	2.2	$289.45	$289,455
MENTAL HEALTH-LAPD - SMART TEAM OFFICE	419 S SPRING ST, LOS ANGELES 90013	1,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$289,455
DMH-COMPTON CHILDREN'S MENTAL HEALTH CLINIC	425 E COMPTON BLVD, COMPTON 90221	1,000	OFFICE	15	$118	0.99	1.13	2.2	$289.45	$289,455
HIGHLAND CAMROSE-BUNGALOW B	2101 N HIGHLAND AVE, HOLLYWOOD 90068	1,000	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$194,416
HIGHLAND CAMROSE-BUNGALOW C	2101 N HIGHLAND AVE, HOLLYWOOD 90068	1,000	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$194,416
HIGHLAND CAMROSE-BUNGALOW H	2101 N HIGHLAND AVE, HOLLYWOOD 90068	1,000	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$194,416
HIGHLAND CAMROSE-BUNGALOW M	2101 N HIGHLAND AVE, HOLLYWOOD 90068	1,000	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$194,416
LOS PADRINOS-BUNGALOW 1-21	7285 E QUILL DR, DOWNEY 90242	1,000	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$194,416
LOS PADRINOS-BUNGALOW 2-22	7285 E QUILL DR, DOWNEY 90242	1,000	RESIDENCE-APARTMENT	11	$77	1.01	1.13	2.2	$194.42	$194,416
SHERIFF-VALENCIA MARKETPLACE SUB-OFFICE	25930 N THE OLD RD, STEVENSON RANCH 91381	1,000	STORE-DISCOUNT STORE	13	$50	1.03	1.13	2.2	$128.54	$128,541
FIRE-LIFEGUARD OPERATIONS STORAGE	(PLEASURE PIER), AVALON 90704	1,000	STORAGE BLDG (100/999 SQ FT)	14	$41	1.03	1.13	2.2	$104.60	$104,600
MED CTR-EMPLOYEES CHILD CARE CTR STORAGE SHED	1401 N MISSION RD, LOS ANGELES 90031	1,000	STORAGE BLDG (100/999 SQ FT)	14	$41	1.03	1.13	2.2	$104.60	$104,600

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PW CENTRAL YARD-PAINT BOOTH (BLDG #11)	2275 ALCAZAR ST, LOS ANGELES 90033	1,000	PAINT SHOP-PAINT STORAGE	17	$20	1.03	1.13	2.2	$50.67	$50,674
PW ROAD-DIV #553A YARD SAND SHED	27500 ANGELES FOREST HWY (MILL CREEK RANGER STN), PALMDALE 93550	1,000	CAVE BUNKER	17	$16	1.03	1.13	2.2	$41.92	$41,917
CAMP MUNZ-CLASSROOM TRAILER	42220 N LAKE HUGHES RD, LAKE HUGHES 93532	1,000	TRAILER	17	$16	1.03	1.13	2.2	$41.92	$41,917
PUBLIC LIBRARY-PICO RIVERA VETERANS MEMORIAL	9001 MINES AVE AT DUNLAP CROSSING RD, PICO RIVERA 90660	1,000	SIGN-MONUMENT-DISPLAY	17	$16	1.03	1.13	2.2	$41.92	$41,917
PCHS DT CTR-GREENHOUSE	29310 THE OLD RD, CASTAIC 91384	1,000	GREENHOUSE-HOT HOUSE	16	$7	1.02	1.13	2.2	$16.96	$16,964
ARBORETUM-BEGONIA HOUSE	301 N BALDWIN AVE, ARCADIA 91007	1,000	GREENHOUSE-HOT HOUSE	16	$7	1.02	1.13	2.2	$16.96	$16,964
		61,536,561							$241.17	**$14,840,757,854**

Los Angeles County Fire Department

Fleet Assets

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
49877	1989	AERIAL LIFT	$0.00	$725,000.00
49717	1984	AERIAL PLATFORM TDM 100	$390,670.00	$800,000.00
49718	1984	AERIAL PLATFORM TDM 100	$390,670.00	$800,000.00
F0388	1982	AERIAL QUINT R MT 75	$441,383.00	$575,000.00
F0326	1995	AERIAL QUINT R MT 75	$441,383.00	$575,000.00
F0327	1995	AERIAL QUINT R MT 75	$441,383.00	$575,000.00
F0851	1998	AERIAL QUINT R MT 75	$441,383.00	$575,000.00
F0606	1998	AERIAL QUINT R MT TDM 75	$442,875.00	$575,000.00
F0607	1998	AERIAL QUINT R MT TDM 75	$442,875.00	$575,000.00
F0528	1989	AERIAL QUINT SQUIRT R MT75	$0.00	$575,000.00
F0769	1999	AERIAL QUINT TILLER 100	$522,324.00	$725,000.00
F0770	1999	AERIAL QUINT TILLER 100	$522,324.00	$725,000.00
F0771	1999	AERIAL QUINT TILLER 100	$522,324.00	$725,000.00
F0772	1999	AERIAL QUINT TILLER 100	$522,324.00	$725,000.00
F0602	1998	AERIAL QUINT TILLER 75	$497,324.00	$725,000.00
F0603	1998	AERIAL QUINT TILLER 75	$497,324.00	$725,000.00
F0604	1998	AERIAL QUINT TILLER 75	$497,324.00	$725,000.00
F0605	1998	AERIAL QUINT TILLER 75	$497,324.00	$725,000.00
F0616	1998	AERIAL QUINT TILLER 75	$497,324.00	$725,000.00
F0617	1998	AERIAL QUINT TILLER 75	$497,324.00	$725,000.00
F0618	1998	AERIAL QUINT TILLER 75	$497,324.00	$725,000.00
F0619	1998	AERIAL QUINT TILLER 75	$497,324.00	$725,000.00
F0620	1998	AERIAL QUINT TILLER 75	$497,324.00	$725,000.00
49286	1971	AERIAL R MT 100	$0.00	$725,000.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
49324	1973	AERIAL R MT 100	$0.00	$725,000.00
49346	1977	AERIAL R MT TDM 100	$107,846.00	$725,000.00
49350	1977	AERIAL R MT TDM 100	$107,846.00	$725,000.00
49779	1987	AERIAL R MT TDM 108	$342,096.00	$725,000.00
49780	1987	AERIAL R MT TDM 108	$342,096.00	$725,000.00
49781	1988	AERIAL R MT TDM 108	$342,096.00	$725,000.00
F0038	1989	AERIAL TILLER 100	$365,812.00	$725,000.00
F0039	1989	AERIAL TILLER 100	$365,812.00	$725,000.00
F0040	1989	AERIAL TILLER 100	$365,812.00	$725,000.00
F0056	1990	AERIAL TILLER 100	$365,812.00	$725,000.00
F0057	1990	AERIAL TILLER 100	$365,812.00	$725,000.00
F0179	1993	AERIAL TILLER 100	$520,398.00	$725,000.00
F0180	1993	AERIAL TILLER 100	$520,398.00	$725,000.00
F0181	1993	AERIAL TILLER 100	$520,398.00	$725,000.00
F0182	1993	AERIAL TILLER 100	$520,398.00	$725,000.00
F0183	1993	AERIAL TILLER 100	$520,398.00	$725,000.00
F0902	1995	AERIAL TILLER 100	$520,398.00	$725,000.00
F8037	1990	AIR CACHE		$150,000.00
F0389	1990	AMBULANCE	$88,752.00	$89,500.00
F0937	1990	AMBULANCE	$88,752.00	$89,500.00
F0932	1993	AMBULANCE	$85,386.00	$89,500.00
F0929	1997	AMBULANCE	$86,882.00	$89,500.00
F0936	1999	AMBULANCE	$87,630.00	$89,500.00
F1146	2002	AMBULANCE	$88,752.00	$89,500.00
49808	1971	APU/TUG	$0.00	$29,500.00
49810	1985	APU/TUG	$0.00	$29,500.00
F8083	2003	ATV	$0.00	$7,000.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F8084	2003	ATV	$0.00	$7,000.00
49970	1972	BUS	$15,000.00	$45,540.00
49954	1974	BUS	$15,000.00	$45,540.00
F0307	1977	BUS	$15,000.00	$45,540.00
F8033	1980	BUS	$0.00	$45,540.00
F8034	1984	BUS	$0.00	$45,540.00
F0614	1992	BUS	$0.00	$45,540.00
F1203	2002	BUS	$101,910.00	$45,540.00
F1208	2002	BUS	$101,910.00	$45,540.00
F1211	2002	BUS	$101,910.00	$45,540.00
49800	1978	CHIPPER	$7,774.00	$22,856.00
49801	1978	CHIPPER	$7,774.00	$22,856.00
F8035	1979	CHIPPER	$8,377.00	$22,856.00
49809	1985	CHIPPER	$11,995.00	$22,856.00
F8000	1989	CHIPPER	$14,407.00	$22,856.00
49878	1991	CHIPPER	$15,613.00	$22,856.00
49880	1993	CHIPPER	$16,979.00	$22,856.00
F8021	1998	CHIPPER	$20,793.00	$22,856.00
F8022	1998	CHIPPER	$20,793.00	$22,856.00
F8023	1998	CHIPPER	$20,793.00	$22,856.00
F8025	1998	CHIPPER	$20,793.00	$22,856.00
F8031	1999	CHIPPER	$21,396.00	$22,856.00
F8032	1999	CHIPPER	$21,396.00	$22,856.00
F8057	2001	CHIPPER	$21,999.00	$22,856.00
49911	1984	CREW CARRIER	$20,154.00	$101,910.00
49900	1986	CREW CARRIER	$27,717.00	$101,910.00
49905	1986	CREW CARRIER	$27,717.00	$101,910.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
49909	1986	CREW CARRIER	$27,717.00	$101,910.00
49928	1986	CREW CARRIER	$27,717.00	$101,910.00
49979	1987	CREW CARRIER	$35,280.00	$101,910.00
49980	1987	CREW CARRIER	$35,280.00	$101,910.00
49990	1987	CREW CARRIER	$35,280.00	$101,910.00
49983	1988	CREW CARRIER	$42,843.00	$101,910.00
49996	1988	CREW CARRIER	$42,843.00	$101,910.00
49997	1988	CREW CARRIER	$42,843.00	$101,910.00
49998	1988	CREW CARRIER	$42,843.00	$101,910.00
49999	1988	CREW CARRIER	$42,843.00	$101,910.00
49680	1989	CREW CARRIER	$50,406.00	$101,910.00
49681	1989	CREW CARRIER	$50,406.00	$101,910.00
49682	1989	CREW CARRIER	$50,406.00	$101,910.00
49694	1991	CREW CARRIER	$65,532.00	$101,910.00
49696	1991	CREW CARRIER	$65,532.00	$101,910.00
49697	1991	CREW CARRIER	$65,532.00	$101,910.00
49698	1991	CREW CARRIER	$65,533.00	$101,910.00
49699	1991	CREW CARRIER	$65,532.00	$101,910.00
F9030	1992	CREW CARRIER	$59,659.00	$101,910.00
F9031	1992	CREW CARRIER	$59,659.00	$101,910.00
F9032	1992	CREW CARRIER	$59,659.00	$101,910.00
F9033	1992	CREW CARRIER	$59,659.00	$101,910.00
F9034	1992	CREW CARRIER	$59,659.00	$101,910.00
F9035	1992	CREW CARRIER	$59,659.00	$101,910.00
F9036	1992	CREW CARRIER	$59,659.00	$101,910.00
F0371	1995	CREW CARRIER	$71,253.00	$101,910.00
F0372	1995	CREW CARRIER	$71,253.00	$101,910.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0373	1995	CREW CARRIER	$71,253.00	$101,910.00
F0374	1995	CREW CARRIER	$71,253.00	$101,910.00
F0375	1995	CREW CARRIER	$71,253.00	$101,910.00
F0370	1996	CREW CARRIER	$71,253.00	$101,910.00
F0468	1997	CREW CARRIER	$70,889.00	$101,910.00
F0469	1997	CREW CARRIER	$70,889.00	$101,910.00
F0470	1997	CREW CARRIER	$70,889.00	$101,910.00
F0471	1997	CREW CARRIER	$70,889.00	$101,910.00
F0472	1997	CREW CARRIER	$70,889.00	$101,910.00
F0473	1997	CREW CARRIER	$70,889.00	$101,910.00
F0474	1997	CREW CARRIER	$70,889.00	$101,910.00
F0475	1997	CREW CARRIER	$70,889.00	$101,910.00
F0476	1997	CREW CARRIER	$70,889.00	$101,910.00
F0477	1997	CREW CARRIER	$70,889.00	$101,910.00
F0478	1997	CREW CARRIER	$70,889.00	$101,910.00
F0479	1997	CREW CARRIER	$70,889.00	$101,910.00
F0480	1997	CREW CARRIER	$70,889.00	$101,910.00
F0481	1997	CREW CARRIER	$70,889.00	$101,910.00
F0482	1997	CREW CARRIER	$70,889.00	$101,910.00
F1147	2002	CREW CARRIER	$101,910.00	$101,910.00
F1148	2002	CREW CARRIER	$101,910.00	$101,910.00
F1149	2002	CREW CARRIER	$101,910.00	$101,910.00
F1150	2002	CREW CARRIER	$101,910.00	$101,910.00
F1151	2002	CREW CARRIER	$101,910.00	$101,910.00
F1152	2002	CREW CARRIER	$101,910.00	$101,910.00
F1201	2002	CREW CARRIER	$101,910.00	$101,910.00
F1205	2002	CREW CARRIER	$101,910.00	$101,910.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F1206	2002	CREW CARRIER	$101,910.00	$101,910.00
F1207	2002	CREW CARRIER	$101,910.00	$101,910.00
F1209	2002	CREW CARRIER	$101,910.00	$101,910.00
F1210	2002	CREW CARRIER	$101,910.00	$101,910.00
49935	1985	DEMO UNIT	$0.00	$85,000.00
F8094	2000	DOZER	$0.00	$750,000.00
48628	1971	FIELD KITCHEN	$0.00	$60,000.00
49623	1976	FIELD KITCHEN	$0.00	$60,000.00
49624	1976	FIELD KITCHEN	$0.00	$60,000.00
49625	1976	FIELD KITCHEN	$0.00	$60,000.00
49626	1976	FIELD KITCHEN	$0.00	$60,000.00
F0113	1970	FIRE BOAT	$0.00	$1,167,000.00
49354	1976	FIRE BOAT	$0.00	$1,167,000.00
F8036	1972	FORKLIFT	$0.00	$30,852.00
49875	1975	FORKLIFT	$0.00	$30,852.00
F8004	1976	FORKLIFT	$0.00	$30,852.00
49866	1980	FORKLIFT	$0.00	$30,852.00
49867	1983	FORKLIFT	$0.00	$30,852.00
F8005	1983	FORKLIFT	$0.00	$30,852.00
49807	1984	FORKLIFT	$0.00	$30,852.00
49876	1994	FORKLIFT	$29,737.00	$30,852.00
49887	1994	FORKLIFT	$29,737.00	$30,852.00
F8078	2002	FORKLIFT	$30,159.00	$30,852.00
50905	1977	FUEL DISP	$0.00	$60,000.00
49988	1987	FUEL DISP	$0.00	$60,000.00
F8024	1997	GENERATOR/TRAILER	$29,000.00	$33,234.00
F0254	1990	HEAVY RESCUE	$239,063.00	$322,974.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0097	1991	HEAVY RESCUE	$239,063.00	$322,974.00
48539	1968	HELITENDER	$0.00	$196,303.00
F2015	1972	HELITENDER	$0.00	$196,303.00
49615	1975	HELITENDER	$0.00	$196,303.00
49907	1986	HELITENDER	$0.00	$196,303.00
49693	1990	HELITENDER	$145,325.00	$196,303.00
F0671	1998	HELITENDER	$174,457.00	$196,303.00
49992	1987	HOSE CARRIER	$0.00	$35,000.00
45024	1973	HYDROSEEDER	$0.00	$200,000.00
B4162	1970	LFGD BOAT	$0.00	$300,000.00
B1387	1972	LFGD BOAT	$0.00	$300,000.00
B4600	1973	LFGD BOAT	$0.00	$300,000.00
B1127	1974	LFGD BOAT	$0.00	$300,000.00
B4784	1974	LFGD BOAT	$0.00	$300,000.00
B4787	1985	LFGD BOAT	$0.00	$300,000.00
B4791	1985	LFGD BOAT	$0.00	$300,000.00
B2939	1986	LFGD BOAT	$0.00	$300,000.00
B2940	1987	LFGD BOAT	$0.00	$300,000.00
B4316	1988	LFGD BOAT	$0.00	$300,000.00
B4530	1989	LFGD BOAT	$0.00	$10,000.00
B4788	1989	LFGD BOAT	$0.00	$10,000.00
B4792	1989	LFGD BOAT	$0.00	$10,000.00
B4534	1990	LFGD BOAT	$0.00	$380,000.00
B4535	1992	LFGD BOAT	$0.00	$380,000.00
B4783	1993	LFGD BOAT	$0.00	$380,000.00
B4790	2002	LFGD BOAT	$380,000.00	$380,000.00
B4793	2002	LFGD BOAT	$380,000.00	$380,000.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0575	1992	LIGHT RESCUE	$0.00	$42,000.00
F8046	1999	LOG SPLITTER	$2,295.00	$2,533.68
F8082	2003	LOG SPLITTER	$0.00	$2,533.68
F0055	1989	MOBILE AIR UNIT	$24,656.00	$35,924.00
F0443	1997	MOBILE AIR UNIT	$30,996.00	$35,924.00
49674	1972	MOBILE LIGHT UNIT	$0.00	$110,000.00
49985	1986	MOBILE LIGHT UNIT	$0.00	$110,000.00
59825	1987	MOTOR HOME	$0.00	$40,000.00
53299	1981	PATROL	$0.00	$55,000.00
53398	1981	PATROL	$0.00	$4,000.00
55830	1985	PATROL	$0.00	$39,699.00
55831	1985	PATROL	$0.00	$39,699.00
55833	1985	PATROL	$0.00	$39,699.00
55834	1985	PATROL	$0.00	$39,699.00
59797	1985	PATROL	$0.00	$39,699.00
59798	1985	PATROL	$0.00	$39,699.00
55829	1986	PATROL	$0.00	$39,699.00
57343	1986	PATROL	$0.00	$39,699.00
57349	1986	PATROL	$0.00	$39,699.00
57804	1987	PATROL	$0.00	$39,699.00
57805	1987	PATROL	$0.00	$39,699.00
57808	1987	PATROL	$0.00	$39,699.00
57803	1988	PATROL	$0.00	$39,699.00
58437	1988	PATROL	$0.00	$39,699.00
58454	1988	PATROL	$0.00	$39,699.00
58455	1988	PATROL	$0.00	$39,699.00
58456	1988	PATROL	$0.00	$39,699.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
58457	1988	PATROL	$0.00	$39,699.00
58462	1988	PATROL	$0.00	$39,699.00
58463	1989	PATROL	$16,967.00	$39,699.00
58947	1989	PATROL	$16,967.00	$39,699.00
58948	1989	PATROL	$16,967.00	$39,699.00
58951	1989	PATROL	$16,967.00	$39,699.00
F0029	1989	PATROL	$16,967.00	$39,699.00
34825	1990	PATROL	$20,048.00	$39,699.00
34827	1990	PATROL	$20,048.00	$39,699.00
F0377	1996	PATROL	$30,418.00	$39,699.00
F0378	1996	PATROL	$30,418.00	$39,699.00
F0379	1996	PATROL	$30,418.00	$39,699.00
F0380	1996	PATROL	$30,418.00	$39,699.00
F0037	1989	PATROL 4X4	$20,961.00	$41,700.00
31001	1991	PATROL 4X4	$20,484.00	$41,700.00
31002	1991	PATROL 4X4	$18,923.00	$41,700.00
31003	1991	PATROL 4X4	$18,923.00	$41,700.00
31004	1991	PATROL 4X4	$18,923.00	$41,700.00
31000	1992	PATROL 4X4	$18,923.00	$41,700.00
F0391	1997	PATROL 4X4	$29,959.00	$41,700.00
F0392	1997	PATROL 4X4	$29,959.00	$41,700.00
F0393	1997	PATROL 4X4	$29,960.00	$41,700.00
F0394	1997	PATROL 4X4	$29,960.00	$41,700.00
F0395	1997	PATROL 4X4	$29,959.00	$41,700.00
F1112	2003	PATROL 4X4	$33,645.00	$41,700.00
F1113	2003	PATROL 4X4	$33,645.00	$41,700.00
F1114	2003	PATROL 4X4	$33,645.00	$41,700.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F1115	2003	PATROL 4X4	$33,645.00	$41,700.00
F1116	2003	PATROL 4X4	$33,645.00	$41,700.00
F1117	2003	PATROL 4X4	$33,645.00	$41,700.00
F1118	2003	PATROL 4X4	$33,645.00	$41,700.00
F1119	2003	PATROL 4X4	$33,645.00	$41,700.00
F1120	2003	PATROL 4X4	$33,645.00	$41,700.00
F1121	2003	PATROL 4X4	$33,645.00	$41,700.00
F1122	2003	PATROL 4X4	$33,645.00	$41,700.00
F1123	2003	PATROL 4X4	$33,645.00	$41,700.00
F1124	2003	PATROL 4X4	$33,645.00	$41,700.00
F1125	2003	PATROL 4X4	$33,645.00	$41,700.00
F1126	2003	PATROL 4X4	$33,645.00	$41,700.00
F1127	2003	PATROL 4X4	$33,645.00	$41,700.00
F1128	2003	PATROL 4X4	$33,645.00	$41,700.00
F1129	2003	PATROL 4X4	$33,645.00	$41,700.00
F1130	2003	PATROL 4X4	$33,645.00	$41,700.00
F1131	2003	PATROL 4X4	$33,645.00	$41,700.00
F1132	2003	PATROL 4X4	$33,645.00	$41,700.00
F1133	2003	PATROL 4X4	$33,645.00	$41,700.00
F1134	2003	PATROL 4X4	$33,645.00	$41,700.00
49785	1988	PICKUP	$0.00	$32,475.00
58991	1989	PICKUP	$0.00	$32,475.00
F0016	1989	PICKUP	$0.00	$32,475.00
34891	1990	PICKUP	$14,497.00	$32,475.00
48535	1991	PICKUP	$15,324.00	$32,475.00
31503	1992	PICKUP	$16,345.00	$32,475.00
F0126	1992	PICKUP	$16,345.00	$32,475.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F9039	1993	PICKUP	$19,106.00	$32,475.00
F9040	1993	PICKUP	$19,106.00	$32,475.00
F0328	1995	PICKUP	$19,765.00	$32,475.00
F0329	1995	PICKUP	$19,765.00	$32,475.00
F0522	1998	PICKUP	$26,430.00	$32,475.00
F0532	1998	PICKUP	$21,650.00	$32,475.00
F0625	1999	PICKUP	$21,650.00	$32,475.00
F0886	2001	PICKUP	$29,202.00	$32,475.00
F0887	2001	PICKUP	$29,202.00	$32,475.00
F0888	2001	PICKUP	$29,202.00	$32,475.00
F0889	2001	PICKUP	$29,202.00	$32,475.00
F0890	2001	PICKUP	$29,202.00	$32,475.00
F0891	2001	PICKUP	$29,202.00	$32,475.00
F0892	2001	PICKUP	$29,202.00	$32,475.00
F0893	2001	PICKUP	$29,202.00	$32,475.00
F0903	2001	PICKUP	$29,202.00	$32,475.00
F0904	2001	PICKUP	$29,202.00	$32,475.00
F0905	2001	PICKUP	$29,202.00	$32,475.00
F0906	2001	PICKUP	$29,202.00	$32,475.00
F0907	2001	PICKUP	$29,202.00	$32,475.00
F0908	2001	PICKUP	$29,202.00	$32,475.00
F0909	2001	PICKUP	$29,202.00	$32,475.00
F0915	2001	PICKUP	$29,202.00	$32,475.00
F0916	2001	PICKUP	$29,202.00	$32,475.00
F0917	2001	PICKUP	$29,202.00	$32,475.00
F1093	2001	PICKUP	$29,202.00	$32,475.00
F0060	1988	PICKUP 4X4	$0.00	$32,475.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0118	1990	PICKUP 4X4	$6,718.00	$32,475.00
F0410	1997	PICKUP 4X4	$0.00	$32,475.00
F0411	1997	PICKUP 4X4	$0.00	$32,475.00
F0412	1997	PICKUP 4X4	$0.00	$32,475.00
F0413	1997	PICKUP 4X4	$0.00	$32,475.00
F0414	1997	PICKUP 4X4	$0.00	$32,475.00
F0415	1997	PICKUP 4X4	$0.00	$32,475.00
F0416	1997	PICKUP 4X4	$0.00	$32,475.00
F0417	1997	PICKUP 4X4	$0.00	$32,475.00
F0948	2001	PICKUP 4X4	$0.00	$32,475.00
F0949	2001	PICKUP 4X4	$0.00	$32,475.00
F0950	2001	PICKUP 4X4	$0.00	$32,475.00
F0951	2001	PICKUP 4X4	$0.00	$32,475.00
F0952	2001	PICKUP 4X4	$0.00	$32,475.00
F0953	2001	PICKUP 4X4	$0.00	$32,475.00
F0954	2001	PICKUP 4X4	$0.00	$32,475.00
F0955	2001	PICKUP 4X4	$0.00	$32,475.00
F0956	2001	PICKUP 4X4	$0.00	$32,475.00
F0957	2001	PICKUP 4X4	$0.00	$32,475.00
F0958	2001	PICKUP 4X4	$0.00	$32,475.00
F0964	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0965	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0966	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0984	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0985	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0986	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0987	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0988	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0989	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0990	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0991	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0992	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0993	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0994	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0995	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0996	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0997	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0998	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F0999	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F1000	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F1001	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F1002	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F1003	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F1004	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F1005	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F1006	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F1007	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F1008	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F1009	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F1010	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F1011	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F1012	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F1013	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00
F1014	2001	PICKUP EXT CAB 4X4	$0.00	$33,000.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0926	2001	PICKUP EXT CAB W/SHELL	$32,070.00	$35,000.00
F0927	2001	PICKUP EXT CAB W/SHELL	$32,070.00	$35,000.00
F0928	2001	PICKUP EXT CAB W/SHELL	$32,070.00	$35,000.00
F1037	2001	PICKUP EXT CAB W/SHELL	$32,070.00	$35,000.00
F1038	2001	PICKUP EXT CAB W/SHELL	$32,070.00	$35,000.00
F1039	2001	PICKUP EXT CAB W/SHELL	$32,070.00	$35,000.00
F1040	2001	PICKUP EXT CAB W/SHELL	$32,070.00	$35,000.00
F1081	2002	PICKUP EXT CAB W/SHELL	$32,070.00	$35,000.00
F1097	1989	PICKUP UTILITY	$17,089.00	$39,999.00
30509	1991	PICKUP UTILITY	$20,905.00	$39,999.00
30556	1991	PICKUP UTILITY	$20,905.00	$39,999.00
F9026	1992	PICKUP UTILITY	$20,833.00	$39,999.00
F9027	1992	PICKUP UTILITY	$20,833.00	$39,999.00
F0139	1993	PICKUP UTILITY	$19,608.00	$39,999.00
F0140	1993	PICKUP UTILITY	$19,608.00	$39,999.00
F0141	1993	PICKUP UTILITY	$19,608.00	$39,999.00
F0142	1993	PICKUP UTILITY	$19,608.00	$39,999.00
F0282	1994	PICKUP UTILITY	$28,378.00	$39,999.00
F0283	1994	PICKUP UTILITY	$28,378.00	$39,999.00
F0284	1994	PICKUP UTILITY	$28,378.00	$39,999.00
F0285	1994	PICKUP UTILITY	$28,378.00	$39,999.00
F0286	1994	PICKUP UTILITY	$28,377.00	$39,999.00
F0287	1994	PICKUP UTILITY	$28,377.00	$39,999.00
F0288	1994	PICKUP UTILITY	$28,377.00	$39,999.00
F2018	1994	PICKUP UTILITY	$28,377.00	$39,999.00
F2019	1994	PICKUP UTILITY	$28,377.00	$39,999.00
F2020	1994	PICKUP UTILITY	$28,377.00	$39,999.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0539	1996	PICKUP UTILITY	$29,373.00	$39,999.00
F0445	1997	PICKUP UTILITY	$29,373.00	$39,999.00
F0446	1997	PICKUP UTILITY	$29,373.00	$39,999.00
F0447	1997	PICKUP UTILITY	$29,373.00	$39,999.00
F0448	1997	PICKUP UTILITY	$29,373.00	$39,999.00
F0483	1997	PICKUP UTILITY	$29,373.00	$39,999.00
F0485	1997	PICKUP UTILITY	$29,373.00	$39,999.00
F0486	1997	PICKUP UTILITY	$29,373.00	$39,999.00
F0487	1997	PICKUP UTILITY	$29,373.00	$39,999.00
F0488	1997	PICKUP UTILITY	$29,373.00	$39,999.00
F1015	2001	PICKUP UTILITY	$35,290.00	$39,999.00
F1016	2001	PICKUP UTILITY	$35,290.00	$39,999.00
F1018	2001	PICKUP UTILITY	$35,290.00	$39,999.00
F1019	2001	PICKUP UTILITY	$35,290.00	$39,999.00
F1023	2001	PICKUP UTILITY	$35,290.00	$39,999.00
F1024	2001	PICKUP UTILITY	$35,290.00	$39,999.00
F1026	2001	PICKUP UTILITY	$35,290.00	$39,999.00
F1027	2001	PICKUP UTILITY	$35,290.00	$39,999.00
F1139	2003	PICKUP UTILITY	$27,299.00	$39,999.00
34994	1991	PICKUP UTILITY 4X4	$23,347.00	$39,999.00
F0266	1994	PICKUP UTILITY 4X4	$29,657.00	$39,999.00
F0267	1994	PICKUP UTILITY 4X4	$29,657.00	$39,999.00
F0268	1994	PICKUP UTILITY 4X4	$29,657.00	$39,999.00
F0269	1994	PICKUP UTILITY 4X4	$29,657.00	$39,999.00
F0270	1994	PICKUP UTILITY 4X4	$29,657.00	$39,999.00
F0305	1994	PICKUP UTILITY 4X4	$33,862.00	$39,999.00
F0306	1994	PICKUP UTILITY 4X4	$33,862.00	$39,999.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0449	1997	PICKUP UTILITY 4X4	$32,436.00	$39,999.00
F0450	1997	PICKUP UTILITY 4X4	$32,436.00	$39,999.00
F0451	1997	PICKUP UTILITY 4X4	$32,436.00	$39,999.00
F0452	1997	PICKUP UTILITY 4X4	$32,436.00	$39,999.00
F0453	1997	PICKUP UTILITY 4X4	$32,436.00	$39,999.00
F0454	1997	PICKUP UTILITY 4X4	$32,436.00	$39,999.00
F0484	1997	PICKUP UTILITY 4X4	$32,436.00	$39,999.00
F0569	1998	PICKUP UTILITY 4X4	$35,343.00	$39,999.00
F0570	1998	PICKUP UTILITY 4X4	$35,343.00	$39,999.00
F0571	1998	PICKUP UTILITY 4X4	$35,343.00	$39,999.00
F0615	1998	PICKUP UTILITY 4X4	$35,343.00	$39,999.00
F0941	2001	PICKUP UTILITY 4X4	$38,240.00	$39,999.00
F0942	2001	PICKUP UTILITY 4X4	$38,240.00	$39,999.00
F0122	1992	PICKUP UTILITY EST	$64,263.00	$39,999.00
F0123	1992	PICKUP UTILITY EST	$64,263.00	$39,999.00
F0127	1992	PICKUP UTILITY EST	$64,263.00	$39,999.00
F0135	1992	PICKUP UTILITY EST	$64,263.00	$39,999.00
F0136	1992	PICKUP UTILITY EST	$64,263.00	$39,999.00
F0137	1992	PICKUP UTILITY EST	$64,263.00	$39,999.00
F0138	1992	PICKUP UTILITY EST	$64,263.00	$39,999.00
F1017	2001	PICKUP UTILITY EXT CAB	$36,592.00	$39,999.00
F1020	2001	PICKUP UTILITY EXT CAB	$36,592.00	$39,999.00
F1025	2001	PICKUP UTILITY EXT CAB	$36,592.00	$39,999.00
F1028	2001	PICKUP UTILITY EXT CAB	$36,592.00	$39,999.00
F1029	2001	PICKUP UTILITY EXT CAB	$36,592.00	$39,999.00
F1030	2001	PICKUP UTILITY EXT CAB	$36,592.00	$39,999.00
F1033	2001	PICKUP UTILITY EXT CAB	$36,592.00	$39,999.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F1034	2001	PICKUP UTILITY EXT CAB	$36,592.00	$39,999.00
F1035	2001	PICKUP UTILITY EXT CAB	$36,592.00	$39,999.00
F1036	2001	PICKUP UTILITY EXT CAB	$36,592.00	$39,999.00
F1041	2001	PICKUP UTILITY EXT CAB	$36,592.00	$39,999.00
F1068	2001	PICKUP UTILITY EXT CAB	$36,592.00	$39,999.00
F1091	2001	PICKUP UTILITY EXT CAB	$36,590.00	$39,999.00
F0938	2001	PICKUP UTILITY EXT CAB 4X4	$38,285.00	$39,999.00
F0939	2001	PICKUP UTILITY EXT CAB 4X4	$38,285.00	$39,999.00
F0940	2001	PICKUP UTILITY EXT CAB 4X4	$38,285.00	$39,999.00
F0977	2001	PICKUP UTILITY EXT CAB 4X4	$38,285.00	$39,999.00
F0978	2001	PICKUP UTILITY EXT CAB 4X4	$38,285.00	$39,999.00
F0980	2001	PICKUP UTILITY EXT CAB 4X4	$38,285.00	$39,999.00
F0981	2001	PICKUP UTILITY EXT CAB 4X4	$38,285.00	$39,999.00
F0982	2001	PICKUP UTILITY EXT CAB 4X4	$38,285.00	$39,999.00
F1082	2001	PICKUP UTILITY EXT CAB 4X4	$38,285.00	$39,999.00
F1083	2001	PICKUP UTILITY EXT CAB 4X4	$38,285.00	$39,999.00
F1084	2001	PICKUP UTILITY EXT CAB 4X4	$38,285.00	$39,999.00
F1090	2001	PICKUP UTILITY EXT CAB 4X4	$38,285.00	$39,999.00
F1094	2001	PICKUP UTILITY EXT CAB 4X4	$38,285.00	$39,999.00
F1095	2001	PICKUP UTILITY EXT CAB 4X4	$38,285.00	$39,999.00
F0121	1992	PICKUP UTILITY FOAM	$21,599.00	$28,316.00
F0130	1992	PICKUP W/LIFT GATE	$19,543.00	$31,499.00
F0132	1992	PICKUP W/LIFT GATE	$19,544.00	$31,499.00
F0308	1995	PICKUP W/LIFT GATE	$21,434.00	$31,499.00
F0339	1995	PICKUP W/LIFT GATE	$21,434.00	$31,499.00
F0935	1997	PICKUP W/LIFT GATE	$25,764.00	$31,499.00
F0943	2001	PICKUP W/LIFT GATE	$31,338.00	$31,499.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0944	2001	PICKUP W/LIFT GATE	$31,338.00	$31,499.00
F0945	2001	PICKUP W/LIFT GATE	$31,338.00	$31,499.00
F0946	2001	PICKUP W/LIFT GATE	$31,388.00	$31,499.00
F0947	2001	PICKUP W/LIFT GATE	$31,338.00	$31,499.00
F0959	2001	PICKUP W/LIFT GATE	$31,338.00	$31,499.00
F0960	2001	PICKUP W/LIFT GATE	$31,338.00	$31,499.00
F0961	2001	PICKUP W/LIFT GATE	$31,338.00	$31,499.00
F0962	2001	PICKUP W/LIFT GATE	$31,338.00	$31,499.00
F0963	2001	PICKUP W/LIFT GATE	$31,338.00	$31,499.00
F8003		PORTABLE PUMP	$0.00	$4,000.00
49554	1961	PUMPER	$0.00	$319,337.00
49578	1968	PUMPER	$0.00	$319,337.00
49289	1972	PUMPER	$0.00	$319,337.00
49305	1972	PUMPER	$0.00	$319,337.00
49311	1972	PUMPER	$0.00	$319,337.00
49316	1972	PUMPER	$0.00	$319,337.00
49586	1972	PUMPER	$0.00	$319,337.00
49589	1972	PUMPER	$0.00	$319,337.00
49592	1972	PUMPER	$0.00	$319,337.00
49601	1972	PUMPER	$0.00	$319,337.00
49352	1974	PUMPER	$0.00	$319,337.00
49604	1974	PUMPER	$0.00	$319,337.00
49605	1974	PUMPER	$0.00	$319,337.00
49610	1974	PUMPER	$0.00	$319,337.00
49611	1974	PUMPER	$0.00	$319,337.00
49613	1974	PUMPER	$0.00	$319,337.00
49351	1975	PUMPER	$0.00	$319,337.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
49367	1976	PUMPER	$80,751.00	$319,337.00
49368	1976	PUMPER	$80,751.00	$319,337.00
49616	1976	PUMPER	$80,751.00	$319,337.00
49617	1976	PUMPER	$80,751.00	$319,337.00
49618	1976	PUMPER	$80,751.00	$319,337.00
49620	1976	PUMPER	$80,751.00	$319,337.00
49621	1976	PUMPER	$80,751.00	$319,337.00
49622	1976	PUMPER	$80,751.00	$319,337.00
49377	1977	PUMPER	$86,300.00	$319,337.00
49751	1979	PUMPER	$97,398.00	$319,337.00
F0385	1979	PUMPER	$97,398.00	$319,337.00
49005	1981	PUMPER	$108,498.00	$319,337.00
49410	1981	PUMPER	$108,498.00	$319,337.00
49411	1981	PUMPER	$118,215.00	$319,337.00
49412	1981	PUMPER	$108,498.00	$319,337.00
49413	1981	PUMPER	$108,498.00	$319,337.00
49414	1981	PUMPER	$108,498.00	$319,337.00
49415	1981	PUMPER	$108,498.00	$319,337.00
49416	1981	PUMPER	$108,498.00	$319,337.00
49417	1981	PUMPER	$108,498.00	$319,337.00
49418	1981	PUMPER	$108,498.00	$319,337.00
49419	1981	PUMPER	$108,498.00	$319,337.00
49420	1981	PUMPER	$108,498.00	$319,337.00
49421	1981	PUMPER	$108,498.00	$319,337.00
49422	1981	PUMPER	$108,498.00	$319,337.00
49423	1981	PUMPER	$108,498.00	$319,337.00
49425	1981	PUMPER	$118,215.00	$319,337.00

Vehicle #	*Year*	*Type*	*Acquisition Cost*	*Replacement Cost -2004*
49426	1981	PUMPER	$118,215.00	$319,337.00
49427	1981	PUMPER	$118,215.00	$319,337.00
49428	1981	PUMPER	$118,215.00	$319,337.00
49429	1981	PUMPER	$118,215.00	$319,337.00
49430	1981	PUMPER	$108,498.00	$319,337.00
49431	1981	PUMPER	$108,498.00	$319,337.00
F0538	1981	PUMPER	$108,498.00	$319,337.00
F2027	1981	PUMPER	$108,498.00	$319,337.00
49491	1984	PUMPER	$121,379.00	$319,337.00
49492	1984	PUMPER	$121,379.00	$319,337.00
49493	1984	PUMPER	$121,379.00	$319,337.00
49494	1984	PUMPER	$121,379.00	$319,337.00
49495	1984	PUMPER	$121,379.00	$319,337.00
49496	1984	PUMPER	$121,379.00	$319,337.00
49497	1984	PUMPER	$121,379.00	$319,337.00
49498	1984	PUMPER	$121,379.00	$319,337.00
49499	1984	PUMPER	$121,379.00	$319,337.00
49700	1984	PUMPER	$121,379.00	$319,337.00
49701	1984	PUMPER	$121,379.00	$319,337.00
49702	1984	PUMPER	$121,379.00	$319,337.00
49703	1984	PUMPER	$121,379.00	$319,337.00
49704	1984	PUMPER	$121,379.00	$319,337.00
49705	1984	PUMPER	$121,379.00	$319,337.00
49706	1984	PUMPER	$121,379.00	$319,337.00
49707	1984	PUMPER	$121,379.00	$319,337.00
49708	1984	PUMPER	$121,379.00	$319,337.00
49709	1984	PUMPER	$121,379.00	$319,337.00

Vehicle #	*Year*	*Type*	*Acquisition Cost*	*Replacement Cost -2004*
49710	1984	PUMPER	$121,379.00	$319,337.00
49711	1984	PUMPER	$121,379.00	$319,337.00
F0921	1984	PUMPER	$121,379.00	$319,337.00
49728	1985	PUMPER	$144,888.00	$319,337.00
49729	1985	PUMPER	$144,888.00	$319,337.00
49730	1985	PUMPER	$144,888.00	$319,337.00
49731	1985	PUMPER	$144,888.00	$319,337.00
49732	1985	PUMPER	$144,888.00	$319,337.00
49733	1985	PUMPER	$144,888.00	$319,337.00
49734	1985	PUMPER	$144,888.00	$319,337.00
49735	1985	PUMPER	$144,888.00	$319,337.00
49736	1985	PUMPER	$144,888.00	$319,337.00
49737	1985	PUMPER	$144,888.00	$319,337.00
49738	1985	PUMPER	$144,888.00	$319,337.00
49739	1985	PUMPER	$144,888.00	$319,337.00
49740	1985	PUMPER	$144,888.00	$319,337.00
49741	1985	PUMPER	$144,888.00	$319,337.00
49742	1985	PUMPER	$144,888.00	$319,337.00
49743	1985	PUMPER	$144,888.00	$319,337.00
49627	1986	PUMPER	$144,888.00	$319,337.00
F0526	1986	PUMPER	$144,888.00	$319,337.00
F0914	1986	PUMPER	$144,888.00	$319,337.00
49788	1988	PUMPER	$148,886.00	$319,337.00
49789	1988	PUMPER	$148,886.00	$319,337.00
49790	1988	PUMPER	$148,886.00	$319,337.00
49791	1988	PUMPER	$148,886.00	$319,337.00
49792	1988	PUMPER	$148,886.00	$319,337.00

Vehicle #	*Year*	*Type*	*Acquisition Cost*	*Replacement Cost -2004*
49795	1988	PUMPER	$148,886.00	$319,337.00
F0386	1988	PUMPER	$148,886.00	$319,337.00
F0387	1988	PUMPER	$148,886.00	$319,337.00
F0529	1988	PUMPER	$148,886.00	$319,337.00
F0922	1988	PUMPER	$148,886.00	$319,337.00
F2022	1988	PUMPER	$148,886.00	$319,337.00
F2024	1988	PUMPER	$148,886.00	$319,337.00
OES228	1988	PUMPER	$148,886.00	$319,337.00
OES229	1988	PUMPER	$148,886.00	$319,337.00
49670	1989	PUMPER	$152,608.00	$319,337.00
49671	1989	PUMPER	$152,608.00	$319,337.00
49793	1989	PUMPER	$152,608.00	$319,337.00
49794	1989	PUMPER	$152,608.00	$319,337.00
49796	1989	PUMPER	$152,608.00	$319,337.00
49797	1989	PUMPER	$152,608.00	$319,337.00
49798	1989	PUMPER	$152,608.00	$319,337.00
F0041	1990	PUMPER	$173,800.00	$319,337.00
F0042	1990	PUMPER	$173,800.00	$319,337.00
F0043	1990	PUMPER	$173,800.00	$319,337.00
F0044	1990	PUMPER	$173,800.00	$319,337.00
F0045	1990	PUMPER	$173,800.00	$319,337.00
F0046	1990	PUMPER	$173,800.00	$319,337.00
F0047	1990	PUMPER	$173,808.00	$319,337.00
F0048	1990	PUMPER	$173,808.00	$319,337.00
F0049	1990	PUMPER	$173,800.00	$319,337.00
F0050	1990	PUMPER	$173,808.00	$319,337.00
F0051	1990	PUMPER	$173,808.00	$319,337.00

Vehicle #	*Year*	*Type*	*Acquisition Cost*	*Replacement Cost -2004*
F0052	1990	PUMPER	$173,808.00	$319,337.00
F0053	1990	PUMPER	$173,808.00	$319,337.00
F0054	1990	PUMPER	$173,808.00	$319,337.00
F0523	1990	PUMPER	$173,808.00	$319,337.00
F0525	1990	PUMPER	$173,808.00	$319,337.00
F2023	1990	PUMPER	$173,808.00	$319,337.00
49692	1991	PUMPER	$204,126.00	$319,337.00
F0082	1991	PUMPER	$204,126.00	$319,337.00
F0083	1991	PUMPER	$204,126.00	$319,337.00
F0084	1991	PUMPER	$204,126.00	$319,337.00
F0085	1991	PUMPER	$204,126.00	$319,337.00
F0086	1991	PUMPER	$204,126.00	$319,337.00
F0087	1991	PUMPER	$204,126.00	$319,337.00
F0088	1991	PUMPER	$204,126.00	$319,337.00
F0089	1991	PUMPER	$204,126.00	$319,337.00
F0090	1991	PUMPER	$204,126.00	$319,337.00
F0091	1991	PUMPER	$204,126.00	$319,337.00
F0092	1991	PUMPER	$204,126.00	$319,337.00
F0093	1991	PUMPER	$204,126.00	$319,337.00
F0094	1991	PUMPER	$204,126.00	$319,337.00
F0095	1991	PUMPER	$204,126.00	$319,337.00
F0096	1991	PUMPER	$204,126.00	$319,337.00
F0853	1991	PUMPER	$204,126.00	$319,337.00
F0859	1991	PUMPER	$204,126.00	$319,337.00
F0530	1992	PUMPER	$204,126.00	$319,337.00
F0169	1993	PUMPER	$208,155.00	$319,337.00
F0170	1993	PUMPER	$208,155.00	$319,337.00

Vehicle #	*Year*	*Type*	*Acquisition Cost*	*Replacement Cost -2004*
F0171	1993	PUMPER	$208,155.00	$319,337.00
F0172	1993	PUMPER	$208,155.00	$319,337.00
F0173	1993	PUMPER	$208,155.00	$319,337.00
F0174	1993	PUMPER	$208,155.00	$319,337.00
F0175	1993	PUMPER	$208,155.00	$319,337.00
F0176	1993	PUMPER	$208,155.00	$319,337.00
F0177	1993	PUMPER	$208,155.00	$319,337.00
F0178	1993	PUMPER	$208,155.00	$319,337.00
F0524	1994	PUMPER	$208,155.00	$319,337.00
F0309	1995	PUMPER	$232,238.00	$319,337.00
F0310	1995	PUMPER	$232,238.00	$319,337.00
F0311	1995	PUMPER	$232,238.00	$319,337.00
F0312	1995	PUMPER	$232,238.00	$319,337.00
F0313	1995	PUMPER	$232,238.00	$319,337.00
F0314	1995	PUMPER	$232,238.00	$319,337.00
F0315	1995	PUMPER	$232,238.00	$319,337.00
F0316	1995	PUMPER	$232,238.00	$319,337.00
F0317	1995	PUMPER	$232,238.00	$319,337.00
F0318	1995	PUMPER	$232,238.00	$319,337.00
F0319	1995	PUMPER	$232,238.00	$319,337.00
F0320	1995	PUMPER	$232,238.00	$319,337.00
F0321	1995	PUMPER	$232,238.00	$319,337.00
F0322	1995	PUMPER	$232,238.00	$319,337.00
F0323	1995	PUMPER	$232,238.00	$319,337.00
F0850	1995	PUMPER	$232,238.00	$319,337.00
F0901	1995	PUMPER	$232,238.00	$319,337.00
F0540	1998	PUMPER	$241,990.00	$319,337.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0541	1998	PUMPER	$241,990.00	$319,337.00
F0542	1998	PUMPER	$241,990.00	$319,337.00
F0543	1998	PUMPER	$272,589.00	$319,337.00
F0544	1998	PUMPER	$241,990.00	$319,337.00
F0545	1998	PUMPER	$241,990.00	$319,337.00
F0546	1998	PUMPER	$241,990.00	$319,337.00
F0547	1998	PUMPER	$241,990.00	$319,337.00
F0548	1998	PUMPER	$241,990.00	$319,337.00
F0549	1998	PUMPER	$241,990.00	$319,337.00
F0550	1998	PUMPER	$241,990.00	$319,337.00
F0551	1998	PUMPER	$241,990.00	$319,337.00
F0552	1998	PUMPER	$241,990.00	$319,337.00
F0553	1998	PUMPER	$241,990.00	$319,337.00
F0554	1998	PUMPER	$272,589.00	$319,337.00
F0555	1998	PUMPER	$241,990.00	$319,337.00
F0556	1998	PUMPER	$241,990.00	$319,337.00
F0557	1998	PUMPER	$272,589.00	$319,337.00
F0558	1998	PUMPER	$241,990.00	$319,337.00
F0559	1998	PUMPER	$272,589.00	$319,337.00
F0560	1998	PUMPER	$272,589.00	$319,337.00
F0561	1998	PUMPER	$241,990.00	$319,337.00
F0562	1998	PUMPER	$272,589.00	$319,337.00
F0563	1998	PUMPER	$272,589.00	$319,337.00
F0564	1998	PUMPER	$272,589.00	$319,337.00
F0565	1998	PUMPER	$272,589.00	$319,337.00
F0566	1998	PUMPER	$272,589.00	$319,337.00
F0567	1998	PUMPER	$272,589.00	$319,337.00

Vehicle #	*Year*	*Type*	*Acquisition Cost*	*Replacement Cost -2004*
F0568	1998	PUMPER	$241,990.00	$319,337.00
F0576	1999	PUMPER	$241,990.00	$319,337.00
F0577	1999	PUMPER	$241,990.00	$319,337.00
F0578	1999	PUMPER	$241,990.00	$319,337.00
F0579	1999	PUMPER	$241,990.00	$319,337.00
F0580	1999	PUMPER	$241,990.00	$319,337.00
F0581	1999	PUMPER	$241,990.00	$319,337.00
F0582	1999	PUMPER	$241,990.00	$319,337.00
F0583	1999	PUMPER	$241,990.00	$319,337.00
F0584	1999	PUMPER	$241,990.00	$319,337.00
F0585	1999	PUMPER	$241,990.00	$319,337.00
F0586	1999	PUMPER	$241,990.00	$319,337.00
F0587	1999	PUMPER	$241,990.00	$319,337.00
F0588	1999	PUMPER	$241,990.00	$319,337.00
F0589	1999	PUMPER	$241,990.00	$319,337.00
F0590	1999	PUMPER	$241,990.00	$319,337.00
F0591	1999	PUMPER	$241,990.00	$319,337.00
F0592	1999	PUMPER	$241,990.00	$319,337.00
F0593	1999	PUMPER	$241,990.00	$319,337.00
F0594	1999	PUMPER	$241,990.00	$319,337.00
F0595	1999	PUMPER	$241,990.00	$319,337.00
F0596	1999	PUMPER	$241,990.00	$319,337.00
F0597	1999	PUMPER	$272,589.00	$319,337.00
F0598	1999	PUMPER	$272,589.00	$319,337.00
F0599	1999	PUMPER	$272,589.00	$319,337.00
F0600	1999	PUMPER	$272,589.00	$319,337.00
F0601	1999	PUMPER	$272,589.00	$319,337.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0444	1996	PUMPER 4X4	$0.00	$319,337.00
49407	1980	PUMPER 50 SQUIRT	$137,188.00	$525,000.00
F0014	1988	PUMPER 50 SQUIRT	$274,532.00	$525,000.00
F0015	1989	PUMPER 50 SQUIRT	$274,532.00	$525,000.00
F0918	1980	PUMPER FOAM	$0.00	$319,337.00
F0376	1984	PUMPER FOAM	$0.00	$319,337.00
F0062	1990	PUMPER FOAM	$316,389.00	$319,337.00
F0146	1992	RESCUE CREW CAB	$28,140.00	$41,700.00
F0156	1992	RESCUE CREW CAB	$28,139.00	$41,700.00
F0164	1992	RESCUE CREW CAB	$28,139.00	$41,700.00
F0161	1993	RESCUE CREW CAB	$28,139.00	$41,700.00
F0162	1993	RESCUE CREW CAB	$28,139.00	$41,700.00
F0165	1993	RESCUE CREW CAB	$28,139.00	$41,700.00
F0168	1993	RESCUE CREW CAB	$28,139.00	$41,700.00
F0291	1994	RESCUE CREW CAB	$31,922.00	$41,700.00
F0292	1994	RESCUE CREW CAB	$31,922.00	$41,700.00
F0293	1994	RESCUE CREW CAB	$31,922.00	$41,700.00
F0298	1994	RESCUE CREW CAB	$31,992.00	$41,700.00
F0301	1994	RESCUE CREW CAB	$31,992.00	$41,700.00
F0303	1994	RESCUE CREW CAB	$31,992.00	$41,700.00
F0531	1994	RESCUE CREW CAB	$31,992.00	$41,700.00
F0362	1995	RESCUE CREW CAB	$31,230.00	$41,700.00
F0363	1995	RESCUE CREW CAB	$32,161.00	$41,700.00
F0365	1995	RESCUE CREW CAB	$32,161.00	$41,700.00
F0366	1995	RESCUE CREW CAB	$32,161.00	$41,700.00
F0367	1995	RESCUE CREW CAB	$32,161.00	$41,700.00
F0421	1996	RESCUE CREW CAB	$30,697.00	$41,700.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0422	1996	RESCUE CREW CAB	$30,697.00	$41,700.00
F0426	1996	RESCUE CREW CAB	$30,697.00	$41,700.00
F0427	1996	RESCUE CREW CAB	$30,697.00	$41,700.00
F0418	1997	RESCUE CREW CAB	$30,697.00	$41,700.00
F0419	1997	RESCUE CREW CAB	$30,697.00	$41,700.00
F0420	1997	RESCUE CREW CAB	$30,697.00	$41,700.00
F0423	1997	RESCUE CREW CA B	$30,697.00	$41,700.00
F0425	1997	RESCUE CREW CAB	$30,697.00	$41,700.00
F0512	1997	RESCUE CREW CAB	$35,656.00	$41,700.00
F0513	1997	RESCUE CREW CAB	$35,656.00	$41,700.00
F0514	1997	RESCUE CREW CAB	$35,653.00	$41,700.00
F0515	1997	RESCUE CREW CAB	$35,653.00	$41,700.00
F0516	1997	RESCUE CREW CAB	$35,656.00	$41,700.00
F0517	1997	RESCUE CREW CAB	$35,656.00	$41,700.00
F0518	1997	RESCUE CREW CAB	$35,656.00	$41,700.00
F0520	1997	RESCUE CREW CAB	$35,656.00	$41,700.00
F0521	1997	RESCUE CREW CAB	$35,656.00	$41,700.00
F0774	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0775	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0776	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0777	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0778	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0779	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0780	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0789	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0790	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0791	2000	RESCUE CREW CAB	$41,612.00	$41,700.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0793	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0794	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0803	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0804	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0805	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0806	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0812	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0813	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0817	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0818	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0819	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0823	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0827	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0828	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0829	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0838	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0839	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0849	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0852	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0854	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F0855	2000	RESCUE CREW CAB	$41,612.00	$41,700.00
F1073	2001	RESCUE CREW CAB	$41,516.00	$41,700.00
F1074	2001	RESCUE CREW CAB	$41,516.00	$41,700.00
F1076	2001	RESCUE CREW CAB	$41,516.00	$41,700.00
F1079	2001	RESCUE CREW CAB	$41,516.00	$41,700.00
F1080	2001	RESCUE CREW CAB	$41,516.00	$41,700.00
F0856	2000	RESCUE CREW CAB HD	$41,612.00	$42,700.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0857	2000	RESCUE CREW CAB HD	$41,612.00	$42,700.00
F0860	2000	RESCUE CREW CAB HD	$41,612.00	$42,700.00
F0872	2000	RESCUE CREW CAB HD	$41,612.00	$42,700.00
F0873	2000	RESCUE CREW CAB HD	$41,612.00	$42,700.00
F0883	2000	RESCUE CREW CAB HD	$41,612.00	$42,700.00
F0884	2000	RESCUE CREW CAB HD	$41,612.00	$42,700.00
F0898	2000	RESCUE CREW CAB HD	$41,612.00	$42,700.00
F0899	2000	RESCUE CREW CAB HD	$41,612.00	$42,700.00
F0900	2000	RESCUE CREW CAB HD	$41,612.00	$42,700.00
F1072	2001	RESCUE CREW CAB HD	$41,516.00	$42,700.00
F1075	2001	RESCUE CREW CAB HD	$41,516.00	$42,700.00
F1077	2001	RESCUE CREW CAB HD	$41,516.00	$42,700.00
F1078	2001	RESCUE CREW CAB HD	$41,516.00	$42,700.00
F1085	2001	RESCUE CREW CAB HD	$41,516.00	$42,700.00
F1086	2001	RESCUE CREW CAB HD	$41,516.00	$42,700.00
F1087	2001	RESCUE CREW CAB HD	$41,516.00	$42,700.00
F1088	2001	RESCUE CREW CAB HD	$41,516.00	$42,700.00
F1089	2001	RESCUE CREW CAB HD	$41,516.00	$42,700.00
F1092	2001	RESCUE CREW CAB HD	$41,516.00	$42,700.00
F0100	1991	RESCUE STD CAB	$26,134.00	$39,699.00
F0143	1992	RESCUE STD CAB	$25,926.00	$39,699.00
F0359	1995	RESCUE STD CAB	$31,230.00	$39,699.00
F0360	1995	RESCUE STD CAB	$31,230.00	$39,699.00
F0030	1989	SEDAN COMPACT	$7,922.00	$16,129.00
F0032	1989	SEDAN COMPACT	$7,922.00	$16,129.00
34776	1990	SEDAN COMPACT	$9,223.00	$16,129.00
F0697	1999	SEDAN COMPACT	$13,304.00	$16,129.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0698	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0699	1999	SEDAN COMPA CT	$13,304.00	$16,129.00
F0700	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0701	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0702	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0703	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0705	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0706	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0707	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0708	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0709	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0710	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0711	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0712	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0713	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0714	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0715	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0716	1999	SEDAN COMPA CT	$13,304.00	$16,129.00
F0717	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0718	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0719	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0720	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0721	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0722	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0723	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0724	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0725	1999	SEDAN COMPACT	$13,304.00	$16,129.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0726	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0727	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0728	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0729	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0730	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0731	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0732	1999	SEDAN COMPA CT	$13,304.00	$16,129.00
F0733	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0734	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0735	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0736	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0755	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0756	1999	SEDAN COMPACT	$13,304.00	$16,129.00
F0795	2000	SEDAN COMPACT	$14,605.00	$16,129.00
F0796	2000	SEDAN COMPACT	$14,605.00	$16,129.00
F0797	2000	SEDAN COMPACT	$14,605.00	$16,129.00
F0798	2000	SEDAN COMPACT	$14,605.00	$16,129.00
F0799	2000	SEDAN COMPACT	$14,605.00	$16,129.00
F0800	2000	SEDAN COMPACT	$14,605.00	$16,129.00
F0801	2000	SEDAN COMPACT	$14,605.00	$16,129.00
F0802	2000	SEDAN COMPACT	$14,605.00	$16,129.00
F0815	2000	SEDAN COMPACT	$14,605.00	$16,129.00
F0816	2000	SEDAN COMPA CT	$14,605.00	$16,129.00
F0841	2000	SEDAN COMPACT	$14,605.00	$16,129.00
F1042	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1043	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1044	2002	SEDAN COMPACT	$16,660.00	$16,129.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F1045	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1046	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1047	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1048	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1049	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1050	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1051	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1052	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1053	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1054	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1055	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1056	2002	SEDAN COMPA CT	$16,660.00	$16,129.00
F1057	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1058	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1059	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1060	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1061	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1062	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1063	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1064	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1065	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1066	2002	SEDAN COMPACT	$16,660.00	$16,129.00
F1099	2002	SEDAN COMPACT	$16,095.00	$16,129.00
F1100	2002	SEDAN COMPACT	$16,095.00	$16,129.00
F1101	2002	SEDAN COMPACT	$16,095.00	$16,129.00
F1102	2002	SEDAN COMPACT	$16,095.00	$16,129.00
F1103	2002	SEDAN COMPACT	$16,095.00	$16,129.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F1104	2002	SEDAN COMPA CT	$16,095.00	$16,129.00
F1105	2002	SEDAN COMPACT	$16,095.00	$16,129.00
F1106	2002	SEDAN COMPACT	$16,095.00	$16,129.00
F1107	2002	SEDAN COMPACT	$16,095.00	$16,129.00
F1108	2002	SEDAN COMPACT	$16,095.00	$16,129.00
F1109	2002	SEDAN COMPACT	$16,095.00	$16,129.00
F1110	2002	SEDAN COMPACT	$16,095.00	$16,129.00
F1111	2002	SEDAN COMPACT	$16,095.00	$16,129.00
F1164	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1165	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1166	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1167	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1168	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1169	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1170	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1171	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1172	2004	SEDAN COMPA CT	$16,094.00	$16,129.00
F1173	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1174	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1175	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1176	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1177	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1178	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1179	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1180	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1181	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1182	2004	SEDAN COMPACT	$16,094.00	$16,129.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F1183	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1184	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1185	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1186	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1187	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1188	2004	SEDAN COMPA CT	$16,094.00	$16,129.00
F1189	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1190	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1191	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1192	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1193	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1194	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1195	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1196	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1197	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1198	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1199	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F1200	2004	SEDAN COMPACT	$16,094.00	$16,129.00
F0262	1988	SEDAN INTERCEPTOR	$11,843.00	$24,552.00
58907	1989	SEDAN INTERCEPTOR	$13,366.00	$24,552.00
58909	1989	SEDAN INTERCEPTOR	$13,366.00	$24,552.00
58910	1989	SEDAN INTERCEPTOR	$13,366.00	$24,552.00
34679	1990	SEDAN INTERCEPTOR	$14,889.00	$24,552.00
F0059	1990	SEDAN INTERCEPTOR	$15,892.00	$24,552.00
31031	1991	SEDAN INTERCEPTOR	$14,053.00	$24,552.00
31049	1992	SEDAN INTERCEPTOR	$13,210.00	$24,552.00
F9022	1992	SEDAN INTERCEPTOR	$16,271.00	$24,552.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F9023	1992	SEDAN INTERCEPTOR	$16,271.00	$24,552.00
F9024	1992	SEDAN INTERCEPTOR	$16,271.00	$24,552.00
F9025	1992	SEDAN INTERCEPTOR	$16,271.00	$24,552.00
F0184	1993	SEDAN INTERCEPTOR	$14,718.00	$24,552.00
F0185	1993	SEDAN INTERCEPTOR	$14,822.00	$24,552.00
F0191	1993	SEDAN INTERCEPTOR	$14,643.00	$24,552.00
F0193	1993	SEDAN INTERCEPTOR	$14,643.00	$24,552.00
F0194	1993	SEDAN INTERCEPTOR	$14,643.00	$24,552.00
F0200	1994	SEDAN INTERCEPTOR	$14,548.00	$24,552.00
F0201	1994	SEDAN INTERCEPTOR	$14,401.00	$24,552.00
F0202	1994	SEDAN INTERCEPTOR	$14,401.00	$24,552.00
F0204	1994	SEDAN INTERCEPTOR	$14,401.00	$24,552.00
F0205	1994	SEDAN INTERCEPTOR	$14,401.00	$24,552.00
F0206	1994	SEDAN INTERCEPTOR	$14,401.00	$24,552.00
F0207	1994	SEDAN INTERCEPTOR	$14,401.00	$24,552.00
F0208	1994	SEDAN INTERCEPTOR	$14,401.00	$24,552.00
F0209	1994	SEDAN INTERCEPTOR	$14,401.00	$24,552.00
F0210	1994	SEDAN INTERCEPTOR	$14,401.00	$24,552.00
F0213	1994	SEDAN INTERCEPTOR	$14,401.00	$24,552.00
F0214	1994	SEDAN INTERCEPTOR	$14,401.00	$24,552.00
F0348	1995	SEDAN INTERCEPTOR	$19,228.00	$24,552.00
F0349	1995	SEDAN INTERCEPTOR	$19,228.00	$24,552.00
F0351	1995	SEDAN INTERCEPTOR	$19,228.00	$24,552.00
F0352	1995	SEDAN INTERCEPTOR	$19,228.00	$24,552.00
F0353	1995	SEDAN INTERCEPTOR	$19,228.00	$24,552.00
F0354	1995	SEDAN INTERCEPTOR	$19,228.00	$24,552.00
F0355	1995	SEDAN INTERCEPTOR	$19,228.00	$24,552.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0356	1995	SEDAN INTERCEPTOR	$19,228.00	$24,552.00
F0357	1995	SEDAN INTERCEPTOR	$19,228.00	$24,552.00
F0358	1995	SEDAN INTERCEPTOR	$19,228.00	$24,552.00
F0924	1995	SEDAN INTERCEPTOR	$19,228.00	$24,552.00
F0497	1997	SEDAN INTERCEPTOR	$21,684.00	$24,552.00
F0498	1997	SEDAN INTERCEPTOR	$21,684.00	$24,552.00
F0500	1997	SEDAN INTERCEPTOR	$21,684.00	$24,552.00
F0501	1997	SEDAN INTERCEPTOR	$21,684.00	$24,552.00
F0502	1997	SEDAN INTERCEPTOR	$21,684.00	$24,552.00
F0504	1997	SEDAN INTERCEPTOR	$21,684.00	$24,552.00
F0505	1997	SEDAN INTERCEPTOR	$21,684.00	$24,552.00
F0506	1997	SEDAN INTERCEPTOR	$21,684.00	$24,552.00
F0507	1997	SEDAN INTERCEPTOR	$21,684.00	$24,552.00
F0508	1997	SEDAN INTERCEPTOR	$21,684.00	$24,552.00
F0509	1997	SEDAN INTERCEPTOR	$21,684.00	$24,552.00
F0510	1997	SEDAN INTERCEPTOR	$21,684.00	$24,552.00
F0511	1997	SEDAN INTERCEPTOR	$21,684.00	$24,552.00
F0627	1999	SEDAN INTERCEPTOR	$22,234.00	$24,552.00
F0628	1999	SEDAN INTERCEPTOR	$22,234.00	$24,552.00
F0629	1999	SEDAN INTERCEPTOR	$22,234.00	$24,552.00
F0630	1999	SEDAN INTERCEPTOR	$22,234.00	$24,552.00
F0631	1999	SEDAN INTERCEPTOR	$22,234.00	$24,552.00
F0632	1999	SEDAN INTERCEPTOR	$22,234.00	$24,552.00
F0633	1999	SEDAN INTERCEPTOR	$22,234.00	$24,552.00
F0634	1999	SEDAN INTERCEPTOR	$22,234.00	$24,552.00
F0635	1999	SEDAN INTERCEPTOR	$22,234.00	$24,552.00
F0636	1999	SEDAN INTERCEPTOR	$22,234.00	$24,552.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0637	1999	SEDAN INTERCEPTOR	$22,234.00	$24,552.00
F0638	1999	SEDAN INTERCEPTOR	$22,234.00	$24,552.00
F0639	1999	SEDAN INTERCEPTOR	$22,234.00	$24,552.00
F0640	1999	SEDAN INTERCEPTOR	$22,234.00	$24,552.00
F0670	2000	SEDAN INTERCEPTOR	$22,234.00	$24,552.00
F0861	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0862	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0863	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0864	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0865	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0866	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0867	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0868	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0869	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0870	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0871	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0885	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0896	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0897	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0911	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0912	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0913	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0919	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0934	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F0979	2000	SEDAN INTERCEPTOR	$24,232.00	$24,552.00
F1216	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1217	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F1218	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1219	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1220	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1221	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1222	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1223	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1224	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1225	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1226	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1227	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1228	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1229	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1230	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1231	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1232	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1233	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F1234	2004	SEDAN INTERCEPTOR	$24,552.00	$24,552.00
F0258	1990	SEDAN MID-SIZE	$11,320.00	$19,701.00
30692	1991	SEDAN MID-SIZE	$12,625.00	$19,701.00
30695	1991	SEDAN MID-SIZE	$12,625.00	$19,701.00
F0925	1991	SEDAN MID-SIZE	$12,625.00	$19,701.00
31446	1992	SEDAN MID-SIZE	$13,930.00	$19,701.00
31455	1992	SEDAN MID-SIZE	$13,930.00	$19,701.00
31457	1992	SEDAN MID-SIZE	$13,930.00	$19,701.00
31458	1992	SEDAN MID-SIZE	$13,930.00	$19,701.00
31466	1992	SEDAN MID-SIZE	$13,930.00	$19,701.00
31467	1992	SEDAN MID-SIZE	$13,930.00	$19,701.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F2000	1993	SEDAN MID-SIZE	$14,073.00	$19,701.00
F2001	1993	SEDAN MID-SIZE	$14,073.00	$19,701.00
F2002	1993	SEDAN MID-SIZE	$14,073.00	$19,701.00
F2003	1993	SEDAN MID-SIZE	$14,073.00	$19,701.00
F2004	1993	SEDAN MID-SIZE	$14,073.00	$19,701.00
F2005	1993	SEDAN MID-SIZE	$14,073.00	$19,701.00
F2006	1993	SEDAN MID-SIZE	$14,073.00	$19,701.00
F2007	1993	SEDAN MID-SIZE	$14,073.00	$19,701.00
F2008	1993	SEDAN MID-SIZE	$14,073.00	$19,701.00
F2009	1993	SEDAN MID-SIZE	$14,073.00	$19,701.00
F2010	1993	SEDAN MID-SIZE	$14,073.00	$19,701.00
F2011	1993	SEDAN MID-SIZE	$14,073.00	$19,701.00
F2012	1993	SEDAN MID-SIZE	$14,073.00	$19,701.00
F2014	1993	SEDAN MID-SIZE	$14,073.00	$19,701.00
LE011	1995	SEDAN MID-SIZE	$15,468.00	$19,701.00
LE012	1995	SEDAN MID-SIZE	$15,468.00	$19,701.00
LE013	1995	SEDAN MID-SIZE	$15,468.00	$19,701.00
LE014	1995	SEDAN MID-SIZE	$15,468.00	$19,701.00
LE015	1995	SEDAN MID-SIZE	$15,468.00	$19,701.00
LE016	1995	SEDAN MID-SIZE	$15,468.00	$19,701.00
LE017	1995	SEDAN MID-SIZE	$15,468.00	$19,701.00
LE018	1995	SEDAN MID-SIZE	$15,468.00	$19,701.00
LE019	1995	SEDAN MID-SIZE	$15,468.00	$19,701.00
LE020	1995	SEDAN MID-SIZE	$15,468.00	$19,701.00
LE021	1995	SEDAN MID-SIZE	$15,468.00	$19,701.00
LE022	1995	SEDAN MID-SIZE	$15,468.00	$19,701.00
LE023	1995	SEDAN MID-SIZE	$15,468.00	$19,701.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
LE024	1995	SEDAN MID-SIZE	$15,468.00	$19,701.00
LE025	1995	SEDAN MID-SIZE	$15,468.00	$19,701.00
F0428	1997	SEDAN MID-SIZE	$16,683.00	$19,701.00
F0429	1997	SEDAN MID-SIZE	$16,683.00	$19,701.00
F0430	1997	SEDAN MID-SIZE	$16,683.00	$19,701.00
F0431	1997	SEDAN MID-SIZE	$16,683.00	$19,701.00
F0432	1997	SEDAN MID-SIZE	$16,683.00	$19,701.00
F0433	1997	SEDAN MID-SIZE	$16,683.00	$19,701.00
F0434	1997	SEDAN MID-SIZE	$16,683.00	$19,701.00
F0435	1997	SEDAN MID-SIZE	$16,683.00	$19,701.00
F0436	1997	SEDAN MID-SIZE	$16,683.00	$19,701.00
F0437	1997	SEDAN MID-SIZE	$16,683.00	$19,701.00
F0438	1997	SEDAN MID-SIZE	$16,683.00	$19,701.00
F0439	1997	SEDAN MID-SIZE	$16,683.00	$19,701.00
F0440	1997	SEDAN MID-SIZE	$16,683.00	$19,701.00
F0441	1997	SEDAN MID-SIZE	$16,683.00	$19,701.00
F0496	1997	SEDAN MID-SIZE	$16,687.00	$19,701.00
F0920	1997	SEDAN MID-SIZE	$16,687.00	$19,701.00
F0737	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0738	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0739	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0740	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0742	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0743	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0744	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0745	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0746	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0747	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0749	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0750	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0751	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0752	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0753	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0754	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0757	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0758	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F0759	1999	SEDAN MID-SIZE	$15,669.00	$19,701.00
F1141	2003	SEDAN MID-SIZE	$19,766.00	$19,701.00
F1142	2003	SEDAN MID-SIZE	$19,766.00	$19,701.00
F1143	2003	SEDAN MID-SIZE	$19,766.00	$19,701.00
F1144	2003	SEDAN MID-SIZE	$19,766.00	$19,701.00
F1145	2003	SEDAN MID-SIZE	$19,766.00	$19,701.00
F9003	1984	SHAKEY QUAKEY	$0.00	$50,172.00
49691	1990	SHAKEY QUAKEY	$35,634.00	$50,172.00
F8074	1974	SKIP LOADER	$0.00	$22,193.00
F8027	1998	SKIP LOADER	$19,658.00	$22,193.00
46442	1974	STAKE BED HEAVY	$37,423.00	$49,000.00
40219	1975	STAKE BED HEAVY	$37,669.00	$49,000.00
40234	1975	STAKE BED HEAVY	$37,669.00	$49,000.00
40243	1975	STAKE BED HEAVY	$37,669.00	$49,000.00
49941	1981	STAKE BED HEAVY	$37,915.00	$49,000.00
54696	1984	STAKE BED HEAVY	$38,161.00	$49,000.00
49949	1985	STAKE BED HEAVY	$38,407.00	$49,000.00
49914	1986	STAKE BED HEAVY	$38,653.00	$49,000.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
49915	1986	STAKE BED HEAVY	$38,653.00	$49,000.00
49962	1986	STAKE BED HEAVY	$38,653.00	$49,000.00
49984	1986	STAKE BED HEAVY	$38,653.00	$49,000.00
49917	1987	STAKE BED HEAVY	$38,754.00	$49,000.00
49991	1987	STAKE BED HEAVY	$38,754.00	$49,000.00
49981	1988	STAKE BED HEAVY	$38,877.00	$49,000.00
34031	1989	STAKE BED HEAVY	$39,000.00	$49,000.00
F1098	1990	STAKE BED HEAVY	$39,123.00	$49,000.00
F0340	1995	STAKE BED LIGHT	$33,449.00	$43,000.00
F0342	1995	STAKE BED LIGHT	$33,449.00	$43,000.00
F0344	1995	STAKE BED LIGHT	$33,449.00	$43,000.00
F0345	1995	STAKE BED LIGHT	$33,449.00	$43,000.00
F0347	1995	STAKE BED LIGHT	$33,449.00	$43,000.00
F0460	1997	STAKE BED LIGHT	$37,883.00	$43,000.00
F0461	1997	STAKE BED LIGHT	$37,883.00	$43,000.00
F0463	1997	STAKE BED LIGHT	$37,883.00	$43,000.00
F0464	1997	STAKE BED LIGHT	$37,883.00	$43,000.00
F0495	1997	STAKE BED LIGHT	$37,883.00	$43,000.00
F0792	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0807	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0808	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0809	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0810	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0811	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0814	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0820	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0821	2000	STAKE BED LIGHT	$41,380.00	$43,000.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0822	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0824	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0825	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0826	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0830	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0836	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0837	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0840	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0842	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0843	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0844	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0845	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0846	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0847	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F0848	2000	STAKE BED LIGHT	$41,380.00	$43,000.00
F1070	2001	STAKE BED LIGHT	$41,380.00	$43,000.00
F1071	2001	STAKE BED LIGHT	$41,380.00	$43,000.00
34813	1990	SUBURBAN	$19,931.00	$41,499.00
34816	1990	SUBURBAN	$19,806.00	$41,499.00
34818	1990	SUBURBAN	$19,801.00	$41,499.00
34819	1990	SUBURBAN	$19,801.00	$41,499.00
34820	1990	SUBURBAN	$16,635.00	$41,499.00
F0931	1990	SUBURBAN	$16,635.00	$41,499.00
30935	1991	SUBURBAN	$23,971.00	$41,499.00
30936	1991	SUBURBAN	$23,971.00	$41,499.00
30937	1991	SUBURBAN	$23,970.00	$41,499.00
F0390	1991	SUBURBAN	$23,970.00	$41,499.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0533	1992	SUBURBAN	$26,637.00	$41,499.00
F9017	1992	SUBURBAN	$26,637.00	$41,499.00
F9018	1992	SUBURBAN	$26,637.00	$41,499.00
F9019	1992	SUBURBAN	$26,637.00	$41,499.00
F9020	1992	SUBURBAN	$26,637.00	$41,499.00
F0271	1994	SUBURBAN	$29,606.00	$41,499.00
F0272	1994	SUBURBAN	$29,606.00	$41,499.00
F0273	1994	SUBURBAN	$29,606.00	$41,499.00
F0274	1994	SUBURBAN	$29,606.00	$41,499.00
F0275	1994	SUBURBAN	$29,606.00	$41,499.00
F0277	1994	SUBURBAN	$29,606.00	$41,499.00
F0278	1994	SUBURBAN	$29,606.00	$41,499.00
F0279	1994	SUBURBAN	$29,606.00	$41,499.00
F0331	1995	SUBURBAN	$38,916.00	$41,499.00
F0332	1995	SUBURBAN	$38,916.00	$41,499.00
F0333	1995	SUBURBAN	$34,465.00	$41,499.00
F0334	1995	SUBURBAN	$37,346.00	$41,499.00
F0335	1995	SUBURBAN	$37,346.00	$41,499.00
F0336	1995	SUBURBAN	$37,346.00	$41,499.00
F0337	1995	SUBURBAN	$37,346.00	$41,499.00
F0455	1997	SUBURBAN	$33,304.00	$41,499.00
F0456	1997	SUBURBAN	$30,766.00	$41,499.00
F0457	1997	SUBURBAN	$33,304.00	$41,499.00
F0458	1997	SUBURBAN	$30,766.00	$41,499.00
F0491	1997	SUBURBAN	$36,450.00	$41,499.00
F0492	1997	SUBURBAN	$36,450.00	$41,499.00
F0493	1997	SUBURBAN	$36,450.00	$41,499.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F0761	1999	SUBURBAN	$34,250.00	$41,499.00
F0762	1999	SUBURBAN	$34,250.00	$41,499.00
F0763	1999	SUBURBAN	$34,250.00	$41,499.00
F0766	1999	SUBURBAN	$34,250.00	$41,499.00
F0767	1999	SUBURBAN	$34,250.00	$41,499.00
F0768	1999	SUBURBAN	$34,250.00	$41,499.00
30934	1991	SUBURBAN 4X4	$23,971.00	$41,499.00
F9014	1992	SUBURBAN 4X4	$28,504.00	$41,499.00
F9015	1992	SUBURBAN 4X4	$28,504.00	$41,499.00
F0276	1994	SUBURBAN 4X4	$31,879.00	$41,499.00
F0330	1995	SUBURBAN 4X4	$38,916.00	$41,499.00
F0338	1995	SUBURBAN 4X4	$38,916.00	$41,499.00
F0459	1997	SUBURBAN 4X4	$39,500.00	$41,499.00
F0490	1997	SUBURBAN 4X4	$36,450.00	$41,499.00
F0494	1997	SUBURBAN 4X4	$42,759.00	$41,499.00
F0764	1999	SUBURBAN 4X4	$34,250.00	$41,499.00
F0765	1999	SUBURBAN 4X4	$34,250.00	$41,499.00
F0923	1993	SUV	$0.00	$34,000.00
F0781	2000	SUV	$28,178.00	$34,000.00
F0782	2000	SUV	$28,178.00	$34,000.00
F0783	2000	SUV	$28,178.00	$34,000.00
F0784	2000	SUV	$28,178.00	$34,000.00
F0785	2000	SUV	$28,178.00	$34,000.00
F0786	2000	SUV	$28,178.00	$34,000.00
F0787	2000	SUV	$28,178.00	$34,000.00
F0788	2000	SUV	$28,178.00	$34,000.00
F1096	2002	SUV	$23,108.00	$34,000.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F1153	2003	SUV	$0.00	$34,000.00
F1154	2003	SUV	$0.00	$34,000.00
F1155	2003	SUV	$0.00	$34,000.00
F1156	2003	SUV	$0.00	$34,000.00
F1157	2003	SUV	$0.00	$34,000.00
F1158	2003	SUV	$0.00	$34,000.00
F1159	2003	SUV	$0.00	$34,000.00
F1160	2003	SUV	$0.00	$34,000.00
F1161	2003	SUV	$0.00	$34,000.00
F1162	2003	SUV	$0.00	$34,000.00
F1163	2003	SUV	$0.00	$34,000.00
F9006	1992	SUV 4X4	$23,916.00	$34,000.00
F9007	1992	SUV 4X4	$23,916.00	$34,000.00
F9009	1992	SUV 4X4	$23,916.00	$34,000.00
F9010	1992	SUV 4X4	$23,916.00	$34,000.00
F9011	1992	SUV 4X4	$23,916.00	$34,000.00
F0215	1994	SUV 4X4	$29,657.00	$34,000.00
F0216	1994	SUV 4X4	$29,657.00	$34,000.00
F0325	1995	SUV 4X4	$23,851.00	$34,000.00
F0398	1995	SUV 4X4	$23,851.00	$34,000.00
F0399	1995	SUV 4X4	$23,851.00	$34,000.00
F0384	1997	SUV 4X4	$26,928.00	$34,000.00
F0680	1999	SUV 4X4	$29,866.00	$34,000.00
F0696	1999	SUV 4X4	$29,866.00	$34,000.00
F0858	2000	SUV 4X4	$32,815.00	$34,000.00
F0874	2000	SUV 4X4	$32,815.00	$34,000.00
F0875	2000	SUV 4X4	$32,815.00	$34,000.00

Vehicle #	*Year*	*Type*	*Acquisition Cost*	*Replacement Cost -2004*
F0876	2000	SUV 4X4	$32,815.00	$34,000.00
F0877	2000	SUV 4X4	$32,815.00	$34,000.00
F0878	2000	SUV 4X4	$32,815.00	$34,000.00
F0879	2000	SUV 4X4	$32,815.00	$34,000.00
F0880	2000	SUV 4X4	$32,815.00	$34,000.00
F0881	2000	SUV 4X4	$32,815.00	$34,000.00
F0882	2000	SUV 4X4	$32,815.00	$34,000.00
F8085	1961	TANKER	$0.00	$24,000.00
F8063	2001	TRACTOR	$0.00	$28,000.00
49811	1930	TRAILER	$0.00	$65,000.00
F8090	1950	TRAILER	$0.00	$65,000.00
49812	1952	TRAILER	$0.00	$65,000.00
49817	1952	TRAILER	$0.00	$65,000.00
49818	1954	TRAILER	$0.00	$65,000.00
F8073	1962	TRAILER	$0.00	$65,000.00
49844	1966	TRAILER	$0.00	$65,000.00
F8017	1966	TRAILER	$0.00	$65,000.00
49822	1967	TRAILER	$0.00	$65,000.00
49824	1967	TRAILER	$0.00	$65,000.00
49825	1967	TRAILER	$0.00	$65,000.00
49826	1967	TRAILER	$0.00	$65,000.00
49820	1968	TRAILER	$0.00	$65,000.00
49846	1969	TRAILER	$0.00	$65,000.00
49845	1973	TRAILER	$0.00	$65,000.00
49873	1974	TRAILER	$0.00	$65,000.00
49874	1974	TRAILER	$0.00	$65,000.00
49802	1979	TRAILER	$0.00	$65,000.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
49803	1983	TRAILER	$0.00	$65,000.00
49804	1983	TRAILER	$0.00	$65,000.00
49806	1984	TRAILER	$0.00	$65,000.00
49865	1985	TRAILER	$0.00	$65,000.00
49814	1987	TRAILER	$0.00	$65,000.00
F8018	1989	TRAILER	$0.00	$65,000.00
F8038	1989	TRAILER	$0.00	$65,000.00
49843	1990	TRAILER	$0.00	$244,000.00
49863	1992	TRAILER	$0.00	$65,000.00
49869	1993	TRAILER	$1,097.00	$1,396.00
F8002	1995	TRAILER	$0.00	$65,000.00
F8066	1995	TRAILER	$0.00	$65,000.00
F8062	1998	TRAILER	$0.00	$65,000.00
F0894	2000	TRAILER	$64,842.00	$69,316.00
F0895	2000	TRAILER	$64,842.00	$69,316.00
F8069	2000	TRAILER	$4,570.00	$4,885.00
F8045	2001	TRAILER	$0.00	$65,000.00
F8067	2001	TRAILER	$64,692.00	$69,316.00
49898		TRAILER	$13,862.00	$65,000.00
49899		TRAILER	$17,450.00	$65,000.00
F8071		TRAILER	$0.00	$65,000.00
F8072		TRAILER	$0.00	$65,000.00
F8091		TRAILER	$0.00	$65,000.00
F8092		TRAILER	$0.00	$65,000.00
F8026	1996	TRAILER 5TH WHEEL 35	$0.00	$65,000.00
F8040	1985	TRAILER BOAT	$0.00	$1,205.00
F8039	1989	TRAILER BOAT	$0.00	$1,205.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F8058	2001	TRAILER BOAT	$1,166.00	$1,205.00
F8059	2001	TRAILER BOAT	$1,160.00	$1,205.00
F8060	2001	TRAILER BOAT	$1,160.00	$1,205.00
F8061	2001	TRAILER CARRIER	$1,210.00	$1,257.00
49821	1988	TRAILER COMMU	$20,687.00	$32,168.00
F8077	2002	TRAILER DEL VALLE	$0.00	$3,800.00
F8019	1997	TRAILER GENERATOR	$0.00	$3,800.00
F8020	1997	TRAILER GENERATOR	$0.00	$3,800.00
F8043	2000	TRAILER GENERATOR	$0.00	$3,800.00
F8044	2000	TRAILER GENERATOR	$0.00	$3,800.00
F8041	2001	TRAILER GENERATOR	$0.00	$3,800.00
F8042	2001	TRAILER GENERATOR	$0.00	$3,800.00
F8047	2001	TRAILER GENERATOR	$0.00	$3,800.00
F8048	2001	TRAILER GENERATOR	$0.00	$3,800.00
F8049	2001	TRAILER GENERATOR	$0.00	$3,800.00
F8050	2001	TRAILER GENERATOR	$0.00	$3,800.00
F8051	2001	TRAILER GENERATOR	$0.00	$3,800.00
F8052	2001	TRAILER GENERATOR	$0.00	$3,800.00
F8053	2000	TRAILER HAZMAT	$264,878.00	$275,208.00
F8055	2001	TRAILER HAZMAT	$264,878.00	$275,208.00
F8056	2001	TRAILER HAZMAT	$264,878.00	$275,208.00
49883	1991	TRAILER MOBILE AIR	$0.00	$110,000.00
49257	1969	TRAILER MUSEUM	$0.00	$6,000.00
49029	1977	TRAILER MUSEUM	$0.00	$6,000.00
49868	1992	TRAILER MUSEUM	$0.00	$6,000.00
F9041	1960	TRAILER OFFICE	$0.00	$18,321.00
F8012	1996	TRAILER OFFICE	$0.00	$18,321.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
F8015	1996	TRAILER OFFICE	$15,735.00	$18,321.00
F8016	1997	TRAILER OFFICE	$15,987.00	$18,321.00
49896	1953	TRAILER USAR	$0.00	$244,000.00
49847	1991	TRAILER USAR	$13,362.00	$244,000.00
49848	1991	TRAILER USAR	$13,362.00	$244,000.00
49849	1991	TRAILER USAR	$13,362.00	$244,000.00
49851	1991	TRAILER USAR	$13,362.00	$244,000.00
49852	1991	TRAILER USAR	$13,362.00	$244,000.00
49853	1991	TRAILER USAR	$13,362.00	$244,000.00
49854	1991	TRAILER USAR	$13,362.00	$244,000.00
49864	1991	TRAILER USAR	$13,362.00	$244,000.00
F8064	2001	TRAILER USAR	$233,486.00	$244,000.00
F8065	2001	TRAILER USAR	$233,486.00	$244,000.00
F8068	2001	TRAILER USAR	$233,486.00	$244,000.00
F0018	1989	TRUCK DELUGE	$15,738.00	$23,355.00
53354	1981	TRUCK DUMP	$0.00	$64,064.00
53355	1981	TRUCK DUMP	$0.00	$64,064.00
53356	1981	TRUCK DUMP	$0.00	$64,064.00
49902	1986	TRUCK DUMP	$0.00	$64,064.00
57777	1987	TRUCK DUMP	$0.00	$64,064.00
30507	1990	TRUCK DUMP	$48,510.00	$64,064.00
F0369	1996	TRUCK DUMP	$56,288.00	$64,064.00
50591	1976	TRUCK DUMP STAKE	$0.00	$47,677.00
53417	1981	TRUCK DUMP STAKE	$0.00	$47,677.00
53419	1982	TRUCK DUMP STAKE	$0.00	$47,677.00
49967	1985	TRUCK DUMP STAKE	$0.00	$47,677.00
49684	1989	TRUCK DUMP STAKE	$50,406.00	$47,677.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
30557	1990	TRUCK DUMP STAKE	$33,862.00	$47,677.00
30529	1991	TRUCK PACKER	$81,525.00	$110,140.00
55299	1954	TRUCK REEFER	$0.00	$80,000.00
F0382	1981	TRUCK REEFER	$0.00	$80,000.00
F0773	1985	TRUCK TANKER	$0.00	$80,000.00
49972	1967	TRUCK TRACTOR	$0.00	$110,502.00
49973	1974	TRUCK TRACTOR	$0.00	$110,502.00
49974	1980	TRUCK TRACTOR	$0.00	$110,502.00
49975	1980	TRUCK TRACTOR	$0.00	$110,502.00
F9029	1981	TRUCK TRACTOR	$0.00	$110,502.00
49976	1982	TRUCK TRACTOR	$0.00	$110,502.00
49977	1982	TRUCK TRACTOR	$0.00	$110,502.00
49686	1990	TRUCK TRACTOR	$81,570.00	$110,502.00
F0608	1998	TRUCK TRACTOR	$99,474.00	$110,502.00
F1021	2000	TRUCK TRACTOR	$103,150.00	$110,502.00
F1022	2000	TRUCK TRACTOR	$103,150.00	$110,502.00
F1031	2000	TRUCK TRACTOR	$103,150.00	$110,502.00
F1032	2000	TRUCK TRACTOR	$103,150.00	$110,502.00
F1067	2000	TRUCK TRACTOR	$103,150.00	$110,502.00
F1069	2000	TRUCK TRACTOR	$103,150.00	$110,502.00
49892	1970	TUG AIRCRAFT	$0.00	$25,401.00
F8079	2002	TUG AIRCRAFT	$0.00	$25,401.00
F8089	2003	TUG AIRCRAFT	$24,192.00	$25,401.00
49669	1965	VAN	$0.00	$31,000.00
34951	1990	VAN	$16,523.00	$31,000.00
34961	1990	VAN	$15,478.00	$31,000.00
34975	1990	VAN	$17,516.00	$31,000.00

Vehicle #	Year	Type	Acquisition Cost	Replacement Cost -2004
30527	1991	VAN	$19,256.00	$31,000.00
31085	1992	VAN	$12,956.00	$31,000.00
31097	1992	VAN	$16,998.00	$31,000.00
F0383	1992	VAN	$16,998.00	$31,000.00
31835	1993	VAN	$14,900.00	$31,000.00
F0196	1993	VAN	$44,073.00	$31,000.00
F2017	1994	VAN	$20,459.00	$31,000.00
F9042	1995	VAN	$18,077.00	$31,000.00
F0405	1997	VAN	$21,695.00	$31,000.00
F0534	1998	VAN	$25,330.00	$31,000.00
F0535	1998	VAN	$25,330.00	$31,000.00
F0536	1998	VAN	$25,330.00	$31,000.00
F0537	1998	VAN	$25,330.00	$31,000.00
30908	1991	VAN 4X4	$0.00	$39,500.00
F1135	2002	VAN FULL-SIZE CARGO	$72,898.00	$30,000.00
F1136	2002	VAN FULL-SIZE CARGO	$72,898.00	$30,000.00
F1137	2002	VAN FULL-SIZE CARGO	$72,898.00	$30,000.00
F1138	2002	VAN FULL-SIZE CARGO	$72,898.00	$30,000.00
F1140	2002	VAN FULL-SIZE CARGO	$75,035.00	$30,000.00
F0832	2000	VAN MID-SIZE CARGO	$19,684.00	$20,199.00
F0833	2000	VAN MID-SIZE CARGO	$19,684.00	$20,199.00
F0834	2000	VAN MID-SIZE CARGO	$19,684.00	$20,199.00
F0835	2000	VAN MID-SIZE CARGO	$19,684.00	$20,199.00
49653	1977	VAN STEP	$24,556.00	$69,384.00
49667	1977	VAN STEP	$24,556.00	$69,384.00
49673	1977	VAN STEP	$24,556.00	$69,384.00
53425	1981	VAN STEP	$30,960.00	$69,384.00

Vehicle #	*Year*	*Type*	*Acquisition Cost*	*Replacement Cost -2004*
F0264	1985	VAN STEP	$37,364.00	$69,384.00
49756	1986	VAN STEP	$38,965.00	$69,384.00
F0033	1989	VAN STEP	$45,369.00	$69,384.00
F0063	1990	VAN STEP	$46,970.00	$69,384.00
45411	1973	WATER TENDER	$0.00	$254,375.00
40282	1975	WATER TENDER	$0.00	$254,375.00
47207	1975	WATER TENDER	$0.00	$254,375.00
40213	1976	WATER TENDER	$0.00	$254,375.00
49924	1986	WATER TENDER	$4,522.00	$254,375.00
49978	1987	WATER TENDER	$58,192.00	$254,375.00
49688	1990	WATER TENDER	$111,862.00	$254,375.00
49689	1990	WATER TENDER	$111,862.00	$254,375.00
49690	1990	WATER TENDER	$111,862.00	$254,375.00
49695	1991	WATER TENDER	$165,532.00	$254,375.00
F0621	1999	WATER TENDER	$220,205.00	$254,375.00
F0622	1999	WATER TENDER	$220,205.00	$254,375.00
F0623	1999	WATER TENDER	$220,205.00	$254,375.00
49870	1997	WAVE RUNNER	$0.00	$6,500.00
49871	1997	WAVE RUNNER	$0.00	$6,500.00
		TOTAL		**$166,159,539.36**

THE FOLLOWING AMOUNTS ARE 'OUTFITTING COSTS' (I.E. ON BOARD EQUIPMENT) FOR THE REPLACEMENT OF THE LIST ED EQUIPMENT.

ENGINE	$30,271.25
PATROL	$4,183.75
PM SQUAD	$3,991.75
SUBURBAN	$11,000.00
QUINT	$59,923.75

Communications Assets

Asset Type	Description	Number	Replacement Cost
Motorola MT1000	Portable VHF Radio	533	$4,000 each
Motorola MX330	Portable UHF Radio	492	$4,000 each
Motorola MX340	Portable UHF Radio	21	$4,000 each
Motorola Astro-Saber	Portable VHF/UHF Radio	191	$4,000 each
Motorola Saber 1E	Portable UHF Radio	669	$4,000 each
Kenwood TK 290	Portable VHF Radio	836	$4,000 each
Kenwood TK 390	Portable UHF Radio	132	$4,000 each
BK EPH	Portable VHF Radio	490	$4,000 each
BK EPU	Portable UHF Radio	381	$4,000 each
Various Brands	Mobile VHF/UHF Radio	2400	$2,800 each
Various Brands	Mobile Data Terminal	960	$10,000 each
Coded Data Modem	Stationary Data Terminal	167	$30,000 each

Computer Hardware Assets

QTY	DESCRIPTION	UNIT COST	SUBTOTAL	SALES TAX	TOTAL
1359	Personal Computers	$1,105.00	$1,501,695.00	$123,889.84	$1,625,584.84
105	Laptops	$1,570.00	$164,850.00	$13,600.13	$178,450.13
510	Printers Type A	$376.00	$191,760.00	$15,820.20	$207,580.20
410	Printer Type B	$696.00	$285,360.00	$23,542.20	$308,902.20
60	File server printers	$3,200.00	$192,000.00	$15,840.00	$207,840.00

QTY	DESCRIPTION	UNIT COST	SUBTOTAL	SALES TAX	TOTAL
52	File servers	$8,500.00	$442,000.00	$36,465.00	$478,465.00
4	Tape backup system	$12,500.00	$50,000.00	$4,125.00	$54,125.00
180	Routers	$1,200.00	$216,000.00	$17,820.00	$233,820.00
40	Switches	$2,800.00	$112,000.00	$9,240.00	$121,240.00
1	Compaq Alpha Mini-computers	$293,457.00	$293,457.00	$24,210.20	$317,667.20
		Grand Total	**$3,449,122.00**	**$284,552.57**	**$3,733,674.57**

Fire Camp Property Assets

Site:		Sq. Footage:	Total Cost:
CAMP 002 4810 Oak Grove Drive (Oak Grove Park) La Canada Flintridge	91011	8,346	$5,007,600
CAMP 008 1900 S. Rambla Pacifico Malibu	90265	15,337	$9,202,200
CAMP 009 21521 N. Sand Canyon Santa Clarita	91321	31,075	$18,645,000
CAMP 011 8800 W. Soledad Canyon Road Acton	93510	26,213	$15,727,800
CAMP 012 29300 The Old Road Saugus	91350		
CAMP 013 1250 S. Encinal Canyon Road Malibu	90265	17,658	$10,594,800
CAMP 014 35100 San Francisquito Canyon Road Saugus	91350	8,323	$4,993,800
CAMP 015 12500 Mount Gleason Tujunga	91042	3,299	$1,979,400
CAMP 016 26652 Angeles Forest Hwy North of Mount Gleason Palmdale	93550	30,000	$18,000,000
CAMP 017 6555 N. Stephens Ranch Road La Verne	91750	34,000	$20,400,000
CAMP 019 22550 East Fork Road (San Gabriel River) Azusa	91702	20,122	$12,073,200

Total Sites: 11 Average Cost: $10,602,164

LAO Assets

Site:	Sq. Footage:	Total Cost:
FCCF 1320 N. Eastern Ave. Los Angeles 90063	18,195	$10,917,000
KLINGER 1320 N. Eastern Ave. Los Angeles 90063	24,288	$14,572,800

Total Sites: 2 Average Cost: $12,744,900

Station Assets

Station Replacement Cost

Site:	Sq. Footage:	Total Cost:
189 1101 W. McKinley Ave. (Fairplex) Pomona 91766		

Total Sites: 162 Average Cost: $3,020,496

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
001 1108 N. Eastern Ave. Los Angeles	90063	4,110	$2,466,000
002 340 Palos Verdes Dr. W. Palos Verdes Estates	90274	2,900	$1,740,000
003 930 S. Eastern Ave. Los Angeles	90022	6,192	$3,715,200
004 2644 N. San Gabriel Blvd. Rosemead	91770	5,400	$3,240,000
005 7225 N. Rosemead Blvd. San Gabriel	91775	2,342	$1,405,200
006 25517 S. Narbonne Avenue Lomita	90717	2,620	$1,572,000
007 846 N. San Vincente Blvd. West Hollywood	90069	14,950	$8,970,000

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
008 7643 W. Santa Monica Blvd. West Hollywood	90046	8,843	$5,305,800
010 1860 E. Del Amo Carson	90746	5,385	$3,231,000
011 2521 N. El Molino Avenue Altadena	91001	4,138	$2,482,800
012 2760 N. Lincoln Avenue Altadena	91001	2,496	$1,497,600
014 1401 W. 108th Street Los Angeles	90047	4,808	$2,884,800
015 11460 Santa Gertrudes Whittier	90604	5,034	$3,020,400
016 8010 S. Compton Avenue Los Angeles	90001	9,000	$5,400,000

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
017 12006 Hadley Street Whittier	90601	2,000	$1,200,000
018 4518 W. Lennox Blvd. Inglewood	90304	4,500	$2,700,000
019 1729 W. Foothill Blvd. La Canada Flintridge	91011	2,783	$1,669,800
020 12110 E. Adoree Street Norwalk	90650	5,036	$3,021,600
021 4312 W. 147th Street Lawndale	90260	9,000	$5,400,000
022 928 S. Gerhart Avenue Commerce	90022	2,225	$1,335,000
023 9548 E. Flower Street Bellflower	90706	3,772	$2,263,200

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
024 1050 W. Avenue P Palmdale	93550	4,110	$2,466,000
025 9209 E. Saluson Avenue Pico Rivera	90660	2,848	$1,708,800
026 15336 E. Elliott Avenue La Puente	91744	3,836	$2,301,600
027 6031 Rickenbacker Road Commerce	90040	8,700	$5,220,000
028 7733 Greenleaf Avenue Whittier	90602	10,000	$6,000,000
029 14334 E. Los Angeles Street Baldwin Park	91706	5,605	$3,363,000
030 19030 Pioneer Blvd. Cerritos	90701	10,000	$6,000,000

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
031 7521 E. Somerset Blvd. Paramount	90723	5,688	$3,412,800
032 605 N. Angeleno Avenue Azusa	91702	14,532	$8,719,200
033 44947 Date Avenue Lancaster	93534	10,100	$6,060,000
034 21207 S. Norwalk Blvd. Hawaiian Gardens	90716	1,464	$878,400
035 13717 Artesia Blvd. Cerritos	90701	3,946	$2,367,600
036 127 W. 223rd Street Carson	90745	5,663	$3,397,800
037 38318 E. 9th Street East Palmdale	93550	4,165	$2,499,000

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
038 3907 W. 54th Street Los Angeles	90043	4,151	$2,490,600
039 7000 Garfield Avenue Bell Gardens	90201	6,200	$3,720,000
040 4864 S. Durfee Avenue Pico Rivera	90660	3,954	$2,372,400
041 1815 E. 120th Street Los Angeles	90059	4,110	$2,466,000
042 9319 E. Valley Blvd. Rosemead	91770	3,422	$2,053,200
043 921 S. Stimson Avenue La Puente	91745	5,571	$3,342,600
044 1105 S. Highland Avenue Duarte	91010	5,604	$3,362,400

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
045 4020 Candlewood Street Lakewood	90712	5,184	$3,110,400
047 5946 N. Kauffman Avenue Temple City	91780	4,051	$2,430,600
048 15546 E. Arrow Hwy. Irwindale	91706	3,840	$2,304,000
049 13820 S. La Mirada Blvd. La Mirada	90638	5,569	$3,341,400
050 2327 S. Saybrook Avenue Commerce	90040	3,310	$1,986,000
051 3900 N. Lankersheim Blvd. Universal City	91608	7,000	$4,200,000
053 6124 W. Palos Verdes Drive South Rancho Palos Verdes	90274	1,904	$1,142,400

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
054 4867 Southern Avenue South Gate	90280	4,000	$2,400,000
055 945 Avalon Canyon Road, P.O. Box 663 Avalon	90704	2,412	$1,447,200
056 12 Crest Road West Rolling Hills	90274	2,089	$1,253,400
057 5720 Gardendale Street South Gate	90280	3,623	$2,173,800
058 5757 S. Fairfax Avenue Los Angeles	90056	5,168	$3,100,800
059 10021 Scott Avenue Whittier	90603	5,000	$3,000,000
061 20011 La Puente Road Walnut	91789	4,200	$2,520,000

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
062 3701 N. Mills Avenue Claremont	91711	4,500	$2,700,000
063 4526 Ramsdell Avenue La Crescenta	91214	1,620	$972,000
064 164 S. Walnut San Dimas	91773	9,200	$5,520,000
065 4206 N. Cornell Road Agoura	91301	4,486	$2,691,600
066 2764 E. Eaton Canyon Drive Pasadena	91107	2,550	$1,530,000
067 25801 Piuma Road Calabasas	91302	2,696	$1,617,600
068 24130 Calabasas Road Calabasas	91302	3,714	$2,228,400

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
069 401 S. Topanga Canyon Blvd. Topanga	90290	3,456	$2,073,600
070 3970 Carbon Canyon Road Malibu	90265	8,775	$5,265,000
071 28722 W. Pacific Coast Hwy. Malibu	90265	2,165	$1,299,000
072 1832 S. Decker Road Malibu	90265	4,254	$2,552,400
073 24875 N. San Fernando Road Newhall	91321	10,380	$6,228,000
074 12587 N. Dexter Park Road San Fernando	91342	3,231	$1,938,600
075 23310 Lake Manor Drive Chatsworth	91311	2,000	$1,200,000

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
076 27223 Henry Mayo Drive Valencia	91355	3,548	$2,128,800
077 46833 Peace Valley Road, P.O. Box 2 Secti Gorman	93243	4,000	$2,400,000
078 17021 Elizabeth Lake Road Palmdale	93550	3,341	$2,004,600
079 33957 Longview Road Pearblossom	93553	3,700	$2,220,000
080 1533 W. Sierra Highway Acton	93510	3,135	$1,881,000
081 8710 W. Sierra Highway Agua Dulce	91350	3,500	$2,100,000
082 352 W. Foothill Blvd. La Canada Flintridge	91011	9,228	$5,536,800

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
083 83 Miraleste Plaza Rancho Palos Verdes	90274	4,600	$2,760,000
084 5030 W. Avenue L-14 Quartz Hill	93536	3,000	$1,800,000
085 650 E. Gladstone Street Glendora	91740	3,242	$1,945,200
086 520 S. Amelia Avenue Glendora	91741	3,690	$2,214,000
087 140 S. Second Avenue Industry	91746	5,039	$3,023,400
088 23720 W. Malibu Road Malibu	90265	2,142	$1,285,200
089 29575 Canwood St. Agoura Hills	91301	11,614	$6,968,400

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
090 10115 E. Rush Street So. El Monte	91733	3,816	$2,289,600
091 2691 S. Turnbull Canyon Road Hacienda Heights	91745	2,669	$1,601,400
092 8905 E. Avenue U Littlerock	93543	2,300	$1,380,000
094 6421 E. Turnergrove Street Lakewood	90713	2,847	$1,708,200
095 137 W. Redondo Beach Blvd. Gardena	90248	1,855	$1,113,000
096 10630 S. Mills Avenue Whittier	90604	1,926	$1,155,600
097 18453 E. Sierra Madre Avenue Azusa	91702	2,448	$1,468,800

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
098 9814 Maplewood Avenue Bellflower	90706	3,833	$2,299,800
099 32550 Pacific Coast Highway Malibu	90265	4,192	$2,515,200
101 606 W. Bonita Avenue Calremont	91711	4,200	$2,520,000
102 4370 N. Sumner Avenue Claremont	91711	2,667	$1,600,200
103 7300 S. Paramount Blvd. Pico Rivera	90660	4,795	$2,877,000
104 26201 Golden Valley Rd. Santa Clarita	91350	9,000	$5,400,000
105 18915 S. Santa Fe Avenue Compton	90221	4,354	$2,612,400

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
106 413 Indian Peak Road Rolling Hills Estate	90274	5,596	$3,357,600
107 18239 W. Soledad Canyon Canyon Country	91351	3,430	$2,058,000
108 28799 N. Rock Canyon Dr. Santa Clarita	91390	3,571	$2,142,600
110 4433 Admiralty Way Marina Del Rey	90292	6,482	$3,889,200
111 26829 Seco Canyon Road Valencia	91350	4,195	$2,517,000
112 8812 W. Avenue E-8 Lancaster	93535	,720	$432,000
114 39939 N. 170th Street East Palmdale	93550	3,020	$1,812,000

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
115 11317 Alondra Blvd. Norwalk	90650	2,700	$1,620,000
116 755 E. Victoria Street Carson	90746	3,866	$2,319,600
117 44851 30th Street East Lancaster	93535	5,200	$3,120,000
118 17056 Gale Avenue City of Industry	91748	12,332	$7,399,200
119 20480 E. Pathfinder Road Walnut	91789	3,865	$2,319,000
120 1051 S. Grand Avenue Diamond Bar	91765	5,665	$3,399,000
121 346 Armitos Diamond Bar	91765	4,000	$2,400,000

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
122 2600 Greenmeadow Road Lakewood	90712	4,336	$2,601,600
123 26321 N. Sand Canyon Road Canyon Country	91351	3,715	$2,229,000
124 25870 Hemingway Av. Stevenson Ranch	91381	7,924	$4,754,400
125 5215 N. Las Virgenes Road Calabasas	91302	5,675	$3,405,000
126 26320 Citrus Dr. Santa Clarita	91355	17,350	$10,410,000
127 2049 E. 223rd Street Carson	90810	5,624	$3,374,400
129 42110 6th Street West Lancaster	93534	10,100	$6,060,000

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
130 44558 40th Street West Lancaster	93536	5,200	$3,120,000
131 2629 E. Avenue "S" Palmdale	93550	5,925	$3,555,000
134 43225 North 25th Street West Lancaster	93534	5,600	$3,360,000
135 1846 East Avenue K-4 Lancaster	93535	5,600	$3,360,000
140 8723 Elizabeth Lake Road Leona Valley	93551	,825	$495,000
141 1124 W. Puente Street San Dimas	91773	4,416	$2,649,600
144 31981 W. Foxfield Drive Westlake Village	91361	5,675	$3,405,000

Tuesday, April 20, 2004

Station Replacement Cost

Site:	Sq. Footage:	Total Cost:
145 1525 S. Nogales Avenue Rowland Heights 91748	5,134	$3,080,400
146 20604 E. Loyalton Drive Walnut 91789	1,643	$985,800
147 3161 E. Imperial Highway Lynwood 90262	4,180	$2,508,000
148 4264 Martin Luther King Jr. Blvd. Lynwood 90262	1,800	$1,080,000
149 31770 Ridge Route Castaic 91384	4,374	$2,624,400
151 231 W. Mountain View Avenue Glendora 91741	11,269	$6,761,400
152 807 W. Cypress Street Covina 91723	4,552	$2,731,200

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
153 1577 E. Cypress Street Covina	91723	4,552	$2,731,200
154 401 N. Second Avenue Covina	91723	10,359	$6,215,400
155 P.O. Box 5011 Two Harbors	90704	,200	$120,000
157 15921 Spunky Canyon Road Green Valley	91350	,720	$432,000
158 1650 W. 162nd Street Gardena	90247	11,730	$7,038,000
159 2030 W. 135th Street Gardena	90249	3,720	$2,232,000
160 5323 West Rosecrans Avenue Hawthorne	90250	2,052	$1,231,200

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
161 4475 West El Segundo Blvd. Hawthorne	90250	14,097	$8,458,200
162 12151 Crenshaw Blvd. Hawthorne	90250	1,942	$1,165,200
163 6320 Pine Ave. Bell	90201	5,400	$3,240,000
164 6301 S. Santa Fe Ave. Huntington Park	90255	7,588	$4,552,800
165 3255 Saturn Ave. Huntington Park	90255	3,549	$2,129,400
166 3615 Santa Anita Ave. El monte	91731	7,715	$4,629,000
167 11567 Bryant Road El Monte	91732	3,515	$2,109,000

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
168 3207 Cogswell Rd. El Monte	91732	2,700	$1,620,000
169 5112 N. Peck Rd. El Monte	91732	2,700	$1,620,000
170 10701 S. Crenshaw Inglewood	90304	2,180	$1,308,000
171 141 W. Regent St. Inglewood	90301	17,240	$10,344,000
172 810 Centinela Ave. Inglewood	90302	3,230	$1,938,000
173 9001 S. Crenshaw Inglewood	90303	3,500	$2,100,000
181 590 S. Park Ave. Pomona	91766	20,562	$12,337,200

Tuesday, April 20, 2004

Station Replacement Cost

Site:		Sq. Footage:	Total Cost:
182 1059 N. White Ave. Pomona	91767	5,840	$3,504,000
183 710 N. San Antonio Ave Pomona	91767	5,776	$3,465,600
184 1980 W. Orange Grove Ave. Pomona	91768	4,125	$2,475,000
185 925 Lexington Ave. Pomona	91766	3,980	$2,388,000
186 280 E. Bonita Ave. Pomona	91767	5,952	$3,571,200
187 3325 Temple Ave Pomona	91766	5,460	$3,276,000
188 18-A Village Loop Rd. Pomona	91766	3,330	$1,998,000

Tuesday, April 20, 2004

Pacoima Assets

Pacoima Replacement Cost

Site:	Sq. Footage:	Total Cost:
TRANSPORTATION STORAGE 12605 Osborne Street Pacoima 91331	9,240	$5,544,000
USAR STORAGE 12605 Osborne Street Pacoima 91331	2,730	$1,638,000
WAREHOUSE 12605 Osborne Street Pacoima 91331	16,830	$10,098,000
WAREHOUSE OUTSIDE STORAGE 1 12605 Osborne Street Pacoima 91331	5,285	$3,171,000
WAREHOUSE OUTSIDE STORAGE 2 12605 Osborne Street Pacoima 91331	1,625	$975,000
WELDING SHOP 12605 Osborne Street Pacoima 91331	, 0	$0

Total Sites: 41 Average Cost: $1,543,917

Tuesday, April 20, 2004

Pacoima Replacement Cost

Site:		Sq. Footage:	Total Cost:
AIR OPS 12605 Osborne Street Pacoima	91331	10,016	$6,009,600
AIR OPS CONCRETE SHED 12605 Osborne Street Pacoima	91331	,288	$172,800
AIR OPS METAL SHED 1 12605 Osborne Street Pacoima	91331	1,200	$720,000
AIR OPS METAL SHED 2 12605 Osborne Street Pacoima	91331	1,200	$720,000
AIR OPS TRAILER 1 12605 Osborne Street Pacoima	91331	,720	$432,000
AIR OPS TRAILER 2 12605 Osborne Street Pacoima	91331	,726	$435,600
AIR OPS WEST BLDG 12605 Osborne Street Pacoima	91331	5,446	$3,267,600

Tuesday, April 20, 2004

Pacoima Replacement Cost

Site:		Sq. Footage:	Total Cost:
AIR SHOP 12605 Osborne Street Pacoima	91331	1,500	$900,000
BENEFIT & WELFARE 12605 Osborne Street Pacoima	91331	1,250	$750,000
CARPENTER 12605 Osborne Street Pacoima	91331	5,400	$3,240,000
CARPENTER STORAGE 12605 Osborne Street Pacoima	91331	1,200	$720,000
CRAFTS OFFICE 12605 Osborne Street Pacoima	91331	2,340	$1,404,000
DOZER MAINTENANCE 12605 Osborne Street Pacoima	91331	3,960	$2,376,000
ELEC/WELD STORAGE 12605 Osborne Street Pacoima	91331	1,440	$864,000

Tuesday, April 20, 2004

Pacoima Replacement Cost

Site:		Sq. Footage:	Total Cost:
ELECTRIC STORAGE 12605 Osborne Street Pacoima	91331	1,974	$1,184,400
ELECTRICIAN 12605 Osborne Street Pacoima	91331	1,200	$720,000
EQUIPMENT REPAIR 12605 Osborne Street Pacoima	91331	1,974	$1,184,400
FEMA CACHE 12605 Osborne Street Pacoima	91331	, 0	$0
FLEET QUONSET BLDG 12605 Osborne Street Pacoima	91331	4,200	$2,520,000
FOOD DISPENSER 12605 Osborne Street Pacoima	91331	,900	$540,000
FORESTRY 1 12605 Osborne Street Pacoima	91331	,561	$336,600

Tuesday, April 20, 2004

Pacoima Replacement Cost

Site:		Sq. Footage:	Total Cost:
FORESTRY 2 12605 Osborne Street Pacoima	91331	,594	$356,400
FORESTRY HAZ CHEM 12605 Osborne Street Pacoima	91331	1,940	$1,164,000
FORESTRY STORAGE 12605 Osborne Street Pacoima	91331	2,900	$1,740,000
HOSE STORAGE 12605 Osborne Street Pacoima	91331	,280	$168,000
HVEQ 12605 Osborne Street Pacoima	91331	2,800	$1,680,000
PACOIMA COMPLEX 12605 Osborne Street Pacoima	91331		
PLUMBER 12605 Osborne Street Pacoima	91331	1,200	$720,000

Tuesday, April 20, 2004

Pacoima Replacement Cost

Site:		Sq. Footage:	Total Cost:
QUONSET SHED 1 12605 Osborne Street Pacoima	91331	,660	$396,000
QUONSET SHED 2 12605 Osborne Street Pacoima	91331	,660	$396,000
RECORDS ARCHIVE 12605 Osborne Street Pacoima	91331	1,054	$632,400
SALVAGE TRAILER 12605 Osborne Street Pacoima	91331	,612	$367,200
SM ENGINE SHOP 12605 Osborne Street Pacoima	91331	3,766	$2,259,600
SPEC OPS DIVISION 12605 Osborne Street Pacoima	91331	3,100	$1,860,000
TRANSPORT STORAGE 12605 Osborne Street Pacoima	91331	2,730	$1,638,000

Tuesday, April 20, 2004

Los Angeles County Public Works Department

Inventory Values for all Public Works Department Whse's	
Altadena Whse	$34,027.32
Paint/Signal Whse	$366,211.33
Baldwin Park Whse	$141,943.71
Westchester Whse	$92,692.17
Hollydale Whse	$143,640.83
Palmdale Whse	$307,786.10
Imperial Yard Whse	$199,785.15
Longden Yard Whse	$483,673.45
Hansen Yard Whse	$214,305.60
Fremont Supply Room	$115,407.45
Central Whse (including Auto whse)	$3,019,498.54

Waterworks	Division
Malibu (Waterworks Div.)	$606,613.56
Lancaster (Waterworks Div.)	$491,935.60
Total Value	**$6,217,520.81**

Metropolitan Water District of Southern California

Facility	**Calleguas Municipal Water District**
Address/Phone Numbers	2100 Olsen Road Thousand Oaks, CA 91360 (805) 526-9323
General Manager	Donald R. Kendall
Facility	**Central Basin Municipal Water District**
Address/Phone Numbers	17140 S. Avalon Blvd. Carson, CA 90746-1296 (310) 217-2411 Fax (310) 217
Acting General Manager(s)	Art Aguilar; Rich Nagel
Facility	**City of Beverly Hills** **Public Works Department**
Address/Phone Numbers	342 N. Foothill Road Beverly Hills, CA 90210 (310) 285-2467
Utility Services Manager	Ed Otsuka
Facility	**City of Burbank** **Burbank Water and Power**
Address/Phone Numbers	P.O. Box 631 164 W. Magnolia Blvd. Burbank, CA 91503 (818) 238-3550
General Manager	Ronald E. Davis
Facility	**City of Compton** **Municipal Water Department**
Address/Phone Numbers	205 S. Willowbrook Avenue Compton, CA 90220 (310) 605-5595
General Manager	Kambiz Shoghi
Facility	**Eastern Municipal Water District**

Address/Phone Numbers	Mailing Address/Phone Numbers: P.O. Box 8300 Perris, CA 92572-8300 Street Address/Phone Numbers: 2270 Trumble Rd. Perris, CA 92570 (909) 928-3777 FAX (909) 928-6177
General Manager	Anthony J. Pack
Facility	**Foothill Municipal Water District**
Address/Phone Numbers	4536 Hampton Road P.O. Box 686 La Canada Flintridge, CA 91012 (818) 790-4036 (office) (626) 794-8221 (operation center)
Manager	Attention-Linda Thomas
Facility	**City of Fullerton** **Water System Management**
Address/Phone Numbers	303 W. Commonwealth Ave. Fullerton, CA 92832 (714) 738-6382
Water System Manager	David Schickling
Facility	**City of Glendale** **Water Services Administrator**
Address/Phone Numbers	141 North Glendale Avenue, Lvl. 4 Glendale, CA 91206-4496 (818) 548-2107
Director of Water and Power	Ignacio Troncoso
Facility	**Las Virgenes Municipal Water District**
Address/Phone Numbers	4232 Las Virgenes Road Calabasas, CA 91302 (818) 251-2100
General Manager	John R. Mundy
Facility	**City of Long Beach** **Water Department**
Address/Phone Numbers	1800 East Wardlow Road Long Beach, CA 90807 (562)570-2300 (562) 570-2305 (FAX)
General Manager	Kevin Wattier

Facility	**City of Los Angeles** **Department of Water and Power**
Address/Phone Numbers	P.O. Box 51111 Los Angeles, CA 90051 (213) 367-4211
General Manager	David Wiggs
Facility	**City of Pasadena** **Water and Power Department**
Address/Phone Numbers	150 So. Los Robles Ave., Ste. 200 Pasadena, CA 91101 (626) 744-4409
General Manager	Phyllis Currie
Facility	**City of San Fernando** **City Hall**
Address/Phone Numbers	117 Macneil Street San Fernando, CA 91340 (818) 898-1222
General Manager	Jose E. Pulido
Facility/Address/Phone Numbers	**City of San Marino** 2200 Huntington Drive San Marino, CA 91108
Facility/Address/Phone Numbers	**California-American Water Company** 2020 Huntington Drive San Marino, CA 91108 (626) 289-7924
Vice President and Manager	Benjamin F. Lewis
Facility	**City of Santa Monica** Utilities Division Dept. of Environmental and Public Works Management
Address/Phone Numbers	1212 5th Street - Third Floor Santa Monica, CA 90401 (310) 458-8286
Utilities Manager	Gilbert Borboa
Facility	**Three Valleys Municipal Water District**
Address/Phone Numbers	1021 E. Miramar Avenue Claremont, CA 91711 (909) 621-5568
General Manager	Richard W. Hansen

Facility	**City of Torrance**
Address/Phone Numbers	3031 Torrance Blvd. Torrance, CA 90503-5059 (310) 618-2820
Public Works Director	Brooks Bell
Facility	**Upper San Gabriel Valley Municipal Water District**
Address/Phone Numbers	11310 East Valley Blvd. El Monte, CA 91731 (626) 443-2297
General Manager	Timothy C. Jochem
Facility	**West Basin Municipal Water District**
Address/Phone Numbers	17140 S. Avalon Blvd., Suite 210 Carson, CA 90746-1296 (310) 217-2411 FAX (310) 217-2414
Acting General Manager	Art Aguilar Rich Nagel

School Districts

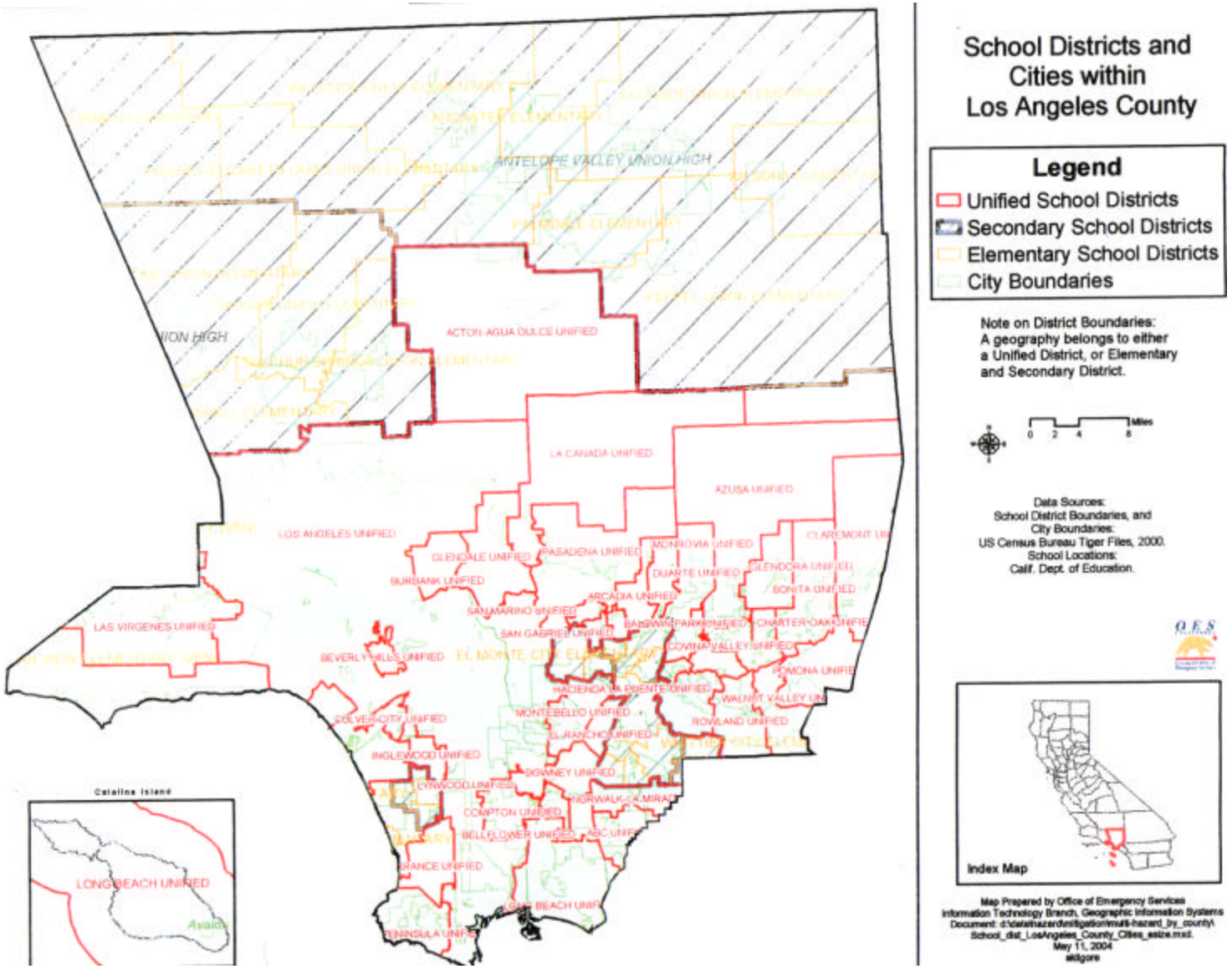
Directory of Public School Districts in Los Angeles County

District Name	Street Address	City	Telephone
Los Angeles County Office of Education	9300 Imperial Hwy	Downey 90242	(562) 922-6111
ABC Unified	16700 Norwalk Blvd	Cerritos 90703	(562) 926-5566
Acton-Agua Dulce Unified	32248 N Crown Valley Rd	Acton 93510	(661) 269-5999
Alhambra	15 W Alhambra Rd	Alhambra 91802	(626) 308-2200
Antelope Valley Union High	44811 North Sierra Hwy	Lancaster 93534	(661) 948-7655
Arcadia Unified	234 Campus Dr	Arcadia 91007	(626) 821-8300
Azusa Unified	546 S Citrus Ave	Azusa 91702	(626) 967-6211
Baldwin Park Unified	3699 N Holly Ave	Baldwin Park 91706	(626) 962-3311
Bassett Unified	904 N Willow Ave	La Puente 91746	(626) 918-3131
Bellflower Unified	16703 S Clark Ave	Bellflower 90706	(562) 866-9011
Beverly Hills Unified	255 S Lasky Dr	Beverly Hills 90212	(310) 551-5100
Bonita Unified	115 W Allen Ave	San Dimas 91773	(909) 599-6787
Burbank Unified	1900 W Olive Ave	Burbank 91506	(818) 729-4400
Castaic Union Elementary	28131 Livingston Ave	Valencia 91355	(661) 257-4500
Centinela Valley Union High	14901 S Inglewood Ave	Lawndale 90260	(310) 970-7700
Charter Oak Unified	20240 Cienega Ave	Covina 91723	(626) 966-8331
Claremont Unified	2080 N Mountain Ave	Claremont 91711	(909) 398-0601
Compton Unified	604 S Tamarind Ave	Compton 90220	(310) 639-4321
Covina-Valley Unified	519 E Badillo St	Covina 91723	(626) 974-7000
Culver City Unified	4034 Irving Place	Culver City 90232	(310) 842-4200
Downey Unified	11627 Brookshire Ave	Downey 90241	(562) 904-3500
Duarte Unified	1620 Huntington Dr	Duarte 91010	(626) 358-1191
East Whittier City Elementary	14535 E Whittier Blvd	Whittier 90605	(562) 698-0351
Eastside Union Elementary	45006 30th Street East	Lancaster 93535	(661) 952-1200
El Monte City Elementary	3540 N Lexington Ave	El Monte 91731	(626) 453-3700
El Monte Union High	3537 Johnson Ave	El Monte 91731	(626) 444-9005
El Rancho Unified	9333 Loch Lomond Dr	Pico Rivera 90660	(562) 942-1500
El Segundo Unified	641 Sheldon St	El Segundo 90245	(310) 615-2650

District Name	Street Address	City	Telephone
Garvey Elementary	2730 N del Mar	Rosemead 91770	(626) 307-3400
Glendale Unified	223 N Jackson St	Glendale 91206	(626) 241-3111
Glendora Unified	500 N Loraine Ave	Glendora 91741	(626) 963-1611
Gorman Elementary	49847 Gorman School Rd	Gorman 93243	(661) 248-6441
Hacienda La Puente Unified	15959 E Gale Ave	City of Industry 91716	(626) 933-1000
Hawthorne Elementary	14120 S Hawthorne Blvd	Hawthorne 90250	(310) 676-2276
Hermosa Beach City Elementary	1645 Valley Dr	Hermosa Beach 90254	(310) 937-5888
Hughes-Elizabeth Lakes Union Elem.	16633 Elizabeth Lake Rd	Lake Hughes 93532	(661) 724-1231
Inglewood Unified	401 S Inglewood Ave	Inglewood 90301-2501	(310) 419-2700
Keppel Union Elementary	34004 128th St East	Pearblossom 93553	(661) 944-2155
La Canada Unified	5039 Palm Dr	La Canada 91011	(818) 952-8300
Lancaster Elementary	44711 N Cedar Ave	Lancaster 93534	(661) 948-4661
Las Virgenes Unified	4111 N Las Virgenes Rd	Calabasas 91302	(818) 880-4000
Lawndale Elementary	4161 W 147th St	Lawndale 90260	(310) 973-1000
Lennox Elementary	10319 S Firmona Ave	Lennox 90304	(310) 330-4950
Little Lake City Elementary	10515 S Pioneer Blvd	Santa Fe Springs 90670	(562) 868-8241
Long Beach Unified	1515 Hughes Way	Long Beach 90810	(562) 997-8000
Los Angeles Unified	333 S Beaudry Ave	Los Angeles 90017	(213) 241-1000
Los Nietos Elementary	8324 S Westman Ave	Whittier 90606	(562) 692-0271
Lowell Joint	11019 Valley Home Ave	Whittier 90603	(562) 943-0211
Lynwood Unified	11321 Bullis Road	Lynwood 90262	(310) 886-1600
Manhattan Beach Unified	1230 Rosecrans, Ste 400	Manhattan Beach 90266	(310) 318-7345
Monrovia Unified	325 E Huntington Dr	Monrovia 91016	(626) 471-2000
Montebello Unified	123 S Montebello Blvd	Montebello 90640	(323) 887-7900
Mountain View Elementary	3320 Gilman Road	El Monte 91732	(626) 652-4000
Newhall Elementary	25375 Orchard Village, Ste 200	Valencia 91355	(661) 286-2200
Norwalk-La Mirada Unified	12820 Pioneer Blvd	Norwalk 90650	(562) 868-0431
Palmdale Elementary	39139 10th St East	Palmdale 93550	(661) 947-7191
Palos Verdes Peninsula Unified	3801 Via la Selva	Palos Verdes Estates 90274	(310) 378-9966
Paramount Unified	15110 California Ave	Paramount 90723	(562) 602-6000
Pasadena Unified	351 S Hudson Ave	Pasadena 91101	(626) 795-6981
Pomona Unified	800 S Garey Ave	Pomona 91769	(909) 397-4800
Redondo Beach Unified	1401 Inglewood Ave	Redondo Beach 90278	(310) 379-5449
Rosemead Elementary	3907 Rosemead Blvd	Rosemead 91770	(626) 312-2900

District Name	Street Address	City	Telephone
Rowland Unified	1830 Nogales St	Rowland Heights 91748	(626) 965-2541
San Gabriel Unified	408 Junipero Serra Dr	San Gabriel 91776	(626) 451-5400
San Marino Unified	1665 West Dr	San Marino 91108	(626) 299-7000
Santa Monica-Malibu Unified	1651 16th St	Santa Monica 90404	(310) 450-8338
Saugus Union Elementary	24930 Avenue Stanford	Santa Clarita 91355	(661) 294-7500
South Pasadena Unified	1020 El Centro St	South Pasadena 91030	(626) 441-5700
South Whittier Elementary	10120 Painter Ave	Whittier 90605	(562) 944-6231
Sulphur Springs Union Elementary	17866 Sierra Hwy	Canyon Country 91351	(661) 252-5131
Temple City Unified	9700 Las Tunas Dr	Temple City 91780	(626) 285-2111
Torrance Unified	2335 Plaza del Amo	Torrance 90501	(310) 533-4200
Valle Lindo Elementary	1431 N Central Ave	South El Monte 91733	(626) 580-0610
Walnut Valley Unified	880 S Lemon Ave	Walnut 91789-2931	(909) 595-1261
West Covina Unified	1717 W Merced Ave	West Covina 91790	(626) 338-8411
Westside Union Elementary	46809 N 70th St West	Lancaster 93535	(661) 948-2669
Whittier City Elementary	7211 S Whittier Ave	Whittier 90602	(562) 698-9531
Whittier Union High	9401 S Painter Ave	Whittier 90605	(562) 698-8121
William S. Hart Union High	21515 Redview Dr	Santa Clarita 91350	(661) 259-0033
Wilsona Elementary	18050 East Ave O	Palmdale 93591	(661) 264-1111
Wiseburn	13530 Aviation Blvd	Hawthorne 90250	(310) 643-3025

School District Boundary Map



Health Care

Hospitals

Largest Licensed Hospitals in Los Angeles County 2002

Name	City	Total Beds
Los Angeles County-USC Medical Center	Los Angeles	1,395
Cedars Sinai Medical Center	Los Angeles	898
UCLA Medical Center	Los Angeles	670
Los Angeles County-Harbor UCLA Medical Center	Torrance	553
Long Beach Memorial Medical Center	Long Beach	541
St. Mary Medical Center	Long Beach	539
Los Angeles County-Martin Luther King Jr/Drew Medical Center	Los Angeles	537
Huntington Memorial Hospital	Pasadena	522
Kaiser Foundation Hospital - Sunset	Los Angeles	492
Methodist Hospital of Southern California	Arcadia	450
Little Company of Mary Hospital	Torrance	442
Pomona Valley Hospital Medical Center	Pomona	436
Queen of Angels/Hollywood Presbyterian Medical Center	Los Angeles	434
Providence Saint Joseph Medical Center	Burbank	430
Northridge Hospital Medical Center	Northridge	426
Glendale Adventist Medical Center - Wilson Terrace	Glendale	421
Brotman Medical Center	Culver City	420
Good Samaritan Hospital-Los Angeles	Los Angeles	408
Los Angeles County/Rancho Los Amigos National Rehab Center	Downey	395
Little Company of Mary - San Pedro Hospital	San Pedro	387
St. Francis Medical Center	Lynwood	384
Los Angeles County Olive View-UCLA Medical Center	Sylmar	377
Torrance Memorial Medical Center	Torrance	377
Antelope Valley Hospital Medical Center	Lancaster	372
Centinela Hospital Medical Center	Inglewood	370
Daniel Freeman Memorial Hospital	Inglewood	358
Kaiser Foundation Hospital - Bellflower	Bellflower	352
White Memorial Medical Center	Los Angeles	350

Source: Office of Statewide Health Planning and Development, Calif. Health & Human Services Agency

Los Angeles County-USC Medical Center

The **Los Angeles County-USC Medical Center** in East Los Angeles is one of the nation's largest public hospitals and the nation's largest medical training center. In one year, the hospital will treat close to 800,000 patients, deliver 10,000 babies, treat 250,000 people in its emergency room, treat about half of all AIDS and Sickle Cell patients in Southern California, and handle 5,000 outpatient visitors per day. It provides more than 28 percent of the County's trauma care. Many of its patients are severely injured and almost half of them are poor and uninsured. It operates one of the three burn centers in Los Angeles County and one of the few Level III Neonatal Intensive Care Units in Southern California. Its medical staff includes 450 full time faculty physicians, 900 interns and residents, and 1,500 other physicians. It is licensed for 1,395 beds and budgeted to staff 745 beds.

The original county hospital was built in 1878 and became affiliated with the USC School of Medicine in 1885. It then consisted of 100 beds, 47 patients, 6 staff members, and a $4,000 budget. In 1930, the cornerstone for the current hospital building was laid and the hospital was completed in 1933. The long-running television soap opera *General Hospital* featured the building in its opening scenes, making it probably the most recognizable hospital in the country.

Special Healthcare Facilities

Health Information Centers - Los Angeles County Public Library

Consumer Health Information Program and Services (CHIPS)
Carson Regional Library
151 East Carson Street, Carson, CA 90745; Phone (310) 830-0909
Health and medical materials and reference information

Ron Shipton HIV Information Center
West Hollywood Library
715 North San Vicente Boulevard, West Hollywood, CA 90069; Phone (310) 652-5340
Materials, information, and reference service on AIDS and HIV

Higher Education

Directory of Public Community Colleges Los Angeles County

Community College District	Colleges	Address
Antelope Valley Joint	Antelope Valley College	3041 West Avenue K, Lancaster 93536 (661) 722-6300
Cerritos	Cerritos College	11110 Alondra Blvd, Norwalk 90650 (562) 860-2451
Citrus	Citrus College	1000 West Foothill Blvd, Glendora 91741 (626) 963-0323
Compton	Compton College	1111 E Artesia Blvd, Compton 90221 (310) 900-1600
El Segundo	El Camino College	16007 Crenshaw Blvd, Torrance 90506 (877) 322-6466
Glendale	Glendale College	1500 N Verdugo Rd, Glendale 91208 (818) 240-1000
Long Beach	Long Beach City College	4901 E Carson St, Long Beach 90808 (Liberal Arts Campus) (562) 938-4111 1305 E Pacific Coast Hwy, Long Beach 90806; (Pacific Coast Campus)
Los Angeles	East Los Angeles College	1301 Avenida Cesar Chavez, Monterey Park 91754; (323) 265-8650
	Los Angeles City College	855 N Vermont Ave, Los Angeles 90029 (323) 953-4000
	Los Angeles Harbor College	111 Figueroa Place, Wilmington 90744 (310) 522-8200
	Los Angeles Mission College	13356 Eldridge Ave, Sylmar 91342 (818) 364-7600
	Los Angeles Pierce College	6201 Winnetka Ave, Woodland Hills 91371 (818) 347-0551
	Los Angeles Southwest College	1600 Imperial Hwy, Los Angeles 90047 (323) 241-5225
	L.A. Trade Technical College	400 W Washington Blvd, Los Angeles 90015; (213) 744-9058
	Los Angeles Valley College	5800 Fulton Ave, Van Nuys 91401 (818) 947-2600
	West Los Angeles College	4800 Freshman Drive, Culver City 90230 (310) 287-4200
Mt. San Antonio	Mt. San Antonio College	1100 N Grand Ave, Walnut 91789 (909) 594-5611
Pasadena Area	Pasadena City College	1570 E Colorado Blvd, Pasadena 91106 (626) 585-7123
Rio Hondo	Rio Hondo College	3600 Workman Mill Rd, Whittier 90601 (562) 692-0921
Santa Clarita	College of the Canyons	26455 Rockwell Canyon Rd, Santa Clarita 91355

Community College District	Colleges	Address
Santa Monica	Santa Monica College	1900 Pico Blvd, Santa Monica 90405 (310) 434-4000

Directory of Private Accredited Two-Year Colleges in Los Angeles County

American Academy of Dramatic Arts West	1336 N Brea Ave, Hollywood 90028 (323) 464-2777
Brooks College	4825 E Pacific Coast Highway, Long Beach 90804 (562) 498-2441
College of Oceaneering	272 South Fries Ave, Wilmington 90744 (310) 834-2501
Don Bosco Technical Institute	1151 San Gabriel Blvd, Rosemead 91770 (626) 940-2000
Fashion Institute of Design & Merchandising	919 S Grand Ave, Los Angeles 90015 (213) 624-1200
Marymount College, Palos Verdes Campus	30800 Palos Verdes Drive East, Rancho Palos Verdes 90275 (310) 377-5501
Salvation Army Crestmont College*	30840 Hawthorne Blvd, Rancho Palos Verdes 90275 (310) 377-0481

Directory of Four-Year and Graduate Colleges & Universities in Los Angeles County

School	Address
American InterContinental University	12655 W Jefferson Blvd, Los Angeles 90066 (Playa del Rey) (310) 302-2000
Antioch University	13274 Fiji Way, Marina del Rey 90292 (310) 578-1080
Art Center College of Design	1700 Lida St, Pasadena 91103-1999 (626) 396-2200
Azusa Pacific University	901 E Alosta Ave, Azusa 91702 (626) 969-3434
Biola University	13800 Biola Ave, La Mirada 90639 (562) 903-6000
Calif. State Polytechnic Univ., Pomona	3801 W Temple Ave, Pomona 91768 (909) 869-2000
California Graduate Institute	1145 Gayley Ave, Los Angeles 90024 (310) 208-4240
California Institute of Technology	1201 E California Blvd, Pasadena 91125 (626) 395-6811

School	Address
California Institute of the Arts	24700 W McBean Parkway, Valencia 91355 (661) 255-1050
California State Univ., Dominguez Hills	1000 E Victoria St, Carson 90747 (213) 516-3300
California State Univ., Long Beach	1250 Bellflower Blvd, Long Beach 90840 (562) 985-4111
California State Univ., Los Angeles	5151 State University Dr, Los Angeles 90032 (323) 343-3000
California State Univ., Northridge	18111 Nordhoff St, Northridge 91330 (818) 677-1200
Charles R. Drew University of Medicine & Science	1731 E 120th St, Los Angeles 90059 (323) 563-4800
Claremont Graduate University (Claremont Colleges)	150 E Tenth St, Claremont 91711 (909) 621-8069
Claremont McKenna College (Claremont Colleges)	Pitzer Hall, 850 Columbia Ave, Claremont 91711 (909) 621-8088
Columbia College – Hollywood	18618 Oxnard St, Tarzana 91356 (818) 345-8414
DeVry Institute of Technology (Long Beach)	3880 Kilroy Airport Way, Long Beach 90806 (800) 597-1333
DeVry Institute of Technology (Pomona)	901 Corporate Center Dr, Pomona 91768 (909) 622-8866
DeVry Institute of Technology (West Hills)	22801 W Roscoe Blvd, West Hills 91304 (818) 713-8111
Harvey Mudd College (Claremont Colleges)	301 E 12th St, Claremont 91711 (909) 621-8000
Hebrew Union College - Jewish Institute of Religion	3077 University Ave, Los Angeles 90007 (213) 749-3424
Institute of Computer Technology	3200 Wilshire Blvd, #400, Los Angeles 90010 (213) 381-3333
LIFE Pacific College	1100 Covina Blvd, San Dimas 91773 (909) 599-5433
Loyola Marymount University	Loyola Blvd & W 80th St, Los Angeles 90045 (310) 338-2700
The Master's College & Seminary	21726 Placerita Canyon Rd, Santa Clarita 91321 (661) 259-3540
Mount Saint Mary's College	12001 Chalon Rd, Los Angeles 90049 (310) 476-2237
Musicians Institute	1655 McCadden Place, Hollywood 90028 (323) 462-1384
Northrop-Rice Aviation Institute of Technology	1155 W Arbor Vitae St, Ste 115, Inglewood 90301 (310) 568-8541

School	Address
Occidental College	1600 Campus Rd, Los Angeles 90041 (213) 259-2500
Otis College of Art & Design	9045 Lincoln Blvd, Los Angeles 90045 (310) 665-6800
Pacific Oaks College	5 Westmoreland Place, Pasadena 91103 (626) 397-1300
Pacific States University	1516 S Western Ave, Los Angeles 90006 (323) 731-2383
Pepperdine University	24255 Pacific Coast Highway, Malibu 90263 (310) 456-4000
Philips Graduate Institute	5445 Balboa Blvd, Encino 91316 (818) 386-5600
Pitzer College (Claremont Colleges)	1050 N Mills Ave, Claremont 91711 (909) 621-8000
Pomona College (Claremont Colleges)	550 N College Ave, Alexander Hall 206, Claremont 91711 (909) 621-8131
Rand Graduate School of Policy Studies	1700 Main St, Santa Monica 90407 (310) 393-0411
Scripps College (Claremont Colleges)	1030 N Columbia Ave, Claremont 91711 (909) 621-8148
University of California, Los Angeles	405 Hilgard Ave, Los Angeles 90095 (310) 825-4321, TDD (310) 825-2833
University of Southern California	University Park Campus, Los Angeles 90089 (213) 740-2311
University of Judaism	15600 Mulholland Dr, Bel Air 90077 (310) 476-9777
University of La Verne	1950 Third St, La Verne 91750 (909) 593-3511
Whittier College	13406 E Philadelphia St, PO Box 634, Whittier 90608 (562) 907-4200
Woodbury University	7500 Glenoaks Blvd, Burbank 91510 (818) 767-0888

Business & Industry

Manufacturing

Los Angeles County Gross Domestic Product and Comparisons

According to figures compiled by the U.S. Conference of Mayors, if Los Angeles County, with a gross product of $389.72 billion in 2001, were a separate nation, it would rank ***14th*** in the world for gross product. Its gross economic output is larger than that of either the Netherlands, Australia, Russia, Taiwan, Argentina and Switzerland. Los Angeles County ranks second nationally only to New York City.

Year	Gross Metropolitan Product
2001	389.72
2000	363.70
1999	339.45
1998	321.03
1997	303.09

Source: U.S. Conference of Mayors

Business Establishments, Employment and Payroll Los Angeles County, 1997

All Industries

Industry	Number of Employees	Annual Payroll ($1,000)	Number of Establishments	1-19 Employees	2-99 Employees	100-499 Employees	500+ Employees
Total	3,588,831	115,824,320	218,878	187,124	26,484	4,728	542
Agricultural Services, Forestry, & Fishing	16,675	345,490	1,848	1,663	170	14	1
Mining	4,504	281,378	178	137	33	6	2
Construction	115,339	3,820,400	11,617	10,413	1,064	130	10
Manufacturing	668,505	23,676,151	18,139	12,036	4,784	1,201	118
Transportation & Public Utilities	210,691	7,963,735	8,117	6,451	1,298	330	38
Wholesale Trade	291,436	11,108,178	23,151	19,942	2,810	373	26
Retail Trade	592,001	10,070,406	42,297	35,020	6,550	698	29
Finance, Insurance, & Real Estate	240,603	11,363,771	20,357	18,144	1,867	299	47
Services	1,447,365	47,123,321	90,699	80,850	7,901	1,677	271
Unclassified Establishments	1,712	71,490	2,475	2,468	7	0	0

Source: U.S. Census Bureau

Distribution

Wholesale Establishments & Sales

Type of Wholesale Business	Number of Establishments	Wholesale Sales ($1,000)
All Wholesale Establishments	21,474	177,244,909
Merchant Wholesalers	19,133	127,905,324
Other Wholesale Operating Types	2,331	49,395,585

Breakdown by Durable & Non-Durable Goods Wholesalers

Type of Wholesale Business	Number of Establishments	Wholesale Sales ($1,000)
Durable Goods	12,396	102,900,379
Non-Durable Goods	9,078	74,445,530

Source: U.S. Census Bureau

Wholesale & Retail Sales Los Angeles County

Year	Wholesale Sales ($1,000)	Retail Sales ($1,000)
1997	177,244,909	69,534,164
1992	158,188,200	63,127,489
1987	141,729,225	54,071,842
1982	99,335,578	38,399,189

Source: U.S. Census Bureau

Retail

Retail Establishments & Sales Los Angeles County

Type of Retail Business	Number of Establishments	Sales ($1,000)
All Retail Establishments	27,577	69,534,164
Building Materials & Garden Supplies Stores	1,447	4,383,279
Clothing & Clothing Accessory Stores	5,211	5,116,625
Electronic & Appliance Stores	1,258	2,988,334
Food & Beverage Stores	4,350	12,671,512

Type of Retail Business	Number of Establishments	Sales ($1,000)
Food Service & Drinking Places	14,560	8,889,097
Furniture & Home Furnishing Stores	1,719	2,084,229
Gasoline Stations	2,129	4,585,233
General Merchandise Stores	695	8,465,798
Health & Personal Care Stores	2,343	3,683,439
Miscellaneous Store Retailers	3,014	2,264,119

Source: U.S. Census Bureau

The elegant art deco structure, Bullock's Wilshire of 3050 Wilshire Boulevard, became the first department store to provide a parking lot or "motor court" when the store opened in 1929. It was closed in 1992 by the owner of the time, I. Magnin, after being looted in the Los Angeles riots. The building now houses Southwestern University's School of Law.

The largest department store chain in the West used to be the former Los Angeles-based Broadway Stores, operator of The Broadway department stores. The company was bought out by the Federated Stores, operators of Macy's and Bloomingdales.

According to the Competitive Media Reporting and Publishers Information Bureau, the leading U.S. advertisers in 1994 were Los Angeles County-based Walt Disney Company at $503.6 billion and Mattel at $175.1 million.

Taxable Retail Sales by City Los Angeles County, 2001

In thousands of dollars

City	Retail Stores	All Outlets
LOS ANGELES COUNTY	71,834,562	107,426,692
Agoura Hills	193,189	267,574
Alhambra	933,122	1,052,453
Arcadia	536,413	642,446
Artesia	116,311	185,203
Avalon	52,062	55,936
Azusa	232,467	334,784
Baldwin Park	284,192	364,913
Bell	139,763	182,902
Bellflower	432,586	509,370
Bell Gardens	106,038	131,567
Beverly Hills	1,254,607	1,616,364
Bradbury	81	124
Burbank	1,214,756	1,877,146
Calabasas	307,918	409,314
Carson	1,029,127	1,777,252
Cerritos	1,820,998	2,214,962

City	Retail Stores	All Outlets
Claremont	260,349	322,283
Commerce	313,615	924,154
Compton	205,669	484,495
Covina	535,322	644,556
Cudahy	60,971	102,583
Culver City	1,012,933	1,273,325
Diamond Bar	234,470	268,663
Downey	956,205	1,140,785
Duarte	312,729	354,530
El Monte	1,275,811	1,484,004
El Segundo	364,067	764,299
Gardena	462,125	656,938
Glendale	1,976,102	2,468,747
Glendora	398,243	494,072
Hawaiian Gardens	45,695	49,842
Hawthorne	535,827	647,895
Hermosa Beach	207,797	239,194
Hidden Hills	812	1,452
Huntington Park	368,912	417,265
Industry	1,405,798	2,302,589
Inglewood	562,695	744,504
Irwindale	90,977	300,803
La Canada-Flintridge	138,193	156,221
La Habra Heights	728	6,318
Lakewood	831,143	867,877
La Mirada	313,861	626,709
Lancaster	991,654	1,162,627
La Puente	191,602	225,791
La Verne	198,983	262,459
Lawndale	161,251	184,973
Lomita	95,815	118,054
Long Beach	2,573,470	3,410,609
Los Angeles	23,010,225	31,642,150
Lynwood	168,407	205,505
Malibu	145,694	169,440
Manhattan Beach	458,706	639,628
Maywood	62,693	79,408
Monrovia	549,409	689,462
Montebello	645,840	850,160
Monterey Park	292,623	379,841

City	Retail Stores	All Outlets
Norwalk	587,002	673,198
Palmdale	881,333	984,304
Palos Verdes Estates	10,160	23,864
Paramount	254,899	450,421
Pasadena	1,723,551	2,483,714
Pico Rivera	244,367	382,417
Pomona	753,336	1,037,713
Rancho Palos Verdes	60,282	83,377
Redondo Beach	619,689	726,000
Rolling Hills	145	236
Rolling Hills Estates	108,361	126,369
Rosemead	213,234	246,755
San Dimas	228,108	343,651
San Fernando	338,574	401,514
San Gabriel	246,036	301,944
San Marino	31,441	37,607
Santa Clarita	1,589,977	1,946,643
Santa Fe Springs	630,018	1,886,423
Santa Monica	1,730,500	2,240,355
Sierra Madre	14,302	20,847
Signal Hill	712,373	865,618
South El Monte	118,426	304,274
South Gate	481,581	610,272
South Pasadena	105,373	133,562
Temple City	124,103	137,828
Torrance	2,629,919	3,356,021
Vernon	64,650	388,030
Walnut	75,513	120,796
West Covina	1,036,664	1,134,530
West Hollywood	538,946	712,479
Westlake Village	177,123	254,583
Whittier	589,968	724,254
Remainder of County	3,843,557	14,900,573

Source: California Board of Equalization

Transportation

Miles of Public Roads Los Angeles County

- Los Angeles County has 527 miles of freeway and 382 miles of conventional highway.
- On the average day, 92 million vehicle miles are driven in L.A. County.

Type of Road	Miles
Total	**21,197.85**
County Roads	3,103.55
City Streets	16,669.52
State Highways*	886.47
State Parks	132.81
U.S. Forest Service	405.50

*Centerline mileage based on federal criteria. Both streets included in couplet mileage. Also includes mileage to be relinquished to cities and counties at a future date.
Source: California Dept. of Transportation (Caltrans)

The *longest street* in Los Angeles is **Sepulveda Boulevard** which runs 26.4 miles through the city. It actually runs a total of 76 miles through Los Angeles County from the San Fernando Valley to Long Beach. The *shortest street* in Los Angeles is **Powers Street**, located in downtown Los Angeles. It extends a mere 13 feet. The *steepest grade* in Los Angeles (at 32 percent) is **Fargo Street** in Silver Lake.
Source: *Los Angeles A to Z* by Leonard & Dale Pitt

Freeways

Los Angeles County's Earliest & Most Recent Freeways

	Pasadena Freeway (110)	Glenn Anderson (Century) Freeway (105)	Foothill Freeway (210) Extension
Completed	December 30, 1940	October 14, 1993	November 24, 2002
Miles	6 miles	17.3 miles	6.5 miles in L.A. County*
Cost	$5.7 million	$2.3 billion	$310 million in L.A. County*

*The 210 extends into San Bernardino County. The total freeway extension was 14 miles and cost $689 million.
Source: California Dept of Transportation (Caltrans)

Past Highway Names in Los Angeles County

Highway Number	Current Highway Name	Former Highway Name(s)
1	Pacific Coast Highway	Roosevelt Highway (Malibu stretch)
2	Glendale	Alessandro
10	San Bernardino	Ramona
10	Santa Monica	Olympic
90	Marina	Slauson, later Richard M. Nixon
101	Ventura	Riverside (alongside L.A. River)
107	Gardena	Redondo Beach
110	Pasadena	Arroyo Seco Parkway
405	San Diego	Sepulveda
710	Long Beach	Los Angeles River

Interchanges

Busiest Highway Interchanges Los Angeles County, 1999-2002

2002

Rank	Route	Description	AADT*	Peak Hour**
1 (tie)	60 Westbound	Diamond Bar, Grand Ave	353,000	23,000
	60 Eastbound	Diamond Bar, Jct. Rte. 57 South, Orange Freeway	353,000	23,000
2 (tie)	60 Westbound	Diamond Bar, Jct. Rte. 57 North, Orange Freeway; Diamond Bar Blvd	348,000	24,400
	60 Eastbound	Diamond Bar, Grand Ave	348,000	24,400
3 (tie)	101 Southbound	Encino, Havenhurst Ave	330,000	22,100
	101 Northbound	Sherman Oaks, Jct. Rte. 405, San Diego Freeway	330,000	22,100
4 (tie)	10 Westbound	Los Angeles, Hoover Street	329,000	21,300
	10 Eastbound	Los Angeles, Vermont Ave	329,000	21,300
5 (tie)	10 Westbound	Los Angeles, Vermont Ave	328,000	21,000
	10 Eastbound	Los Angeles, Normandie Ave	328,000	21,000
6 (tie)	110 Southbound	Los Angeles, Vernon Ave	324,000	21,700
	110 Northbound	Los Angeles, 51st Street	324,000	21,700

Rank	Route	Description	AADT*	Peak Hour**
	10 Westbound	Los Angeles, Normandie Ave	324,000	20,900
	10 Eastbound	Los Angeles, Western Ave	324,000	20,900
7 (tie)	110 Southbound	Los Angeles, Martin Luther King Jr. Blvd	323,000	21,200
	110 Northbound	Los Angeles, Vernon Ave	323,000	21,200
8 (tie)	110 Southbound	Los Angeles, Slauson Ave	322,000	22,800
	110 Northbound	Los Angeles, Gage Ave	322,000	22,800
9 (tie)	110 Southbound	Los Angeles, Gage Ave	320,000	23,100
	110 Northbound	Los Angeles, Florence Ave	320,000	23,100
	10 Westbound	Los Angeles, Jct. Rte. 110, Harbor Freeway	320,000	20,900
	10 Eastbound	Los Angeles, Hoover Street	320,000	20,900
10 (tie)	110 Southbound	Los Angeles, 51st Street	315,000	21,900
	110 Northbound	Los Angeles, Slauson Ave	315,000	21,900
	10 Westbound	Los Angeles, Western Ave	315,000	20,500
	10 Eastbound	Los Angeles, Arlington Ave	315,000	20,500

2001

Rank	Route	Traffic Interchange	AADT*	Peak Hour Traffic**
1	60 Westbound	Diamond Bar, Grand Ave	336,000	22,800
2 (tie)	60 Westbound	Diamond Bar, Junction Rte. 57 North Orange Freeway/Diamond Bar Blvd	331,000	22,800
	60 Eastbound	Diamond Bar, Grand Ave	331,000	22,800
3 (tie)	101 Southbound	Encino, Havenhurst Ave	328,000	22,100
	101 Northbound	Sherman Oaks, Junction Rte. 405 San Diego Freeway	328,000	22,100
4 (tie)	10 Westbound	Los Angeles, Hoover St	326,000	22,700
	10 Eastbound	Los Angeles, Vermont Ave	326,000	22,700
5 (tie)	10 Westbound	Los Angeles, Vermont Ave	325,000	22,400
	10 Eastbound	Los Angeles, Normandie Ave	325,000	22,400

Rank	Route	Traffic Interchange	AADT*	Peak Hour Traffic**
6 (tie)	110 Southbound	Los Angeles, Vernon Ave	324,000	22,000
	110 Northbound	Los Angeles, 51st Street	324,000	22,000
7 (tie)	110 Southbound	Los Angeles, 3rd/4th Streets	323,000	21,300
	110 Northbound	Los Angeles, 5th/6th Streets	323,000	21,300
8 (tie)	110 Southbound	Los Angeles, Slauson Ave	322,000	22,800
	110 Northbound	Los Angeles, Gage Ave	322,000	22,800
	110 Southbound	Los Angeles, Martin Luther King Jr. Blvd	322,000	21,400
	110 Northbound	Los Angeles, Vernon Ave	322,000	21,400
	110 Southbound	Los Angeles, 8th/9th Streets	322,000	21,100
	110 Northbound	Los Angeles, Olympic Blvd	322,000	21,100
9 (tie)	10 Westbound	Los Angeles, Normandie Ave	321,000	22,300
	10 Eastbound	Los Angeles, Western Ave	321,000	22,300
10 (tie)	110 Southbound	Los Angeles, Gage Ave	320,000	23,100
	110 Northbound	Los Angeles, Florence Ave	320,000	23,100
	405 Southbound	Inglewood, Century Blvd	320,000	22,900
	405 Northbound	Junction Rte. 105 Century Freeway	320,000	22,900

2000

Rank	Route	Traffic Interchange	AADT*	Peak Hour Traffic**
1 (tie)	110	Los Angeles, at Olympic Boulevard	357,000	23,600
	110	Los Angeles, at 8th/9th Streets	357,000	23,600
2	110	Los Angeles, at 5th/6th Streets	341,000	22,600
3	110	Los Angeles, at 3rd/4th Streets	340,000	22,600
4 (tie)	110	Los Angeles, at Jct. Rte. 10 & Santa Monica Freeway	338,000	22,300
	110	Los Angeles, at Olympic Boulevard	338,000	22,300
5	110	Los Angeles, at Four Level Structure; Jct. Rte. 101 & Santa Ana/Hollywood Freeways	336,000	22,400

6	405	Inglewood, at Century Boulevard	327,000	23,300
7	405	Inglewood, at Manchester Boulevard	327,000	23,300
8	405	Jct. Rte. 105 & Century Freeway	325,000	23,300
9 (tie)	10	Los Angeles, at Vermont Avenue	323,000	22,400
	10	Los Angeles, at Hoover Street	323,000	22,400
10	10	Los Angeles, at Normandie Avenue	321,000	22,100

1999

Rank	Route	Location	AADT*
1 (tie)	101	Encino, Havenhurst Avenue	328,000
	101	Sherman Oaks, Jct. I-405, San Diego Freeway	328,000
2 (tie)	405	West Los Angeles, Jct. Rte. 2, Santa Monica Boulevard	322,000
	405	Olympic Boulevard	322,000
3 (tie)	10	Los Angeles, Hoover Street	32,000
	10	Los Angeles, Vermont Avenue	321,000
4	10	Los Angeles, Normandie Avenue	319,000
5 (tie)	110	Los Angeles, 5th/6th Streets	317,000
	110	Los Angeles, 3rd/4th Streets	317,000
	110	Los Angeles, 8th/9th Streets	317,000
6 (tie)	101	Encino, White Oak Avenue	316,000
	101	Encino, Balboa Boulevard	316,000
7 (tie)	10	Los Angeles, Normandie Avenue	315,000
	10	Los Angeles, Western Avenue	315,000
8	10	Los Angeles, Jct. I-110, Harbor Freeway	314,000
9	101	Encino, Balboa Boulevard	311,000
10	405	West Los Angeles, Jct. I-10, Santa Monica Freeway	310,000

*** AADT (Annual Average Daily Traffic)**

Annual average daily traffic is the total volume for the year divided by 365 days. The traffic count year is from October 1st through September 30th. Very few locations in California are actually counted continuously. Traffic Counting is generally performed by electronic counting instruments moved from location throughout the State in a program of continuous traffic count sampling. The resulting counts are adjusted to an estimate of annual average daily traffic by compensating for seasonal influence, weekly variation and other variables which may be present. Annual ADT is necessary for presenting a statewide picture of traffic flow, evaluating traffic trends, computing accident rates. planning and designing highways and other purposes.

**** Peak Hour Traffic**

Included is an estimate of the "peak hour" traffic at all points on the state highway system. This value is useful to traffic engineers in estimating the amount of congestion experienced, and shows how near to capacity the highway is operating. Unless otherwise indicated, peak hour values indicate the volume in both directions. A few hours each year are higher than the "peak hour", but not many. In urban and suburban areas, the peak hour normally occurs every weekday, and 200 or more hours will all be about the same. On roads with large seasonal fluctuations in traffic, the peak hour is the four near the maximum for the year but excluding a few (30 to 50 hours) that are exceedingly high and are not typical of the frequency of the high hours occurring during the season.
Source: California Dept of Transportation (CALTRANS)

Major Highways

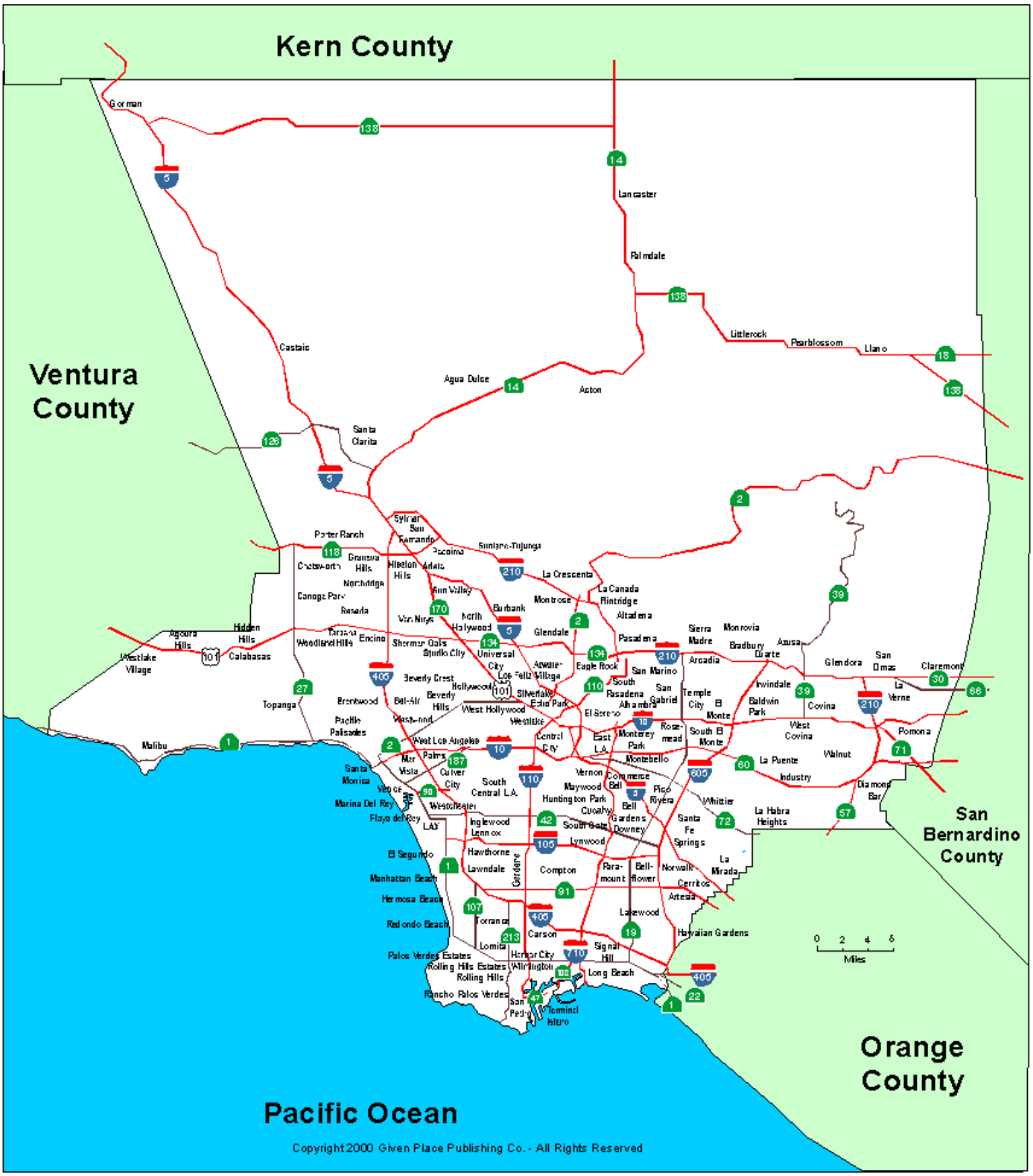
Los Angeles County Freeways & Highways and Traffic Volumes at Busiest Interchanges, 2002

Route	Type of Highway	Direction	Busiest Traffic Interchange	Peak Hour Traffic	AADT*	Nickname & Year Opened
1	State Route	Southbound	Los Angeles International Airport, Century Blvd	10,800	125,000	*PCH* - Malibu stretch completed in, 1929
		Northbound	Los Angeles, Jct. Rte. 105, Century Freeway	10,800	125,000	
2	State Route	Westbound	Los Angeles, San Fernando Road Interchange	14,800	153,000	*Glendale* or *Angeles Crest Highway,* 1958-78
		Eastbound	Los Angeles, Jct. Rte. 5, Golden State Freeway	14,800	153,000	
5	Interstate	Southbound	Pacoima, Terra Bella Street	21,700	302,000	*Santa Ana* (south of downtown), 1945-58; *Golden State* (north of downtown), 1956-75
		Northbound	Panorama City, Osborne Street	21,700	302,000	
10	Interstate	Westbound	Los Angeles, Hoover Street	21,300	329,000	*San Bernardino* (east of downtown), 1943-57; *Santa Monica* (west of downtown), 1961-66
		Eastbound	Los Angeles, Vermont Ave	21,300	329,000	
14	State Route	Southbound	Santa Clarita, Jct. Rte. 126 West; San Fernando Road	12,900	152,000	*Antelope Valley,* 1963-74
		Northbound	Los Angeles, Jct. Rte. 5, Golden State Fwy; Begin Antelope Valley Fwy	12,900	152,000	
18	State Route	Southbound	Jct Rte 138 West	670	6,700	---
		Northbound	---	---	---	
19	State Route	Southbound	Bellflower, Jct. Rte. 91, Artesia Freeway	4,900	54,000	Lakewood/Rosemead Blvd
		Northbound	Bellflower, Artesia Blvd	4,900	54,000	
22	State Route	Westbound	Los Angeles-Orange County Line (Long Beach East City Limits)	9,000	97,000	*Garden Grove*, 1964-67
		Eastbound	Long Beach, Studebaker Road	9,000	97,000	
23	State Route	Southbound	Jct. Mulholland Highway	180	1,200	---
		Northbound	Jct. Mulholland Highway	180	1,200	
27	State Route	Southbound	Woodland Hills, Jct. Rte. 101, Ventura Freeway	3,400	44,500	---
		Northbound	Woodland Hills, Jct. Rte. 101, Ventura Freeway	3,600	48,000	
30	State Route	Westbound	San Dimas, San Dimas Ave	7,000	83,000	1955-77
		Eastbound	Glendora, Jct. Rte. 210, Foothill Freeway	7,000	83,000	
39	State Route	Southbound	West Covina, Badillo Street	3,800	46,500	---
		Northbound	West Covina, Jct. Rte. 10, San Bernardino Freeway	3,800	46,500	
47	State Route	Southbound	San Pedro, Harbor Blvd	3,400	51,000	*Terminal Island, 1947*
		Northbound	San Pedro, Jct. Rte. 110, Harbor Freeway	3,400	51,000	
57	State Route	Southbound	Diamond Bar, Diamond Bar Blvd	15,700	216,000	*Orange*
		Northbound	Orange-Los Angeles County Line	16,100	209,000	
60	State Route	Westbound	Diamond Bar, Grand Ave	23,000	353,000	*Pomona, 1965-71*
		Eastbound	Diamond Bar, Jct. Rte. 57 South, Orange Freeway	23,000	353,000	
66	State Route	Westbound	La Verne, Fruit Street/ White Ave	4,100	52,000	*Old Route 66*
		Eastbound	La Verne, Jct. Rte. 30 West, Foothill Freeway	4,100	52,000	
71	State Route	Southbound	Pomona, Mission Blvd / also Pomona, Jct. Rte. 60, Pomona Freeway	6,800	79,000	---
		Northbound	Pomona, Rio Rancho Road	6,200	79,000	
72	State	Southbound	Whittier, Jct. Rte. 605, San Gabriel River Freeway	3,900	44,500	---

Route	Type of Highway	Direction	Busiest Traffic Interchange	Peak Hour Traffic	AADT*	Nickname & Year Opened
	Route	Northbound	Whittier, Colima Road/ La Puebla Ave	3,900	45,000	
90	State Route	Westbound	Los Angeles, Jct. Rte. 405, San Diego Freeway	5,500	74,000	*Marina*, 1968-72
		Eastbound	Los Angeles, Centinela Ave	5,500	74,000	
91	State Route	Westbound	Artesia, Pioneer Blvd	19,700	283,000	*Redondo Beach, Artesia, 1968-75*
		Eastbound	Cerritos, Jct. Rte. 605, San Gabriel River Freeway	19,700	283,000	
101	U.S. Highway	Southbound	Encino, Havenhurst Ave	22,100	330,000	*Hollywood* (south of Cahuenga), 1940-48; *Ventura* (north of Cahuenga), 1955-74
		Northbound	Sherman Oaks, Jct. Rte. 405, San Diego Freeway	22,100	330,000	
103	State Route	Southbound	Los Angeles, Henry Ford Blvd	2,350	22,800	---
		Northbound	Los Angeles, Jct. Rte. 47	2,350	22,800	
105	Interstate	Westbound	Los Angeles, Vermont Ave	17,300	243,000	*Glenn Anderson* (or *Century*) 1993
		Eastbound	Inglewood, Crenshaw Blvd	17,300	243,000	
107	State Route	Southbound	Torrance, 190th Street	6,800	75,000	*Hawthorne Blvd, Gardena*
		Northbound	Torrance, Del Amo Blvd	6,800	75,000	
110	Interstate (Harbor)	Southbound	Los Angeles, Vernon Ave	21,700	324,000	*Harbor* (south of Jct. U.S. 101), 1952-70
		Northbound	Los Angeles, 51st Street	21,700	324,000	
110	State Route (Pasadena)	Southbound	Los Angeles, Four Level Structure; Jct. Rte. 101, Santa Ana/Hollywood Freeways, Continue Via The Pasadena	19,200	289,000	*Pasadena* (north of Jct. U.S. 101), 1940-53
		Northbound	Los Angeles, Hill Street/Stadium Way	13,700	189,000	
118	State Route	Westbound	Los Angeles, Woodley Ave	22,100	234,000	*Ronald Reagan (or Simi Valley-San Fernando Valley), 1968-77*
		Eastbound	Los Angeles, Hayvenhurst Ave	22,100	234,000	
126	State Route	Westbound	Santa Clarita, Sierra Hwy	3,000	35,500	---
		Eastbound	Santa Clarita, 5th Street/ Newhall Ave	2,950	35,000	
134	State Route	Westbound	Glendale, Glendale Ave	19,100	241,000	1955-77
		Eastbound	Glendale, Brand Blvd	19,100	241,000	
138	State Route	Westbound	Palmdale, Sierra Highway	3,050	36,000	---
		Eastbound	Palmdale, Sierra Highway	3,400	39,000	
164	State Route	Southbound	Rosemead, Valley Blvd	4,700	55,000	---
		Northbound	El Monte, Jct. Rte. 10, San Bernardino Freeway	4,700	55,000	
170	State Route	Southbound	North Hollywood, Magnolia Blvd	15,600	192,000	---
		Northbound	North Hollywood, Riverside Drive	15,600	192,000	
187	State Route	Westbound	Los Angeles, Overland Ave	4,450	50,000	---
		Eastbound	Los Angeles, Bentley Ave	4,450	50,000	
210	Interstate	Westbound	Pasadena, Lake Ave	25,500	314,000	*Foothill*, 1955-2003
		Eastbound	Pasadena, Jct. Rte. 710 South, Jct. Rte. 134 West	25,500	314,000	
213	State Route	Southbound	Lomita, Palos Verdes Drive North	3,300	35,500	---
		Northbound	Western Ave @ Avendia Apprenda Road	3,300	35,500	
405	Interstate	Southbound	Inglewood, Century Blvd	22,100	310,000	*San Diego, 1957-69*
		Northbound	Jct. Rte. 105, Century Freeway	22,100	310,000	
605	Interstate	Southbound	Norwalk, Jct. Rte. 105, Century Freeway	21,800	311,000	*San Gabriel River, 1964-71*
		Northbound	Norwalk, Alondra Blvd	21,800	311,000	
710	Interstate	Southbound	South Gate, Imperial Highway	18,000	237,000	*Long Beach, 1952-65*
		Northbound	Lynwood, Jct. Rte. 105, Century Freeway	18,000	237,000	

*AADT - Average Annual Daily Traffic
Source: California Dept of Transportation (CALTRANS)

Major Transportation Routes



Railways

Rail Roads Operating in Los Angeles County

In 1995, ***Burlington Northern*** *merged with the* ***Atchinson Topeka & Santa Fe*** *Railway to form Burlington Northern & Santa Fe Railway. The following year,* ***Southern Pacific Lines*** *was acquired by* ***Union Pacific Railroad****.*

Amtrak	Passengers	Union Station, 800 N Alameda St, LA 90012; (800) 872-7245
Metrolink (*Southern California Regional Rail Authority*)	Passengers	700 S Flower St, Ste 2600, Los Angeles 90017; (800) 371-LINK
Burlington Northern & Santa Fe Railway	Freight	3770 E 26th St, Los Angeles 90023; (323) 267-4140
Los Angeles Junction Railway (*owned by Burlington Northern Santa Fe Railway*)	Freight	4433 Exchange Ave, Los Angeles 90058; (323) 277-2001
Union Pacific Railroad Company	Freight	13181 Crossroads Parkway North #500, City of Industry 91746 (626) 935-7602

AMTRAK Routes From/Through Los Angeles

Route	Major Stops
Coast Starlight	Los Angeles-San Jose-Oakland-Sacramento-Portland-Seattle
Pacific Surfliner	San Diego-Anaheim-Los Angeles-Ventura-Santa Barbara-San Luis Obispo
Southwest Chief	Los Angeles-Flagstaff-Albuquerque-Topeka-Kansas City-Chicago
Sunset Limited	Los Angeles-Tucson-El Paso-San Antonio-Houston-New Orleans-Mobile-Jacksonville-Orlando, Florida

*Amtrak bus service ferries passengers between the Los Angeles and Bakersfield stations.

Amtrak assumed operation of the **San Diegan** Route (now ***Pacific Surfliner***) in May, 1971. With more than 1.5 million passengers taking the route, it is the *second* most heavily traveled Amtrak route in the nation.

AMTRAK Stations in Los Angeles County

Burbank Airport (routes: Pacific Surfliner)	Amtrak Station (unstaffed), 3750 Empire Ave, Burbank 91505
Chatsworth (routes: Pacific Surfliner)	Amtrak Station (unstaffed), 21510 Devonshire St, Chatsworth 91311
Glendale (routes: Coast Starlight, Pacific Surfliner)	Amtrak Station (staffed), 400 W Cerritos Ave, Glendale 91204; (818) 246-4455
Los Angeles* (routes: Pacific Surfliner, Coast Starlight, Southwest Chief, Sunset Limited)	Union Station (staffed), 800 N Alameda St, LA 90012; (213) 624-0171
Pomona (routes: Sunset Limited)	Amtrak Station (unstaffed), 156 W Commercial St, Pomona 91768
Van Nuys* (routes: Pacific Surfliner)	Amtrak/Metrolink Station (staffed), 7724 Van Nuys Blvd, Van Nuys 91405

*Ticker Agent on site
Coast Starlight - Los Angeles - Seattle
Pacific Surfliner - San Diego - San Luis Obispo
Southwest Chief - Los Angeles -Albuquerque-Chicago
Sunset Limited - Los Angeles-San Antonio-New Orleans-Orlando
Source: Amtrak

Metrolink

Southern California Regional Rail Authority
817 W Seventh St, 7th Flr, LA 90017; (213) 244-6723

Metrolink is a regional commuter rail system serving Los Angeles, Orange, Ventura, San Bernardino and Riverside counties, as well as northern San Diego County. Metrolink is built and administered by the Southern California Regional Rail Authority (SCRRA), a joint-powers board made up of representatives from the Metropolitan Transportation Authority (MTA-Los Angeles County), OCTA (Orange County Transit Authority), Riverside County Transportation Commission, Ventura County Transportation Commission and the San Bernardino Association of Governments. The trains run on existing right-of-way used by freight and passenger trains. Amtrak has been contracted to provide engineers and conductors for train service.

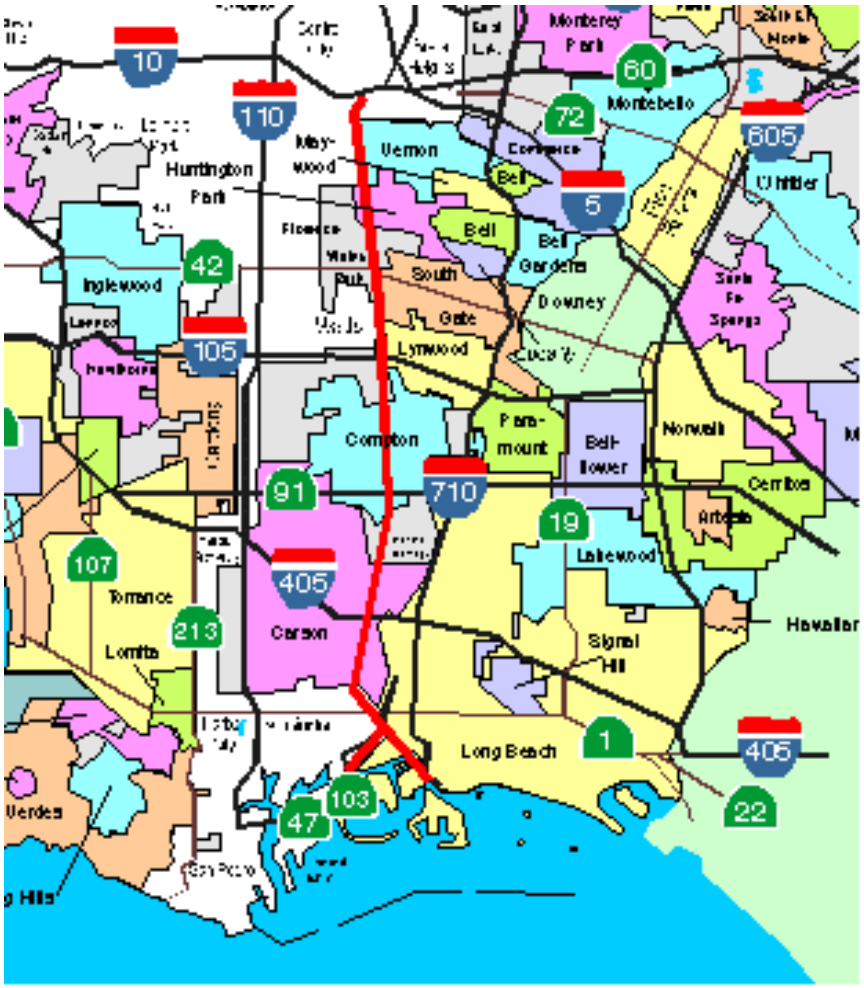
Metrolink Lines

Line	Route Miles	Opened	Weekday Riders June 2003
San Bernardino	56.2	October 1992	10,412
Ventura County	70.9	October 1992	3,739
Santa Clarita/Antelope Valley	76.6	October 1992	5,500
Riverside	58.7	June 1993	4,237
Orange County	87.2	March 1994	5,517
Inland Empire-Orange County	100.1	October 1995	3,380
91 Line (Riverside/Fullerton/LA)	61.5	2002	1,646

Metrolink is operated by AMTRAK under contract with the Southern California Regional Rail Authority. The line operates 33 low-emission GM EMD locomotives and 119 double-deck passenger cars built by UTDC/Bombardier of Canada. In 1992, Metrolink purchased 338 miles of right-of-way track from the former Atchison, Topeka, & Santa Fe Railway (now Burlington Northern), though the freight railway retains trackage rights.

Alameda Corridor

It is estimated that Los Angeles and Long Beach harbors will have double the current volume of incoming ocean freight traffic by the year 2020. The **Alameda Corridor**, constructed to mean this traffic, is a 20-mile freight rail expressway running between the ports of Los Angeles and Long Beach and the transcontinental rail yards near downtown Los Angeles. Half of the Corridor is the Mid-Corridor-Trench, a below-ground railway 10 miles long, 30 feet deep and 50 feet wide. It consolidated 90 miles of rail lines into a high-speed rail expressway, eliminating traffic tie-ups at more than 200 at-grade railroad crossings. The $2.4 billion project consolidated the operations of the Union Pacific and Burlington Northern Santa Fe railways. The Corridor is under the direction of the Alameda Corridor Transportation Authority.



Airports

Los Angeles County Airports & Airfields

Airport/Airfield	Location
Agua Dulce Airpark	Agua Dulce Canyon Rd, Saugus
Brackett Field (POC)	1615 McKinley Av, La Verne 91750 (909) 593-1395
Brian Ranch	Palmdale
Burbank-Glendale-Pasadena (Bob Hope) (BUR)	2627 N Hollywood Way, Burbank
Catalina (AVX)	Avalon
Catalina Air & Sea Terminal	Berth 95, San Pedro
Compton (CPM)	901 W Alondra Blvd, Compton 90220 (310) 631-8140
El Monte Airport (EMT)	4233 Santa Anita Av, El Monte 91731 (626) 448-6129
General William J. Fox Airfield (WJF)	4555 W Avenue G, Lancaster 93536 (661) 940-1709
Goodyear Blimp Base	19200 S Main St, Carson
Hawthorne Municipal (Jack Northrop Field) (HHR)	12101 Crenshaw Av, Hawthorne
Long Beach Airport (Daugherty Field) (LGB)	4100 Donald Douglas Dr, Long Beach
Los Angeles International Airport (LAX)	World Way, Los Angeles
Palmdale Regional Airport	39516 N 20th St E, Palmdale 93550 (661) 266-7602
Palmdale Production Flight/Test Installation Plant 42	Palmdale
Santa Monica Municipal (SMO)	3200 Airport Dr, Santa Monica
Torrance Municipal (Zamperini Field) (TOA)	3115 Airport Dr, Torrance
Van Nuys (VNY)	16461 Sherman Way, Van Nuys
Whiteman Airport (WHP)	12653 Osborn St, Pacoima 91331 (818) 896-5271

Air Passenger Traffic at Los Angeles International Airport (LAX)
(Domestic, International, U.S. Customs Arrivals)

In 1995, a report by the Physicians Committee for Responsible Medicine named food offerings at LAX concessionaires to be the healthiest in the nation after reviewing menus at these restaurants.

Passenger Annual Traffic Totals - Arriving & Departing

Year	Total	Departing	Arriving
2002	56,223,843	28,181,481	28,042,362
2001	61,606,253	30,598,323	31,007,930
2000	67,303,182	33,836,077	33,467,105
1999	64,279,571	32,298,944	31,980,627
1998	61,215,712	30,826,859	30,388,853
1997	60,142,588	30,313,688	29,828,900
1996	57,974,559	29,162,942	28,811,617
1995	53,909,223	27,234,353	26,674,870
1994	51,050,275	25,812,087	25,238,188
1993	47,844,794	24,141,068	23,703,726
1992	46,964,555	23,732,371	23,232,184
1991	45,668,204	22,954,976	22,713,228

Passenger Traffic Totals - Domestic & International

Year	Domestic	International	Total
2002	41,379,168	14,844,675	56,223,843
2001	45,656,025	15,950,228	61,606,253
2000	49,926,815	17,376,367	67,303,182
1999	48,464,413	15,815,158	64,279,571
1998	46,126,904	15,088,808	61,215,712
1997	45,395,749	14,746,839	60,142,588

Annual Passenger Arrival/Departure Traffic Totals by Service

Year	Service	Domestic		International	
		Arrivals	Departures	Arrivals	Departures
2002	Scheduled Carrier	18,904,988	19,066,992	7,346,974	7,349,276
	Scheduled Commuter	1,677,843	1,635,581	0	0
	Charter	50,298	43,466	62,259	86,166
2001	Scheduled Carrier	21,197,839	21,422,027	7,746,971	7,903,250
	Scheduled	1,430,182	1,429,463	0	0

Year	Service	Domestic		International	
		Arrivals	Departures	Arrivals	Departures
	Commuter				
	Charter	88,132	88,382	135,199	164,808
2000	Scheduled Carrier	23,338,970	23,570,287	8,520,594	8,635,635
	Scheduled Commuter	1,461,226	1,457,056	0	0
	Charter	50,806	48,470	95,509	124,629
1999	Scheduled Carrier	22,436,586	22,613,295	7,765,804	7,896,190
	Scheduled Commuter	1,610,774	1,589,943	0	0
	Charter	105,714	108,101	61,749	91,415

Annual Domestic Passenger Totals by Type of Carrier

Year	Scheduled Carriers	Commuter Carriers	Charter Carriers	Total
2002	37,971,980	3,313,424	93,764	41,379,168
2001	42,619,866	2,859,645	176,514	45,656,025
2000	46,909,257	2,918,282	99,276	49,926,815
1999	44,964,948	3,285,650	214,057	48,464,655
1998	42,510,528	3,360,108	256,268	46,126,904
1997	42,112,927	3,009,621	273,201	45,395,749

International Passengers by Terminal

Year	Tom Bradley Int'l	Terminal 2	Terminal 5	Terminal 7	All Other Terminals	Total
2002	9,277,092	2,752,412	876,078	463,058	1,476,035	14,844,675
2001	9,548,140	3,069,253	1,262,312	977,869	1,092,654	15,950,228
2000	9,634,254	3,365,081	1,410,795	1,204,506	1,761,731	17,376,367
1999	8,430,368	3,311,399	1,042,802	1,053,851	1,976,738	15,815,158
1998	8,003,572	3,211,452	853,526	1,140,343	1,879,915	15,088,808
1997	7,995,632	2,882,809	*see All Other*	*see All Other*	3,868,398	14,746,839

U.S. Customs Arrivals

Year	Tom Bradley Int'l	Terminal 2	Terminal 4	Terminal 5	Terminal 7	Total
2002	5,180,122	978,772	152,690	547,443	529,091	7,388,118
2001	5,157,598	1,037,807	0	789,078	797,526	7,782,009
2000	5,211,901	1,271,628	0	883,483	1,246,336	8,613,348
1999	4,232,726	1,594,601	0	731,462	1,072,109	7,630,898
1998	4,048,304	1,533,498	0	548,991	1,121,012	7,251,805
1997	4,171,101	1,516,728	0	562,917	1,095,286	7,346,032

Passengers include intransit
Source: Los Angeles World Airports

Annual Air Mail & Freight at Los Angeles International Airport (Tons)

Year	Air Mail	Air Freight	Total Air Cargo
2002	92,422	1,869,932	1,962,354
2001	177,513	1,778,151	1,955,665
2000	246,538	2,002,614	2,249,152
1999	253,708	1,877,685	2,131,393
1998	264,473	1,790,949	1,853,696
1997	212,410	2,051,873	2,066,106

Annual Air Mail & Freight Arrivals/Departures (Tons)

Year	Service	Domestic		International	
		Arrivals	Departures	Arrivals	Departures
2002	Air Mail	41,865	31,047	9,547	9,964
	Air Freight	451,968	462,672	591,137	364,155
2001	Air Mail	85,301	73,754	8,029	10,430
	Air Freight	398,805	449,168	544,956	386,136
2000	Air Mail	117,309	110,868	6,035	12,326
	Air Freight	483,748	515,564	587576	415,726
1999	Air Mail	118,822	119,643	5,887	9,355
	Air Freight	470,553	514,002	538,755	388,837

Cargo includes transit figures
Source: Los Angeles World Airports

Aircraft Movements Monitored by the FAA
Los Angeles International Airport (LAX)

Type of Aviation	Air Carrier	Air Taxi	Military	General Aviation	Total
2002	449,712	177,123	2,115	16,474	645,424
2001	524,014	195,892	2,052	16,156	738,114
2000	565,805	198,306	2,304	17,018	783,433
1999	542,082	215,886	2,646	18,536	779,150
1998	525,089	219,123	3,326	26,031	773,569
1997	525,499	227,472	3,685	27,302	783,958
1996	502,056	233,832	3,262	24,716	763,866
1995	472,134	230,997	3,178	26,330	732,639
1994	418,166	214,473	14,213	43,036	689,888
1993	408,043	212,592	14,784	47,027	682,446
1992	409,122	191,315	13,893	66,179	680,489
1991	403,002	187,372	13,473	53,589	657,436

Source: Federal Aviation Administration

Mass Transit

Public Transit Ridership
Los Angeles County, Fiscal Year 1999-2000

System	Ridership	Vehicles in Operation at Peak Weekday Usage	Year Founded
MTA* - Motor Bus	347,451,286	1,888	1958
MTA* - Street Car	25,669,552	51	1990
MTA* - Rapid Rail	19,612,940	58	1993
Long Beach Transit	26,255,487	151	1963
Santa Monica's Big Blue Bus	22,057,734	134	1928
Foothill Transit	16,273,000	259	1988
Montebello Transit	7,356,606	46	1930
Southern California Regional Rail Authority (MetroLink)	6,978,588	133	1992
Gardena Municipal Bus Lines	6,136,864	39	1940
Culver City Transit	4,525,307	27	1928
Torrance Transit	4,509,300	43	1940
Antelope Valley Transit Authority	2,216,090	36	1992
Santa Clarita Transit	2,321,035	48	1991
Norwalk Transit	1,434,335	15	1974
Los Angeles Department of Transportation (LADOT) (Commuter Express; Community Connection; DASH)	3,356943	88	1976
Commerce Municipal Bus Lines	957,405	6	1960
DowneyLINK Public Transit Service	306,308	6	1994
Palos Verdes Transit Authority	123,322	13	1995
Cerritos on Wheels (COW)	n/a	n/a	n/a

*LA County Metropolitan Transit Authority (MTA), once known as Southern California Rapid Transit District (SCRTD)
n/a information not available
Source: California State Controller

The **MTA** bus system operates 185 routes. There are 18,500 bus stops in MTA's 1,433 square mile service area.

The oldest public transit bus systems still operating in Los Angeles County are **Culver City Transit** (established March 4, 1928) and **Santa Monica's Big Blue Bus** (established April 14, 1928).

There are 2,084 licensed **taxi cabs** in the City of Los Angeles as compared to 12,187 in New York City and 6,300 in Chicago. It is estimated that from 1,500 to 4,000 "bandit" or unlicensed cabs also operate on L.A. streets.

Los Angeles County Metropolitan Transportation Authority (MTA)

The Los Angeles County Metropolitan Transportation Authority (MTA) is the primary provider of transit services for the Southern California region. It was created by the state Assembly in May 1992, merging the former Los Angeles County Transportation Commission and the Southern California Rapid Transit District (RTD). The merger became effective on April 1, 1993. MTA is governed by a 13-member board comprised of the five Los Angeles County Supervisors, the Mayor of the City of Los Angeles, three appointees by the Los Angeles Mayor and four city council members representing the League of Cities in Los Angeles County. The Governor also appoints one non-voting member to the board. MTA oversees all regional bus and rail operations, planning and construction of the county-wide rail system, transportation policy and planning, programming of federal, state and local transportation funds and coordination of transportation agencies operating within the county.

The **MTA** bus system operates 2,258 buses over 185 routes totaling. There are 18,500 bus stops in MTA's 1,433 square mile service area. There are more than 2,000 MTA buses in service on any average weekday.

Metropolitan Transit Authority (MTA) Light Rail Lines

METRO BLUE LINE (Above ground)

22 miles and 22 stations
Downtown Los Angeles to Long Beach
Opened July 1990
Cost: $877 million
69 cars in fleet
74,406 average weekday boardings, 49,871 average weekend boardings (daily average, FY 2003)
22.16 million* total passenger boardings in FY 2003

METRO GREEN LINE (Above ground)

20 miles and 14 stations
El Segundo to Norwalk
Opened 1995
Cost: $714 million
34 cars in fleet

35,847 average weekday boardings, 17,655 average weekend boardings (daily average, FY 2003)
9.92 million* total passenger boardings in FY 2003

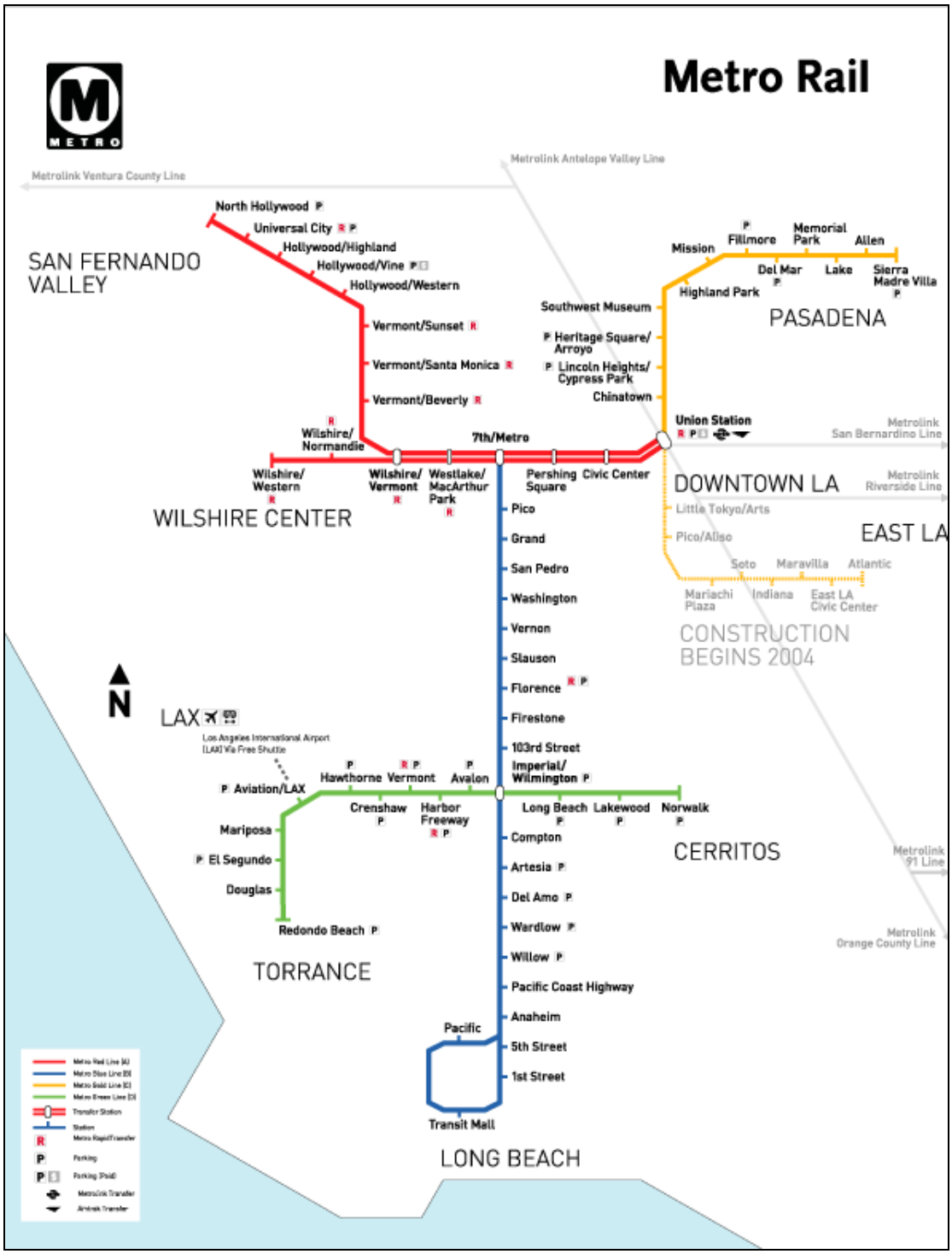
METRO RED LINE (Subway)

17.4 miles** and 16 stations
Union Station to the Wilshire corridor
Union Station through Hollywood to North Hollywood
Segment One opened 1993 (Wilshire/Western Segment Opened 1996; Hollywood Segment Opened 1999; North Hollywood Segment Opened 2000)
Cost: $4.5 billion
104 cars in fleet
112,021 average weekday boardings, 76,395 average weekend boardings (daily average, FY 2003)
31.46 million* total passenger boardings in FY 2003

** includes yards and maintenance areas

METRO GOLD LINE (Above ground)

13.7 miles and 13 stations
Union Station to Sierra Madre Villa in East Pasadena
Opened July 2003
Cost: estimated at $859 million
26 Cars in fleet
14,573 average weekday boardings , 12,130 average weekend boardings


Metro Rail
Metrolink Ventura County Line
Metrolink Antelope Valley Line
SAN FERNANDO VALLEY
North Hollywood
Universal City
Hollywood/Highland
Hollywood/Vine
Hollywood/Western
Vermont/Sunset
Vermont/Santa Monica
Vermont/Beverly
Wilshire/ Normandie
Wilshire/ Western
Wilshire/ Vermont
Westlake/ MacArthur Park
WILSHIRE CENTER
7th/Metro
Pershing Square
Civic Center
Mission
Fillmore
Memorial Park
Allen
Del Mar
Lake
Sierra Madre Villa
Highland Park
PASADENA
Southwest Museum
Heritage Square/ Arroyo
Lincoln Heights/ Cypress Park
Chinatown
Union Station
Metrolink San Bernardino Line
DOWNTOWN LA
Metrolink Riverside Line
Little Tokyo/Arts
Pico/Aliso
EAST LA
Soto
Maravilla
Atlantic
Mariachi Plaza
Indiana
East LA Civic Center
CONSTRUCTION BEGINS 2004
Pico
Grand
San Pedro
Washington
Vernon
Slauson
Florence
Firestone
103rd Street
Imperial/ Wilmington
N
LAX
Los Angeles International Airport (LAX) Via Free Shuttle
Aviation/LAX
Hawthorne
Vermont
Avalon
Crenshaw
Harbor Freeway
Long Beach
Lakewood
Norwalk
CERRITOS
Mariposa
El Segundo
Douglas
Redondo Beach
TORRANCE
Compton
Artesia
Del Amo
Wardlow
Willow
Pacific Coast Highway
Anaheim
Pacific
5th Street
1st Street
Transit Mall
LONG BEACH
Metrolink 91 Line
Metrolink Orange County Line

Ports & Harbors

Ports, Harbors & Piers Los Angeles County

Major Ports	Smaller Harbors & Piers (Listed Geographically - South to North)
Port of Los Angeles 425 S Palos Verdes St PO Box 151 San Pedro 90733 (310) 519-7501 **Port of Long Beach** 925 Harbor Plaza PO Box 570 Long Beach 90801 (562) 437-0041	Avalon Bay, Avalon, Catalina Island Green Pleasure Pier, Avalon, Catalina Island Two Harbors, Catalina Island Alamitos Bay Marina, Long Beach Belmont Pier, Long Beach Long Beach Shoreline Marina (Downtown Marina) Rainbow Harbor/Rainbow Marina, Long Beach Cabrillo Pier, San Pedro Cabrillo Marina, San Pedro Port Royal Marina, Redondo Beach Portofino Marina, Redondo Beach Redondo Sportfishing Pier, Redondo Beach King Harbor Marina, Redondo Beach Hermosa Beach Municipal Pier Manhattan Beach Municipal Pier Marina Del Rey Burton Chace Fishing Platform, Marina Del Rey Venice Fishing Pier Santa Monica Pier Malibu Pier

Long Beach's breakwater, stretching for nine miles, is the longest breakwater in the world.

Long Beach has the largest municipally-owned and operated marina in the world. It operates 3,400 slips in four local marinas.

The three-hour tour to **"Gilligan's Island"** sailed from Long Beach's Alamitos Bay in 1964.

Ocean-Going Cargo Container Traffic - Los Angeles and Long Beach Harbors (TEUs*)

Year	Port of Long Beach	Port of Los Angeles
2002	4,524,038	6,105,864
2001	4,462,959	5,183,511
2000	4,600,787	4,879,429
1999	4,408,480	3,828,851
1998	4,097,689	3,378,217
1997	3,504,603	2,959,715
1996	3,067,334	2,682,802
1995	2,843,502	2,555,344
1994	2,573,827	2,518,618
1993	2,079,491	2,318,918
1992	1,829,457	2,289,223
1991	1,767,824	2,038,537

Year	Port of Long Beach	Port of Los Angeles
1990	1,598,078	2,116,980
1989	1,575,117	2,056,980
1988	1,539,803	1,652,070
1987	1,460,188	1,579,657
1986	1,394,453	1,324,547
1985	1,141,466	1,103,722
1984	1,444,295	910,983
1983	714,410	576,278
1982	824,900	478,325

***TEU:** "Twenty-Foot Equivalent Unit" is a standard linear measurement to quantify container traffic flows. One twenty-foot long container, for example, equals one TEU whereas one forty-foot container equals two TEUs. Source: American Association of Port Authorities

Vessel Traffic*Los Angeles-Long Beach Harbors, 1997-2001

Port of Long Beach

Year	Inbound Vessels*			Outbound Vessels*		
	Total	Foreign	Domestic	Total	Foreign	Domestic
2001	22,020	1,998	20,022	22,080	2,023	20,257
2000	29,853	2,538	27,315	29,641	2,575	27,066
1999	27,573	2,460	25,113	26,862	2,438	24,424
1998	25,412	2,199	23,213	25,291	2,268	23,023
1997	27,393	2,165	25,228	27,501	2,237	25,264

Port of Los Angeles

Year	Inbound Vessels*			Outbound Vessels*		
	Total	Foreign	Domestic	Total	Foreign	Domestic
2001	21,371	2,117	19,254	21,236	2,090	19,146
2000	24,411	2,721	21,690	24,434	2,789	21,645
1999	18,687	2,531	16,156	18,558	2,546	16,012
1998	18,151	2,336	15,815	18,335	2,344	15,991
1997	19,403	2,343	17,060	19,418	2,371	17,047

*Includes all Self/Non-Self Propelled Passenger, Dry Cargo, Tanker and Tow/Tug Vessels .
Source: U.S. Army Corps of Engineers

Daily Truck & Train Movements to/from Los Angeles/Long Beach Harbor

1990, 2000 & Projections

Year	Truck Movements	Train Movements
1990	20,000	30
2000	25,000	50
2010	33,000	70
2020	50,000	100

Community-based Organizations & Public Assistance

CalWORKs (1999-2001) & Aid to Families with Dependent Children (1996-1998) Characteristics of Recipients 16 Years & Older Los Angeles County

Characteristics	July 2002	July 2001	July 2000	July 1999	July 1998	July 1997	July 1996
Total Recipients, Age 16+ [a] [b]	181,820	188,100	220,400	228,390	254,940	284,540	311,380
Male	34,810	36,020	42,200	43,730	48,810	54,480	59,620
Female	147,060	152,140	178,270	184,730	206,200	230,140	251,850
Age 16-20	38,360	39,680	46,500	48,180	53,780	60,030	65,690
Age 21-44	129,580	134,060	157,080	162,780	181,700	202,790	221,920
Age 45-54	11,100	11,480	13,450	13,940	15,560	17,370	19,000
Age 55+	2,840	2,940	3,440	3,570	3,980	4,440	4,860
White (Not Hispanic)	21,960	22,850	28,120	30,770	38,170	42,860	69,000
Black (Not Hispanic)	52,540	55,220	64,850	67,090	74,680	78,320	68,950
Hispanic	97,440	99,570	115,070	117,650	127,370	146,890	155,610
Asian & Pacific Islander	8,740	9,310	11,030	11,540	13,160	14,760	16,100
American Indian	310	350	440	490	600	660	610
Filipino	840	800	900	840	950	1,040	1,120

[a] Includes Two Parent, Zero Parent, All Others, and Foster Care cases.
[b] Detail may not add to total due to independent rounding.
Source: California Department of Social Services ABCD350 & Employment Development Department

Public Assistant Recipients By Program 1996-2002
Los Angeles County

Aid to Families with Dependent Children (1996-1998) and CalWORKs (1999-2002)
Data Includes Foster Care Children

Year	Total	Adults	Children
July 2002	488,909	114,003	374,906
July 2001	519,300	125,342	393,958
July 2000	636,395	156,001	480,394
July 1999	659,473	174,616	484,857
July 1998	736,121	194,903	541,218
July 1997	821,606	227,105	594,501
July 1996[1]	899,079	256,907	642,172

[1] Data for 1996 has been revised to include foster care children.

Other Aid Programs

Year	Food Stamps[2]	General Relief
July 2002	678,885	66,793
July 2001	681,200	63,929
July 2000	558,562	63,917
July 1999	597,747	64,471
July 1998	715,952	66,334
July 1997	918,708	86,302
July 1996	1,022,791	93,539

[2] Includes those persons receiving public assistance payments and those not receiving public assistance payments.
Source: California Dept. of Social Services

Native American Tribes

Tongva (Gabrielinos)

The Tongva (or *Gabrielinos*) were the people who canoed out to greet Spanish explorer Juan Rodriquez Cabrillo upon his arrival off the shores of Santa Catalina and San Pedro in 1542. Cabrillo declined their invitation to come ashore and visit. Their original name having been lost to cultural assimilation into Spanish and Mexican culture, they came to be called *Gabrielinos* because of their close association with the Mission San Gabriel. They once inhabited all of Los Angeles County and northern parts of Orange County. There were an estimated 5,000 Tongva in the region when the first Spanish settlers arrived in 1781. There are 31 known sites believed to have been Tongva villages, each having had as many as 400 to 500 huts. Hereditary chieftains who wielded almost total authority over the community led the villages.

Warfare was not frequent for the Tongva and robbery, murder, and incest was rare.

Tongva religious ceremonies were held in a circular structure within the village. The structure could only be entered by select males of status in the community and close relatives in the event of funerary ceremonies. Female singers were also allowed.

The Tongva believed in a supreme being that brought order to the chaotic world by setting it upon the shoulders of seven giants made for that purpose. The Supreme Being went on to make animals, man, and woman. The Tongva believed that humans originated in the north where the Supreme Being lived and that the Supreme Being himself led Tongva ancestors to Southern California. The Tongva did not believe in evil spirits, or any concept of a hell or devil until Spanish missionaries introduced these ideas. Porpoises and owls were highly esteemed and were never killed. The practice of medicine and healing was the responsibility of the medicine man.

To fail to show courage was the height of disgrace among the Tongva. Men would deliberately lie on top of red anthills and have handfuls of ants placed in their face as a demonstration of courage.

The Tongva introduced boys to manhood through fasting, hallucinogenic rituals and trials of endurance. An experienced elderly man served to instruct the boys in the legends of the world's origin and their future. The boys sought visions of their own special animal protector. These ceremonies were believed to provide the boys with a spiritual nature. The boys were also tested for courage by facing trials by fire, whippings, and lying on anthills. Boys who failed to endure these trials earned unfortunate reputations of weakness and cowardice.

Tongva communities and culture fell into a rapid decline with the arrival of the Mission de San Gabriel in 1771. Many of the Tongva joined the mission (and the Missions San Fernando and San Juan Capistrano) and, upon their conversions, were compelled to abandon their villages and culture. It was their association with the Mission San Gabriel that gave the Tongva their Europeanized name *Gabrielino*. By the time the first American settlers' arrival in the Los Angeles area in 1841, Tongva survivors were scattered and working at subsistence level on Mexican land grants. Disease further decimated the Tongva population. Today, it is estimated that a few hundred to a few thousand Tongva still live in California.

"Tongva" means people of the earth.

The Tongva occupied the entire Los Angeles basin and the islands of Santa Catalina, San Nicholas, San Clemente, and Santa Barbara. From Topanga Canyon to Laguna Beach, from the San Gabriel Mountains to the sea, we lived throughout most of what is now Los Angeles and Orange Counties. The existence of our people on these ancestral lands has been unbroken since long before the first contact between the Tongva and Europeans. Our ancestors were the people who rowed our remarkable Ti'ats (plank canoes) out to meet Cabillo in 1542 off what is now San Pedro.

Despite the European incursion, **we have remained an integral part of the Southern California** community. Our presence is well documented. Our existence is preserved in records of the three local Catholic missions and in records of local cities and both Los Angeles and Orange Counties. We have survived! We are here!

GOALS

- To be vigilant, effective guardians of our lands and ancestral remains.
- To be wise teachers of our youth so that they will be informed and proud guardians of the ways of our ancestors.
- To increase our efforts at cultural recovery and renewal: language, song, dance, music, basketry, story telling, ceremonial regalia, and spiritual traditions.
- To achieve federal recognition of our People.
- The Gabrieleno/Tongva of San Gabriel is headquartered in San Gabriel, the area where we have maintained community and our culture.

Federal recognition has been a decades-long struggle that goes on today.

There are over 300 enrolled members in the Gabrieleno/Tongva of San Gabriel.

The peoples now referred to as "Tongva" once lived a peaceful and civilized life on their Ancestral Lands, which stretch from what is now Topanga Canyon through Aliso Creek in Laguna Beach. Their giant canoes plied the local coast and islands, peacefully trading with each other, with the Chumash to the North, and the Acjachemen to the South. The many rivers and springs in the rich Southern California Coastal Region provided abundant food, water and materials for shelter, contrary to the myth that "this is a desert". Some Tongva names are Tujunga, Cucamonga, Topanga, Maliwuw, and Puvungna.

Puvungna: Sacred Gathering place, located at the once rich village now occupied by Cal State Long Beach, “An island of peace and tranquility in the midst of modern chaos, sacred to the lawgiver, Chun-gich-nish, and his people who still survive and thrive”.

The story of Puvungna continues. Cal State wanted to make it into a strip mall, but the then-78 year old Lillian Robles, an elder and "most likely descendant" of the Acjachemen ("Juaneno"), with relatives on both the Spanish and Tongva side, literally slept on the land for two weeks, out-facing the police, university officials, developers, bulldozers revved up in her face, lack of facilities, etc., and saved the sacred site for us and for the future.

Unceasing vigilance is required: each week on Monday at 5 P.M., a meeting is held to re-enforce the importance of the sacred site, and to discuss issues such as the "artifacts" which were dug up during construction of CSULB.

Other sites of importance:

Ballona Wetlands in Los Angeles. Once was the delta of the Los Angeles River, in the time when there was bountiful living for all, is now the last remains of the former wetlands are under attack by the Playa Vista developers.

Former Hellman Estate in Seal Beach. The Mesa area reputedly contains many ancient graves of Ancestors overlooking and protecting the wetlands at the delta of the San Gabriel River which were mostly filled in 1960. The ancient burial grounds were typically on dry, well-appointed gentle slopes facing the setting sun. As late as 1959, you could float a small boat or kayak on the wetlands all the way to the housing tract which was built on the heights. Just over Seal Beach Boulevard, there was a powerful village located where the Naval Weapons Station water tower now stands. To the South, 1000 acres of wetlands on Alamitos Bay form the Seal Beach National Wildlife Refuge, blending in to wetlands leading thru Huntington Harbour to the Bolsa Chica wetland complex.

Bolsa Chica Mesa in Huntington Beach. One visit to this peaceful, gentle site gives you a feeling that you must preserve it from the threatened 1235 homes. It too was likely an ancient village.

Back Bay Newport Beach. The wetlands are safe, forming a 700-acre ecological preserve, the heights were criss-crossed by trails and lookout perches for ancient villages. The current "Shellmaker Island" has a Tongva memorial.

ORA-64. Just behind the Back Bay wetlands, there was no development west of Jamboree road. Suddenly, a developer built hundreds of condos where none were before. In the course of construction, 650-800 graves up to 9000 years old were uncovered, which would, by the law, have required the developer to stop activities. Speeding past compliance, the developer "dumped" the bones of the Ancestors in some other place. When the Bear Dancers traversed these sites last year, they could not dance because the "spirits were too angry to be placated".

San Juan Creek, and the "Trestles" surf spot. The steelhead trout has been discovered in San Juan Creek, somehow surviving against all odds. This and other factors have delayed and perhaps stopped forever the toll road which was planned to rip apart this peaceful scene, also threatening an ancient Acjachemen village site.

Pange', ancient Acjachemen village on Pendleton.

ORA-149. On the Coast in Huntington Beach, many artifacts were found, but then reburied.

ORA-86. 16 houses were built on this site on the Bolsa Chica Mesa, bones were found at 16 sites.

ORA-83. Many gravesites documented on this area of the Bolsa Chica Mesa, where a high-density development is planned.

Malibu Wetlands.

Palos Verdes.

Source: Gabrieleno/Tongva Tribal Council Of San Gabrielp.O. Box 693, San Gabriel, Ca 91776

Chumash

The Chumash ranged into the Malibu area of Los Angeles County, although they mostly lived in parts of Ventura and Santa Barbara Counties. Being a seafaring people, Chumash Indians spent much of their time building small boats and fishing and were accomplished fishermen and artisans. They were more sophisticated craftsmen than their Tongva neighbors to the south.

When the first Spanish missionaries arrived, there were believed to be as many as 22,000 Chumash. However, as had happened with the Tongva, their population, communities and culture rapidly disappeared. By 1906, there were only 42 known survivors. Today, about 2,000 people claim to be Chumash descendents, mostly living in Ventura and Santa Barbara Counties.

Source: California Indians - An Illustrated Guide, George Emanuels, Diablo Books. The First Angelinos: The Gabrielino Indians of Los Angeles, William McCawley, Malki Museum Press/Ballena Press

Tataviam (*Fernandeños*)

The smallest group of original Los Angeles native people is the Tataviam or *Fernandeños* (due to their close association to the Mission San Fernando). The sites of 20 early Tataviam villages lie north of the San Fernando Valley and in the Santa Clarita Valley. They were believed to have numbered about 1,000 people and were heavily influenced by the culture of their more numerous neighbors, the Tongva and Chumash.

Climate

Local Meteorology

Monthly Average Maximum & Minimum Temperatures

Measured in Degrees Fahrenheit

Station	Avg. Temp.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Avalon [1]	**Max**	**61.9**	**62.9**	**63.3**	**65.3**	**66.9**	**69.2**	**72.1**	**73.5**	**73.0**	**70.7**	**67.1**	**63.2**	**67.4**
	Min	46.6	47.6	48.4	51.2	53.8	56.9	60.3	61.4	59.9	56.4	51.0	47.4	53.4
Burbank [2]	**Max**	**66.9**	**68.8**	**70.3**	**74.0**	**76.6**	**81.7**	**88.7**	**89.3**	**87.2**	**81.1**	**73.4**	**67.9**	**77.2**
	Min	41.6	43.6	45.6	49.0	53.4	57.1	60.9	61.3	59.2	53.3	45.9	41.7	51.0
Canoga Park [3]	**Max**	**67.6**	**70.1**	**72.1**	**77.0**	**80.7**	**87.3**	**94.8**	**95.3**	**91.5**	**84.1**	**74.8**	**68.9**	**80.4**
	Min	39.2	40.7	41.7	44.7	48.9	52.9	56.9	57.4	54.6	48.8	42.4	38.8	47.3
Culver City [4]	**Max**	**66.5**	**67.3**	**67.9**	**70.4**	**71.5**	**74.2**	**78.1**	**79.2**	**78.9**	**76.2**	**71.9**	**68.0**	**72.5**
	Min	45.0	46.5	48.0	51.2	54.3	57.8	61.1	61.8	60.5	56.0	49.9	45.9	53.2
Lancaster [5]	**Max**	**57.3**	**60.4**	**64.8**	**71.5**	**79.2**	**88.9**	**95.3**	**94.7**	**88.6**	**78.2**	**65.5**	**57.4**	**75.1**
	Min	31.4	35.1	39.7	45.0	53.1	60.6	66.1	64.2	57.4	46.4	35.2	28.9	46.9
LAX [7]	**Max**	**65.0**	**65.4**	**65.3**	**67.7**	**69.1**	**72.0**	**75.3**	**76.5**	**76.2**	**73.9**	**70.3**	**66.2**	**70.2**
	Min	47.2	48.9	50.2	53.0	56.2	59.5	62.8	63.8	62.6	58.5	52.1	47.8	55.2
Long Beach Airport [6]	**Max**	**66.9**	**67.5**	**68.3**	**72.0**	**73.6**	**77.3**	**82.6**	**84.3**	**82.5**	**78.4**	**72.2**	**67.4**	**74.4**
	Min	45.5	47.4	49.6	52.3	56.7	60.1	63.6	65.0	62.9	57.9	50.3	45.2	54.7
Los Angeles Civic Center [8]	**Max**	**66.3**	**67.4**	**68.8**	**71.1**	**73.0**	**77.1**	**82.4**	**83.2**	**81.8**	**77.6**	**73.0**	**67.7**	**74.1**
	Min	48.4	49.7	51.1	53.5	56.5	59.7	63.1	64.0	62.7	58.8	53.4	49.4	55.9
Montebello [9]	**Max**	**69.4**	**71.1**	**72.6**	**77.8**	**79.0**	**83.6**	**88.6**	**89.8**	**87.9**	**82.6**	**75.4**	**70.9**	**79.1**
	Min	47.9	49.0	50.5	53.5	57.1	60.6	64.3	65.2	63.6	58.3	51.4	47.2	55.7
Mt Wilson [10]	**Max**	**51.5**	**52.5**	**53.9**	**59.3**	**66.0**	**75.1**	**81.3**	**80.8**	**76.9**	**68.5**	**58.9**	**53.0**	**64.8**
	Min	36.2	36.5	36.7	40.8	47.1	55.8	63.2	62.4	58.4	50.8	42.7	37.7	47.4
Palmdale [11]	**Max**	**58.2**	**62.1**	**66.9**	**73.9**	**81.5**	**90.0**	**97.5**	**96.8**	**91.2**	**80.2**	**67.2**	**58.8**	**77.0**
	Min	32.2	35.5	38.7	43.6	50.4	57.5	64.8	63.6	57.2	47.8	37.8	32.5	46.8
Pasadena [12]	**Max**	**66.7**	**68.4**	**70.2**	**74.0**	**76.6**	**81.5**	**88.6**	**89.5**	**87.5**	**81.2**	**74.0**	**67.9**	**77.2**
	Min	42.7	44.5	46.0	49.1	52.6	56.0	60.2	61.0	59.2	54.0	47.3	43.4	51.3
Pomona [13]	**Max**	**65.7**	**67.9**	**69.8**	**74.1**	**77.4**	**83.1**	**90.7**	**90.6**	**88.3**	**81.1**	**73.4**	**66.9**	**77.4**
	Min	38.1	40.3	42.2	45.6	49.7	53.1	57.5	58.0	55.7	50.2	42.5	38.5	47.6
San Gabriel [14]	**Max**	**68.9**	**70.4**	**71.6**	**75.3**	**77.8**	**82.6**	**88.9**	**89.8**	**88.2**	**82.4**	**75.3**	**70.0**	**78.4**
	Min	41.4	43.4	45.6	48.9	53.1	56.9	60.7	61.2	59.1	53.5	45.8	41.6	50.9
Sandberg [15]	**Max**	**47.5**	**50.2**	**52.6**	**58.9**	**66.3**	**76.7**	**84.9**	**84.3**	**79.0**	**68.4**	**56.1**	**48.1**	**64.4**
	Min	35.0	36.6	36.9	40.9	46.4	54.9	62.9	62.4	58.7	50.8	41.7	35.7	46.9

Station	Avg. Temp.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Santa Monica Pier [16]	**Max**	**64.0**	**63.7**	**63.1**	**64.1**	**64.9**	**67.4**	**70.5**	**71.6**	**71.7**	**70.3**	**67.9**	**64.9**	**67.0**
	Min	49.6	50.3	51.0	53.1	55.7	58.6	61.4	62.5	61.7	58.5	53.8	50.0	55.5
Torrance [17]	**Max**	**66.1**	**67.2**	**67.6**	**70.2**	**71.8**	**74.5**	**78.2**	**79.4**	**78.7**	**76.4**	**71.6**	**67.3**	**72.4**
	Min	44.8	46.3	47.4	50.1	53.9	57.0	60.5	61.5	60.1	56.0	49.6	45.3	52.7
Westwood [18]	**Max**	**65.5**	**66.5**	**66.4**	**68.5**	**69.2**	**72.2**	**76.7**	**77.9**	**77.8**	**75.1**	**71.0**	**66.7**	**71.1**
	Min	49.7	50.4	50.2	52.6	55.0	57.8	60.9	61.9	61.3	58.5	54.4	50.6	55.3

Temperature Averages & Records - Monthly & Annual
Los Angeles Civic Center Weather Station, 1878-2002

Measurements are in Degrees Fahrenheit

Month	Average Daily High	Average Daily Low	Record High	Record Low
January	65.8°	47.4°	95 (1971)	28 (1949)
February	66.9°	48.5°	95 (1995)	34 (1989)
March	68.2°	50.0°	98 (1988)	35 (1976)
April	70.7°	52.4°	106 (1989)	39 (1975)
May	72.7°	55.4°	102 (1967)	46 (1964)
June	77.1°	58.6°	112 (1990)	50 (1953)
July	82.2°	61.8°	107 (1985)	54 (1952)
August	83.1°	62.8°	105 (1983)	53 (1943)
September	81.7°	61.2°	110 (1988)	51 (1948)
October	77.3°	57.3°	108 (1987)	41 (1971)
November	72.7°	52.1°	100 (1966)	38 (1978)
December	67.4°	48.4°	91 (1979)	30 (1978)
Annual	**73.8°**	**54.7°**	**112 (June 1990)**	**28 (Jan 1949)**

Source: National Weather Service

Monthly Average Total Precipitation (Rainfall)

Measured in inches

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Avalon Pleasure Pier [1]	2.65	2.37	1.90	0.97	0.18	0.02	0.00	0.07	0.29	0.18	1.35	1.90	11.90
Burbank [2]	3.37	3.72	3.00	1.20	0.27	0.08	0.01	0.12	0.20	0.47	1.60	2.25	16.30
Canoga Park [3]	3.79	3.66	2.87	1.13	0.26	0.05	0.01	0.11	0.17	0.43	1.87	2.23	16.58
Culver City [4]	2.97	2.87	2.31	0.86	0.17	0.03	0.01	0.06	0.13	0.34	1.38	2.20	13.32
Lancaster [5]	1.69	1.75	1.48	0.35	0.12	0.06	0.11	0.17	0.21	0.31	0.48	1.09	7.81
LAX [7]	2.76	2.60	2.00	0.80	0.16	0.06	0.02	0.08	0.17	0.30	1.51	1.69	12.15
Long Beach Airport [6]	2.74	2.83	2.07	0.75	0.17	0.07	0.02	0.08	0.22	0.30	1.35	1.65	12.24
Los Angeles Civic Center [8]	3.19	3.31	2.48	1.07	0.26	0.06	0.01	0.06	0.29	0.40	1.32	2.34	14.79
Montebello [9]	4.14	4.18	3.23	1.02	0.28	0.09	0.02	0.03	0.23	0.36	1.14	1.98	16.69
Mt Wilson [10]	7.60	7.74	6.31	2.74	0.82	0.19	0.07	0.18	0.74	1.12	3.85	4.46	35.81
Palmdale [11]	1.55	1.55	1.31	0.47	0.13	0.04	0.05	0.19	0.21	0.29	0.69	1.36	7.83
Pasadena [12]	4.24	4.44	3.49	1.49	0.38	0.15	0.03	0.12	0.36	0.60	1.86	3.01	20.17
Pomona FairPlex [13]	3.74	3.55	3.06	1.27	0.26	0.07	0.01	0.09	0.29	0.61	1.58	2.73	17.27
San Gabriel [14]	3.80	3.84	3.17	1.30	0.27	0.10	0.02	0.08	0.36	0.49	1.74	2.39	17.55
Sandberg [15]	2.25	2.66	1.61	0.84	0.30	0.06	0.03	0.07	0.27	0.27	1.50	2.00	11.86
Santa Monica Pier [16]	2.97	2.79	1.99	0.82	0.19	0.03	0.02	0.10	0.14	0.28	1.47	1.81	12.61
Torrance [17]	3.41	2.82	2.18	0.87	0.19	0.06	0.02	0.08	0.18	0.31	1.51	1.87	13.51
Westwood [18]	4.00	4.09	2.80	1.14	0.27	0.08	0.02	0.12	0.23	0.42	1.85	2.31	17.32

Monthly Average Snowfall & Snow Depth

Measured in inches

Location	Average	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Lancaster [5]	**Snowfall**	**1.8**	**0.6**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**1.0**	**3.4**
	Snow Depth	0	0	0	0	0	0	0	0	0	0	0	0	0
Mt Wilson [10]	**Snowfall**	**4.5**	**2.9**	**3.7**	**1.7**	**0.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.7**	**2.0**	**15.8**
	Snow Depth	2	2	2	1	0	0	0	0	0	0	0	0	1
Palmdale [11]	**Snowfall**	**0.9**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.2**	**1.5**
	Snow Depth	0	0	0	0	0	0	0	0	0	0	0	0	0
Pasadena [12]	**Snowfall**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**
	Snow Depth	0	0	0	0	0	0	0	0	0	0	0	0	0
Sandberg [15]	**Snowfall**	**6.8**	**2.3**	**4.1**	**2.8**	**0.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.7**	**3.5**	**20.7**
	Snow Depth	1	0	0	0	0	0	0	0	0	0	0	0	0

Period of Record:

1 - (Pleasure Pier) 7/ 1/1948 to 12/31/2001
2 - (Valley Pump Place) 12/1/1939 to 12/31/2001
3 - (Pierce College) 7/ 1/1949 to 12/31/2001
4 - 1/ 1/1935 to 12/31/2001
5 - 5/ 1/1974 to 12/31/2001
6 - 4/ 1/1958 to 12/31/2001
7 - 8/ 1/1944 to 12/31/2001
8 – (Civic Center) 1/ 1/1914 to 12/31/2001
9 - 1/ 1/1979 to 12/31/2001
10 - 7/ 1/1948 to 12/31/2001
11 - 4/ 1/1931 to 12/31/2001
12 - 12/1/1927 to 12/31/2001
13 – (FairPlex) 12/1/1927 to 12/31/2001
14 - (Fire Dept) 5/ 1/1939 to 12/31/2001
15 - 7/ 1/1948 to 12/31/2001
16 – 7/ 1/1948 to 12/31/2001
17 - 1/ 1/1949 to 12/31/2001
18 – (UCLA) 7/ 1/1948 to 12/31/2001

Source: National Climate Data Center

The Warming of Los Angeles

By the 1990s, average temperatures in Los Angeles had risen to be 5 degrees Fahrenheit warmer than in 1940. This was due to the dramatic loss of Los Angeles County orchards and farmland in favor of buildings and roads. The increased concrete and asphalt served to absorb solar heat and heat up the surrounding atmosphere, causing a massive "urban heat island." Studies suggest that a massive planting of trees in the San Fernando Valley alone could lower average temperatures as much as 9 degrees Fahrenheit.

Severe Weather

Santa Ana Winds

The *Santana Winds* or *Santa Ana Winds*, most common in the late summer and early fall, begin with dry air moving in from the interior of the U.S. towards Southern California. As this air flows down into the Los Angeles Basin through the low gaps in the mountains (notably **Cajon Pass** on the east end of the San Gabriel Mountains and **Soledad Pass** south of Palmdale), it compresses and warms about five degrees Fahrenheit for every 1,000 feet that it descends. Though these winds are much cooler high in the mountains, they can become hot and dry and assume gale force when descending into the Los Angeles Basin. They are often the source of air turbulence for aircraft approaching Los Angeles International Airport.

The original spelling of the name of the winds is unclear, not to mention the origin. Although the winds have been commonly called *Santa Ana Winds* or *Santa Anas*, many argue that the original name is *Santana Winds* or *Santanas*. Both versions of the name have been used. The name *Santana Winds* is said to be traced to Spanish California when the winds were called *Devil Winds* due to their heat. The reference book *Los Angeles A to Z* (by Leonard & Dale Pitt), credits the Santa Ana Canyon in Orange County as the origin of the name *Santa Ana Winds*, thereby arguing for the term *Santa Anas*. This might be supported by early accounts which attributed the Santa Ana riverbed running through the canyon as the source of the winds. Another account placed the origin of *Santa Ana Winds* with an Associated Press correspondent stationed in Santa Ana who mistakenly began using *Santa Ana Winds* instead of *Santana Winds* in a 1901 dispatch.

*Special credit for the research assistance of **Librarian Nancy Smith** of the Metropolitan Cooperative Library System Reference Center, Los Angeles Public Library.*

Rainfall Record

California's **Record Rainfall** for a 24-hour period was 26.12 inches occurring January 22-23, 1943, at Hoegees Camp in **Los Angeles County** (18 miles north of Los Angeles City Hall in the San Gabriel Mountains).

Wettest Seasons/Days/Calendar Years & Driest Seasons
Los Angeles Civic Center Weather Station

Wettest Seasons (Period: July 1 to June 30 of following year)

Total Inches of Rainfall	Season
38.18	1883-1884
34.84	1889-1890
33.44	1977-1978
32.76	1940-1941
31.25	1982-1983
31.01	1997-1998
27.47	1968-1969
27.36	1992-1993
26.98	1979-1980
26.28	1892-1893
26.21	1951-1952
24.35	1994-1995
23.65	1913-1914
23.43	1937-1938
22.41	1936-1937
22.41	1966-1967
22.31	1885-1886
21.66	1934-1935
21.26	1877-1878
21.26	1972-1973

Wettest Days

Total Inches of Rainfall	Date
5.88	Mar 2, 1938
5.71	Jan 26, 1956
4.86	Dec 31, 1933
3.96	Sep 25, 1939
3.85	Nov 7, 1966
3.84	Dec 29, 1965
3.69	Jan 22, 1967
3.61	Nov 19, 1967
3.60	Feb 20, 1944
3.52	Jan 7, 1974
3.51	Nov 22, 1965
3.43	Jan 25, 1969
3.43	Jan 22, 1943
3.42	Mar 1, 1983
3.30	Jan 10, 1995
3.30	Jan 20, 1969

Total Inches of Rainfall	Date
3.24	Jan 4, 1995
3.12	Mar 3, 1943
3.12	Jan 1, 1934
3.03	Feb 16, 1980

Wettest Calendar Years (Period: January-December)

Total Inches of Rainfall	Calendar Year
40.29	1884
34.04	1983
33.26	1889
31.28	1941
30.57	1978
27.85	1998
27.16	1938
26.81	1965
26.33	1980
26.32	1969
24.95	1952
24.07	1967
23.92	1909
23.65	1995
23.50	1993
23.29	1916
23.21	1914
22.65	1992
22.57	1943
21.96	1893

Five Driest Seasons:

Season	Total Inches of Rainfall
1960-1961	4.85
1958-1959	5.58
1898-1899	5.59
1923-1924	6.67
1893-1894	6.73

Source: National Weather Service

During a 24-hour period from December 31, 1933 through January 1, 1934, 7.36 inches of rain fell on the **Los Angeles Civic Center**, a record for a 24-hour period at that location.

Agriculture

Number & Size of Farms in Los Angeles County

In 1916, Sunkist took out a full-page ad in the Saturday Evening Post with the slogan, "Drink an Orange." It was the first attempt to persuade people to squeeze an orange and drink the juice. The ad offered a Sunkist orange extractor for 10 cents. It was this campaign that served as the earliest origins of orange juice for breakfast.

Year	Number of Farms	Farm Land (acres)	Average Size of Farms (acres)	Percent of Land in Farms	Harvested Cropland (acres)
1997	1,226	130,838	107	5.1	23,805
1992	1,446	183,569	127	7.1	29,347
1987	2,035	280,156	138	10.8	37,102
1982	2,331	317,757	136	12.2	53,130
1978	1,952	369,061	189	14.2	54,362
1974	1,797	400,500	223	15.4	64,806
1969	2,804	557,770	199	21.4	84,319
1964	2,800	585,340	209	22.5	90,583
Year	**Number of Farms**	**Farm Land (acres)**	**Average Size of Farms (acres)**	**Percent of Land in Farms**	**Harvested Cropland (acres)**
1959	4,811	479,011	100	18.4	126,952
1954	8,254	743,613	90	28.5	195,315
1950	11,973	855,563	72	32.8	229,047
1940	12,475	n/a	n/a	n/a	n/a
1930	12,653	527,124	42	20.0	230,068
1920	12,444	882,333	71	33.5	n/a
1910	7,919	757,985	96	29.1	n/a
1900	6,577	895,663	136	34.4	n/a

n/a = Data not available
Source: U.S. Census Bureau

Agricultural Products Los Angeles County 2002

The Chappelow Avocado tree located in Duarte was the **first recorded avocado tree grown in California**. William Chappelow, Sr. received his tree from the U.S. Department of Agriculture in July 1893.

Product	Value	Production
Ornamental Trees & Shrubs	$118,240,000	8,121,000 green house sq. ft. & 1,480 field acres
Root Vegetables (includes carrots, potatoes, beets, radishes, turnips, etc.)	$44,111,000	9,964 acres
Bedding Plants	$35,369,000	1,678,000 green house sq. ft. & 144 field acres
Dry Onions	$12,797,000	1,720 acres/ 44,108 tons
Peaches	$11,672,000	841 acres/ 12,601 tons
Indoor Plants, Foliage	$7,171,000	368,000 green house sq. ft. & 1 field acre
Alfalfa Hay	$5,897,000	5,200 acres/ 43,680 tons
Herbs (includes cilantro, parsley, chives, mint, thyme, etc.)	$4,550,000	297 acres
Indoor Plants, Flowering	$3,643,000	287,000 green house sq. ft. & 1 field acre
Strawberries	$2,807,000	122 acres/ 2,800 tons
Table Greens (includes lettuce, spinach, kale, & oriental specialties)	$1,802,000	235 acres
Rangeland	$1,611,000	200,160 acres
Vine Crops (includes cucumbers, pumpkins, tomatoes, squashes, melons, & green beans)	$1,570,000	304 acres
Ground Covers	$1,486,000	225,000 green house sq. ft. & 20 field acres
Grain Hay	$929,000	2,400 acres/ 7,200 tons
Apples	$560,000	71 acres/ 280 tons
Honey	$503,000	291,000 pounds
Grapes	$436,000	165 acres/ 593 tons
Cherries	$406,000	130 acres/ 102 tons
Avocados	$124,000	46 acres/ 146 tons
Beeswax	$82,000	22,500 pounds
Christmas Trees	$34,000	6 field acres / 730 trees
Firewood	$6,000	n/a

Also grown in L.A. County: nectarines, orchids, cacti, sod, citrus, Asian pears, includes sweet corns, leeks, green onions, bell peppers, oat hay, Sudan hay, lilacs, mums, yarrow, gypsophila, carnations, delphinium, freesia

Source: **L.A. County Agricultural Commissioner/Weights & Measures Dept.**

The number of Christmas trees harvested in Los Angeles County declined from 49,823 in 1993 to 730 in 2002.

Los Angeles County ranks second for raising nursery products in the state (9.4% of the state in 1997) behind San Diego County (18.3%). The county also ranks third among California counties for raising carrots (9.7% of state in 1997) and fourth for onions (11%).

Agricultural Commodities Summary (in Dollars) Los Angeles County

Product	2002	2001	2000	1999	1998	1997	1996
Nursery Products	$176,470,000	$171,307,000	$169,426,000	$171,220,605	$185,592,500	$171,220,605	$164,633,028
Vegetable Crops	66,403,000	47,296,000	56,307,000	33,414,024	39,458,900	33,414,024	25,546,133
Fruit & Nuts	18,660,000	23,699,000	28,113,000	21,268,400	23,513,700	21,268,400	16,825,475
Field Crops	8,680,000	10,048,000	8,756,000	9,494,247	8,890,900	9,494,247	9,369,999
Apiary, Livestock, & Poultry Products	614,000*	396,000*	587,000*	912,000*	1,995,100*	1,164,128*	4,277,690*
Livestock Production	4,516,000	5,504,000	4,172,000	---	---	---	---
Cut Flowers & Decoratives	647,000	739,000	759,000	1,356,176	1,052,100	1,356,176	1,452,564
Forest Products	6,000	15,000	10,000	39,801	15,100	39,801	133,561
Total	$275,969,000	$258,608,000	$268,200,000	$237,957,381	$260,518,300	$237,957,430	$222,238,450

* Excludes livestock & poultry products ** Collection of data ceased due to budget cuts.
Source: Los Angeles County Agricultural Commissioner/Weights & Measures Dept.

Selected Livestock Inventory Los Angeles County

Stock	1997		1992		1987	
	Farms	Inventory	Farms	Inventory	Farms	Inventory
Beef Cows	84	*	94	6,993	194	4,524
Milk Cows	7	*	16	2,410	37	4,428
Hogs & Pigs	59	1,683	88	1,393	125	2,568
Sheep & Lambs	60	8,213	92	14,855	144	19,750

Stock	1997		1992		1987	
	Farms	Inventory	Farms	Inventory	Farms	Inventory
Chickens (Layers and pullets - 13 weeks old+)	87	8,821	156	44,549	245	375,520
Chickens (Broilers and other meat-type chickens sold)	11	180,753	13	1,925,148	39	2,197,619

* Withheld to avoid disclosing data for individual farms

Horses & Ponies

Year	1997	1992
Horse/Pony Farms	391	593
Horse/Pony Inventory	5,716	6,703
Horses/Ponies Sold	421	784
Value of Horses/Ponies Sold	$1,651,000	$1,968,00

Source: U.S. Census Bureau

Processing

A **Certified Farmers' Market** is a location approved by the county agricultural commissioner where certified farmers offer for sale only those agricultural products they grow themselves. California Certified Farmers' Markets are operated in accordance with regulations established in 1977 by the California Department of Food and Agriculture.

Certified* Farmers Markets in Los Angeles County

Market	Day & Location
Adams/Vermont - L.A.	Wed - 1432 West Adams @ St. Agnes Catholic Church
Alhambra	Sun - Monterey & East Bay State Street
Baldwin Park	Tue - Baldwin Park - Cesar Chavez & Ramona
Bellflower	Mon - Oak & Clark
Bellflower	Thu - Oak & Bellflower
Beverly Hills	Sun - North Canon Drive & Dayton Way
Brentwood	Sun - Gretna Green & San Vicente
Burbank	Sat - Olive & Glen Oaks
Calabasas	Sat - Park Center
Carson	Thu - Carson & Bonita St.
Century City	Thu - Constellation Blvd & Avenue of the Stars

Market	Day & Location
Central Ave - L.A	Sat - 42 Street & Central Ave
Cerritos	Sat - Park Plaza Dr & Towne Center Dr
Chinatown - Los Angeles	Thu - 727 North Hill & Alpine
Claremont	Sun - 2nd & Yale Ave
Covina	Fri - Civic Center Park
Culver City	Tue - Main & Venice
Diamond Bar	Sat - Calvary Chapel Church Parking Lot
Eagle Rock	Fri - 2100 Merton Ave
El Monte	Sat - Center Ave. & Valley Blvd
El Segundo	Thu - Grand & Eucalyptus
Encino	Sun - Victory Blvd & White Oak
Gardena	Wed - 1670 West 162nd at La Salle
Gardena	Sat - 13000 Van Ness, Holly Park Church parking lot
Glendale	Thu - 100 block North Brand Blvd
Glendora	Thu - Glendora Ave & Foothill Blvd
Hacienda Heights	Sat - Stimson Ave & Gale Ave
Harambee - L.A.	Sat - Crenshaw & Slauson
Hermosa Beach	Fri - Valley Dr between 10th & 8th
Hollywood	Sun - Ivar & Hollywood
Hollywood	Wed - Hollywood Sears, Sear parking lot
Hollywood	Fri - Hollywood Media, 1100 Block of Cole Ave
Huntington Park	Wed - Salt Lake Park, Bissell and Florence
Larchmont Village	Sun - Hancock - Larchmont Blvd lot #694
La Canada Flintridge	Sat - Beulah & Foothill Ave
La Cienega - Los Angeles	Thu - 1801 S. La Cienega Blvd
La Verne	Tue - D St. & Bonita Ave
La Verne	Sat - D St. & Bonita Ave
Long Beach	Sun - Long Beach Marina, 2nd Street & PCH - Marina Dr - South of 2nd
Long Beach	Fri - Downtown, Broadway & Promenade North
Lynwood	Tue - Martin Luther King & Cesar Chavez Lane
Malibu	Sun - L.A. County Civic Center Complex
Melrose Place - L.A.	Sun - Melrose Place & Croft
Monrovia	Fri - Olive & Myrtle Ave
Montrose	Sun - Montrose Harvest Market, Honolulu & Ocean Ave

Market	Day & Location
North Hollywood	Sat - Oxnard St off of 170 Freeway
Northridge	Wed - Northridge Fashion Mall
Norwalk	Tue - Alondra & Pioneer
Pacific Palisades	Sun - Swarthmore Ave & Sunset
Pasadena	Tue - Pasadena Villa Park, East Villa & Garfield Ave
Pasadena	Sat - Victory Park - Sierra Madre & Paloma
Pomona Valley	Sat - Pearl & Garey
Redondo Beach	Thu - Harbor Drive west of Veteran's Park
Rolling Hills Estates	Sun - Peninsula Shopping Center
San Dimas	Wed - Bonita & San Dimas
Santa Clarita	Sun - College of the Canyons, Lot 8
Santa Monica	Sun - Ocean Park & Main St
Santa Monica	Wed - Arizona Ave & 3rd
Santa Monica	Sat - Organic - Arizona Ave & 3rd
Santa Monica	Sat - Santa Monica Airport (temporary location)
Seventh & Figueroa - L.A.	Thu - Figueroa St & 7th
Seventh Market Place - L.A.	Fri - Figueroa St & 7th
Signal Hill	Thu - Walnut Ave & 27th
Silverlake - L.A	Sat - 3700 Sunset Blvd
South Gate	Mon - Tweedy & PInehurst
South Pasadena	Thu - Meridian & Mission St
Studio City	Sun - Ventura Place & Ventura Blvd
Torrance	Tue - Wilson Park-2200 Crenshaw
Torrance	Sat - Wilson Park, Carson & Sepulveda
Tujunga	Sat - 8737 Fenwick
Urban Oasis - L.A.	Sat - Crenshaw High School
Venice	Fri - Venice Way & Venice Blvd
West Covina	Thu - S. Glendora Ave & Lakes Dr
West Covina	Sat - S. Glendora Ave & Lakes Dr
West Hollywood	Mon - Plummer Park - North Vista and Fountain Ave
Westchester	Wed - 87th & Truxton
Westwood	Thu - Westwood Village, Weyburn Ave & Westwood Blvd
Whittier	Fri - Bailey & Greenleaf
Wilshire Center - L.A.	Fri - Mariposa & Wilshire

Source: California Federation of Certified Farmers' Markets

Environmental Management

Los Angeles County Sanitation Districts

The Sanitation Districts is a confederation of independent special districts serving the water pollution control and solid waste management needs of more than half the people of Los Angeles County. The agency is made up of 25 separate districts working cooperatively under one administrative staff headquartered near Whittier. The policy body for the Sanitation Districts consists of the mayors of the 78 cities on the system as well as the County Board of Supervisors.

Source: Los Angeles County Sanitation Districts

The Sanitation Districts provide environmentally sound, cost-effective, wastewater and solid waste management for over half the population of Los Angeles County, and in doing so take what others had thought of as waste and turn it into resources such as reclaimed water, energy, and recyclable materials.

The Sanitation Districts are a confederation of independent special districts serving about 5.2 million people in Los Angeles County. The Sanitation Districts' service area covers approximately 800 square miles and encompasses 78 cities and unincorporated territory within the County.

The Sanitation Districts construct, operate, and maintain facilities to collect, treat, recycle, and dispose of sewage and industrial wastes and provide for the management of solid wastes, including disposal, transfer operations and materials recovery. Local sewers and laterals which connect to the Sanitation Districts' trunk sewer lines are the responsibility of the local jurisdictions, as is the collection of solid wastes.

The agency is made up of 25 separate Sanitation Districts working cooperatively under a Joint Administration Agreement with one administrative staff headquartered near Whittier. Each Sanitation District has a separate Board of Directors consisting of the Mayor of each city within the District and the Chair of the Board of Supervisors for county unincorporated territory. Each Sanitation District pays its proportionate share of joint administrative costs.

The agency's 1,300 miles of main trunk sewers and 11 wastewater treatment plants convey and treat approximately 530 million gallons per day (mgd), 190 mgd of which are available for reuse in the dry Southern California climate. Three active sanitary landfills handle approximately 22,000 tons per day (tpd) of trash (approximately 40% of the County-wide disposal capacity), of which 14,000 tpd are disposed and 8,000 tpd are recycled. The agency also operates three gas-to-energy facilities, two recycle centers, and two transfer/materials recovery facilities and participates in the operation of two refuse-to-energy facilities.

The Sanitation Districts' overall wastewater and solid waste management budgets for 2002-2003 are $471 million and $175 million, respectively. Both systems provide service to its customers at some of the lowest rates in the entire country.

Wastewater Management System

Joint Outfall System

Seventeen of the Sanitation Districts which provide sewerage services in the metropolitan Los Angeles area are also signatory to a Joint Outfall Agreement which provides for a regional, interconnected system of facilities known as the Joint Outfall System. The service area of the Joint Outfall System encompasses 73 cities and unincorporated territory, and includes some areas within the City of Los Angeles.

This system provides sewage treatment and disposal for residential, commercial, and industrial users and includes the following treatment plants:

- Joint Water Pollution Control Plant located in the City of Carson
- Whittier Narrows Water Reclamation Plant (WRP) near the City of South El Monte
- Los Coyotes WRP in the City of Cerritos
- San Jose Creek WRP adjacent to the City of Industry
- Long Beach WRP in the City of Long Beach
- Pomona WRP in the City of Pomona
- La Canada WRP in the City of La Canada Flintridge

In addition, the system includes trunk sewers and pumping plants. Sanitation District No. 2 acts as the agent for the other signatory Sanitation Districts in administering the Joint Outfall Agreement.

Outlying Systems

Each of the other active Sanitation Districts provides sewerage service either through a system that is separate from the Joint Outfall System or by means of a contract with the City of Los Angeles:

- Sanitation Districts Nos. 26 and 32 serve the Santa Clarita Valley and operate the Saugus and Valencia WRPs under a Joint Powers Agreement ,
- Sanitation Districts Nos. 14 and 20 serve the Antelope Valley and operate the Lancaster and Palmdale WRPs, respectively,
- Sanitation Districts Nos. 4, 9, and 27 are served by contracts with the City of Los Angeles,
- Sanitation District No. 34, located in La Crescenta, and Sanitation District No. 35, located within the unincorporated area of Acton, have not yet constructed sewerage systems. These Sanitation Districts are currently inactive and sewerage service in these areas is provided by individual private disposal systems.

Solid Waste Management System

Within Districts' Boundaries

The Sanitation Districts operate a very extensive comprehensive solid waste management system serving the needs of a large portion of Los Angeles County. This system includes three active sanitary landfills, two recycle centers, two transfer/materials recovery facilities, and three gas-to-energy facilities.

In addition, the Sanitation Districts maintain three closed sanitary landfill sites, and through joint venture agreements, participate in the operation of two refuse-to-energy facilities. A new 4,000 ton-per-day materials recovery facility, at the Puente Hills Landfill, has been designed and is in the initial phase of construction.

The Sanitation Districts' sanitary landfills and transfer/materials recovery facilities are operated under various agreements. Fifteen of the seventeen Sanitation Districts signatory to the Joint Outfall Agreement for sewerage services have also entered into a Joint Solid Waste Management System Agreement to finance and operate solid waste management facilities located within the boundaries of existing sanitation districts. These "Sanitation Districts System" facilities include:

- Puente Hills Landfill which is the largest landfill in the nation, near the City of Whittier
- DART and South Gate Transfer/Materials Recovery Facilities located in the Cities of Downey and South Gate, respectively
- Palos Verdes and Puente Hills Recycle Centers
- Closed Spadra and Palos Verdes Landfills are also part of this system

The Puente Hills Landfill, along with the Puente Hills Materials Recovery Facility and DART, will form the initial infrastructure for a waste-by-rail system (the rail transport of waste to distant disposal facilities). The Sanitation Districts have entered into purchase agreements for two fully permitted rail-served landfill sites in Riverside and Imperial Counties as part of the waste-by-rail system.

Outside Districts' Boundaries

The Sanitation Districts also operate solid waste management facilities outside the boundaries of the Sanitation Districts. Financing and operation of these facilities are governed by a Los Angeles County Trust Fund Joint Powers Agreement between the Sanitation Districts and the County of Los Angeles as well as individual joint powers agreements. These "County System" facilities include:

- Calabasas Landfill near the City of Calabasas
- Scholl Canyon Landfill in the City of Glendale, which is also a part owner of the site
- Closed Mission Canyon Landfill is also part of this system.

Landfill Gas as an Energy Source

The landfill gas-to-energy facilities generate electrical power from landfill gas which is formed by the natural decomposition of refuse in landfills. Landfill gas contains approximately half the energy content of natural gas. The Sanitation Districts currently have facilities in operation at:

- Puente Hills
- Palos Verdes
- Spadra

Refuse-To-Energy

The Commerce Refuse-to-Energy Facility is owned by a separate authority created by a Joint Powers Agreement between the Sanitation Districts and the City of Commerce, and is operated by the Sanitation Districts. Similarly, the Southeast Resource Recovery Facility (SERRF) in Long Beach, is owned by a separate SERRF Authority created pursuant to a joint powers agreement between the Sanitation Districts and the City of Long Beach. The SERRF plant is operated by a private company under contract to the SERRF Authority.

Geology & Hydrology

Geology

The point where the Los Angeles and Rio Hondo Rivers merge in the City of South Gate is a geologic center for the Los Angeles Basin. It is the approximately location of where the sand, silt and clay of the Los Angeles Basin extend the deepest. In fact, the mixture of sediment beneath this location extends more than 30,000 feet downward before hitting solid rock (about as deep as Mount Everest is high)! It is the center of a tremendous sand-filled hole whose walls are formed by the San Gabriel, Santa Monica and Santa Ana Mountains and the Palos Verdes Peninsula (which was once an island). When earthquakes occur, this huge "bowl of sediment" amplifies the motion in unpredictable ways (which is why one city block is hard-hit by a temblor and a neighboring block escapes serious damage). It would be similar to shaking a bowl of jelly.

About 15 million years ago, the Los Angeles Basin was underwater. As surrounding mountain ranges (including the San Gabriel and Santa Monica ranges) shifted in a clockwise spiral, the underlying crust stretched and cracked and released molten rock from below. The crust thinned and "collapsed," forming an immense geologic "bowl." Sand, silt and clay from the sea and ancient rivers poured into the bowl. Microorganisms also poured into this hole, piling high in huge layers. These layers would eventually become the oilfields of Los Angeles.

About 5 million years ago, the crust ceased to stretch and the bowl began to shrink. The hole filled in and seismic activity started pushing the contents upward. Rock that once lay at the ocean floor was being forced to the surface. Sediment also continued to flow from the mountains onto this growing mound. As it rose above sea level, this pile of sediment began forming what we now call the Los Angeles Basin. In effect, Los Angeles has not been "falling into the sea," as popularly believed, but rather rising from the ocean.

Land & Water Area of Los Angeles County

Area	Acres	Square Miles	Square Kilometers
Land	2,598,400	4,060.87	10,517.61
Water	443,100	691.45	1,790.85
Total	3,041,480	4,752.32	12,308.46

Source: California Dept. of Water Resources

The Los Angeles Basin is the *largest* flat basin opening onto the Pacific Ocean.

Beaches of Los Angeles County

Beach	Location
Abalone Cove Shoreline Park	5970 Palos Verdes Dr, Rancho Palos Verdes
Amarillo Beach	24320, 24436, 24606 Malibu Rd, Malibu
Avalon Bay Beach	Crescent Ave, Avalon
Bay Shore Beach	Bay Shore & 2nd St, Long Beach
Belmont Shore Beach	Ocean Blvd between 39th Place & 54th Place, Long Beach
Big Dume Beach	Westward Beach Rd, Malibu
Big Rock Beach (private beach with public access)	20100 Pacific Coast Hwy, Malibu
Broad Beach (private beach with public access)	31346 Broad Beach Rd, Malibu
Cabrillo Beach	Stephen M White Dr, San Pedro
Corral Canyon County Beach	Pacific Coast Hwy & Corral Canyon, Malibu
Dan Blocker County Beach	26000 Pacific Coast Hwy, Malibu
Descanso Cove Beach	Descanso Canyon Rd, Avalon
Dockweiler State Beach	8255 Vista del Mar Blvd, Playa del Rey
El Matador State Beach	32215 Pacific Coast Hwy, Malibu
El Pescador State Beach	32860 Pacific Coast Hwy, Malibu
El Porto Beach	Vista Del Mar & 45th St, Manhattan Beach
El Segundo Beach	Grand Ave & Vista del Mar Blvd, El Segundo
Hermosa Beach	Hermosa Ave & Pier Ave, Hermosa Beach
La Piedra State Beach	32628 Pacific Coast Hwy, Malibu
Latigo Beach (Private Beach)	Latigo Shore Dr & Pacific Coast Hwy, Malibu
Las Tunas County Beach	19444 Pacific Coast Hwy, Malibu
Leo Carrillo State Beach	36000 Pacific Coast Hwy, Malibu
Little Dume Beach (Private Beach)	North of Paradise Cove, Malibu
Long Beach City Beach	Between Belmont Pier & Alamitos Ave, Long Beach
Lover's Cove/Pebbly Beach	Pebbly Beach Rd, Avalon
Malibu Lagoon State Beach	23200 Pacific Coast Hwy, Malibu
Malibu Surfrider County Beach	23200 Pacific Coast Hwy, Malibu
Manhattan Beach	Manhattan Beach Blvd & North Ocean Drive, Manhattan Beach
Marina Del Rey Basin D (Mother's Beach)	14000 Palawan Way, Marina del Rey
Marine Park (Mother's Beach)	Appian Way & Attica, Long Beach
Nicolas Canyon County Beach	33850 Pacific Coast Highway, Malibu
Ocean Park	2600 Barnard Way, Santa Monica
Paradise Cove Beach	28128 Pacific Coast Hwy, Malibu
Playa del Rey Beach	Pacific Ave & Culver Blvd, Playa del Rey
Point Dume State Beach	Westward Beach Rd, Malibu

Beach	Location
Point Vicente County Beach	Palos Verdes Dr near Hawthorne Blvd, P. Verdes
Redondo Beach	South Esplanade Ave, Redondo Beach
Robert H. Meyer Memorial State Beach	Pacific Coast Hwy, Malibu
Royal Palms County Beach (see White's Point)	---
Santa Monica State Beach	Palisades Beach Rd, Santa Monica
Seaside Lagoon	200 Portofino Way, Redondo Beach
Sunset Point (see Will Rogers State Beach)	---
Surfrider (see Malibu Surfrider)	---
Topanga County Beach	18700 Pacific Coast Hwy, Malibu
Torrance Beach	Paseo de la Playa, Torrance
Venice Beach	3100-2700 Ocean Front Walk, Venice
Venice Rose (see Venice Beach)	---
White's Point & Royal Palms County Beaches	1799 Paseo Del Mar, San Pedro
Will Rogers State Beach	17700 Pacific Coast Hwy, Pacific Palisades
Zuma Beach County Park	30050 Pacific Coast Hwy, Malibu

Sources: Los Angeles County Department of Beaches & Harbors, California State Parks & OCNow.com Beach Guide.

Islands

Los Angeles County's two islands, **Santa Catalina** and **San Clemente**, are part of the eight-island group called the Channel Islands. The group extends from San Miguel in the north off the coast of Santa Barbara to San Clemente, 160 miles to the south. Los Angeles County's own Santa Catalina, the most populated and visited of the islands, is the third largest of the group (75 square miles).

At one time, the islands were home to an abundance of sea otter, sea lions, and seals. Fur trappers, however, saw to their decimation during the 19th century.

Los Angeles County's own San Clemente, San Miguel and San Nicolas, have been under U.S. Navy administration since shortly before World War II. These islands were used as bombing and missile test ranges. Only San Nicolas continues to be used for that purpose.

Channel Islands (From North to South)

Island	Acres	County
San Miguel	8,960	Santa Barbara
Santa Rosa	53,760	Santa Barbara
Santa Cruz	61,440	Santa Barbara
Anacapa	717	Ventura
Santa Barbara	640	Santa Barbara
San Nicolas	14,080	Ventura
Santa Catalina	**48,000**	**Los Angeles**
San Clemente	**35,840**	**Los Angeles**

Lakes & Reservoirs of Los Angeles County

Lake or Reservoir	Location
Big Dalton Reservoir	Angeles National Forest
Bouquet Reservoir	Angeles National Forest
Bouton Lake	Lakewood
Caldwell Lake	Angeles National Forest
Castaic Lake	Castaic
Chatsworth Lake Manor	Los Angeles (Chatsworth)
Chatsworth Reservoir	Los Angeles (Chatsworth)
Cogswell Reservoir	Angeles National Forest
Crystal Lake	Angeles National Forest
Devil's Gate Reservoir	La Canada Flintridge
Eagle Rock Reservoir	Los Angeles (Eagle Rock)
Eaton Wash Reservoir	Altadena
Echo Lake	Los Angeles (Echo Park)
Elizabeth Lake	Lake Hughes Area
Enchanto Lake	Malibu
Encino Reservoir	Los Angeles (Encino)
Hansen Dam	Los Angeles (Pacoima)
Hollywood Reservoir	Los Angeles (Hollywood)
Jackson Lake	Angeles National Forest
Lake Hughes	Angeles National Forest
Lake Lindero	Agoura Hills
Lees Lake	Los Angeles (Chatsworth)
Legg Lake	Whittier Narrows
Littlerock	Palmdale
Los Angeles Reservoir	San Fernando
Lower Franklin Reservoir #2	Los Angeles (Hollywood)
MacArthur Lake	Los Angeles (Westlake Area)
Machado Lake	Los Angeles (Wilmington)
Malibu Lake	Malibu
Milton Arthur Lakes	El Dorado Park, Long Beach
Morris	Angeles Natl. Forest
Munz Lakes	Angeles Natl. Forest
Pacoima	Angeles Natl. Forest
Palmdale Lake	Palmdale

Lake or Reservoir	Location
Peck Rd Water Conservation Peak	Arcadia
Puddingstone Lake	Angeles National Forest
Pyramid Lake	Near Gorman
Quail Lake	Angeles National Forest
Rosamond Dry Lake	Edwards AF Base
Rowena	Los Angeles (Los Feliz)
San Dimas Canyon	Angeles National Forest
San Gabriel	Angeles National Forest
Santa Fe Dam	Irwindale
Sawpit Canyon	Monrovia
Silver Lake	Los Angeles (Silver Lake)
Stone Canyon	Los Angeles (Hollywood)
Toluca Lake	Universal City
Trancas Lake	Malibu Country Club
Tujunga	Angeles National Forest
Tweedy Lake	Antelope Valley
Twin Lakes	Los Angeles (Chatsworth)
Una Lake	Palmdale
Upper Van Norton Lake	San Fernando
Westlake	Westlake Village

Largest Lakes of Los Angeles County

Lake	Surface Acres
Castaic	2,230
Pyramid	1,360
Quail	288
Puddingstone	253

Rivers

River	Stream Miles (main stem)	Drainage Area (square miles)
Los Angeles River	97	830
Rio Hondo River	20	125
San Gabriel River	59	350
Santa Clara River	75	1,616

Map of Rivers in Los Angeles County

Topography

Mountain Peaks & Other High Points of Los Angeles County By Elevation (feet above sea level)

San Gabriel Mountains (Angeles National Forest)	
Mt. San Antonio (Old Baldy Peak)	10,064
Mt. Baden-Powell	9,399
Throop Peak	9,138
Mt. Burnham	8,997
Mt. Hawkins	8,850
Mt. Lewis	8,396
Mt. Islip	8,250
Mt. Williamson	8,214

San Gabriel Mountains (Angeles National Forest)	
Waterman Mountain	8,038
Iron Mountain (Sheep Mountain)	8,007
Pallette Mountain	7,978
Will Thrall Peak	7,845
South Mount Hawkins	7,783
Twin Peaks (East Peak)	7,761
Twin Peaks (West Peak)	7,596
Winston Peak	7,502
Ross Mountain	7,402
Buckhorn Peak	7,283
Pacifico Mountain	7,124
Lookout Mountain	6,812
Granite Mountain	6,610
Mt. Gleason	6,502
Bare Mountain	6,388
Strawberry Peak	6,164
Mt. Hillyer	6,162
San Gabriel Peak	6,161
Mt. Disappointment	5,994
Mt. Lawlor	5,957
Vetter Mountain	5,908
Devil's Peak	5,870
Mt. Mooney	5,840
Rattlesnake Peak	5,826
Sunset Peak	5,796
Burnt Peak	5,788
Occidental Peak	5,732
Mt. Wilson	5,720
Iron Mountain (# 2 - in the west)	5,632
Mt. Lowe	5,603
Josephine Peak	5,558
Colver Peak	5,511
Mt. Harvard	5,441
Condor Peak	5,440
Monrovia Peak	5,409

San Gabriel Mountains (Angeles National Forest)	
Mt. Sally	5,408
Rabbit Peak	5,307
Mt. Emma	5,273
Mt. McDill	5,187
Sawtooth Mountain	5,175
Smith Mountain	5,111
Mt. Lukens	5,074
Old Mt. Emma	5,063
Mt. McKinley	4,926
Magic Mountain	4,878
Mendenhall Peak	4,635
Slide Mountain	4,631
Mendenhall Peak	4,635
Grass Mountain	4,605
Pine Mountain	4,539
Jupiter Mountain - East Peak	4,498
Redrock Mountain	4,489
Brown Mountain	4,466
Jupiter Mountain - West Peak	4,431
Whitaker Peak	4,148
Warm Springs Mountain	4,020
Red Mountain	3,996
Reservoir Summit	3,974
Mt. Bliss	3,725
Mt. Zion	3,575
Potato Mountain	3,422
Silver Mountain	3,391
Echo Mountain	3,207
Johnstone Peak	3,201
Townsend Peak	3,184
Limerock Peak	2,986

Santa Monica Mountains	
Castro Peak	2,824
Saddle Peak	2,805
Topanga Peak	2,469
Calabasas Peak	2,163
Temescal Peak	2,126
San Vicente Mountain	1,961
Mesa Peak	1,844
Brents Mountain	1,713
Sugarloaf Mountain	1,515

Santa Susana Mountains	
Oat Mountain	3,747
Mission Point	2,771
Rocky Peak	2,714
Sand Rock Peak	2,511

Antelope Valley & Desert	
Bald Mountain	4,460
Parker Mountain	4,131
Saddleback Butte	3,651
Black Butte	3,581
Johnson Summit	3,535
Adobe Mountain	3,458
Three Sisters	3,422
Lovejoy Buttes	3,342
Alpine Butte	3,259
Piute Butte	3,175
Fairmont Butte	3,163
Antelope Buttes	3,057
Rocky Buttes	2,855
Little Buttes	2,572

Santa Clarita Valley	
Dome Mountain	4,950

Verdugo Hills	
Verdugo Peak	3,126

Santa Catalina Island	
Mt. Orizaba	2.069
Mt. Black Jack	2,006
Silver Peak	1,804
East Peak	1,684
Lone Tree Point	1,634
Mt. Torquemada	1,336

Other High Points in Los Angeles County	
Mt. Hollywood	1,625
San Pedro Hill	1,480

Mountain Ranges & Hills in Los Angeles County

Mountain Ranges	Hills
San Gabriel Mountains Santa Monica Mountains Santa Susana Mountains Verdugo Mountains	Dominguez Hills Hollywood Hills Signal Hill Puente Hills Palos Verdes Hills

Lowest Point in Los Angeles County

The lowest point in Los Angeles County is in **Wilmington** at 9 feet below sea level.

Threatened & Endangered Species

The California Endangered Species Act (CESA) (Fish and Game Code Sections 2050-2116) sets forth procedures by which individuals, organizations, or the Department can submit petitions to the Fish and Game Commission requesting that a species, subspecies, or variety of plant or animal be added to, deleted from, or changed in status on the State lists of rare, threatened or endangered species. The factors that contribute to determining the need to list a species include the present or threatened modification or destruction of habitat, competition, predation, disease, overexploitation by collectors, or other natural occurrences or human-related activities. Lists of rare, threatened, and endangered plants and animals can be found on the Department's web site.

Procedures governing the submission and review of petitions for listing, uplisting, downlisting, and delisting of endangered and threatened species of plants and animals are described in Section 670.1, Title 14, California Code of Regulations. The petition format is available from the Fish and Game Commission.

The Habitat Conservation Planning Branch (HCPB) staff coordinates the Department's evaluation of petitions submitted to the Fish and Game Commission for mammals, birds, reptiles, amphibians, freshwater nongame fishes, invertebrates, and plants. The evaluation process includes scheduling the review process and coordinating with the Commission on deadlines, requesting review and input from Regions, evaluating the petition and all other relevant information, conducting a site visit, consulting with the petitioner, USFWS, and other agencies, organizations, and persons with relevant knowledge and expertise, and coordinating the preparation of a written evaluation report. The written report to the Commission contains the Department's recommendation on whether or not the petition contains sufficient scientific information to indicate that the petitioned action may be warranted. Within 90 days of receipt of a petition, HCPB forwards the report to the Director for signature. HCPB coordinates preparation of and provides Department testimony at the Fish and Game Commission meeting where candidacy is considered.

If the petition is accepted and the species becomes a candidate species, HCPB commences coordinating review of the status of the species. Within 10 months the HCPB submits for the Director's review and approval a written report to the Commission. The recommendation from the Director to the Commission is transmitted within the 12-month review period and the recommendation is based on the best scientific information available to the Department, which indicates whether or not the petitioned action is warranted.

During the 12-month review period, HCPB staff notifies all parties affected by or interested in the proposal for listing (Fish and Game Code Section 2074.4). This is done through correspondence, press releases, and public notices for publication in local newspapers.

HCPB staff solicits comments and data on the candidate species, and seeks independent and competent peer review of the Department status report. The HCPB coordinates preparation of and provides Department testimony at the Fish and Game Commission meeting where final consideration of the petition is scheduled.

The Region may take the lead in evaluating the petition and preparing the Department 12-month status report on a candidate species when a species petitioned for listing occurs wholly or mostly within one Department Region. The Deputy Director, Habitat Conservation Division, will determine if a region will take the lead in these situations. For species occurring in several regions, region staff will provide input to HCPB in formulating the evaluation and report. Regional responsibilities include preparing and

providing testimony at the scheduled Fish and Game Commission hearings on the petitioned action both for candidacy and final listing decisions.

STATE AND FEDERALLY LISTED ENDANGERED AND THREATENED ANIMALS OF CALIFORNIA - August 2004

This is a list of the animals found within California or off the coast of the State that have been classified as Endangered or Threatened by the California Fish and Game Commission (state list) or by the U. S. Secretary of the Interior or the U. S. Secretary of Commerce (federal list).

The official California listing of Endangered and Threatened animals is contained in the California Code of Regulations, Title 14, Section 670.5. The official federal listing of Endangered and Threatened animals is published in the Federal Register, 50 CFR 17.11.

The California Endangered Species Act of 1970 created the categories of "Endangered" and "Rare". The California Endangered Species Act of 1984 created the categories of "Endangered" and "Threatened". On January 1, 1985, all animal species designated as "Rare" were reclassified as "Threatened".

Animals that are candidates for state listing and animals proposed for federal listing are also included on this list. A state candidate species is one that the Fish and Game commission had formally noticed as being under review by the Department for addition to the State list. A federal proposed species is one for which a proposed regulation has been published in the Federal Register.

Code Designation: Totals as of Aug 2004
SE = State-listed as Endangered 47
ST = State listed as Threatened 32
SR = State listed as Rare – old designation, all animals reclassified to Threatened on 1/01/85 0
FE = Federally listed as Endangered (21.2% of all U.S. listed endangered animals as of 8/04/04) 83
FT = Federally listed as Threatened (31.25% of all U.S. listed threatened animals as of 8/04/04) 40
SCE = State candidate (Endangered) 0
SCT = State Candidate (Threatened) 0
FPE = Federally proposed (Endangered) 1
FPT = Federally proposed (Threatened) 0
FPD = Federally proposed (Delisting) 1
Total number of animals listed (includes subspecies & population segments) 154
Total number of candidate/proposed animals for listing 2
Number of animals State listed only 31
Number of animals Federally listed only 69
Number of animals listed under both State & Federal Acts 54

Common and scientific names are shown as they appear on the state or federal lists. If the nomenclature differs for a species that is included on both lists, the state nomenclature is given and the federal nomenclature is shown in a footnote. Synonyms, name changes, and other clarifying points are also footnoted.

Critical Habitat is defined in Section 3 of the federal Endangered Species Act as specific areas, both occupied and unoccupied, that is essential to the conservation of a listed species and that may require special management considerations or protection.

Recovery Plans are discussed in Section 4 of the federal Endangered Species Act. Each plan incorporates site-specific management actions necessary for the conservation and survival of the species.

The "List Date" for final federal listing and final Critical Habitat designation is the date the listing or designation becomes effective, this is usually not the date of publication of the rule in the Federal Register; it is usually 30 days after publication.

Changes to this update of the list are denoted by *

Endangered and Threatened Animals of California

	LISTING STATUS				CRITICAL HABITAT	RECOVERY PLAN		
	State	List Date	Federal	List Date	Designation	Date	Version	Date
GASTROPODS								
Trinity bristle snail *Monadenia setosa*	ST[1]	10-02-80						
Morro shoulderband (=banded dune) snail *Helminthoglypta walkeriana*			FE	01-17-95	Final	03-09-01	Final	1998
White abalone *Haliotis sorenseni*			FE	06-28-01				
CRUSTACEANS								
Riverside fairy shrimp *Streptocephalus woottoni*			FE	08-03-93	*Proposed[2] Final	04-27-04 06-29-01	Final	1998
Conservancy fairy shrimp *Branchinecta conservatio*			FE	09-19-94	Final Proposed	08-06-03 09-24-02		
Longhorn fairy shrimp *Branchinecta longiantenna*			FE	09-19-94	Final Proposed	08-06-03 09-24-02		
Vernal pool fairy shrimp *Branchinecta lynchi*			FT	09-19-94	Final Proposed	08-06-03 09-24-02		
San Diego fairy shrimp *Branchinecta sandiegoensis*			FE	02-03-97	Proposed[3] Final	04-22-03 10-23-00	Final	1998
Vernal pool tadpole shrimp *Lepidurus packardi*			FE	09-19-94	Final Proposed	08-06-03 09-24-02		
Shasta crayfish *Pacifastacus fortis*	SE ST	02-26-88 10-02-80	FE	09-30-88			Final	1998
California freshwater shrimp *Syncaris pacifica*	SE	10-02-80	FE	10-31-88			Final	1998
INSECTS								
Zayante band-winged grasshopper *Trimerotropis infantilis*			FE	02-24-97	Final	03-09-01	Final	1998
Mount Hermon June beetle *Polyphylla barbata*			FE	02-24-97			Final	1998
Delta green ground beetle *Elaphrus viridis*			FT	08-08-80	Final	08-08-80	Final	1985
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*			FT	08-08-80	Final	08-08-80	Final	1984
Ohlone tiger beetle *Cicindela ohlone*			FE	10-03-01				
Kern primrose sphinx moth *Euproserpinus euterpe*			FT	04-08-80	Proposed	07-03-78		
Mission blue butterfly *Icaricia icarioides missionensis*			FE	06-01-76	Proposed	02-08-77	Final	1984

[1] On January 1, 1985, all species designated as "rare" were reclassified as "threatened", as stipulated by the California Endangered Species Act.

[2] The Federal Circuit Court vacated critical habitat for the Riverside fairy shrimp on 10-30-02. The judge instructed the USFWS to begin the process of re-designating critical habitat for this species. New critical habitat was proposed 4-27-04.

[3] Due to court order the previously designated critical habitat was vacated and the USFWS was directed to re-proposed critical habitat. The existing final critical habitat boundaries remain in effect until the new proposed boundaries become final, estimated to be about May 2004.

Endangered and Threatened Animals of California

	LISTING STATUS			CRITICAL HABITAT		RECOVERY PLAN	
	State	List Date	Federal	List Date	Designation	Date	Version	Date
Lotis blue butterfly *Lycaeides argyrognomon lotis*			FE	06-01-76	Proposed	02-08-77	Final	1984
Palos Verdes blue butterfly *Glaucopsyche lygdamus palosverdesensis*			FE	07-02-80	Final	07-02-80	Final	1984
El Segundo blue butterfly *Euphilotes battoides allyni*			FE	06-01-76	Proposed	02-08-77	Final	1998
Smith's blue butterfly *Euphilotes enoptes smithi*			FE	06-01-76	Proposed	02-08-77	Final	1984
San Bruno elfin butterfly *Incisalia mossii bayensis*[4]			FE	06-01-76	Proposed	02-08-77	Final	1984
Lange's metalmark butterfly *Apodemia mormo langei*			FE	06-01-76	Proposed	02-08-77	Revised	1984
Bay checkerspot butterfly *Euphydryas editha bayensis*			FT	10-18-87	Final	05-30-01	Final	1998
Quino checkerspot *Euphydras editha quino (=E.e.wrighti)*			FE	01-16-97	Proposed	02-07-01		
Carson wandering skipper *Pseudocopaeodes eunus obscurus*			FE	08-07-02				
Laguna Mountains skipper *Pyrgus ruralis lagunae*			FE	01-16-97				
Callippe silverspot butterfly *Speyeria callippe callippe*			FE	12-05-97	Proposed	03-28-80		
Behren's silverspot butterfly *Speyeria zerene behrensii*			FE	12-05-97			Draft	2004
Oregon silverspot butterfly *Speyeria zerene hippolyta*			FT	07-02-80	Final	07-02-80	Revised	2001
Myrtle's silverspot butterfly *Speyeria zerene myrtleae*			FE	06-22-92			Final	1998
Delhi Sands flower-loving fly *Rhaphiomidas terminatus abdominalis*			FE	09-23-93			Final	1997
FISHES								
Chinook salmon-Winter-run[5] *Oncorhynchus tshawytscha*	SE	09-22-89	*FPT[6] FE	06-14-04 02-03-94	Final	03-23-99		
Chinook salmon-California coastal ESU[7] *Oncorhynchus tshawytscha*			*FPT[8] FT[9]	06-14-04 11-15-99	Rescinded Final	04-30-02 02-16-00		
Chinook salmon-Spring-run *Oncorhynchus tshawytscha*	ST	02-05-99	*FPT[10] FT[11]	06-14-04 11-15-99	Rescinded Final	04-30-02 02-16-00		

[4] Federal: *Callophrys mossii bayensis*
[5] Federal: Sacramento River winter run Chinook salmon
[6] The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs, 10 of these in California. All proposals are shown, even if the proposed listing category and the current listing category are the same. Since they are all already listed, the proposals are not included in the summary given on page 1.
[7] ESU = Evolutionarily Significant Unit
[8] The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs, 10 of these in California. All proposals are shown, even if there is no change between the proposed listing category and the current listing category.
[9] Naturally spawned coastal spring & fall Chinook salmon between Redwood Creek in Humboldt County & the Russian River in Sonoma County.
[10] The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs, 10 of these in California. All proposals are shown, even if the proposed listing category and the current listing category are the same. Since they are all already listed, the proposals are not included in the summary given on page 1.
[11] Federal: Central Valley Spring-Run ESU. Includes populations spawning in the Sacramento River & its tributaries.

Endangered and Threatened Animals of California

	LISTING STATUS				CRITICAL HABITAT		RECOVERY PLAN	
	State	List Date	Federal	List Date	Designation	Date	Version	Date
Coho salmon-Central California Coast ESU *Oncorhynchus kisutch*	SE[12]	12-31-95	*FPE[13] FT[14]	06-14-04 12-02-96	Final	06-04-99		
Coho salmon-So. Oregon/No. Calif ESU *Oncorhynchus kisutch*	ST[15]		*FPT[16] FT[17]	06-14-04 06-05-97	Final	03-17-00		
Little Kern golden trout *Oncorhynchus mykiss whitei*			FT	04-13-78	Final	04-13-78		
Lahontan cutthroat trout *Oncorhynchus clarki henshawi*			FT FE	07-16-75 10-13-70			Final	1995
Paiute cutthroat trout *Oncorhynchus clarki seleniris*			FT FE	07-16-75 03-11-67				
Steelhead-Northern California ESU[18] *Oncorhynchus mykiss*			*FPT[19] FT	06-14-04 08-07-00				
Steelhead-Central California Coast ESU[20] *Oncorhynchus mykiss*			*FPT[21] FT	06-14-04 10-17-97	Rescinded Final	04-30-02 03-17-00		
Steelhead-South/Central Calif Coast ESU[22] *Oncorhynchus mykiss*			*FPT[23] FT	06-14-04 10-17-97	Rescinded Final	04-30-02 03-17-00		
Steelhead-Southern California ESU[24] *Oncorhynchus mykiss*			*FPE[25] FE	06-14-04 10-17-97	Rescinded Final	04-30-02 03-17-00		
Steelhead-Central Valley ESU[26] *Oncorhynchus mykiss*			*FPT[27] FT	06-14-04 05-18-98	Rescinded Final	04-30-02 03-17-00		
Bull trout *Salvelinus confluentus*	SE	10-02-80	FT	12-01-99				
Delta smelt *Hypomesus transpacificus*	ST	12-09-93	FT	03-05-93	Final	12-19-94	Final	1996

[12] The Coho south of San Francisco Bay were state listed in 1995, the Fish and Game Commission determined that the Coho from San Francisco to Punta Gorda should be listed as Endangered in February 2004. As part of the normal listing process, this determination is currently under review by the Office of Administrative Law.

[13] The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs, 10 of these in California. All proposals are shown, even if the proposed listing category and the current listing category are the same. Since they are all already listed, the proposals are not included in the summary given on page 1.

[14] The Federal listing is limited to naturally spawning populations in streams between Punta Gorda, Humboldt County & the San Lorenzo River, Santa Cruz County.

[15] The Fish and Game Commission determined that the Coho from Punta Gorda to the Oregon border should be listed as Threatened in February 2004. As part of the normal listing process, this determination is currently under review by the Office of Administrative Law.

[16] The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs, 10 of these in California. All proposals are shown, even if the proposed listing category and the current listing category are the same. Since they are all already listed, the proposals are not included in the summary given on page 1.

[17] The Federal listing is for populations between Cape Blanco, Oregon & Punta Gorda, California.

[18] Naturally spawned populations residing below impassable barriers in coastal basins from Redwood Creek in Humboldt County to, and including, the Gualala River in Mendocino County.

[19] The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs, 10 of these in California. All proposals are shown, even if the proposed listing category and the current listing category are the same. Since they are all already listed, the proposals are not included in the summary given on page 1.

[20] Coastal basins from the Russian River, south to Soquel Creek, inclusive. Includes the San Francisco & San Pablo Bay basins, but excludes the Sacramento-San Joaquin River basins.

[21] The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs, 10 of these in California. All proposals are shown, even if the proposed listing category and the current listing category are the same. Since they are all already listed, the proposals are not included in the summary given on page 1.

[22] Coastal basins from the Pajaro River south to, but not including, the Santa Maria River.

[23] The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs, 10 of these in California. All proposals are shown, even if the proposed listing category and the current listing category are the same. Since they are all already listed, the proposals are not included in the summary given on page 1.

[24] Coastal basins from the Santa Maria River (inclusive), south to the U.S.-Mexico Border.

[25] The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs, 10 of these in California. All proposals are shown, even if the proposed listing category and the current listing category are the same. Since they are all already listed, the proposals are not included in the summary given on page 1.

[26] The Sacramento and San Joaquin Rivers and their tributaries.

[27] The NMFS has completed comprehensive status reviews for 27 west coast salmon & steelhead ESUs, 10 of these in California. All proposals are shown, even if the proposed listing category and the current listing category are the same. Since they are all already listed, the proposals are not included in the summary given on page 1.

Endangered and Threatened Animals of California

	LISTING STATUS				CRITICAL HABITAT		RECOVERY PLAN	
	State	List Date	Federal	List Date	Designation	Date	Version	Date
Mohave tui chub *Gila bicolor mohavensis*	SE	06-27-71	FE	10-13-70			Final	1984
Owens tui chub *Gila bicolor snyderi*	SE	01-10-74	FE	08-05-85	Final	08-05-85	Final	1998
Cowhead Lake tui chub *Gila bicolor vaccaceps*			FPE	03-30-98				
Tecopa pupfish (**EXTINCT**) *Cyprinodon nevadensis calidae*	delisted SE	1987 06-27-71	delisted FE	01-15-82 10-13-70				
Bonytail[28] *Gila elegans*	SE SR	01-10-74 06-27-71	FE	04-23-80	Final	03-21-94	Revised	1990
Sacramento splittail *Pogonichthys macrolepidotus*			deleted[29] FT	09-22-03 03-10-99				
Colorado squawfish[30] *Ptychocheilus lucius*	SE	06-27-71	FE	03-11-67	Final	03-21-94	Revised	1991
Lost River sucker *Deltistes luxatus*	SE SR	01-10-74 06-27-67	FE	07-18-88	Proposed	12-01-94	Final	1993
Modoc sucker *Catostomus microps*	SE SR	10-02-80 01-10-74	FE	06-11-85	Final	06-11-85		
Santa Ana sucker *Catostomus santaanae*			FT[31]	05-12-00	Final	02-26-04		
Shortnose sucker *Chasmistes brevirostris*	SE SR	01-10-74 06-27-71	FE	07-18-88	Proposed	12-01-94	Final	1993
Razorback sucker *Xyrauchen texanus*	SE SR	01-10-74 06-27-71	FE	10-23-91	Final	03-21-94		
Desert pupfish *Cyprinodon macularius*	SE	10-02-80	FE	03-31-86	Final	03-31-86	Final	1993
Cottonball Marsh pupfish *Cyprinodon salinus milleri*	ST	01-10-74						
Owens pupfish *Cyprinodon radiosus*	SE	06-27-71	FE	03-11-67			Final	1998
Thicktail chub (**EXTINCT**) *Gila crassicauda*	delisted SE	10-02-80 01-10-74						
Unarmored threespine stickleback *Gasterosteus aculeatus williamsoni*	SE	06-27-71	FE	10-13-70	Designation should not be made[32] Proposed	09-17-02 11-17-80	Final	1985
Tidewater goby *Eucyclogobius newberryi*			With-drawn FPD[33] FE	12-09-02 06-24-99 02-04-94	Final	11-20-00		
Rough sculpin *Cottus asperrimus*	ST	01-10-74						

[28] Federal: Bonytail club

[29] On 23 June 2000, the Federal Eastern District Court of Calif. found the final rule to be unlawful and on 22 Sept 2000 remanded the determination back to the USFWS for a reevaluation of the final decision. After a thorough review the USFWS removed the Sacramento splittail from the list of threatened species.

[30] Current nomenclature and federal listing: Colorado pikeminnow

[31] Populations in the Los Angeles, San Gabriel and Santa Ana River basins.

[32] Full explanation of this situation is given in the Federal Register notice.

[33] Proposal to delist refers to populations north of Orange County only.

Endangered and Threatened Animals of California

	LISTING STATUS			CRITICAL HABITAT		RECOVERY PLAN		
	State	List Date	Federal	List Date	Designation	Date	Version	Date
AMPHIBIANS								
California tiger salamander *Ambystoma californiense*			*FT[34]	09-03-04	Proposed[35]			
Santa Cruz long-toed salamander *Ambystoma macrodactylum croceum*	SE	06-27-71	FE	03-11-67	Proposed	06-22-78	Draft	1999
Siskiyou Mountains salamander *Plethodon stormi*	ST	06-27-71						
Techachapi slender salamander *Batrachoseps stebbinsi*	ST	06-27-71						
Kern Canyon slender salamander *Batrachoseps simatus*	ST	06-27-71						
Desert slender salamander *Batrachoseps aridus*[36]	SE	06-27-71	FE	06-04-73			Final	1982
Shasta salamander *Hydromantes shastae*	ST	06-27-71						
Limestone salamander *Hydromantes brunus*	ST	06-27-71						
Black toad *Bufo exsul*	ST	06-27-71						
Arroyo toad[37] *Bufo californicus*			FE	01-17-95	*Proposed[38] Final	04-27-04 03-09-01	Final	1999
California red-legged frog *Rana aurora draytonii*			FT[39]	05-20-96	Final[40]	04-12-01	Final	2002
Mountain yellow-legged frog – Southern California population[41] *Rana muscosa*			FE	08-01-02				
REPTILES								
Desert tortoise *Gopherus agassizii*	ST	08-03-89	FT	04-02-90	Final	02-08-94	Final	1994
Green sea turtle *Chelonian mydas*			FT FE	07-28-78 10-13-70	Final	03-23-99	Revised	1998
Loggerhead sea turtle *Caretta caretta*			FT	07-28-78	Proposed	03-19-80	Revised	1998
Olive (=Pacific) Ridley sea turtle *Lepidochelys olivacea*			FT	07-28-78	Proposed	03-19-80	Revised	1998
Leatherback sea turtle *Dermochelys coriacea*			FE	06-02-70	Final	03-23-99	Revised	1998

[34] The California tiger salamander is now listed as "threatened" statewide. The Santa Barbara County and Sonoma County Distinct Vertebrate Population Segments (DPS), formerly listed as "endangered", have now been reclassified to "threatened".
[35] Critical Habitat proposals are for the Santa Barbara County and Sonoma County DPS only
[36] Current taxonomy: *Batrachoseps major aridus.*
[37] Former taxonomy: *Bufo microscaphus californicus.*
[38] The Federal Circuit Court vacated critical habitat for the Arroyo toad on 10-30-02. The judge instructed the USFWS to begin the process of re-designating critical habitat for this species. New critical habitat was proposed on 4-27-04.
[39] Federal listing does not include Humboldt, Trinity & Mendocino Counties; Glenn, Lake & Sonoma Counties west of the Central Valley Hydrologic Basin; Sonoma & Marin Counties north & west of the Napa River, Sonoma Creek & Petaluma River drainages which flow into San Francisco Bay, & north of the Walker Creek drainage which flows to the Pacific Ocean.
[40] Due to legal action on 6 Nov 2002, most of the Critical Habitat units have been vacated. Only unit 5 (Tuolumne & Mariposa Cos) and unit 31 (Los Angeles Co) remain. The USFWS plans to propose new Critical Habitat in 2004.
[41] Federal listing refers to populations in the San Gabriel, San Jacinto & San Bernardino Mountains only.

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	LISTING STATUS			CRITICAL HABITAT		RECOVERY PLAN		
	State	List Date	Federal	List Date	Designation	Date	Version	Date
Barefoot banded gecko[42] *Coleonyx switaki*	ST	10-02-80						
Coachella Valley fringe-toed lizard *Uma inornata*	SE	10-02-80	FT	09-25-80	Final	09-25-80	Final	1984
Blunt-nosed leopard lizard *Gambelia silus*[43]	SE	06-27-71	FE	03-11-67			Final	1998
Island night lizard *Xantusia riversiana*			FT	08-11-67			Final	1984
Southern rubber boa *Charina bottae umbratica*[44]	ST	06-27-71						
Alameda whipsnake *Masticophis lateralis euryxanthus*	ST	06-27-71	FT	12-05-97	Vacated[45] Final	05-09-03 10-03-00	Draft	2003
San Francisco garter snake *Thamnophis sirtalis tetrataenia*	SE	06-27-71	FE	03-11-67			Final	1985
Giant garter snake *Thamnophis couchi gigas*[46]	ST	06-27-71	FT	10-20-93			Draft	1999
BIRDS								
Short-tailed albatross *Phoebastria albatrus*			FE	08-30-00				
California brown pelican[47] *Pelecanus occidentalis californicus*	SE	06-27-71	FE	10-13-70			Final	1983
Aleutian Canada goose (**RECOVERED**) *Branta canadensis leucopareia*			delisted FT FE	03-20-01 12-12-90 03-11-67			Final	1991
California condor *Gymnogyps californianus*	SE	06-27-71	FE	03-11-67	Final	09-22-77	Revised	1996
Bald eagle *Haliaeetus leucocephalus*	SE(pop) SE	10-02-80 06-27-71	FPD FT FE(pop) FE	07-06-99 08-11-95 02-14-78 03-11-67			Final	1982
Swainson's hawk *Buteo swainsoni*	ST	04-17-83						
American peregrine falcon (**RECOVERED**) *Falco peregrinus anatum*	SE	06-27-71	delisted FE	08-25-99 06-02-70	Final	09-22-77	Final	1982
Arctic peregrine falcon (**RECOVERED**) *Falco peregrinus tundrius*			delisted FT FE	10-05-94 03-20-84 06-02-70				
California black rail *Laterallus jamaicensis coturniculus*	ST	06-27-71						
California clapper rail *Rallus longirostris obsoletus*	SE	06-27-71	FE	10-13-70			Final	1984
Light-footed clapper rail *Rallus longirostris levipes*	SE	06-27-71	FE	10-13-70			Final	1979

[42] Current nomenclature: Barefoot gecko.
[43] Current taxonomy: *Gambelia sila.*
[44] Current taxonomy: *Charina umbratica.*
[45] Due to legal action on 9 May 2003, the Critical Habitat designation has been completely vacated; there is currently no Critical Habitat for Alameda whipsnake.
[46] Current taxonomy and Federal listing: *Thamnophis gigas.*
[47] Federal: Brown pelican, *Pelecanus occidentalis.*

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	LISTING STATUS			CRITICAL HABITAT		RECOVERY PLAN		
	State	List Date	Federal	List Date	Designation	Date	Version	Date
Yuma clapper rail	ST	02-22-78	FE	03-11-67			Final	1983
Rallus longirostris yumanensis	SE	06-27-71						
Greater sandhill crane	ST	04-17-83					Draft (state)	
Grus Canadensis tabida								
Western snowy plover[48]			FT	04-05-93	Final	12-07-99		
Charadrius alexandrinus nivosus								
California least tern	SE	06-27-71	FE	10-13-70			Final	1980
Sterna antillarum browni								
Marbled murrelet	SE	03-12-92	FT	09-30-92	Final	05-24-96	Final	1997
Brachyramphus marmoratus[49]								
Xantus's murrelet	ST[50]							
Synthliboramphus hypoleucus								
Western yellow-billed cuckoo	SE	03-26-88						
Coccyzus americanus occidentalis	ST	06-27-71						
Elf owl	SE	10-02-80						
Micrathene whitneyi								
Northern spotted owl			FT	06-22-90	Final	01-15-92		
Strix occidentalis caurina								
Great gray owl	SE	10-02-80						
Strix nebulosa								
Gila woodpecker	SE	03-17-88						
Melanerpes uropygialis								
Gilded northern flicker[51]	SE	03-17-88						
Colaptes auratus chrysoides								
Willow flycatcher	SE[52]	01-02-91						
Empidonax traillii								
Southwestern willow flycatcher	(SE)		FE	03-29-95	Final	07-22-97	Final	2003
Empidonax traillii extimus								
Bank swallow	ST	06-11-89					Final (state)	1993
Riparia riparia								
Coastal California gnatcatcher			FT	03-30-93	Proposed[53]	04-24-03		
Polioptila californica californica					Final	10-24-00		
San Clemente loggerhead shrike			FE	08-11-77			Final	1984
Lanius ludovicianus mearnsi								
Arizona Bell's vireo	SE	03-17-88						
Vireo bellii arizonae								
Least Bell's vireo	SE	10-02-80	FE	05-02-86	Final	02-02-94	Draft	1998
Vireo bellii pusillus								
Inyo California towhee[54]	SE	10-02-80	FT	08-03-87	Final	08-03-87	Final	1998
Pipilo crissalis eremophilus								
San Clemente sage sparrow			FT	08-11-77			Final	1984
Amphispiza belli clementeae								

[48] Federal status applies only to the Pacific coastal population.
[49] Federal: *Brachyramphus marmoratus marmoratus*
[50] The Fish and Game Commission determined that Xantus's murrelet should be listed as a Threatened species. As part of the normal listing process, this decision is currently under review by the Office of Administrative Law.
[51] Current taxonomy: Gilded flicker (*Colaptes chrysoides*).
[52] State listing includes all subspecies.
[53] Due to court order the previously designated critical habitat was vacated and the USFWS was directed to re-propose critical habitat. The existing final critical habitat boundaries remain in effect until the new proposed boundaries become final, estimated to be about May 2004.
[54] Federal: Inyo California (=brown) towhee.

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	LISTING STATUS				CRITICAL HABITAT		RECOVERY PLAN	
	State	List Date	Federal	List Date	Designation	Date	Version	Date
Belding's savannah sparrow *Passerculus sandwichensis beldingi*	SE	01-10-74						
Santa Barbara song sparrow (EXTINCT) *Melospiza melodia graminea*			delisted FE	10-12-83 06-04-73				
MAMMALS								
Buena Vista Lake shrew *Sorex ornatus relictus*			FE[55]	04-05-02			Final	1998
Riparian brush rabbit *Sylvilagus bachmani riparius*	SE	05-29-94	FE	03-24-00			Final	1998
Point Arena mountain beaver *Aplodontia rufa nigra*			FE	12-12-91			Final	1998
San Joaquin antelope squirrel *Ammospermophilus nelsoni*	ST	10-02-80						
Mohave ground squirrel *Spermophilus mohavensis*	ST	06-27-71						
Pacific pocket mouse *Perognathus longimembris pacificus*			FE	09-26-94			Final	1998
Morro Bay kangaroo rat *Dipodomys heermanni morroensis*	SE	06-27-71	FE	10-13-70	Final	08-11-77	Final	1982
Giant kangaroo rat *Dipodomys ingens*	SE	10-02-80	FE	01-05-87			Final	1998
Stephens' kangaroo rat *Dipodomys stephensi*[56]	ST	06-27-71	FE	09-30-88				
San Bernardino kangaroo rat *Dipodomys merriami parvus*			FE[57]	09-24-98	Final	05-23-02		
Tipton kangaroo rat *Dipodomys nitratoides nitratoides*	SE	06-11-89	FE	07-08-88			Final	1998
Fresno kangaroo rat *Dipodomys nitratoides exilis*	SE SR	10-02-80 06-27-71	FE	03-01-85	Final	01-30-85	Final	1998
Salt-marsh harvest mouse *Reithrodontomys raviventris*	SE	06-27-71	FE	10-13-70			Final	1984
Amargosa vole *Microtus californicus scirpensis*	SE	10-02-80	FE	11-15-84	Final	11-15-84	Final	1997
Riparian woodrat *Neotoma fuscipes riparia*			FE[58]	03-24-00				
Sierra Nevada red fox *Vulpes vulpes necator*	ST	10-02-80						
San Joaquin kit fox *Vulpes macrotis mutica*	ST	06-27-71	FE	03-11-67			Final	1998
Island fox *Urocyon littoralis*	ST[59]	06-27-71						
San Miguel Island Fox *Urocyon littoralis littoralis*	(ST)		*FE	04-05-04				
Santa Rosa Island Fox *Urocyon littoralis santarosa*	(ST)		*FE	04-05-04				

[55] Federal: Buena Vista Lake ornate shrew
[56] Federal: includes *Dipodomys cascus.*
[57] Federal: San Bernardino Merriam's kangaroo rat
[58] Federal: Riparian (=San Joaquin Valley) woodrat
[59] State listing includes all 6 subspecies on all 6 islands. Federal listing is for only 4 subspecies on 4 islands

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	LISTING STATUS				CRITICAL HABITAT		RECOVERY PLAN	
	State	List Date	Federal	List Date	Designation	Date	Version	Date
Santa Cruz Island Fox *Urocyon littoralis santacruzae*	(ST)		*FE	04-05-04				
Santa Catalina Island Fox *Urocyon littoralis catalinae*	(ST)		*FE	04-05-04				
Guadalupe fur seal *Arctocephalus townsendi*	ST	06-27-71	FT	12-16-85				
Stellar (=northern) sea lion *Eumetopias jubatus*			FT	04-05-90	Final	03-23-99		
Wolverine *Gulo gulo*	ST	06-27-71						
Southern sea otter *Enhydra lutris nereis*			FT	01-14-77			Final	1981
Gray whale (RECOVERED) *Eschrichtius robustus*			delisted FE	06-15-94 06-02-70				
Sei whale *Balaenoptera borealis*			FE	06-02-70				
Blue whale *Balaenoptera musculus*			FE	06-02-70				
Fin whale *Balaenoptera physalus*			FE	06-02-70				
Humpback whale[60] *Megaptera novaeangliae*			FE	06-02-70				
Right whale[61] *Balaena glacialis* (includes *australis*)			FE	06-02-70			Final	1991
Sperm whale *Physeter macrocephalus*			FE	06-02-70				
California (=Sierra Nevada) bighorn sheep *Ovis Canadensis californiana*	SE ST	08-27-99 06-27-71	FE	01-03-00			Draft	2003
Peninsular bighorn sheep DPS[62] *Ovis Canadensis cremnobates*	ST	06-27-71	FE	03-18-98	Final	03-05-01	Final	2000

[60] Also known as Hump-backed whale.
[61] Also known as Black right whale.
[62] Current taxonomy: the subspecies *O.c. cremnobates* has been synonymized with *O.c. nelsoni*. Peninsular bighorn sheep are now considered to be a Distinct Vertebrate Population Segment.

Fully Protected Animals

The classification of Fully Protected was the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians and reptiles, birds and mammals. Please note that most fully protected species have also been listed as threatened or endangered species under the more recent endangered species laws and regulations.

Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

The following common and scientific names are those given in the Fish and Game Code Sections 3511, 4700, 5050 and 5515. However, some of these names are no longer consistent with current scientific nomenclature.

Fishes	
Colorado River squawfish (=Colorado pikeminnow)	Ptychocheilus lucius
thicktail chub	Gila crassicauda
Mohave chub (=Mohave tui chub)	Gila mohavensis
Lost River sucker	Catostomus luxatus (=Deltistes luxatus)
Modoc sucker	Catostomus microps
shortnose sucker	Chasmistes brevirostris
humpback sucker (=razorback sucker)	Xyrauchen texanus
Owens River pupfish (=Owens pupfish)	Cyprinoden radiosus
unarmored threespine stickleback	Gasterosteus aculeatus williamsoni
rough sculpin	Cottus asperrimus
Amphibians	
Santa Cruz long-toed salamander	Ambystoma macrodactylum croceum
limestone salamander	Hydromantes brunus
black toad	Bufo exsul
Reptiles	
blunt-nosed leopard lizard	Gambelia sila (=Gambelia silus)
San Francisco garter snake	Thamnophis sirtalis tetrataenia

Birds	
American peregrine falcon	Falco peregrinus anatum
brown pelican (=California brown pelican)	Pelecanus occidentalis (=P. o. occidentalis)
California black rail	Laterallus jamaicensis coturniculus
California clapper rail	Rallus longirostris obsoletus
California condor	Gymnogyps californianus
California least tem	Sterna albifrons browni (=Sterna antillarum browni)
golden eagle	Aquila chrysaetos
greater sandhill crane	Grus candadensis tabida
light-footed clapper rail	Rallus longirostris levipes
southern bald eagle (=bald eagle)	Haliaeetus leucocephalus leucocephalus (=Haliaeetus leucocephalus)
trumpeter swan	Cygnus buccinator
white-tailed kite	Elanus leucurus
Yuma clapper rail	Rallus longirostris yumanensis
Mammals	
Morro Bay kangaroo rat	Dipodomys heermanni morroensis
bighorn sheep	Ovis canadensis - except Nelson bighorn sheep (ssp. Ovis canadensis nelsoni) in the area described in subdivision (b) of Section 4902 (Fish and Game Code)
northern elephant seal	Mirounga angustirostris
Guadalupe fur seal	Arctocephalus townsendi
ring-tailed cat	Genus Bassariscus (=Bassariscus astutus)
Pacific right whale	Eubalanea sieboldi (=Balaena glacialis)
salt-marsh harvest mouse	Reithrodontomys raviventris
southern sea otter	Enhydra lutris nereis
wolverine	Gulo luscus (=Gulo gulo)

Endangered Animals in Los Angeles County

The only known populations of **Unarmored Threespine Stickleback**, a fish, are in the Santa Clara River's drainage to the Los Angeles River and in San Diego County.

The **Palos Verdes Blue Butterfly**, originally found only in Palos Verdes Peninsula, was thought to be extinct until it was rediscovered in San Pedro in 1994.

The **El Segundo Blue Butterfly** is found only on two acres on a Chevron Oil Refinery and at the western end of LAX.

The **Gray Whale** migrates along the west coasts of Mexico, the U.S., and Canada. It is federally protected.

Endangered Plants

State of California
The Resources Agency
DEPARTMENT OF FISH AND GAME
Habitat Conservation Division
Wildlife & Habitat Data Analysis Branch
California Natural Diversity Database

STATE AND FEDERALLY LISTED
ENDANGERED, THREATENED, AND RARE PLANTS OF CALIFORNIA

July 2004

Designations and Subtotals for each Designation:

	Designations:	Subtotals:
SE	State-listed endangered	131
ST	State-listed threatened	22
SR	State-listed rare	67
SC	State candidate for listing	1
FE	Federally listed endangered	138
FT	Federally listed threatened	47
FPE	Federally proposed endangered	0
FPT	Federally proposed threatened	0
	Both State and Federally listed	123

State listing is pursuant to §1904 (Native Plant Protection Act of 1977) and §2074.2 and §2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code, relating to listing of Endangered, Threatened and Rare species of plants and animals. Federal listing is pursuant with the Federal Endangered Species Act of 1973, as amended. For information regarding plant conservation, contact the Habitat Conservation Planning Branch, 1416 Ninth Street, Sacramento, CA 95814, phone (916) 653-9767, or the nearest Department of Fish and Game office. For information on this list, contact Information Services at (916) 324-3812. Scientific and common names for State-listed plants are listed in Title 14, §670.2. Scientific or common names in parentheses are the most scientifically accepted nomenclature but have yet to be officially adopted into the California Code of Regulations, Title 14, Division 1, §670.2.

State Designated Plants	Classification			
	State	List Date	Federal	List Date
Acanthomintha duttonii San Mateo thorn-mint	SE	Jul 1979	FE	Oct 18,1985
Acanthomintha ilicifolia San Diego thorn-mint	SE	Jan 1982	FT	Oct 13,1998
Agrostis blasdalei var. *marinensis* Marin bent grass	SR	Nov 1978		
Allium munzii Munz's onion	ST	Jan 1990	FE	Oct 13,1998

State Designated Plants	Classification			
	State	List Date	Federal	List Date
Allium yosemitense Yosemite onion	SR	Jul 1982		
Alopecurus aequalis var. *sonomensis* Sonoma alopecurus			FE	Oct 22,1997
Ambrosia pumila San Diego ambrosia			FE	July 22, 2002
Amsinckia grandiflora large-flowered fiddleneck	SE	Apr 1982	FE	May 07,1985
Arabis hoffmannii Hoffmann's rock cress			FE	Jul 31,1997
Arabis macdonaldiana McDonald's rock cress	SE	Jul 1979	FE	Sep 29,1978
Arctostaphylos bakeri Baker's manzanita (=*A. b.* ssp. *bakeri*)	SR	Sep 1979		
Arctostaphylos confertiflora Santa Rosa Island manzanita			FE	Jul 31,1997
Arctostaphylos densiflora Vine Hill manzanita	SE	Aug 1981		
Arctostaphylos edmundsii var. *parvifolia* Hanging Gardens manzanita	SR	Aug 1981		
Arctostaphylos glandulosa ssp. *crassifolia* Del Mar manzanita			FE	Oct 07,1996
Arctostaphylos hookeri ssp. *hearstiorum* Hearst's manzanita	SE	Sep 1979		
Arctostaphylos hookeri ssp. *ravenii* Presidio manzanita	SE	Nov 1978	FE	Oct 26,1979
Arctostaphylos imbricata San Bruno Mountain manzanita	SE	Sep 1979		
Arctostaphylos morroensis Morro manzanita			FT	Dec 15,1994
Arctostaphylos myrtifolia Ione manzanita			FT	May 26,1999
Arctostaphylos pacifica Pacific manzanita	SE	Sep 1979		
Arctostaphylos pallida pallid manzanita	SE	Nov 1979	FT	Apr 22,1998
Arenaria paludicola marsh sandwort	SE	Feb 1990	FE	Aug 03,1993
Arenaria ursina Big Bear Valley sandwort			FT	Sep 14,1998
Astragalus agnicidus Humboldt milk-vetch	SE	Apr 1982		
Astragalus albens Cushenbury milk-vetch			FE	Aug 24,1994

State Designated Plants	Classification			
	State	List Date	Federal	List Date
Astragalus brauntonii Braunton's milk-vetch			FE	Jun 29,1997
Astragalus clarianus Clara Hunt's milk-vetch	ST	Jan 1990	FE	Oct 22,1997
Astragalus jaegerianus Lane Mountain milk-vetch			FE	Oct 06,1998
Astragalus johannis-howellii Long Valley milk-vetch	SR	Jul 1982		
Astragalus lentiginosus var. *coachellae* Coachella Valley milk-vetch			FE	Oct 06,1998
Astragalus lentiginosus var. *piscinensis* Fish Slough milk-vetch			FT	Oct 06,1998
Astragalus lentiginosus var. *sesquimetralis* Sodaville milk-vetch	SE	Sep 1979		
Astragalus magdalenae var. *peirsonii* Peirson's milk-vetch	SE	Nov 1979	FT	Oct 06,1998
Astragalus monoensis var. *monoensis* Mono milk-vetch	SR	Jul 1982		
Astragalus pycnostachyus var. *lanosissimus* Ventura Marsh milk-vetch	SE	Apr 2000	FE	May 21,2001
Astragalus tener var. *titi* coastal dunes milk-vetch	SE	Feb 1982	FE	Aug 12,1998
Astragalus traskiae Trask's milk-vetch	SR	Nov 1979		
Astragalus tricarinatus triple-ribbed milk-vetch			FE	Oct 06,1998
Atriplex coronata var. *notatior* San Jacinto Valley crownscale			FE	Oct 13,1998
Atriplex tularensis Bakersfield smallscale	SE	Jan 1987		
Baccharis vanessae Encinitas baccharis	SE	Jan 1987	FT	Oct 07,1996
Bensoniella oregona bensoniella	SR	Jul 1982		
Berberis nevinii Nevin's barberry	SE	Jan 1987	FE	Oct 13,1998
Berberis pinnata ssp. *insularis* island barberry	SE	Nov 1979	FE	Jul 31,1997
Blennosperma bakeri Sonoma sunshine	SE	Feb 1992	FE	Dec 02,1991
Blennosperma nanum var. *robustum* Point Reyes blennosperma	SR	Nov 1978		
Bloomeria humilis dwarf goldenstar	SR	Nov 1978		
Brodiaea coronaria ssp. *rosea* Indian Valley brodiaea	SE	Sep 1979		

State Designated Plants	Classification			
	State	List Date	Federal	List Date
Brodiaea filifolia thread-leaved brodiaea	SE	Jan 1982	FT	Oct 13,1998
Brodiaea insignis Kaweah brodiaea	SE	Nov 1979		
Brodiaea pallida Chinese Camp brodiaea	SE	Nov 1978	FT	Sep 14,1998
Calamagrostis foliosa leafy reed grass	SR	Nov 1979		
Calochortus dunnii Dunn's mariposa lily	SR	Nov 1979		
Calochortus persistens Siskiyou mariposa lily	SR	Jul 1982		
Calochortus tiburonensis Tiburon mariposa lily	ST	May 1987	FT	Feb 03,1995
Calyptridium pulchellum Mariposa pussypaws			FT	Sep 14,1998
Calystegia stebbinsii Stebbins's morning-glory	SE	Aug 1981	FE	Oct 18,1996
Camissonia benitensis San Benito evening-primrose			FT	Feb 12,1985
Carex albida white sedge	SE	Nov 1979	FE	Oct 22,1997
Carex tompkinsii Tompkins's sedge	SR	Nov 1979		
Carpenteria californica tree-anemone	ST	Jan 1990		
Castilleja affinis ssp. *neglecta* Tiburon Indian paintbrush	ST	Jan 1990	FE	Feb 03, 1995
Castilleja campestris ssp. *succulenta* succulent owl's-clover	SE	Sep 1979	FT	Mar 22,1997
Castilleja cinerea ash-gray Indian paintbrush			FT	Sep 14,1998
Castilleja gleasonii Mt. Gleason Indian paintbrush	SR	Jul 1982		
Castilleja grisea San Clemente Island Indian paintbrush	SE	Apr 1982	FE	Aug 11,1977
Castilleja mollis soft-leaved Indian paintbrush			FE	Jul 31,1997
Castilleja uliginosa Pitkin Marsh Indian paintbrush	SE	Nov 1978		
Caulanthus californicus California jewel-flower	SE	Jan 1987	FE	Jul 19,1990
Caulanthus stenocarpus slender-pod jewel-flower	SR	Nov 1979		
Ceanothus ferrisae coyote ceanothus			FE	Feb 03,1995

State Designated Plants	Classification			
	State	List Date	Federal	List Date
Ceanothus hearstiorum Hearst's ceanothus	SR	Aug 1981		
Ceanothus maritimus maritime ceanothus	SR	Nov 1978		
Ceanothus masonii Mason's ceanothus	SR	Nov 1978		
Ceanothus ophiochilus Vail Lake ceanothus	SE	Jan 1994	FT	Oct 13,1998
Ceanothus roderickii Pine Hill ceanothus	SR	Jul 1982	FE	Oct 18,1996
Cercocarpus traskiae Catalina Island mountain-mahogany	SE	Apr 1982	FE	Aug 08,1997
Chamaesyce hooveri Hoover's spurge			FT	Mar 26,1997
Chlorogalum purpureum var. *purpureum*[1] purple amole			FT	Mar 20,2000
Chlorogalum purpureum var. *reductum*[2] Camatta Canyon amole	SR	Nov 1978	FT	Mar 20,2000
Chorizanthe howellii Howell's spineflower	ST	Jan 1987	FE	Jun 22,1992
Chorizanthe orcuttiana Orcutt's spineflower	SE	Nov 1979	FE	Oct 07,1996
Chorizanthe parryi var. *fernandina* San Fernando Valley spineflower	SE	Aug 2001		
Chorizanthe pungens var. *hartwegiana* Ben Lomond spineflower			FE	Feb 04,1994
Chorizanthe pungens var. *pungens* Monterey spineflower			FT	Feb 04,1994
Chorizanthe robusta (includes vars. *hartwegii* and *robusta*) robust spineflower			FE	Feb 04,1994
Chorizanthe valida Sonoma spineflower	SE	Jan 1990	FE	Jun 22,1992
Cirsium ciliolatum Ashland thistle	SE	Sep 1982		
Cirsium fontinale var. *fontinale* fountain thistle	SE	Jul 1979	FE	Feb 03,1995
Cirsium fontinale var. *obispoense* Chorro Creek bog thistle	SE	Jun 1993	FE	Dec 15,1994
Cirsium hydrophilum var. *hydrophilum* Suisun thistle			FE	Nov 20,1997
Cirsium loncholepis La Graciosa thistle	ST	Feb 1990	FE	Mar 20,2000

[1] The U.S. Fish & Wildlife Service listed the entire species, *Chlorogalum purpureum*.

[2] The U.S. Fish & Wildlife Service listed the entire species, *Chlorogalum purpureum*.

State Designated Plants	Classification			
	State	List Date	Federal	List Date
Cirsium rhothophilum surf thistle	ST	Feb 1990		
Clarkia franciscana Presidio clarkia	SE	Nov 1978	FE	Feb 03,1995
Clarkia imbricata Vine Hill clarkia	SE	Nov 1978	FE	Oct 22,1997
Clarkia lingulata Merced clarkia	SE	Jan 1989		
Clarkia speciosa ssp. *immaculata* Pismo clarkia	SR	Nov 1978	FE	Jan 15,1994
Clarkia springvillensis Springville clarkia	SE	Sep 1979	FT	Sep 14,1998
Cordylanthus maritimus ssp. *maritimus* salt marsh bird's-beak	SE	Jul 1979	FE	Sep 28,1978
Cordylanthus mollis ssp. *mollis* soft bird's-beak	SR	Jul 1979	FE	Nov 20,1997
Cordylanthus nidularius Mt. Diablo bird's-beak	SR	Nov 1978		
Cordylanthus palmatus palmate-bracted bird's-beak	SE	May 1984	FE	Jul 01, 1986
Cordylanthus rigidus ssp. *littoralis* seaside bird's-beak	SE	Jan 1982		
Cordylanthus tenuis ssp. *capillaris* Pennell's bird's-beak	SR	Nov 1978	FE	Feb 03,1995
Croton wigginsii Wiggins's croton	SR	Jan 1982		
Cryptantha roosiorum bristlecone cryptantha	SR	Jul 1982		
Cupressus abramsiana Santa Cruz cypress	SE	Nov 1979	FE	Jan 08,1987
Cupressus goveniana ssp. *goveniana* Gowen cypress			FT	Aug 12,1998
Dedeckera eurekensis July gold	SR	Nov 1978		
Delphinium bakeri Baker's larkspur	SR	Nov 1979	FE	Jan 26,2000
Delphinium hesperium ssp. *cuyamacae* Cuyamaca larkspur	SR	Jul 1982		
Delphinium luteum yellow larkspur	SR	Sep 1979	FE	Jan 26,2000
Delphinium variegatum ssp. *kinkiense* San Clemente Island larkspur	SE	Sep 1979	FE	Aug 11,1977
Dichanthelium lanuginosum var. *thermale* Geysers dichanthelium	SE	Sep 1978		
Dithyrea maritima beach spectaclepod	ST	Feb 1990		

State Designated Plants	Classification			
	State	List Date	Federal	List Date
Dodecahema leptoceras slender-horned spineflower	SE	Jan 1982	FE	Sep 28,1987
Downingia concolor var. *brevior* Cuyamaca Lake downingia	SE	Feb 1982		
Dudleya abramsii ssp. *parva* Conejo dudleya (=*D. parva*)			FT	Jan 29,1997
Dudleya blochmaniae ssp. *brevifolia* short-leaved dudleya (=*D. brevifolia*)	SE	Jan 1982		
Dudleya cymosa ssp. *agourensis* [3] Santa Monica Mtns. dudleya			FT	Jan 29, 1997
Dudleya cymosa ssp. *marcescens* marcescent dudleya	SR	Nov 1978	FT	Jan 29,1997
Dudleya cymosa ssp. *ovatifolia* Santa Monica Mountains dudleya			FT	Jan 29,1997
Dudleya nesiotica Santa Cruz Island dudleya	SR	Nov 1979	FT	Jul 31,1997
Dudleya setchellii Santa Clara Valley dudleya			FE	Feb 03,1995
Dudleya stolonifera Laguna Beach dudleya	ST	Jan 1987	FT	Oct 13,1998
Dudleya traskiae Santa Barbara Island dudleya	SE	Nov 1979	FE	Apr 26,1978
Dudleya verityi Verity's dudleya			FT	Jan 29,1997
Enceliopsis nudicaulis var. *corrugata* Ash Meadows daisy			FT	May 20,1985
Eremalche kernensis Kern mallow			FE	Jul 19,1990
Eriastrum densifolium ssp. *sanctorum* Santa Ana River woollystar	SE	Jan 1987	FE	Sep 28,1987
Eriastrum hooveri Hoover's woolly-star (=eriastrum)			Delisted	Oct 7,2003
Eriastrum tracyi Tracy's eriastrum	SR	Jul 1982		
Erigeron parishii Parish's daisy			FT	Aug 24,1994
Eriodictyon altissimum Indian Knob mountainbalm	SE	Jul 1979	FE	Dec 15,1995
Eriodictyon capitatum Lompoc yerba santa	SR	Sep 1979	FE	Mar 20,2000
Eriogonum alpinum Trinity buckwheat	SE	Jul 1979		

[3] The U.S. Fish & Wildlife Service has listed the more encompassing *Dudleya cymosa* ssp. *ovatifolia* from which ssp. *agourensis* was split.

State Designated Plants	Classification			
	State	List Date	Federal	List Date
Eriogonum apricum var. *apricum*[4] Ione buckwheat	SE	Aug 1981	FE	May 26,1999
Eriogonum apricum var. *prostratum*[5] Irish Hill buckwheat	SE	Jan 1987	FE	May 26,1999
Eriogonum butterworthianum Butterworth's buckwheat	SR	Nov 1979		
Eriogonum crocatum Conejo buckwheat	SR	Sep 1979		
Eriogonum ericifolium var. *thornei* Thorne's buckwheat	SE	Nov 1979		
Eriogonum giganteum var. *compactum* Santa Barbara Island buckwheat	SR	Nov 1979		
Eriogonum grande ssp. *timorum* San Nicolas Island buckwheat	SE	Nov 1979		
Eriogonum kelloggii Kellogg's buckwheat	SE	Apr 1982		
Eriogonum kennedyi var. *austromontanum* southern mountain buckwheat			FT	Sep 14,1978
Eriogonum ovalifolium var. *vineum* Cushenbury buckwheat			FE	Aug 24,1994
Eriogonum twisselmannii Twisselmann's buckwheat	SR	Jul 1982		
Eriophyllum congdonii Congdon's woolly sunflower	SR	Jul 1982		
Eriophyllum latilobum San Mateo woolly sunflower	SE	Jun 1992	FE	Feb 03,1995
Eryngium aristulatum var. *parishii* San Diego button-celery	SE	Jul 1979	FE	Aug 03,1993
Eryngium constancei Loch Lomond button-celery	SE	Jan 1987	FE	Dec 23,1986
Eryngium racemosum Delta button-celery	SE	Aug 1981		
Erysimum capitatum var. *angustatum* Contra Costa wallflower	SE	Nov 1978	FE	Apr 26,1978
Erysimum menziesii[6] Menzies's wallflower	SE	Sep 1984	FE	Jun 22,1992

[4] The U.S. Fish & Wildlife Service has listed *Eriogomum apricum* as the species, which includes both rare varieties.

[5] The U.S. Fish & Wildlife Service has listed *Eriogomum apricum* as the species, which includes both rare varieties.

[6] The U.S. Fish & Wildlife Service separately listed all as endangered, *E. menziesii* ssp. *eurekense*, *E. menziesii* ssp. *menziesii*, and *E. menziesii* ssp. *yadonii*.

State Designated Plants	Classification			
	State	List Date	Federal	List Date
Erysimum teretifolium Santa Cruz wallflower	SE	Aug 1981	FE	Feb 04,1994
Fremontodendron decumbens Pine Hill flannelbush	SR	Jul 1979	FE	Oct 18,1996
Fremontodendron mexicanum Mexican flannelbush	SR	Jul 1982	FE	Oct 13,1998
Fritillaria roderickii Roderick's fritillary	SE	Nov 1979		
Fritillaria striata striped adobe-lily	ST	Jan 1987		
Galium angustifolium ssp. *borregoense* Borrego bedstraw	SR	Sep 1979		
Galium buxifolium box bedstraw	SR	Nov 1979	FE	Jul 31,1997
Galium californicum ssp. *sierrae* El Dorado bedstraw	SR	Nov 1979	FE	Oct 18,1996
Galium catalinense ssp. *acrispum* San Clemente Island bedstraw	SE	Apr 1982		
Gilia tenuiflora ssp. *arenaria* sand gilia	ST	Jan 1987	FE	Jun 22,1992
Gilia tenuiflora ssp. *hoffmannii* Hoffmann's slender-flowered gilia			FE	Jul 31,1997
Gratiola heterosepala Boggs Lake hedge-hyssop	SE	Nov 1978		
Grindelia fraxino-pratensis Ash Meadows gumplant			FT	May 20,1985
Hazardia orcuttii Orcutt's hazardia	ST	Aug 2002		
Helianthemum greenei island rush-rose			FT	Jul 31,1997
Helianthus niveus ssp. *tephrodes* Algodones Dunes sunflower	SE	Nov 1979		
Hemizonia arida Red Rock tarplant (=*Deinandra arida*)	SR	Jul 1982		
Hemizonia conjugens Otay tarplant (=*Deinandra conjugens*)	SE	Nov 1979	FT	Oct 13,1998
Hemizonia increscens ssp. *villosa* Gaviota tarplant (=*Deinandra increscens* ssp. *villosa*)	SE	Jan 1990	FE	Mar 20,2000
Hemizonia minthornii Santa Susana tarplant (=*Deinandra minthornii*)	SR	Nov 1978		
Hemizonia mohavensis Mojave tarplant (= *Deinandra mohavensis*)	SE	Aug 1981		
Hesperolinon congestum Marin western flax	ST	Jun 1992	FT	Feb 03,1995
Hesperolinon didymocarpum Lake County western flax	SE	Aug 1981		

State Designated Plants	Classification			
	State	List Date	Federal	List Date
Holmgrenanthe (=Maurandya) petrophila rock lady	SR	Jul 1982		
Holocarpha macradenia Santa Cruz tarplant	SE	Sep 1979	FT	Mar 20,2000
Howellia aquatilis water howellia			FT	Jul 14,1994
Ivesia callida Tahquitz ivesia	SR	Jul 1982		
Lasthenia burkei Burke's goldfields	SE	Sep 1979	FE	Dec 02,1991
Lasthenia conjugens Contra Costa goldfields			FE	Jun 18,1997
Layia carnosa beach layia	SE	Jan 1990	FE	Jun 22,1992
Lembertia congdonii San Joaquin woollythreads (=*Monolopia congdonii*)			FE	Jul 19,1990
Lesquerella kingii ssp. *bernardina* San Bernardino Mountains bladderpod			FE	Aug 24,1994
Lessingia germanorum San Francisco lessingia	SE	Jan 1990	FE	Jun 19,1997
Lewisia congdonii Congdon's lewisia	SR	Jul 1982		
Lilaeopsis masonii Mason's lilaeopsis	SR	Nov 1979		
Lilium occidentale western lily	SE	Jan 1982	FE	Aug 17,1994
Lilium pardalinum ssp. *pitkinense* Pitkin Marsh lily	SE	Nov 1978	FE	Oct 22,1997
Limnanthes bakeri Baker's meadowfoam	SR	Nov 1978		
Limnanthes douglasii var. *sulphurea* Point Reyes meadowfoam	SE	Apr 1982		
Limnanthes floccosa ssp. *californica* Butte County meadowfoam	SE	Feb 1982	FE	Jun 08,1992
Limnanthes gracilis var. *parishii* Parish's meadowfoam	SE	Jul 1979		
Limnanthes vinculans Sebastopol meadowfoam	SE	Nov 1979	FE	Dec 02,1991
Lithophragma maximum San Clemente Island woodland star	SE	Feb 1982	FE	Aug 08,1997
Lotus argophyllus var. *adsurgens* San Clemente Island bird's-foot trefoil	SE	Nov 1979		
Lotus argophyllus var. *niveus* Santa Cruz Island bird's-foot trefoil	SE	Aug 1981		
Lotus dendroideus var. *traskiae* San Clemente Island lotus	SE	Apr 1982	FE	Aug 11,1977

State Designated Plants	Classification			
	State	List Date	Federal	List Date
Lupinus citrinus var. *deflexus* Mariposa lupine	ST	Jan 1990		
Lupinus milo-bakeri Milo Baker's lupine	ST	Jan 1987		
Lupinus nipomensis Nipomo Mesa lupine	SE	Jan 1987	FE	Mar 20,2000
Lupinus padre-crowleyi Father Crowley's lupine	SR	Aug 1981		
Lupinus tidestromii var. *tidestromii* Tidestrom's lupine (=*L. tidestromii*)	SE	Jan 1987	FE	Jun 22,1992
Machaeranthera lagunensis Mount Laguna aster (*M. asteroides* var. *lagunensis*)	SR	Sep 1979		
Mahonia (=*Berberis*) *sonnei* Truckee barberry	SE	Jul 1979	Delisted	Oct 1,2003
Malacothamnus clementinus San Clemente Island bush mallow	SE	Feb 1982	FE	Aug 11,1977
Malacothamnus fasciculatus var. *nesioticus* Santa Cruz Island bush mallow	SE	Nov 1979	FE	Jul 31,1997
Malacothrix indecora Santa Cruz Island malacothrix (=cliff-aster)			FE	Jul 31,1997
Malacothrix squalida island malacothrix			FE	Jul 31,1997
Monardella linoides ssp. *viminea* willowy monardella	SE	Nov 1979	FE	Oct 13,1998
Navarretia fossalis spreading navarretia			FT	Oct 13,1998
Navarretia leucocephala ssp. *pauciflora* few-flowered navarretia	ST	Jan 1990	FE	Jun 18,1997
Navarretia leucocephala ssp. *plieantha* many-flowered navarretia	SE	Nov 1979	FE	Jun 18,1997
Nemacladus twisselmannii Twisselmann's nemacladus	SR	Jul 1982		
Neostapfia colusana Colusa grass	SE	Nov 1979	FT	Mar 26,1997
Nitrophila mohavensis Amargosa nitrophila	SE	Nov 1979	FE	May 20,1985
Nolina interrata Dehesa nolina	SE	Nov 1979		
Oenothera californica ssp. *eurekensis* Eureka Dunes evening-primrose	SR	Nov 1978	FE	Apr 26,1978
Oenothera deltoides ssp. *howellii* Antioch Dunes evening-primrose	SE	Nov 1978	FE	Apr 26,1978
Opuntia basilaris var. *treleasei* Bakersfield cactus	SE	Jan 1990	FE	Jul 19,1990
Orcuttia californica California Orcutt grass	SE	Sep 1979	FE	Aug 03,1993

State Designated Plants	Classification			
	State	List Date	Federal	List Date
Orcuttia inaequalis San Joaquin Valley Orcutt grass	SE	Sep 1979	FT	Mar 26,1997
Orcuttia pilosa hairy Orcutt grass	SE	Sep 1979	FE	Mar 26,1997
Orcuttia tenuis slender Orcutt grass	SE	Sep 1979	FT	Mar 26,1997
Orcuttia viscida Sacramento Orcutt grass	SE	Jul 1979	FE	Mar 26,1997
Ornithostaphylos oppositifolia Baja California birdbush	SE	Apr 2001		
Oxytheca parishii var. *goodmaniana* Cushenbury oxytheca			FE	Aug 24,1994
Parvisedum leiocarpum Lake County stonecrop (=*Sedella leiocarpa*)	SE	Jan 1990	FE	Jun 18,1997
Pedicularis dudleyi Dudley's lousewort	SR	Sep 1979		
Pentachaeta bellidiflora white-rayed pentachaeta	SE	Jun 1992	FE	Feb 03,1995
Pentachaeta lyonii Lyon's pentachaeta	SE	Jan 1990	FE	Jan 29,1997
Phacelia insularis ssp. *insularis* northern Channel Islands phacelia			FE	Jul 31,1997
Phlox hirsuta Yreka phlox	SE	Jan 1987	FE	Feb 3,2000
Piperia yadonii Yadon's rein orchid			FE	Aug 12,1998
Plagiobothrys diffusus San Francisco popcorn-flower	SE	Sep 1979		
Plagiobothrys strictus Calistoga popcorn-flower	ST	Jan 1990	FE	Oct 22,1997
Pleuropogon hooverianus North Coast semaphore grass	ST	Aug 2002		
Poa atropurpurea San Bernardino blue grass			FE	Sep 14,1998
Poa napensis Napa blue grass	SE	Jul 1979	FE	Oct 22,1997
Pogogyne abramsii San Diego mesa mint	SE	Jul 1979	FE	Sep 28,1978
Pogogyne clareana Santa Lucia mint	SE	Nov 1979		
Pogogyne nudiuscula Otay Mesa mint	SE	Jan 1987	FE	Aug 03,1993
Polygonum hickmanii Scott's Valley polygonum	SC	Jun 2003	FE	Apr 8,2003
Potentilla hickmanii Hickman's cinquefoil	SE	Sep 1979	FE	Aug 12,1998

State Designated Plants	Classification			
	State	List Date	Federal	List Date
Pseudobahia bahiifolia Hartweg's golden sunburst	SE	Aug 1981	FE	Feb 06,1997
Pseudobahia peirsonii San Joaquin adobe sunburst	SE	Jan 1987	FT	Feb 06,1997
Rorippa gambellii Gambel's water cress	ST	Feb 1990	FE	Aug 03,1993
Rorippa subumbellata Tahoe yellow cress	SE	Apr 1982		
Rosa minutifolia small-leaved rose	SE	Oct 1989		
Sanicula maritima adobe sanicle	SR	Aug 1981		
Sanicula saxatilis rock sanicle	SR	Jul 1982		
Senecio ganderi Gander's ragwort	SR	Jul 1982		
Senecio layneae Layne's ragwort	SR	Nov 1979	FT	Oct 18,1996
Sibara filifolia Santa Cruz Island rock cress			FE	Aug 08,1997
Sidalcea covillei Owens Valley checkerbloom	SE	Jul 1979		
Sidalcea hickmanii ssp. *anomala* Cuesta Pass checkerbloom	SR	Nov 1979		
Sidalcea hickmanii ssp. *parishii* Parish's checkerbloom	SR	Nov 1979		
Sidalcea keckii Keck's checker-mallow			FE	Feb 16,2000
Sidalcea oregana ssp. *valida* Kenwood Marsh checkerbloom	SE	Jan 1982	FE	Oct 22,1997
Sidalcea pedata bird-foot checkerbloom	SE	Jan 1982	FE	Aug 31,1984
Sidalcea stipularis Scadden Flat checkerbloom	SE	Jan 1982		
Silene campanulata ssp. *campanulata* Red Mountain catchfly	SE	Apr 1982		
Streptanthus albidus ssp. *albidus* Metcalf Canyon jewel-flower			FE	Feb 03,1995
Streptanthus niger Tiburon jewel-flower	SE	Feb 1990	FE	Feb 03,1995
Suaeda californica California seablite			FE	Dec 15,1994
Swallenia alexandrae Eureka Valley dune grass	SR	Aug 1981	FE	Apr 26,1978
Taraxacum californicum California dandelion			FE	Sep 14,1998

Site:	Sq. Footage:	Total Cost:
FCCF 1320 N. Eastern Ave. Los Angeles 90063	18,195	$10,917,000
KLINGER 1320 N. Eastern Ave. Los Angeles 90063	24,288	$14,572,800

Total Sites: 2 Average Cost: $12,744,900

County of Los Angeles

All-Hazard Mitigation Plan

Version 1.1

June 2005

SECTION 4

Hazard Vulnerability Analysis

Part A

Natural Hazards

Prepared by Dimensions Unlimited, Inc.

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Section 4 A– Hazard Vulnerability Analysis

By law, each high risk and moderate risk natural hazard identified in this plan must specify the vulnerability and the impact to the jurisdiction. In this section, under each high and moderate risk hazard, there are paragraphs entitled "Vulnerability" and "Impact". "Vulnerability" refers to population and geography affected by a catastrophic event because of the hazard. "Impact" refers to dollar losses to facilities and infrastructure of the County of Los Angeles. These figures (derived from data in Section 3) are estimations and represent a worst-case, based on a catastrophic event because of the hazard.

A hazard can be defined as a condition that has the potential to result in equipment or system failure human injury, death, or damage to property or the environment. Hazards are divided into two categories: natural or technological. Natural hazards include events suck as earthquakes, wild fires, and floods; while technological hazards include events such as transportation accidents, illegal disposal, and equipment failures during manufacturing, storage, transportation, and use of hazardous materials.

A risk assessment is the process of evaluating the degree of harm a hazard presents. Risk assessments are utilized in developing emergency response plans and procedures, designing and modifying safety systems, identifying needed resources, conducting training and exercises, and minimizing damage and liability. The definitions of the categories used in the risk assessment matrix submitted by the Hazard Mitigation Advisory Committee members follow:

Magnitude

The magnitude of a disaster is measured by the physical and economic greatness of the event. The factors to consider are

- Size of Event
- Threat to Life
- Threat to Property - Individual, Public Sector, Business and Manufacturing, Tourism

Duration

The duration of a disaster is measured by the length of time of the disaster and the effects of the disaster. The factors to consider are

- Length physical duration during emergency phase
- Length of threat to life and property
- Length of physical duration during recovery phase
- Length of effects on individual citizen and community recovery
- Length of effects on economic recovery, tax base, business and manufacturing recovery, tourism, threat to tax base and threat to employment

Distribution

The distribution of a disaster is measured by depth of the effects among all sectors of the community and State. The factors to consider are

- How wide spread across the state are the effects of the disaster
- Are all sectors of the community affected equally or disproportionately?

Area Affected

The area affected is defined by how large an area is physically threatened and potentially impaired by a disaster risk. The factors to consider are

- Geographic area affected by a primary event
- Geographic, physical, economic areas affected by the primary risk and the potential secondary effects.

Frequency

The frequency is determined by the historic and predicted rate of recurrence of a risk caused event (generally expressed in years such as the 100 year flood). The factors to consider are

- Historic events and recurrences of events in a measured time frame
- Scientifically based predictions of an occurrence of an event in a given period of time.

Degree of Vulnerability

The degree of vulnerability is a measure of how susceptible a population, community infrastructure and state resources are to the effects of the risk. The factors to consider are

- History of the impact of similar events
- Mitigation steps taken to lessen impact
- Community and State preparedness to respond to and recover from the event

Community Priorities

Community priority is the importance placed on a particular risk by the citizens and their elected officials. Some of these factors are

- Willingness to prepare for and respond to a particular risk
- More widespread concerns over a particular risk then other risks
- Cultural significance of the threat associated a risk.

Hazard Rating Definitions

Instructions for Hazard Mitigation Rating Form

Give each hazard priority risk category listed as a rating from 0 to 3: 0 = no risk, 3 meaning a high risk.

0 = No hazard risk in accordance with the definitions for hazard prioritization on page 4 through 6 of this form.

1 = Low Risk in accordance with the hazard prioritization definitions on pages 4 through 6 of this form.

2 = Moderate Risk in accordance with the hazard definitions on pages 4 through 6 of this form.

3 = High Risk in accordance with the hazard risk definitions on pages 4 though 6 of this form.

Total the numbers horizontally for each hazard category. The highest possible score for a hazard is 24 the lowest potential score is 0.

Examples:

a score of	15 - 24	could be considered HIGH priority risk
	9 - 14	could be considered MODERATE priority risk
	0 - 8	could be considered LOW priority risk

Prioritization of Hazard Matrix Results

Stakeholder Risk Prioritization for Los Angeles County

The County of Los Angeles Hazard Mitigation Advisory Committee prioritized risk to the residents and property of the county as follows:

High Risk Priority Hazards

• Earthquake	Natural
• Wildland Urban Interface Fire	Natural
• WMD Terrorism	Technological
• Utility Loss	Technological
• Flood	Natural
• Drought	Natural
• Biological/Health	Technological
• Waste Water and Water	Technological
• Economic Disruption	Technological
• Data Telecommunications	Technological
• Civil Unrest	Technological

Moderate Risk Priority Hazards

• Large Venue Fires	Technological
• Transportation Incidents, rail/air/pipeline/	Technological
• Hazardous Materials	Technological
• Radiological Incident/Accident	Technological
• Special Events	Technological
• Dam Failure	Technological
• Landslides	Natural
• Transportation/loss of ability	Technological
• Explosion	Technological
• Severe Weather	Natural

Low Risk Priority Hazards

• Biological/Agriculture	Technological
• Tsunami	Natural
• Sinkholes/subsidence	Technological
• Rise in Ground Water	Natural
• Mine Safety	Technological
• Volcano	Natural
• Tornados	Natural

Los Angeles County Disasters Since 1950

Hazard Type	Disaster Name	Disaster #	Year	Counties and Cities Declared	State Declaration	Federal Declaration	# of Deaths	# of Injuries	Cost of Damage
Flood	Floods	OCD 50-01	1950	Statewide	11/21/50	Not declared	9		$32,183,000
Flood	Fire, Flood, and Erosion	DR-28	1954	Los Angeles, San Bernardino	2/5/54	2/5/54			Not Avai
Flood	Floods	DR-47	1955	Statewide	12/22/55	12/23/55	74		$200,000,000
Fire	Fires	DR-65	1956	Los Angeles (Malibu area), Ventura		12/29/56	1	Several hundred	$70,000,000
Fire	Fires	CDO 58-01	1958	Los Angeles	1/3/58	Not declared	1	23	Not available
Flood	Storm & Flood Damage	N/A	1958	Statewide	4/2/58	82	13		$24,000,000
Flood, Landslide	Potential Flood Damage and Landsides as a Result of Fires	CDO 59-01	1959	Los Angeles	1/8/59	Not declared			Not applicable
Fire	Major and Widespread Fires	N/A	1960	Los Angeles, San Bernardino	7/21-22/60	Not declared		12	$10,000,000
Fire	Bel Air Fires	DR-119	1961	Los Angeles		11/16/61		103	Between $50,000,000 - $100,000,000
Flood	Flood and Rainstorm	DR-122	1962	Los Angeles, Ventura	2/16/62 & 2/23/62	3/6/62			Not available
Flood	Baldwin Hills Dam Failure	DR-161	1963	Los Angeles	12/16/63	12/21/63			$5,233,203
Severe Storm, Flood	Abnormally Heavy and Continuous Rainfall	N/A	1963	Northern California (boundaries of San Luis Obispo, Ventura, Los Angeles, and San Bernardino counties to the Oregon State Line	2/14/64	Not declared			Not Available
Fire	Major Widespread Fires (Weldon Fire)	N/A	1964	Los Angeles	3/16/64	Not declared			$2,000,000
Flood	Storms	N/A	1964	Los Angeles	4/3/64	Not declared			1,610,300
Civil Unrest	Riots	N/A	1965	Los Angeles	8/14/65	Not declared	32	874	$44,991,000
Flood, Landslide	Flooding and Hill Slides Caused by Heavy Rains	N/A	1965	City of Burbank, Los Angeles	1/5/65	Not declared			Not Available
Landslide	Slide Damage	N/A	1965	City of Los Angeles	6/21/65	Not declared			$6,488,600
Fire	Major and Widespread Fires	N/A	1967	Los Angeles, Orange, San Diego, Ventura	1/7/67	Not declared			$11,345,000

Hazard Type	Disaster Name	Disaster #	Year	Counties and Cities Declared	State Declaration	Federal Declaration	# of Deaths	# of Injuries	Cost of Damage
HazMat	Major Oil Spill	N/A	1969	Coastal Areas of Southern California		Not declared			Not available
Flood	1969 Storms	Unknown	1969	Los Angeles, San Luis Obispo, Fresno, Inyo, Riverside, San Bernardino, Santa Barbara, Tulare, Ventura, Amador, El Dorado, Kern, Kings, Madera, Modoc, Mono, Monterey, Orange, Placer, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Tuolumne, Mariposa, Merced, Calaveras, San Benito, Sierra, Contra Costa, Humboldt, Mendocino, Sonoma, Plumas, Tehama, Yuba, Butte, Marin, Yolo	1/23/69, 1/25,69, 1/28/69, 1/29/69, 2/8/69, 2/10/69, 2/16/69, 3/12/69	1/26/69	47	161	$300,000,000
Landslide	Slide Damage Caused by Heavy Rains and Storms	N/A	1970	City of Los Angeles	3/10/70	Not declared			$8,500,000
Fire	Statewide Fires		1970	City of Oakland, Los Angeles, Ventura, San Diego, Kern, San Bernardino, Monterey, Riverside	9/24/70, 9/28/70, 10/1/70, 10/2/70, 10/20/70, 11/14/70	9/29/70	19		$223,611,000
Earthquake	San Fernando Earthquake	DR-299	1971	Los Angeles	2/9/71	2/9/71	58	2,000	$483,957,000
Agricultural	Exotic Newcastle Disease Epidemic	N/A	1972	Los Angeles, Orange, Riverside, San Bernardino, San Diego, Ventura, Santa Barbara	4/10/72, 5/22/72	Not declared			$10,000,000
Fire	Fires	N/A	1973	Los Angeles	7/16/73	Not declared			$1,300,000
Economic	Gasoline Purchasing Problems	N/A	1974	Alameda, Contra Costa, Los Angeles, Orange, Riverside, San Mateo, Solano, Santa Clara, Ventura	2/28/74, 3/4/74, 3/10/74	Not declared			
Fire	Fires	N/A	1975	Los Angeles	11/24/75	Not declared			$19,486,960
Drought	Drought	N/A	1976	Alpine, Calaveras, Colusa, Fresno, Glenn, Madera, Merced, San Diego, San Joaquin, Solano, Stanislaus, Sutter, Tuolumne, Alameda, Butte, Contra Costa, Kings, Los Angeles, Riverside, San Luis Obispo, Tulare, Yolo, Amador, Monterey, Napa, Nevada, San Benito, San Bernardino, Tehama, San Mateo, Marin	2/9/76, 2/13,76, 2/24/76, 3/26/76, 7/6/76	Not declared			$2,664,000,000

Hazard Type	Disaster Name	Disaster #	Year	Counties and Cities Declared	State Declaration	Federal Declaration	# of Deaths	# of Injuries	Cost of Damage
Fire	1978 Los Angeles Fire	EM-3067	1978	Los Angeles	10/24/78	10/29/78	1		$61,279,374
Severe Storm	Storms	Unknown	1978	Inyo, Mono, San Diego, San Luis Obispo, Kings, Monterey, Kern, Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Tulare, Ventura	3/9/78, 2/27,78, 2/13/78	2/15/78	14	21	$117,802,785
Economic	Gasoline Shortage Emergency	N/A	1979	Alameda, Contra Costa, Los Angeles, Marin, Monterey, Orange, Riverside, San Francisco, San Diego, Santa Clara, Santa Cruz, San Mateo, Ventura, San Bernardino, Sonoma, Contra Costa, Los Angeles, Orange, Santa Clara	5/8/79 - 11/13/79	Not declared			
Fire	Fires	N/A	1979	Santa Barbara, Ventura, Los Angeles, El Dorado	9/28/79, 9/21/79, 9/20/79	Not declared			$9,970,119
Flood	1980 Winter Storms	DR-615	1980	Santa Barbara, Los Angeles, Orange, Riverside, Ventura, San Bernardino, San Diego	2/21/80, 2/7/80	2/21/80			
Fire	Southern California Fires	DR-635	1980	San Bernardino, Los Angeles, Orange, Riverside	11/18/80	11/18/80			$64,795,200
Economic	Mediterranean Fruit Fly Infestation	N/A	1981	Contra Costa, Los Angeles, San Benito, Stanislaus, Santa Cruz, San Mateo	8/8/81 - 9/25/81	Not declared			$22,000,000
Flood, Severe Storm	1982-83 Winter Storms	DR-677	1982	Contra Costa, San Joaquin, Sacramento, Marin, San Mateo, Los Angeles, San Diego, Alameda, Orange, San Benito, Santa Barbara, Santa Clara, Santa Cruz, Shasta, Sonoma, Ventura, Trinity, Colusa, Lake, Mendocino, Monterey, San Luis Obispo, Solano, Yolo, Butte, Glenn, Kern, Kings, San Bernardino, Sutter, Tehama, Merced, Del Norte, Fresno, Madera, Napa, Placer, Riverside, Stanislaus, Tulare, Humboldt, Mariposa, Nevada, Yuba	1982, 1983	2/9/83	0	0	$523,617,032
Fire	Dayton Hills Fire	N/A	1982	Los Angeles, Orange, Ventura	10/10/82	Not declared	0		$19,277,102

Hazard Type	Disaster Name	Disaster #	Year	Counties and Cities Declared	State Declaration	Federal Declaration	# of Deaths	# of Injuries	Cost of Damage
Flood	Winter Storms	Unknown	1982	Contra Costa, San Joaquin, Sacramento, Marin, San Mateo, Los Angeles, San Diego, Alameda, orange, San Benito, Santa Barbara, Santa Clara, Santa Cruz, Shasta, Sonoma, Ventura, Trinity, Colusa, Lake Mendocino, Monterey, San Luis Obispo, Solano, Yolo, Butte, Glenn, Kern, Kings, San Bernardino, Sutter, Tehama, Merced, Del Norte, Fresno, Madera, Napa, Placer, Riverside, Stanislaus, Tulare, Humboldt, Mariposa, Nevada, Yuba	12/8/82-3/21/83	2/9/83			$523,617,032
Economic	Mexican Fruit Fly	N/A	1983	Los Angeles	11/4/83	Not declared			
Fire	Statewide Fires	DR-739	1985	San Diego, City of Los Angeles, San Luis Obispo, Monterey, Santa Clara, Santa Cruz, Ventura	7/1/85 - 7/11/85	4/25/84	3	470	$64,845,864
Earthquake	Whittier Earthquake	DR-799	1987	Monterey park, City of Whittier, Los Angeles, Orange	10/2/87 - 10/5/87	10/7/87	9	200	$358,052,144
Economic	Mediterranean Fruit Fly	N/A	1987	Los Angeles	8/25/87	Not declared			
Severe Storm	Coastal Storms	DR-812	1988	Los Angeles, Orange, San Diego	1/21/88	2/5/88	0		
Economic	Mediterranean Fruit Fly	N/A	1988	Los Angeles	7/21/88	Not declared			
Fire, Windstorm	Fires/ High Winds	N/A	1988	Los Angeles	12/9/88	Not declared	0	2	$12,400,000
Economic	Mediterranean Fruit Fly	N/A	1989	Los Angeles	8/9/89	Not declared			
Fire	Santa Barbara Fires	DR-872	1990	Los Angeles, Santa Barbara, Riverside, San Bernardino	6/28/90, 6/29/90	6/30/90	3	89	$300,000,000
Freeze	Freeze	DR-894	1990	Santa Cruz, Fresno, Glenn, imperial, Kern, Mendocino, Monterey, Riverside, San Benito, San Bernardino, San Diego, San Mateo, Santa Barbara, Santa Clara, Solano, Sonoma, Tulare, Ventura, Alameda, Butte, Colusa, Los Angeles, Madera, Marin, Merced, Napa, San Joaquin, San Luis Obispo, Sutter, Yolo, Yuba, Stanislaus, Tehama	12/19/90-1/18/91	2/11/91			$856,329,675
Earthquake	Upland Earthquake	N/A	1990	Los Angeles, San Bernardino	3/9/90, 3/13/90	Not declared	0	38	$12,034,150
Economic	Mexican Fruit Fly	N/A	1990	Los Angeles, San Diego	5/14/90	Not declared			
Severe Storm	1992 Winter Storms	DR-935	1992	Los Angeles, Ventura, City of Los Angeles, kern, orange, San Bernardino	2/12/92, 2/19/92	2/25/92	5		$123,240,531

Hazard Type	Disaster Name	Disaster #	Year	Counties and Cities Declared	State Declaration	Federal Declaration	# of Deaths	# of Injuries	Cost of Damage
Civil Unrest	Los Angeles Civil Disorder	DR-942	1992	Los Angeles	4/29/92	5/22/92	53	2,383	$800,000,000
Flood	1992 Late Winter Storms	DR-979	1992	Alpine, Los Angeles, Humboldt, Napa, Santa Barbara, Culver City, City of Los Angeles, Contra Costa, Mendocino, Sonoma, Fresno, imperial, Madera, Monterey, San Bernardino, Sierra, Tehama, Trinity, Tulare, Modoc, Orange, Riverside, Lassen, Siskiyou, Plumas, San Diego	1/7/93 - 2/19/93	1/15/93	20	10	$600,000,000
Fire	Southern California Firestorms	DR-1005	1993	Los Angeles, Ventura, San Diego, Orange, Riverside, San Bernardino	10/27/93, 10/28/93	10/28/93	4	162	$1,000,000,000
Earthquake	Northridge Earthquake	DR-1008	1994	Los Angeles, Ventura, Orange	1/17/94, 1/24/94	1/17/94	57	11,846	$20,000,000,000
Severe Storm	Severe Winter Storms	DR-1044	1995	Los Angeles, Orange, Humboldt, Lake, Sonoma, Butte, Colusa, Contra Costa, Del Norte, Glenn, Kern, Lassen, Mendocino, Modoc, Monterey, Napa, placer, Plumas, San Luis Obispo, Santa Barbara, Santa Clara, Santa Cruz, Tehama, Ventura, Yolo, Yuba, Alpine, Amador, Nevada, Riverside, Sacramento, San Bernardino, San Mateo, Shasta, Sutter, Trinity, San Diego, Alameda, Marin, Fresno, Kings, El Dorado, Madera, Solano, Siskiyou	1/6/95 - 3/14/95	1/13/95	11		$741,400,000
Storm, Flood	Late Winter Storms	DR-1046	1995	All counties except Del Norte		1/10/95	17		$1,100,000,000
Fire	Southern California Firestorms	EM-3120	1996	Los Angeles, Orange, San Diego	10/1/96			5	$40,000,000

Hazard Type	Disaster Name	Disaster #	Year	Counties and Cities Declared	State Declaration	Federal Declaration	# of Deaths	# of Injuries	Cost of Damage
Flood	El Nino		1998	Alameda, Amador, Butte, Calaveras, Colusa, Contra Costa, Fresno, Glenn Humboldt, Kern, Kings, Lake, Los Angeles, Marin, Mendocino, Merced, Monterey, Napa, Orange, Riverside, Sacramento, San Benito, San Bernardino, San Diego, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Ventura, Yolo, Yuba			17		$550,000,000
Fire	Fire		1999	Various Counties	8/26/99				
Fire	California Wildfires	DR-1498	2003	Ventura, Los Angeles, San Bernardino, Riverside, San Diego		DR1498			
Earthquake	Sierra Madre Earthquake	N/A	2003	Los Angeles	7/5/91	Not declared	1	30	$33,500,000
Fire	Southern California Wildfires	DR-1498	2003	Ventura, Los Angeles, San Bernardino, Riverside, San Diego	10/24-26/03	10/27/03			

]State of California Governor's Office of Emergency Services

HIGH PRIORITY Natural Hazards

Earthquake

Earthquake was rated a HIGH PRIORITY HAZARD in Los Angeles County.

The most recent significant earthquake event affecting Southern California was the January 17, 1994, Northridge Earthquake. At 4:31 A.M. on Monday, January 17, a moderate but very damaging earthquake with a magnitude of 6.7 struck the San Fernando Valley. In the following days and weeks, thousands of aftershocks occurred, causing additional damage to affected structures.

57 people were killed and more than 1,500 people seriously injured. For days afterward, thousands of homes and businesses were without electricity; tens of thousands had no gas; and nearly 50,000 had little or no water. Approximately 15,000 structures were moderately to severely damaged, which left thousands of people temporarily homeless. 66,500 buildings were inspected. Nearly 4,000 were severely damaged and over 11,000 were moderately damaged. Several collapsed bridges and overpasses created commuter havoc on the freeway system. Extensive damage was caused by ground shaking, but earthquake triggered liquefaction and dozens of fires also caused additional severe damage. This extremely strong ground motion in large portions of Los Angeles County resulted in record economic losses.

However, the earthquake occurred early in the morning on a holiday. This circumstance considerably reduced the potential effects. Many collapsed buildings were unoccupied, and most businesses were not yet open. The direct and indirect economic losses ran into the 10's of billions of dollars.

To better understand the earthquake hazard, the scientific community has looked at historical records and accelerated research on those faults that are the sources of the earthquakes occurring in the Southern California region. Historical earthquake records can generally be divided into records of the pre-instrumental period and the instrumental period. In the absence of instrumentation, the detection of earthquakes is based on observations and felt reports, and are dependent upon population density and distribution. Since California was sparsely populated in the 1800s, the detection of pre-instrumental earthquakes is relatively difficult. However, two very large earthquakes, the Fort Tejon in 1857 (7.9) and the Owens Valley in 1872 (7.6) are evidence of the tremendously damaging potential of earthquakes in Southern California. In more recent times two 7.3 earthquakes struck Southern California, in Kern County (1952) and Landers (1992). The damage from these four large earthquakes was limited because the occurred in areas which were sparsely populated at the time they happened. The seismic risk is much more severe today than in the past because the population at risk is in the millions, rather than a few hundred or a few thousand persons.

For decades, partnerships have flourished between the USGS, Cal Tech, the California Geological Survey and universities to share research and educational efforts with Californians. Tremendous earthquake mapping and mitigation efforts have been made in California in the past two decades, and public awareness has risen remarkably during this time. Major federal, state, and local government agencies and private organizations support earthquake risk reduction, and have made significant contributions in reducing the adverse impacts of earthquakes. Despite the progress, the majority of California communities remain unprepared because there is a general lack of understanding regarding earthquake hazards among Californians.

Historic Earthquakes

Since seismologists started recording and measuring earthquakes, there have been tens of thousands of recorded earthquakes in Southern California, most with a magnitude below three. No community in Southern California is beyond the reach of a damaging earthquake. The table below describes the historical earthquake events that have affected Southern California.

About 30 earthquakes occur every day in Southern California. Most have a magnitude of less than 2.0. No evidence exists that earthquakes are more likely to occur in certain kinds of weather.

The best place to see any part of the monstrous, 800-mile San Andreas Fault is in Palmdale in a road cut along the Antelope Valley Freeway (Route 14) just north of Avenue S. The last time this part of the fault was active was in 1857

Year	Date	Location	Time	Richter	Mercalli	Deaths & Property Damage
1769	Jul 28	L.A. Area	---	6.0	VIII	No information
1812	Dec 8	L.A. Area	3:00pm	7.0	VII	40 deaths, Mission San Juan Capistrano severely to moderately damaged. Mission San Gabriel moderately damaged.
1827	Sep 24	L.A. Area	4:00am	5.5	---	**No information**
1855	Jul 11	L.A. Area	4:15am	6.0	VIII	Bells of Mission San Gabriel torn down. 26 buildings damaged in L.A.
1857	Jan 9	Fort Tejon	4:24pm	7.9	IX	2 deaths; Heavy property damage and loss
1916	Oct 23	Tejon Pass Region	**2:44pm**	**5.3**	**---**	**No information**
1933	Mar 10	Long Beach	5:54pm	6.4	IX	120 deaths; $50 million
1941	Oct 21	Torrance-Gardena	10:57pm	4.8	VII	No deaths; $100,000
1941	Nov 14	Torrance-Gardena	12:42am	4.8	VIII	No deaths; $1 million
1951	Dec 25	San Clemente Island	4:46pm	5.9	---	**No deaths; No appreciable damage**
1971	Feb 9	San Fernando	6:01am	6.6	---	65 deaths; $505 million
1979	Jan 1	Malibu	3:15pm	5.2	---	No deaths; minor damage
1987	Oct 1	Whittier-Narrows	7:42am	5.9	---	8 deaths; $358 million
1988	Dec 3	Pasadena	11:38pm	5.0	---	No deaths; No appreciable damage
1989	Jan 19	Malibu	10:38pm	5.0	---	No deaths; slight damage
1989	Jun 12	Montebello	9:57am	4.6	---	No deaths; No appreciable damage
1991	Jun 28	Sierra Madre	7:44am	5.8	---	2 deaths; $40 million
1994	Jan 17	Northridge	4:31am	6.7	---	61 deaths Est. $20 billion
2001	Sep 9	SE of West Hollywood	4:59pm	4.2	---	No deaths; moderate damage

The Los Angeles Whittier-Narrows Earthquake of October 1, 1987 (FEMA-799-DR-CA).

Introduction

On October 7, 1987, the President declared California a major disaster area as a result of an earthquake which struck the eastern Los Angeles Metropolitan area. Los Angeles County was declared eligible for the Individual and Public Assistance Programs. What follows is a summary of the Hazard Mitigation Survey Team's recommendations to the Federal Emergency Management Agency (FEMA) Regional Director, the Governor's Authorized Representative, and interested Federal, State, and local agencies.

Description of the Disaster

Overview

The relatively moderate earthquake that struck the eastern Los Angeles area at 7:42 a.m. on October 1 produced widespread damage in southern California. The earthquake caused relatively few deaths and injuries but produced significant financial impacts, both from damage and loss of revenues.

Damage due to earthquake shaking was reported as far north as Ventura County and extended south to mid-Orange County, west to Long Beach, and east to Ontario. At least 55 cities as well as unincorporated areas in Los Angeles, Orange, and Ventura counties reported some degree of damage, and total losses exceeded $350 million (see Tables 1 and 2 for detailed estimates of losses). The primary concentration of major damage was to the redeveloped historic central business district of Whittier. Numerous buildings occupied primarily by small businesses suffered severe damages.

Fatalities caused by the earthquake included a student at California State University, Los Angeles, killed by a concrete slab falling from a parking structure, a utility worker trapped while excavating for a power line in the Angeles National Forest area, and a Maywood man who fell to his death from a second story apartment window. Approximately 200 injuries (mostly minor) and several fatal heart attacks were also attributed to the earthquake.

FEMA and the State of California opened ten disaster application centers. By November 13, 1987, 22,622 individuals and businesses had registered at these centers. The temporary housing program received 15,579 applications for assistance, while the Individual Family Grant Program received 4,609 applications. The Small Business Administration issued 13,877 home and personal property loan applications and 4,200 business loan applications.

Public schools generally experienced few casualties or major damage. The Los Angeles Unified School District reported that 56 schools sustained minor damage and two schools sustained major damage, with an estimated loss of $5 million. The most significant problem appeared to be emergency coordination and implementation of school disaster plans.

The earthquake damaged more than 30 hospitals, nursing homes, medical care and outpatient facilities as far away as 30 miles from the epicenter. Businesses experienced significant financial disruption. Several large corporations reported structural and nonstructural damage, resulting in significant losses. Numerous small businesses in Whittier experienced major losses and interruptions of business that in some cases were difficult to recover from.

LOSSES (in $millions)			
	Los Angeles Co.	**Orange Co.**	**Total**
Private Sector	$244,080	$8,648	$252,728
Public Sector	104,909	413	105,322
TOTAL	***$348,989***	***$9,061***	***$358,050***

PUBLIC SECTOR LOSSES BY CATEGORY (in $millions)	
Counties/Cities/Special Districts	$52,170
Community Colleges	1,747
State Facilities	23,625
Schools (K-12)	16,000
Private Non-Profit	11,780
TOTAL	***$105,322***

Geophysical Discussion

The Los Angeles Whittier Narrows earthquake, measuring 5.9 on the Richter scale, occurred in the east Los Angeles metropolitan area at 7:42 a.m. on October 1, 1987. The earthquake's epicenter was approximately six miles south-southeast of Pasadena. The main shock occurred along a previously unidentified Transverse Range thrust fault. It was followed by approximately thirty-five aftershocks including one magnitude 5.3 event at 3:59 a.m. on October 4. Aftershocks continued through the end of the month.

The geophysical setting of this earthquake is described by the interaction between crustal plates that are in constant motion (5-10 cm/yr.) relative to one another. The San Andreas fault system forms the boundary between the Pacific and the North American plates. This boundary intersects several of California's major metropolitan centers, making it one of the most extensively urbanized tectonic plate boundaries.

The Los Angeles metropolitan area is susceptible to earthquake damage resulting from the ongoing tectonic process that characterizes coastal California. This process is dominated by the intersection of the San Andreas and the Transverse Range fault systems. The effects of this intersection are evident in the regular occurrence of moderate size earthquakes.

The Los Angles metropolitan area, inhabited by more than 11 million people, is one of the key industrial, commercial, and cultural centers of the United States. As the area's population and development continue to expand, so does its vulnerability to damaging earthquakes. The 1971 San Fernando and the Whittier Narrows earthquakes, both moderate-sized events, demonstrate how vulnerable a complex modern urban society is to the damaging effects of earthquakes. Earthquakes of similar moderate magnitude can be expected to recur in the region on a regular basis. According to the

U.S. Geological Survey, there is a strong possibility that the potential for moderate magnitude earthquakes within the Los Angeles Basin has been underestimated by seismologists and emergency planners.

Even though the losses from these and other moderate earthquakes are significant, they do not reflect the overall risk to the region, since none has been as strong as the largest credible earthquake, an 8.0+ magnitude event on the San Andreas Fault. The probability that such a large earthquake will occur sometime in the next 25 years near the Los Angeles metropolitan area is estimated to be 50 percent or greater. Projected losses would exceed those of any previous natural disaster in the United Stated.

Damage Assessment

Approximately 10,000 buildings in the region were damaged as a result of the October 1 earthquake, with additional damage occurring after the major October 4 aftershock. Structural damage impacted primarily unreinforced masonry commercial buildings, wood frame homes, apartments, and mobile homes, and concrete frame structures. Other areas of concern included nonstructural damage, transportation and lifelines.

Unreinforced Masonry Structures

The most heavily damaged structures were older commercial buildings constructed of unreinforced masonry. The business district of Whittier experienced heavy damage to these types of structures. Following the earthquake, the entire business district was closed, and a number of the damaged buildings were demolished. Typical damaged consisted of failure of one or more load-bearing walls, with occasional collapse of floor or roof diaphragm elements.

The Unreinforced Masonry Building Act (SB 547), the state law passed in 1986 to require local jurisdictions to develop hazard mitigation programs for unreinforced masonry buildings, had not yet been fully implemented at the local level. The cities of Los Angeles and Monterey Park had enacted hazardous building ordinances, but had not yet fully implemented them. Other communities in the impacted area were considering enacting this type of ordinance.

Residential Structures

A second serious type of structural damage involved single family homes, apartment buildings, and mobile homes. In some cases, homes experienced damage to unreinforced masonry walls, especially hollow clay tile walls, a construction material popular in older southern California buildings. In most cases, however, residential damage was to wood frame structures. Typically the failure of the supporting “cripple wall” between the concrete foundation and the floor diaphragm caused the building to slide off the foundation, destroying exterior structural components and breaking utilities connections. Many homes sustained minor damage such as chimney collapse.

Un-reinforced masonry apartment buildings experienced significant damage, although none actually collapsed. Wood frames/stucco apartment buildings were less heavily impacted, but some sustained major cracking of exterior walls that in effect made the structure uninhabitable. Some damage occurred also to the more modern apartment and condominium structures, including wall cracks, fallen ceilings, and collapse of balconies. Damage was also reported to mobile homes. Typically, this damage involved loss of support from foundation piers due to earthquake shaking.

Modern Concrete Frame Structures

Some modern concrete frame buildings experienced significant problems, while steel frame buildings performed well. Concrete frame parking structures experienced damage, in one case resulting in a fatality. Several concrete frame buildings on the campus of California State University, Los Angeles, sustained significant damage. Pre-cast concrete buildings proved particularly vulnerable to earthquake shaking, and would probably have experienced severe damage if the duration of the earthquake shaking had been slightly longer. A 1976 pre-cast concrete frame structure in Rosemead experienced serious structural damage which forced the corporate occupant to relocate its work force in temporary outdoor units.

Nonstructural Damage

Widespread nonstructural damage was reported following the earthquake. Many broken glass storefront windows could have resulted in severe injuries had the earthquake occurred one hour later when pedestrian traffic was present. Other nonstructural damage of serious concern included the widespread failure of elevators, the partial collapse of many ceilings and light fixtures, and the toppling of building contents.

Transportation & Lifelines

Damage to the transportation system was minimal. One exception was the Interstate 605 overpass at the intersection with Interstate 5, where damaged columns resulted in a one-day closure of both freeways at that location. Local roads and highways experienced little damage. Airports suffered enough damage to requir4e temporary closure, but were generally back in operation within a day.

The municipally owned water system in Whittier experienced major damage. Numerous water mains in the old system were cracked or broken. The October 4 aftershock exacerbated the damage in some of the same locations.

Emergency Response

The California Office of Emergency Services (OES) activated its Region I Emergency Operations Center (EOC) in Los Angeles and attempted to determine the level and location of earthquake damage. Region I staff, supplemented by staff from the State Department of Transportation, the State Department of Health Services, and the Southern California Earthquake Preparedness Project (SCEPP), also processed requests for volunteer assistance from the California Conservation Corp (CC) and the OES engineers program. At approximately 3:45 p.m. on October 1, the California Earthquake Prediction Evaluation Council (CEPEC) convened via a conference call from the EOC to ascertain, to the extent possible, the probability that the initial earthquake would be followed within the next several days by a shock of equal or greater magnitude. The consensus of the Council was that the likelihood of such an event was less than 5%.

Two of the cities most affected by the earthquake had exercised their emergency response plan during 1987. One of these, Monterey Park, had exercised its plan just two days prior to the earthquake. Whittier, the city most seriously damaged by the earthquake, had previous initiated a comprehensive community training program and reported that citizens and city employees knew what to do.

Evacuations

Numerous evacuations from high-rise and other types of buildings occurred after the earthquake. In most cases, these evacuations were spontaneous and unplanned, resulting in some inappropriate

actions. For example, in some high-rise buildings, occupants congregated on sidewalks outside the building, risking injury from falling glass in the event of an aftershock.

In other cases, residents of apartment buildings self-evacuated to nearby parks, sometimes against the advice of emergency responders. Red Cross staff reported dealing with two kinds of problems following the earthquake: residents fearful of leaving shelters and returning to their homes, and landlords locking tenants out in order to obtain new tenants at higher rents.

Mutual Aid

Once the area and extent of damage became generally known, jurisdictions in need of mutual aid were called by jurisdictions willing to provide it. Among the resources made available were:

- The City of Los Angeles provided numerous building inspectors to Whittier;
- Huntington Park provided public works assistance to Bell;
- Los Angeles County provided building inspectors, aerial lift trucks, and haulage to Alhambra and building inspectors to Whittier;
- Orange County provided fire units to Monterey Park;
- Ventura and Orange counties dispatched fire equipment to Los Angeles County through regular fire mutual aid channels;
- The (CCC) provided crews to Alhambra and Whittier to assist in demolishing chimneys destroyed by the earthquake;
- State OES provided hand-held radios to Whittier.

Communications

The telephone communications system, as expected, experienced severe overload and consequent outage. Land-line communications were disrupted by the earthquake. In some cases, phones did work, but most jurisdictions hit hardest reported one-way communications, with calls coming in, but none going out. Although service was restored relatively quickly, the outage restricted the ability of local government to respond quickly to the emergency.

Jurisdictions with organized radio amateurs groups reported success in using these individuals to determine the initial extent of their damage. One city used cellular car phones for two-way communications; they functioned well although they are ultimately tied into the existing land line network.

In spite of the relatively minor incidence of injury produced by this earthquake, medical communications systems experienced an overload of the 911 system. Extra telephone dispatchers were called in to handle the greatly increased number of calls which, at one point, tied up virtually every 911 line.

It is clear from this response that a higher magnitude earthquake, with greater consequences, could completely overburden the emergency communications system.

Fires and Hazardous Materials

Fire departments around the area reported a number of calls concerning fires and hazardous materials incidents immediately following the earthquake. The Los Angeles City Fire Department reported five earthquake caused fires, three of which were linked to natural gas leaks.

A significant hazardous materials incident occurred in the City of Santa Fe Springs, when an earthquake-ruptured tank leaked 240 gallons of chlorine into the air, causing a plume cloud formation that drifted through the industrial section of the City toward Whittier, resulting in the evacuation of some areas. Spilled chemicals resulted in a fire at a laboratory facility of California State University, Los Angeles. Pockets of encapsulated asbestos were dislodged by the earthquake shaking, releasing airborne asbestos fibers into ventilation systems or some public schools.

The Southern California Gas Company received over 20,000 service calls following the earthquake. They found 4,065 gas leaks, of which only 1,411 proved to be directly caused by the earthquake. A total of 16,507 customers reported turned off their gas although there was no gas leak; 81 automatic gas shutoff valves had to be reset.

Mass Care

The American Red Cross sheltered 10,359 people in 21 shelters following the earthquake and fed disaster victims 186,635 meals. By November 18, 1987, the Red Cross had provided 20,930 "bed units" (one person per day per bed equals one bed unit). In addition, some 625 families had been placed in rental units and more than 593 individuals checked into motels. Some difficulties were reported in terms of developing coordination between volunteer organizations and local government in providing this service.

Initial Recovery

After the main shock, city and county authorities started to quickly clean up and open the damaged area to people who wanted to remove their business inventories, clean up debris, or get back to work. Vehicle traffic was kept out of the most seriously damaged areas, but allowed access to the immediately surrounding area. This initial recovery effort failed to account for potentially damaging aftershocks. Although the Whittier Narrows aftershock sequence was characterized by an unusually small number of aftershocks during its first 48 hours of activity, a very large aftershock, measuring 5.3 on the Richter scale, occurred on October 4. The Whittier May Company parking garage, which was damaged but stills standing after the earthquake, collapsed during the aftershock.

The Northridge Earthquake

The magnitude 6.7 Northridge earthquake occurred at 4:31 on the morning of January 17, 1994, a national holiday, when most Californians were at home asleep. Fifty-seven people lost their lives, nearly 9,000 were injured, and damage was in excess of $20 billion.

Responding to the losses from the Northridge earthquake, Governor Pete Wilson issued Executive Order W-78-94 instructing the Seismic Safety Commission to review the effects of the earthquake and to coordinate a study of the specific policy implications arising from the Northridge earthquake, with particular attention to seismic structural safety and land-use planning.

In carrying out the Governor's mandate, the Commission used over three dozen background reports (published separately in the *Compendium of Background Reports on the Northridge Earthquake*, SSC 94-08) that describe the relevant laws, codes, regulations, and current practices in the fields of land use planning, structure and lifeline design, construction, and earth sciences. These reports were prepared by experts who reviewed the legal, social, and physical environment in which they took place. The reports were also reviewed by over 60 stakeholders, from state agencies and professional organizations to private citizens. In addition, a number of detailed case studies were conducted on over two dozen buildings following the earthquake and published as *Northridge Buildings Case Studies*, SSC 94-06.

Effects of the Northridge Earthquake

At 4:31 a.m. on January 17, 1994, eight miles below the surface of the northwestern end of the San Fernando Valley, the magnitude 6.7 earthquake generated intense shaking that caused widespread damage and enormous economic loss. The communities of Northridge, San Fernando, West Hollywood, Santa Clarita, Fillmore, Simi Valley, and Sherman Oaks were the hardest hit, but strong shaking and vulnerable buildings caused extensive damage as far away as central Los Angeles, Santa Monica, and Whittier.

This report is an overview of the effect of the Northridge earthquake on people, buildings, lifelines, and the local economy. It is these effects the Commission seeks to reduce in future earthquakes through improved public policy.

People

Although the number of lives lost in the Northridge earthquake was remarkably low considering the intensity of the earthquake and its location, 57 people died, nearly 9,000 were injured, and the earthquake affected the lives of more people than any previous natural disaster in the United States.

The earthquake hit California hardest at home. Over 25,000 dwelling units were permanently lost or severely damaged, and over 1,600 homes and apartment buildings were declared uninhabitable. By mid-September, the Governor's Office of Emergency Services and the Federal Emergency Management Agency (FEMA) had received over 630,000 phone calls regarding disaster assistance from victims of the earthquake, more than twice the number received after the previous record holder, Hurricane Andrew. FEMA had also received over 265,000 applications for individual and family grants. The Small Business Administration had conducted over 535,000 interviews with earthquake victims and had approved over 100,000 loans totaling nearly $3.4 billion.

Low-cost housing proved the most difficult to replace. Despite extraordinary city, state, and federal government efforts, repairs have begun on less than half of the 5,607 buildings that provided 11,000

apartments in the now infamous "ghost towns" (see Figure 3). The owners of the remaining buildings either don't yet know whether they can rebuild or have decided to forfeit their equity and allow lenders to foreclose.

Local mental health agencies and community-based groups reported over 1,150,000 crisis counseling interventions, costing over $35 million. Although most victims have adjusted and returned to an appearance of normalcy, for many the traumas continues.

Buildings

With losses estimated at $20 billion, the Northridge earthquake was the most expensive earthquake in the history of this country. The greatest portion of those losses was a direct result of the damage to buildings. Over 112,000 structures were damaged in the earthquake. In the City of Los Angeles, over 934,000 buildings were damaged badly enough to require inspection, and nearly 2,000 (including 1,500 residential buildings) of those were red-tagged, forbidding entry; another 1,000 buildings were red-tagged in other affected communities. Over 8,800 buildings were yellow-tagged as safe only for limited use in Los Angeles; 5,000 more were yellow-tagged in other communities.

Most modern buildings (those built to post-1976 codes) performed significantly better than structures built to prior codes, however, three types of structures built to modern codes had a higher-than-expected frequency of damage:

1. Tilt-up concrete buildings

2. Steel moment-frame buildings

3. Aboveground reinforced concrete parking structures

The most severe damage generally occurred to buildings designed to codes used before 1976, with damages divided into three categories:

1. Buildings constructed with suspect materials and techniques, such as tilt-ups, non-ductile concrete frames, and un-retrofitted unreinforced masonry.

2. Buildings designed or constructed with irregular configurations – for example, multistory buildings with inadequately braced first stories (like most of the apartment houses that collapsed) and hillside homes.

3. Buildings with poor design, construction, or maintenance.

In spite of the good performance of most buildings, the economic losses were high. The damage to nonstructural elements – heating and air conditioning systems, lighting fixtures, suspended ceilings, partitions, and equipment – was costly. Nonstructural damage is a significant matter as the value of these elements generally ranges from slightly over half of a single-family dwelling's cost to as much as 80 percent of the total cost of many large buildings. Nonstructural items make possible a building's function and damage can disable buildings that are otherwise safe to occupy. Some hospitals had to close even though they had suffered only minor structural damage, because of damage to sprinkler systems, power systems, and other vital equipment.

Fires

The earthquake caused relatively few fires, although the most spectacular, the fire at a break in a natural-gas transmission line on Balboa Boulevard, was shown so often on television that it gave the perception of a more pervasive problem. Good fortune played a critical role in keeping fires from spreading; there was no wind, and the area was not experiencing a dry spell. Another major factor, which was not a matter of luck, was the high level of planning and training in local fire departments and utilities, and the earthquake risk-mitigation programs of many businesses and governments.

Nonetheless, there were several problem areas:

- A number of fires in mobile home parks were caused when mobile homes fell from their supports and severed natural-gas connections. IN all, 172 mobile homes were destroyed by fire. These mobile home fires were all too predictable; they remain a constant threat throughout the state.

- Communications failures hampered the response of emergency responders.

- Damage to water delivery systems seriously limited the efforts of firefighters.

Lifelines

Lifelines – transportation systems, communications, and water, gas, and electric utilities – suffered extensive damage. The effect of individual lifeline failures and combined failures is both direct (gas fires) and indirect (interference with emergency response). The combined loss of water pressure, electrical power, emergency power, and communications, coupled with significant gas-related fires, present a clear and unacceptable hazard with far-reaching implications for emergency response and disaster recovery. Only good fortune prevented an even greater disaster.

Transportation Systems

Despite the retrofits and improvements in design that were made between the 1971 San Fernando earthquake and this 1994 event, some freeway overpasses collapsed and other portions of the highway system failed. Most of the bridges that were severely damaged were designed prior to the changes instituted as a result of the San Fernando (1971) and Loma Prieta (1989) earthquakes. Bridges designed and built after the lat4e 1970s performed relatively well. The direct cost to repair damaged freeway structures was over $350 million.

Communications

Communications failures during this disaster resulted in breakdowns in service, misunderstandings, lack of information for making decisions, and, in some cases, loss of lives and property. Emergency and normal communications systems were disrupted by damage, loss of electrical power, increased call volume, and call convergence into and out of the affected area. The disruption ranged from delayed dial tones to nonfunctional radio systems. Cellular phones worked well, but experienced overload. Radio communication among various police and fire agencies was hampered by too few mutual-aid channels, incompatibility of dissimilar radio systems, and the use of exclusive frequency bands.

Many hospital radios and phones did not work, requiring the Los Angeles Fire Department to send runners and fire units to determine the status of hospitals; paramedic and emergency medical services in the San Fernando Valley had communication problems; the Los Angeles County Medic Alert Center

broke down; the Hospital Emergency Administrative Radio system was inoperable in the area of greatest earthquake impact; Reddi-Net, a computerized system owned by the Hospital Council of Southern California that links 86 hospitals, failed. Equipment damage and lack of employee training took their toll.

Electricity

About two million customers in the Los Angeles area lost electric power following the earthquake. Although power to most customers was restored, those near the epicenter, including hospitals and police and fire stations, were without power. Electric utilities made significant progress in "hardening" their generating and distribution facilities as a result of lessons learned in the San Fernando, Loma Prieta, and other earthquakes, but this event presented new problems. For the first time, transmission towers were toppled at a few locations. Power was restored to most of the region within one day and the hardest-hit areas within three days.

Gas

Damage to natural-gas transmission and distribution system caused fires, including a spectacular fire on a major thoroughfare, and interrupted service. The earthquake demonstrated that some older pipelines are vulnerable to failure in areas of ground deformation, but that newer pipelines faired well. Because gas-related fires are a major source of losses, efforts to minimize losses and control leaks are important.

Water

Damage to the area's water supply systems, from northern California and the Colorado River, as well as to distribution lines interrupted supplies and hampered fire fighting. The earthquake damaged five major aqueducts, disrupting the supply from the north. These pipelines serve treatment facilities that prepare water for the areas of Santa Clarita, Simi Valley, and San Fernando Valley. As was the case following the 1971 San Fernando earthquake, significant repairs were also required on local water distribution systems. Water was unavailable to some of the areas hardest hit by the earthquake for several weeks.

The Economy

The $20 billion in losses that often has been quoted as the cost of the Northridge earthquake coves, primarily, the physical damage to structures and lifelines. It does not include many of the costs related to loss of use, loss of bus9iness, loss of productivity, and relocation of businesses. Though they are significant, these losses are often overlooked. It was estimated that the loss of use of parts of the transportation system following the earthquake cost $65 billion in delays and lost productivity.

Overall productivity losses in the Los Angeles area in the days following the earthquake were estimated at $1 billion (Romero, 1994). Indirect economic effects such as loss of tax revenue, short- and long-term loss of productivity, and ripple effects such as foreclosures, abandonment of equity, and redistribution of commercial activities are extremely difficult to calculate with any degree of accuracy. Such imprecision doesn't lessen the impact, especially to the victims.

Loss of business is creating major problems in some areas, where these businesses provided both needed services and jobs. Although some businesses, trades, and professions are seeing an increase in demand for their services and products, fueled in part by government grants, low-interest loans, and other assistance, many small businesses remain closed or are struggling because the nearby

residential properties that housed their normal customer base remain vacant. Nine months after the earthquake, nearly 50 percent of the small businesses in the most heavily affected area of Northridge were still not open. The commercial district in Fillmore and many commercial properties in communities from the San Fernando Valley to Santa Monica still awaited repairs.

Insured losses exceeded insurance industry expectations, illustrating the importance of reducing earthquake risk. The California Department of Insurance estimates that over 300,000 claims for earthquake damage repair had been filed as of October 1, 1994. The size of individual claims from the Northridge earthquake has been, on average, two or three times greater than claims from previous earthquakes. Insurance companies expect to pay approximately $11 billion in claims, and some have been driven to the brink of insolvency. Many insurance companies believing their earthquake insurance risk exceeds their ability to pay future claims, have moved to limit the number of policies written for earthquake and homeowners' coverage in California. Lasting effects will be felt in terms of the availability of insurance, the amount paid for premiums, and the quality of coverage.

Geologic and Geotechnical Aspects of the Northridge Earthquake

The Northridge earthquake occurred at a depth of approximately nine miles beneath the earth's surface on a buried, or "blind," thrust fault. It produced intense shaking and caused extensive damage that reaffirmed the potential risk from this type of fault – and the need to mitigate that risk.

The earthquake was th4e most recorded earthquake that has ever occurred in California. Strong-motion instrument recordings were obtained at 257 sires. Over 11,000 aftershocks have been recorded by these instruments. By maintaining and enhancing data collection programs and identifying areas that have faults capable of causing earthquakes, California can learn to better reduce its seismic risk.

The Northridge earthquake also caused secondary hazards, the most prominent of which was localized amplifications of the ground motion caused by local geologic conditions. The identification and mitigation of secondary hazards, such as landslides, liquefaction, and areas that may amplify shaking, need to be integrated into land use planning programs, building codes, and engineering practices.

The Northridge earthquake provided many geologic, seismologic and geotechnical data that are still being compiled and analyzed. A significant value of the Northridge earthquake data is their use in the development and calibration of methods for assessing seismic hazard for planning and engineering applications. For example, the Northridge event occurred on a buried fault, highlighting the need to characterize and include earthquakes on this type of fault in their analysis of the ground motion component of the overall seismic hazard, It also reaffirmed that most of the hazard associated with earthquakes typically comes from strong shaking.

Strong Ground Motion

The Northridge earthquake was a moderate earthquake that produced strong ground motions and intense shaking. The term "moderate" describes the *magnitude* of the earthquake, which in this case was 6.7. Moderate earthquakes (less than magnitude 7.0) generally produce localized shaking of intensity (that is, amplitude of motion and frequency content) on stiff structures similar to that of major earthquakes (magnitudes of 7.0 and above). However, a more extensive area experiences intense shaking in a higher-magnitude earthquake and the duration of the shaking, the length of time the strong motion lasts generally increases with increases in magnitude. Since a higher-magnitude earthquake affects a larger area and lasts longer, it can be expected to cause greater damage.

A number of factors affect the amount of damage to structures in an earthquake, but the intensity of shaking is of paramount importance. Shaking intensity is affected by the magnitude of the earthquake,

its style of faulting, local geologic conditions, proximity to the fault rupture, and the rupture geometry along the fault. The Northridge earthquake's strong-motion records reveal extensive information about the nature of the shaking, including acceleration, velocity, displacement, duration, and frequency, the consensus of earth scientists and geotechnical engineers is that the earthquake's motions were not unusual for a thrust-fault earthquake of this magnitude. However, this earthquake clearly points out the importance of near-source effects and local geologic conditions on shaking intensity and the need to incorporate these phenomena in seismic design and construction.

Accelerations

Peak accelerations, which h are not necessarily the best measurement for correlating ground motion with the forces in structures, typically ranged from 0.4g to 0.8g in the regions that suffered significant damage. Recorded peak horizontal accelerations typically ranged between 0.1g and 0.5g at distances between 12 and 30 miles from the rupture zone, although some higher accelerations were recorded due to local geologic or topographic conditions. Horizontal accelerations exceeding 0.9g were re4corded in the San Fernando Valley and in Santa Monica, nearly 14 miles away from the epicenter. The highest recorded free-field accelerations, 1.82g horizontal and 1.18g vertical, were at the Cedar Hill Nursery in Tarzana, three miles south and west of the epicenter. Instruments near an abutment to the Pacoima Dam recorded peak accelerations of 2.3g horizontal and 1.5g vertical, although the free-field accelerations on alluvial materials near the base of the dam were less than 0.5g.

There was initial speculation that much of the damage in the Northridge earthquake was caused by abnormally high vertical accelerations. Although vertical accelerations were high in some locations, so was the horizontal acceleration. The ratio of vertical to horizontal acceleration was consistent with previously recorded data. Modern building codes are based on assumptions that the maximum vertical accelerations will be two-thirds of the peak horizontal acceleration. An analysis of Northridge records indicates that, although this ratio was exceeded at a number of locations, on average, it held true (Shakal et al., 1994). The Commission has not received evidence that vertical accelerations played an unusual role in the damage caused by the Northridge earthquake.

Velocity and Displacement

The intensity of shaking is typically described by acceleration recordings. The Northridge earthquake also produced high velocities and displacements not described in acceleration data. A velocity of 56 inches per second was recorded in a parking lot at the Sylmar County Hospital, and a velocity of 72 inches per second was recorded at the Rinaldi receiving station. Peak velocity is important because it is a good indicator of an earthquake's demand potential (or energy) on multistory structures.

Ground displacement also is a significant factor in the design of structures, especially for seismically isolated structures. Ground displacement of 31 inches was measured at the Sylmar County Hospital parking lot. Base-isolate structures are normally separated from the surrounding soil to allow room for movement. Although seismically isolated structures are isolated from high-frequ4ncy shaking during an earthquake, they may collide with building foundation stops or barriers if actual displacements exceed the anticipated or design displacements. Such collisions would result in high impact forces that fan cause significant damage and even collapse.

Near-Source Effects

The near-source region of an earthquake can be defined as the region within several miles of where the projection of the fault rupture plane meets the ground surface. Within this region, the ground motion may be characterized by pulses of high velocity that are potentially damaging to certain types of structures. The near-source area in a strike-slip earthquake would have a different shape (generally

longer and narrower, extending on both sides of the fault rupture for the length of the rupture), and the nature of the near-source strong motion would also vary, depending on other non-source effects such as local geologic conditions.

Although seismologists have known of the influence of near-source effects on seismic shaking for some time, near-source effects first gained the interest of California engineers following the 1971 San Fernando earthquake. Failure of the Olive View Hospital in 1971 was attributed, in part, to a large, long-period near-source "seismic pulse." Near-source effects have been considered in the design of some critical facilities for a number of years. However, the implication of near-source effects have only recently been studied for use in the design of conventional structures because previous earthquakes have not struck well-instrumented urbanized areas and, therefore, produced few recorded motions from areas close to the source. At present, near-source effects are not explicitly considered in the building codes except for seismically isolated structures.

Near-source effects of engineering interest are related to the direction and mechanics of the fault rupture. The numerous localized, relatively rapid failures of "patches" of the fault surface causes significant high-frequency motion and allows permanent coseismal displacement of the fault and surrounding area. Known as source-effect phenomena, these factors affect the amplitude and frequ4ency content of shaking.

Of critical importance to the design of engineered structures is that near-source effects combined with local geologic effects an adversely alter the seismic performance of a wide range of structures, including high-rise and base-isolated buildings. Data recorded during the Northridge earthquake clearly indicate the need to incorporate measures to mitigate this hazard in building codes. High-0velocity pulses in the near-source area are believed by some to be a cause of much of the damage. These pulses were the largest in the northern San Fernando Valley and Santa Susana Mountains. They were also significant in the southern San Fernando Valley.

Duration of Strong Motion

The longer ground shaking lasts, the greater the damage to structures, natural slopes, and fills. When strong shaking ceases, there is a reasonable possibility that the damage will not continue. However, if the shaking continues after damage has been initiated, structures will continue to degrade and may eventually collapse. Damage caused by seismic consolidation and liquefaction also increases as duration increases. The duration of intense shaking during the Northridge earthquake was relatively short, on the order of nine seconds or less. Had the earthquake's magnitude been larger, there is little doubt that the strong shaking would have lasted longer and the damage would have been greater. Strong shaking has lasted minutes in some other events.

The duration of intense shaking, like near-source effects, is not explicitly considered in out building codes Because an urbanized area of California has not yet been exposed to long-duration near-source effects, the effect of durations on various types of structures is not fully understood.

Response Spectra

Response spectra are graphs that display the response of structures to ground motion associated with earthquakes. A spectrum graphically depicts the variation of spectral accelerations (velocities or displacements) experienced by simple structures with different stiffness or periods of vibrations (expressed in seconds). Although some recorded Accelerations in this earthquake were especially high, most spectra generally agreed with those recommended by site-specific geotechnical studies as the basis for the design of special structures. Similar response spectra have been calculated from data

from numerous earthquakes since the 1971 San Fernando event and should be expected in future events.

Engineers use *design* spectra to determine the design parameters to use when designing stuffier. The values of design spectra are not the same as those of response spectra computed from measured ground motion. Design spectra are modified from response spectra to reflect safety factors and the performance of materials and structural systems observed in past earthquakes.

Because of the damage from this earthquake, questions have been raised concerning the adequacy of the building code's definition of the forces that earthquakes can impose on buildings. Code writers and designers know that code spectral values will likely be exceeded in large earthquakes and that this was anticipated when the code was written.

The recorded data from the Northridge earthquake are still being evaluat4ed and are subject to different interpretations. Strong motion instruments also were not located in many of the areas that suffered the most sever damage. Generally speaking, the motions recorded near the Northridge epicenter wee compatible with those used as the basis for the code, but the motions exceeded those assumed in the code in some cases. At some locations, particularly in the near-source areas and in areas with unique local geology, shaking exceeded the assumptions underlying design values in the short- to mid-period range. This shaking appears to have affected low- and mid-rise buildings and caused response in higher modes of vibration for tall buildings. Velocity- and displacement-sensitive structures also may have been affected by the velocity pulses described earlier. Near-source and local geological effects must be considered in the design of structures. There is no compelling evidence that changes to the code's assumed force levels are necessary. However, changes are necessary regarding the treatment of effects of near-source and local geologic conditions.

Strong-Motion Instrumentation

The timely release of strong-motion data, especially during the days immediately following an earthquake, is invaluable to building owners, emergency responders, and those who will revise codes and design practices. Much of the evidence of an earthquake's effects disappears quickly as demolition, repair, and reconstruction takes place. The opportunity to compare building performance and earthquake effects with actual motion data helps practicing engineers and researchers understand their observations, which in turn helps strengthen building codes and reduce future earthquake damage.

The Strong Motion Instrumentation Program (SMIP) proved its worth during this earthquake and its aftermath. Within a day of the main shock, SMIP had issued a "Quick Report" containing copies of strong-motion records obtained by four of its stations; copies of records for nine additional stations were released the following day. By the third day, copies of records for 28 stations had been made available, and by January 25, five quick reports had been released, providing peak acceleration data for 68 stations. In mid-February, SMIP issued a report containing pertinent station information, known geologic site conditions, peak acceleration data, and traces of recordings from 193 stations. SMIP also processed significant records rapidly and released processed data from five stations during the first week of February; additional releases followed at three- to four-week intervals. Processed data for more than 70 stations were released by December 1994. The timeliness and quality of these data were extremely valuable.

The U.S. Geological Survey (USGS), utilities, dam owners, and researchers funded by the National Science Foundation (NSF) operate networks of hundreds of free-field and structural strong-motion instruments scattered throughout California. A considerable public investment has been mad in developing and maintaining USGS- and NSF-funded strong-motion networks. For example, the USGS

strong-motion network in southern California consists of nearly 100 stations, while the University of Southern California network originally consisted of 80 free-field stations. Many of these instruments are old analog-type devices; the data they collect require considerable processing before they can be used. Because these arrays complement the SMIP instruments and record motion in different areas, data from these networks are vital to understanding the distribution and severity of shaking resulting from the earthquake. The USGS released photocopies of records obtained from 150 individual accelographs in February 1994. However, data from the USGS- and NSF-funded networks wee not processed in a timely manner following the Northridge earthquake. USGS data were released to the scientific and engineering community in December 1994, but NSF-funded data wee not released as of that date. This situation is unacceptable; a mechanism is urgently needed to correct this problem.

Reference Stations

Most free-field strong-motion stations were installed in locations near active faults to collect data for use in understanding the physics of earthquakes to be better able to estimate ground motion in future earthquakes. Such studies are vital to an understanding of the earthquake processes and such instrument deployments need to continue. However, there is also an urgent need for free-field strong-motion data as references to establish the levels of ground shaking experienced by buildings and other structures. Without such data, engineers cannot assess whether buildings performed as intended and determine the changes needed in codes and design practices to improve performance. For example, there were few free-field instruments in the immediate vicinity of damaged steel-frame buildings, so the levels and character of shaking experienced by these buildings were not well understood. The lack of reliable ground-motion data makes it extremely difficult to understand the causes of these failures and find acceptable solutions. None of the existing programs is directed toward obtaining the reference ground-motion data that are needed.

Updated Fault Parameters

FAULT NAME AND GEOMETRY (ss) strike slip, (r) reverse, (n) normal (rl) rt. lateral, (ll) left lateral, (o) oblique	Fault Length (km)	+/-	Slip Rate (mm/yr)	+/-	Rank (1)	Mmax (2)	Down Dip Width (km) (3)	+/-	Ruptop (4)	Rupbot (5)	Dip	Endpt N (W)	Endpt. S (E)	COMMENTS
	Note: Entry highlighted in yellow indicates modifications to 1996 fault parameters. Entry highlighted in grey with red text indicates 1996 source that has been deleted in the 2002 fault parameters.													
A FAULTS														
SAN ANDREAS FAULT ZONE														
San Andreas (Coachella) (rl-ss)	96	10	25.0	5.0	P	7.2	12	2	0	12	90	-116.47; 33.92	-115.71; 33.35	Slip rate based on Sieh and Williams (1990); Sieh (1986); Keller et al. (1982); Bronkowski (1981).
San Andreas (San Bernardino) (rl-ss)	103	10	24.0	6.0	M	7.5	18	2	0	18	90	-117.50; 34.29	-116.48; 33.92	Minor modifications to digitial fault trace and minor length modification.
San Andreas (Mojave) (rl-ss)	103	10	30.0	7.0	P	7.4	12	2	0	12	90	-118.51; 34.70	-117.50 34.29	Minor modifications to digitial fault trace. 1996 slip rate based on Sieh (1984), Salyards et al. (1992), and WGCEP (1995).
San Andreas (Carrizo) (rl-ss)	146	15	34.0	3.0	W	7.4	12	2	0	12	90	-119.87; 35.31	-118.51; 34.70	Minor modifications to digitial fault trace and minor length modification. 1996 slip rate based on Sieh and Jahns (1984).
San Andreas (Cholame) (rl-ss)	63	6	34.0	5.0	P	7.3	12	2	0	12	90	-120.30; 35.75	-119.87; 35.31	Minor modifications to digitial fault trace and minor length modification. 1996 slip rate based on analogy with Carrizo segment.
San Andreas (Parkfield) (rl-ss)	36	4	34.0	5.0	P	6.5	12	2	0	12	90	-120.56; 36.00	-120.30; 35.75	Minor modifications to digitial fault trace.
San Andreas (creeping segment) (rl-ss)	122	12	34.0	5.0	P	6.2	12	2	0	12	90	-121.48; 36.81	-120.56; 36.00	Maximum magnitude based on historic rate of earthquakes.
San Andreas (Santa Cruz Mtn) (rl-ss)	62	8	17.0	4.0	P	7.0	15	2	0	15	90	-122.00; 37.18	-121.48; 36.81	WG99/WG02 source parameters used. Go to the U.S. Geological Survey website for more information on WG99 and WG02.
San Andreas (Peninsula) (rl-ss)	85	13	17.0	4.0	M	7.1	13	2	0	13	90	-122.57; 37.79	-122.00; 37.18	WG99/WG02 source parameters used. Go to the U.S. Geological Survey website for more information on WG99 and WG02.
San Andreas (North Coast North) (rl-ss)	136	14	24.0	3.0	P	7.3	11	2	0	11	90	-124.41; 40.25	-123.79; 39.10	WG99/WG02 source parameters used. Go to the U.S. Geological Survey website for more information on WG99 and WG02.
San Andreas (North Coast South) (rl-ss)	190	19	24.0	3.0	M	7.4	12	2	0	12	90	-123.79; 39.10	-122.57; 37.79	WG99/WG02 source parameters used. Go to the U.S. Geological Survey website for more information on WG99 and WG02.
SAN JACINTO - IMPERIAL FAULT ZONE														
Imperial (rl-ss)	62	6	20.0	5.0	M	7.0	12	2	0	12	90	-115.57; 32.91	-115.17; 32.47	Slip rate based on study by Thomas and Rockwell (1996).
Superstition Hills (rl-ss)	23	2	4.0	2.0	P	6.6	12	2	0	12	90	-115.84; 33.01	-115.64; 32.89	Slip rate and fault length reported by WGCEP (1995).
Superstition Mountain (rl-ss)	24	2	5.0	3.0	M	6.6	12	2	0	12	90	-115.92; 32.99	-115.70; 32.89	Slip rate based on Gurrola and Rockwell (1996).

FAULT NAME AND GEOMETRY (ss) strike slip, (r) reverse, (n) normal (rl) rt. lateral, (ll) left lateral, (o) oblique	Fault Length (km)	+/-	Slip Rate (mm/yr)	+/-	Rank (1)	Mmax (2)	Down Dip Width (km) (3)	+/-	Ruptop (4)	Rupbot (5)	Dip	Endpt N (W)	Endpt. S (E)	COMMENTS
San Jacinto (Borrego) (rl-ss)	29	3	4.0	2.0	M	6.6	12	2	0	12	90	-116.19; 33.20	-115.96; 33.01	Slip rate and fault length reported by WGCEP (1995).
San Jacinto (Coyote Creek) (rl-ss)	41	4	4.0	2.0	M	6.8	15	2	0	15	90	-116.51; 33.46	-116.19; 33.20	Slip rate and fault length reported by WGCEP (1995).
San Jacinto (Anza) (rl-ss)	91	9	12.0	6.0	M	7.2	18	2	0	18	90	-116.92; 33.74	-116.12; 33.26	Slip rate and fault length reported by WGCEP (1995).
San Jacinto (San Jacinto Valley) (rl-ss)	43	4	12.0	6.0	P	6.9	18	2	0	18	90	-117.24; 34.02	-116.92; 33.74	Slip rate and fault length reported by WGCEP (1995).
San Jacinto (San Bernardino) (rl-ss)	36	4	12.0	6.0	P	6.7	15	2	0	15	90	-117.51; 34.25	-117.24; 34.02	Slip rate and fault length reported by WGCEP (1995).
ELSINORE FAULT ZONE														
Laguna Salada (rl-ss)	67	7	3.5	1.5	M	7.0	15	2	0	15	90	-115.88; 32.73	-115.40; 32.29	Slip rate reported by Mueller and Rockwell (1995).
Elsinore (Coyote Mountain) (rl-ss)	39	4	4.0	2.0	M	6.8	15	2	0	15	90	-116.36; 32.97	-116.01; 32.78	Slip rate and fault length reported by WGCEP (1995).
Elsinore (Julian) (rl-ss)	76	8	5.0	2.0	P	7.1	15	2	0	15	90	-117.01; 33.38	-116.36; 32.97	Slip rate and fault length reported by WGCEP (1995).
Elsinore (Temecula) (rl-ss)	43	4	5.0	2.0	M	6.8	15	2	0	15	90	-117.35; 33.64	-117.01; 33.38	Slip rate and fault length reported by WGCEP (1995).
Elsinore (Glen Ivy) (rl-ss)	36	4	5.0	2.0	M	6.8	15	2	0	15	90	-117.64; 33.85	-117.35; 33.64	Reported slip rates vary from 3.0-7.2 (Millman and Rockwell, 1986).
Whittier (rl-r-o) (75 NE)	38	4	2.5	1.0	M	6.8	15	2	0	15	-75	-118.02; 33.99	-117.64; 33.85	Fault dip changed from 90° to 75° NE, based on Ziony and Yerkes (1985). 1996 slip rate based on Rockwell et al. (1990); Gath et al. (1992) description of offset drainage.

(1) Slip-rate rank: W - well-constrained; M - moderately constrained; P - poorly constrained; U - unconstrained.

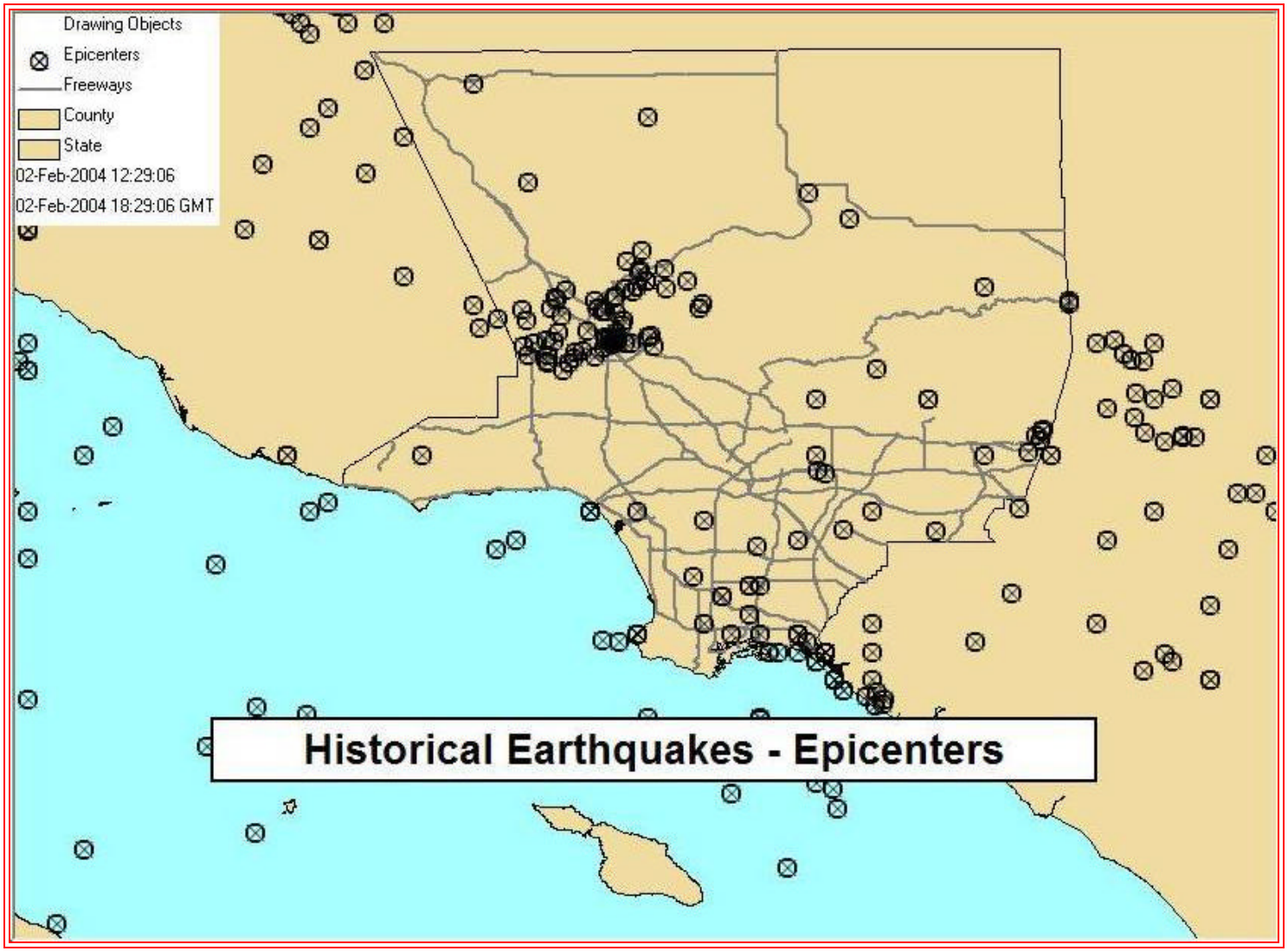
(2) Maximum moment magnitude - representative value for B faults. See discussion on magnitude calculation.

(3) Down-dip width = (rupture bottom minus rupture top) divided by sine of dip angle.

(4) Top of rupture plane.

(5) Bottom of rupture plane.

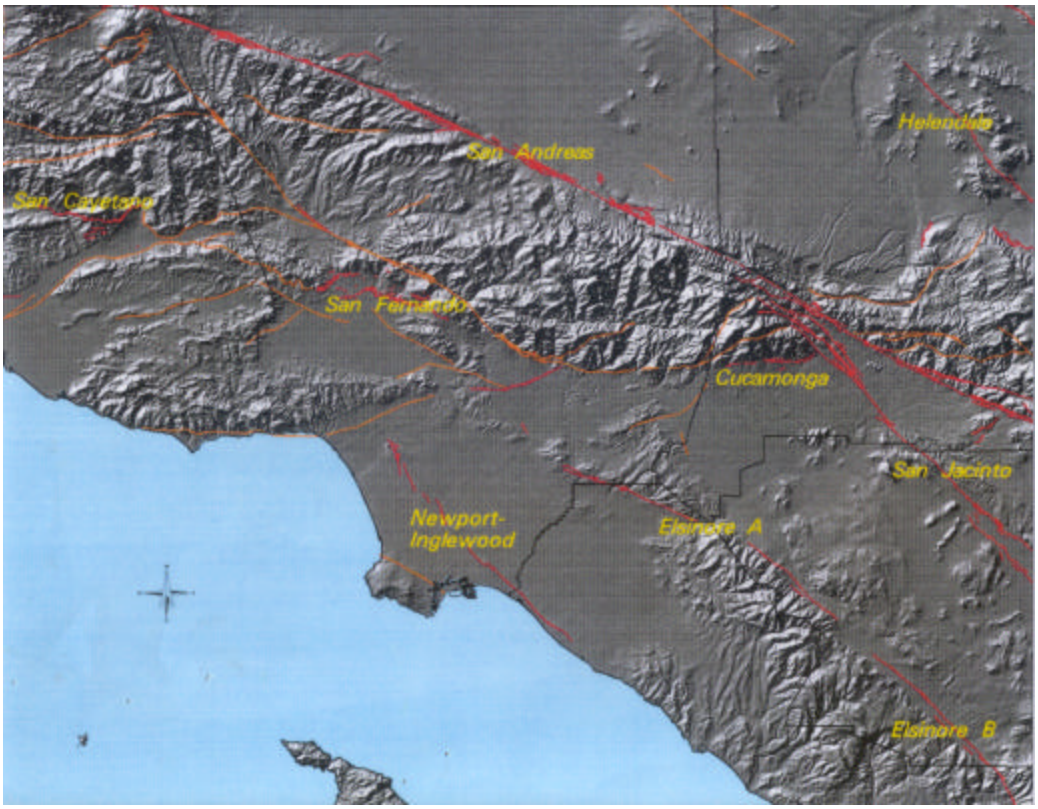
Historic Earthquake Epicenters Los Angeles County GIS Data



Faults

Historical and geological records show that California has a long history of seismic events. Southern California is probably best known for the San Andreas Fault, a 400 mile long fault running from the Mexican border to a point offshore, west of San Francisco. "Geologic studies show that over the past 1,400 to 1,500 years large earthquakes have occurred at about 130 year intervals on the southern San Andreas fault. As the last large earthquake on the southern San Andreas occurred in 1857, that section of the fault is considered a likely location for an earthquake within the next few decades."[1]

But San Andreas is only one of dozens of known earthquake faults that crisscross Southern California. Some of the better known faults include the Newport-Inglewood, Whittier, Chatsworth, Elsinore, Hollywood, Los Alamitos, and Palos Verdes faults. Beyond the known faults, there are a potentially large number of "blind" faults that underlie the surface of Southern California. One such blind fault was involved in the Whittier Narrows earthquake in October 1987.



Although the most famous of the faults, the San Andreas, is capable of producing an earthquake with a magnitude of 8+ on the Richter scale, some of the "lesser" faults have the potential to inflict greater damage on the urban core of the Los Angeles Basin. Seismologists believe that a 6.0 earthquake on the Newport-Inglewood would result in far more death and destruction than a "great" quake on the San Andreas, because the San Andreas is relatively remote from the urban centers of Southern California.

For decades, partnerships have flourished between the USGS, Cal Tech, the California Geological Survey and universities to share research and educational efforts with Californians. Tremendous earthquake mapping and mitigation efforts have been made in California in the past two decades, and public awareness has risen remarkably during this time. Major federal, state, and local government

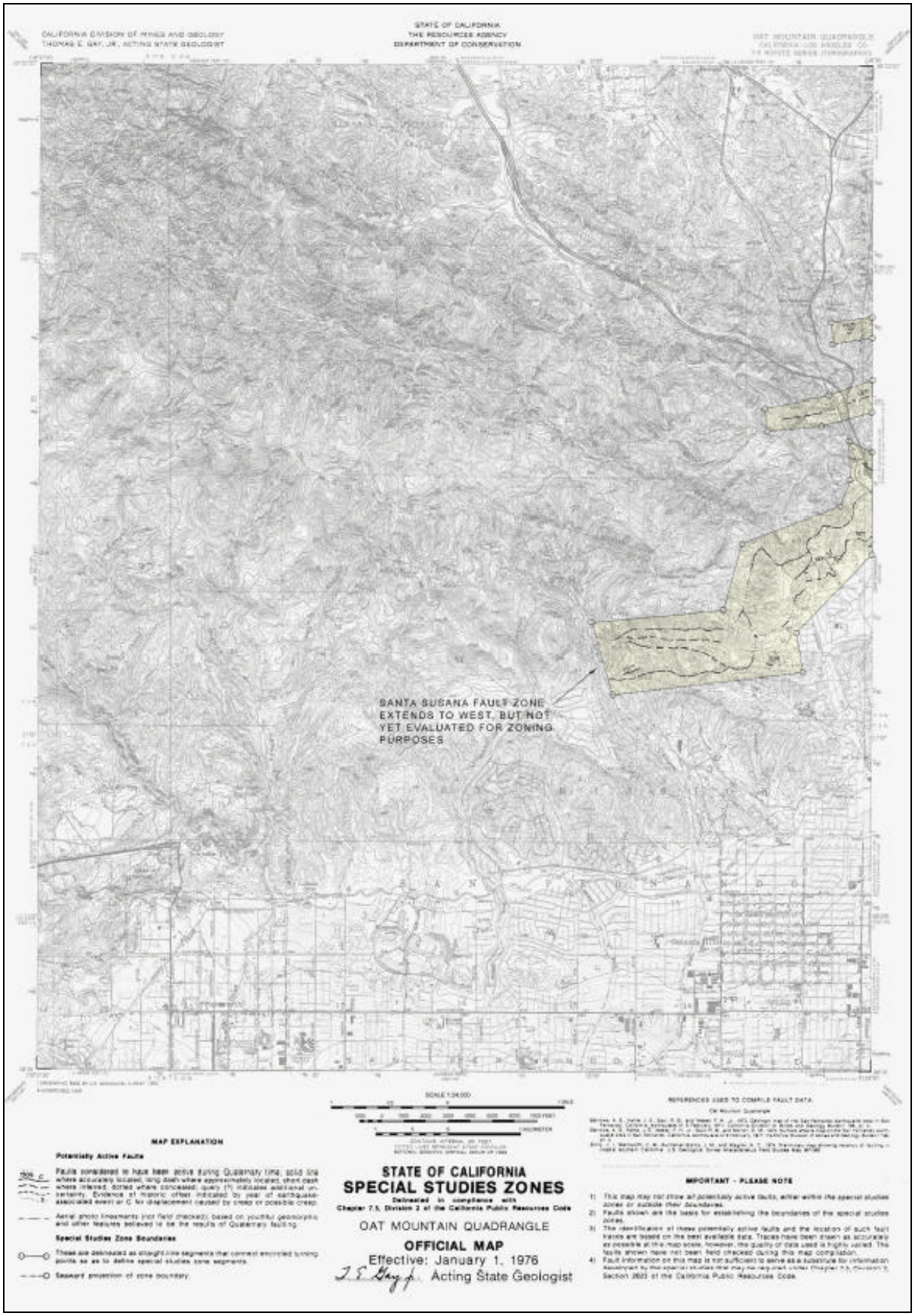
[1] http://pubs.usgs.gov/gip/earthq3/when.html

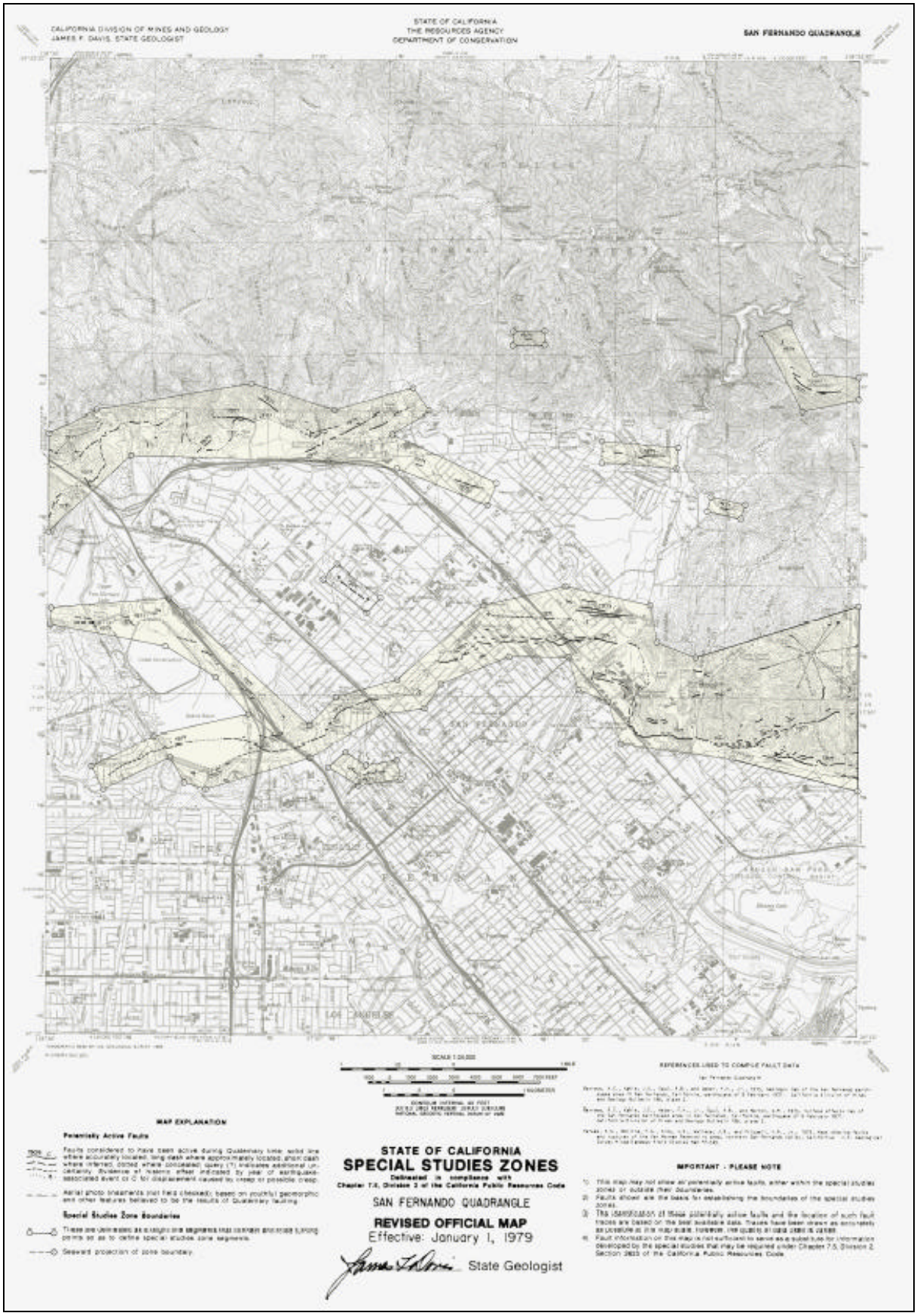
agencies and private organizations support earthquake risk reduction, and have made significant contributions in reducing the adverse impacts of earthquakes. Despite the progress, the majority of California communities remain unprepared because there is a general lack of understanding regarding earthquake hazards among Californians.

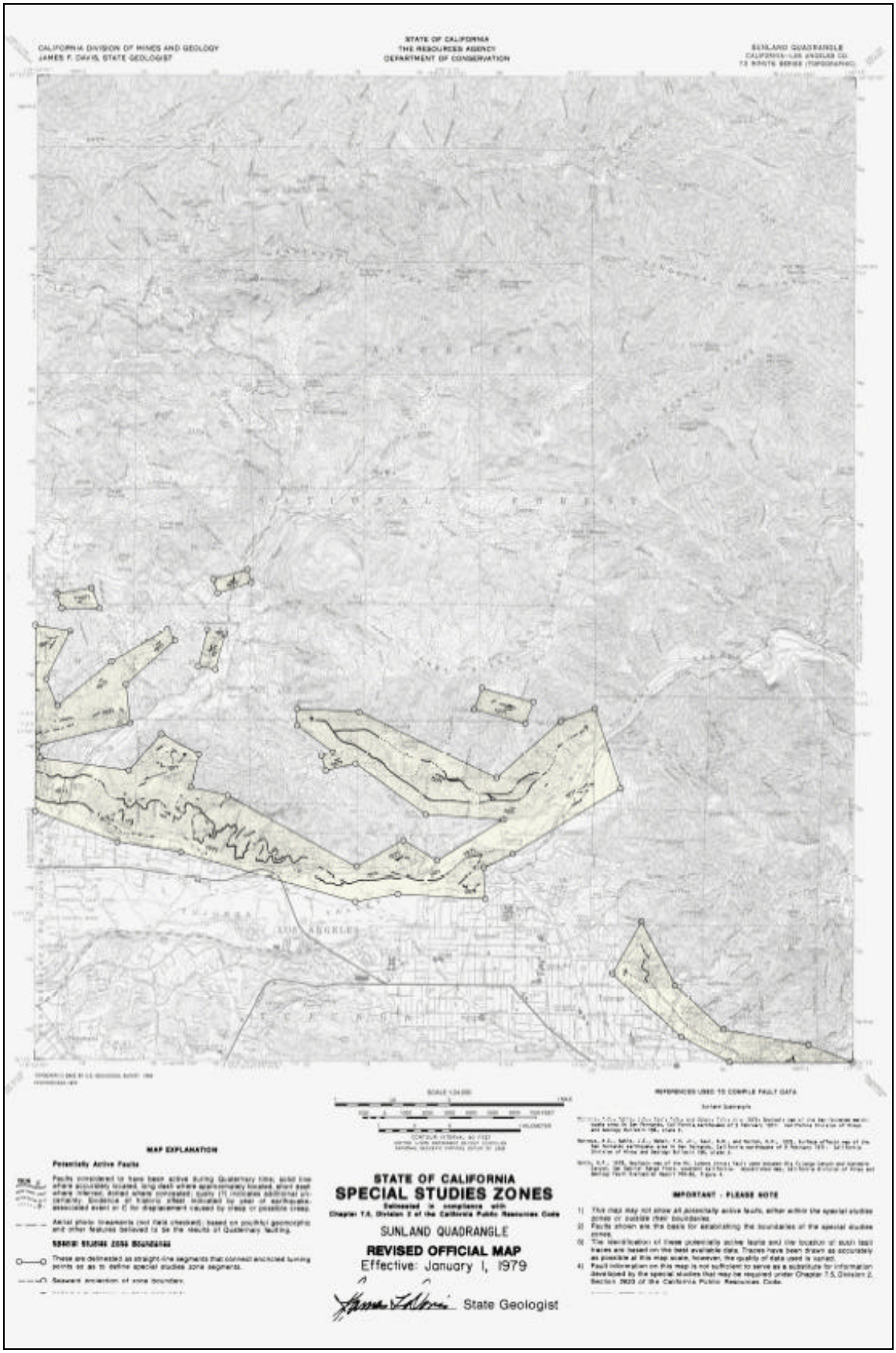
Earthquake Fault Zones Affecting Los Angeles County (Alquist-Priolo)

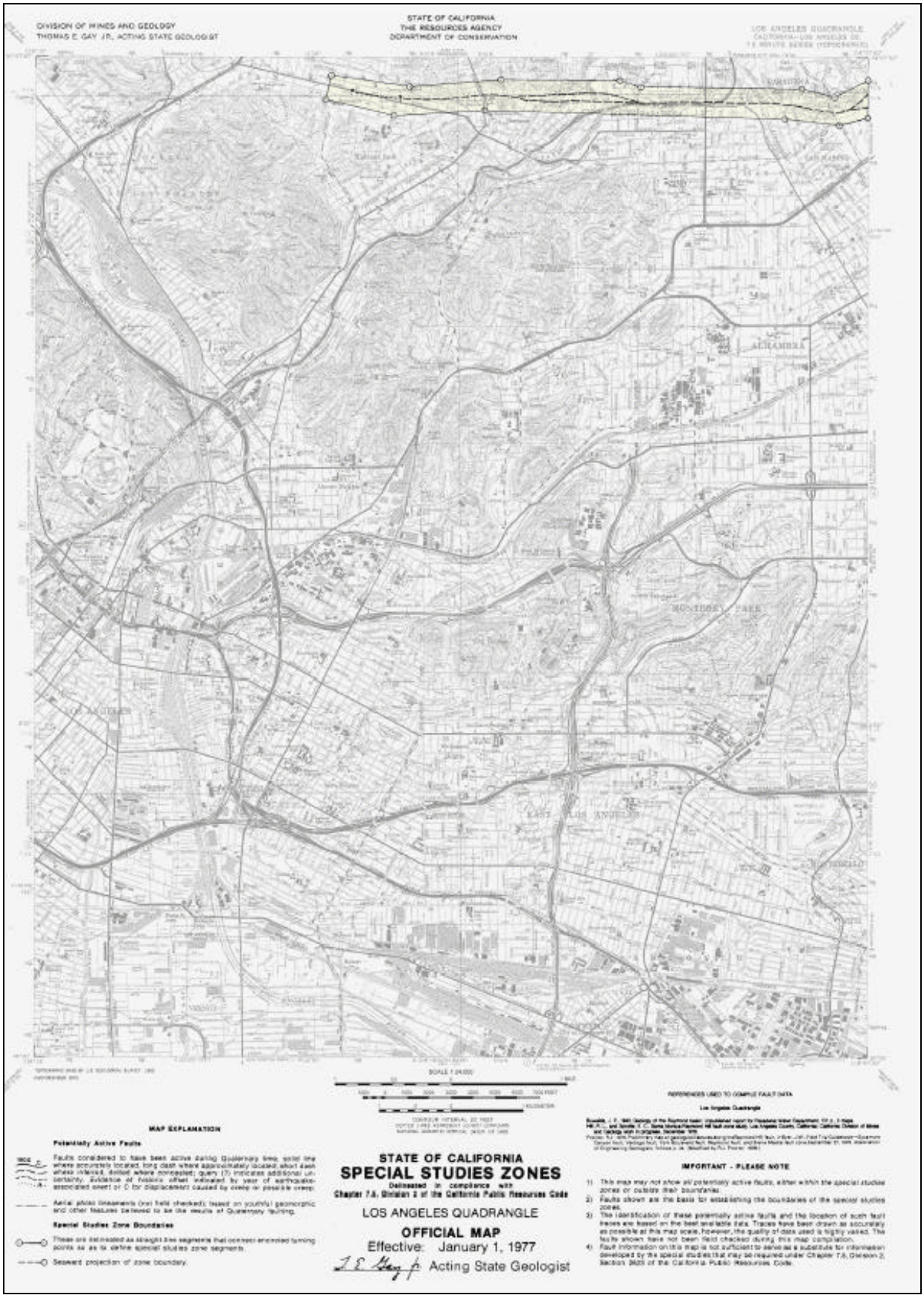
The Alquist-Priolo Earthquake Fault Zoning (AP) Act was passed in 1972 as a result of the destructive 1971 San Fernando earthquake. The AP Act addresses the seismic hazard of surface fault rupture by prohibiting the placement of most structures for human occupancy across traces of active faults. The AP Act addresses the seismic hazard of surface fault rupture by prohibiting the placement of most structures for human occupancy across traces of active faults. The Act also requires sellers and real estate agents to inform buyers whether real property being sold is within a state-designated Earthquake Fault Zone. The Department of Conservation, Division of Mines and Geology has issued 544 regulatory maps as of March 1, 2000 at a scale of 1:24,000. These maps, designated as Earthquake Fault Zones maps, are issued in order to assist cities and counties in avoiding the hazard of surface fault rupture.

This index shows all Official Maps of Earthquake Fault Zones (EFZ) affecting Los Angeles County as of March 1, 2000.


CALIFORNIA DIVISION OF MINES AND GEOLOGY
THOMAS E. GAY, JR., ACTING STATE GEOLOGIST
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
SANTA SUSANA FAULT ZONE
EXTENDS TO WEST, BUT NOT
YET EVALUATED FOR ZONING
PURPOSES
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
Delineated in compliance with
Chapter 7.5, Division 2 of the California Public Resources Code
OAT MOUNTAIN QUADRANGLE
OFFICIAL MAP
Effective: January 1, 1976
T. E. Gay, Jr. Acting State Geologist
REFERENCES USED TO COMPILE FAULT DATA
IMPORTANT - PLEASE NOTE


CALIFORNIA DIVISION OF MINES AND GEOLOGY
JAMES F. DAVIS, STATE GEOLOGIST
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
SAN FERNANDO QUADRANGLE
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
Delineated in compliance with
Chapter 7.5, Division 2 of the California Public Resources Code
SAN FERNANDO QUADRANGLE
REVISED OFFICIAL MAP
Effective: January 1, 1979
State Geologist
IMPORTANT - PLEASE NOTE


CALIFORNIA DIVISION OF MINES AND GEOLOGY
JAMES F. DAVIS, STATE GEOLOGIST
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
SUNLAND QUADRANGLE
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
These are delineated as straight-line segments that connect encircled turning points so as to define special studies zone segments.
Seaward extention of zone boundary.
REFERENCES USED TO COMPILE FAULT DATA
IMPORTANT - PLEASE NOTE
1) This map may not show all potentially active faults, either within the special studies zones or outside their boundaries.
2) Faults shown are the basis for establishing the boundaries of the special studies zones.
3) The identification of these potentially active faults and the location of such fault traces are based on the best available data. Traces have been drawn as accurately as possible at this map scale, however, the quality of data used is varied.
4) Fault information on this map is not sufficient to serve as a substitute for information developed by the special studies that may be required under Chapter 7.5, Division 2, Section 2623 of the California Public Resources Code.
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
Delineated in compliance with
Chapter 7.5, Division 2 of the California Public Resources Code
SUNLAND QUADRANGLE
REVISED OFFICIAL MAP
Effective: January 1, 1979
State Geologist


DIVISION OF MINES AND GEOLOGY
THOMAS E. GAY JR., ACTING STATE GEOLOGIST
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
LOS ANGELES QUADRANGLE
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
Seaward projection of zone boundary.
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
Delineated in compliance with
Chapter 7.5, Division 2 of the California Public Resources Code
LOS ANGELES QUADRANGLE
OFFICIAL MAP
Effective: January 1, 1977
Acting State Geologist
REFERENCES USED TO COMPILE FAULT DATA
Los Angeles Quadrangle
IMPORTANT - PLEASE NOTE
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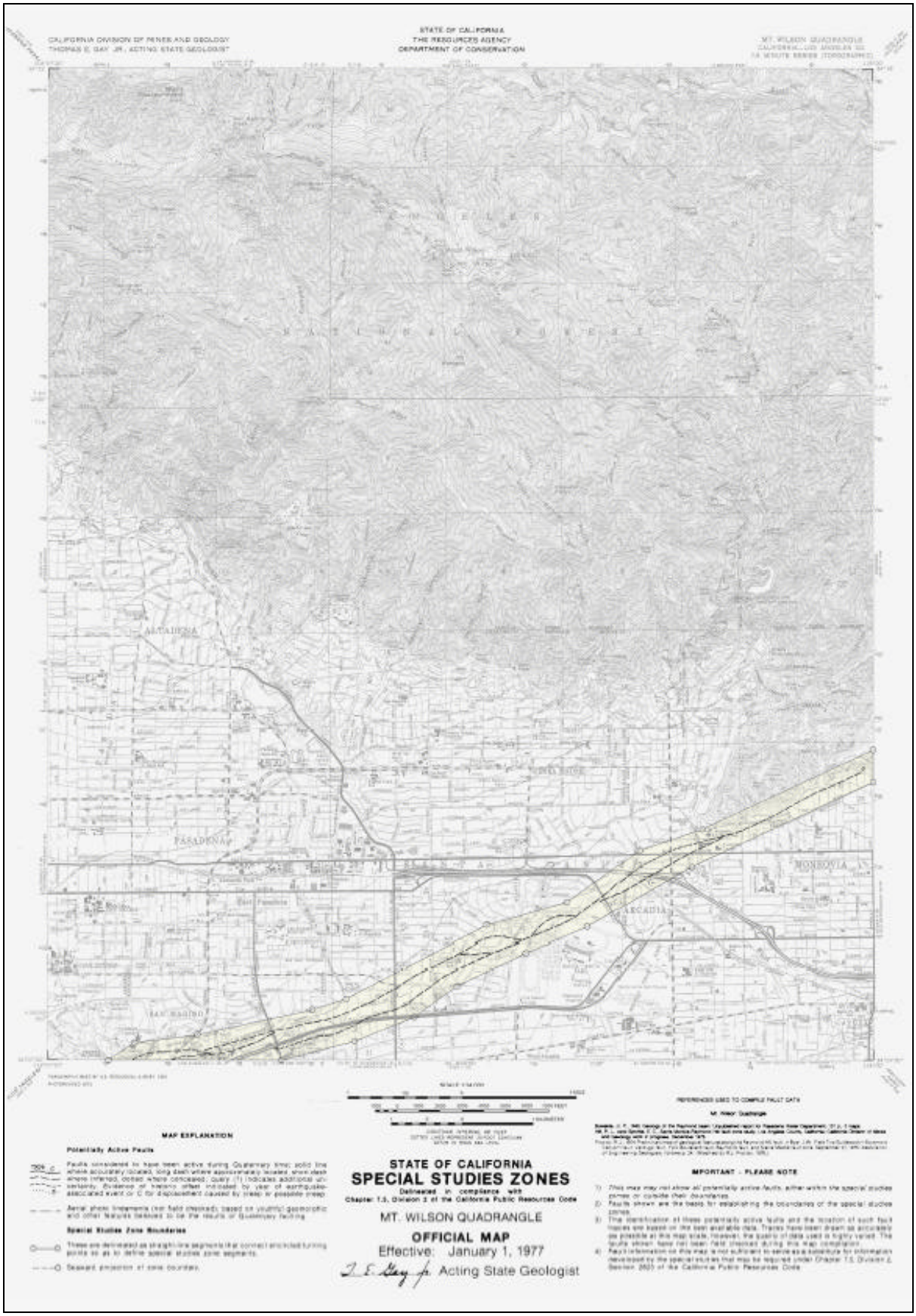
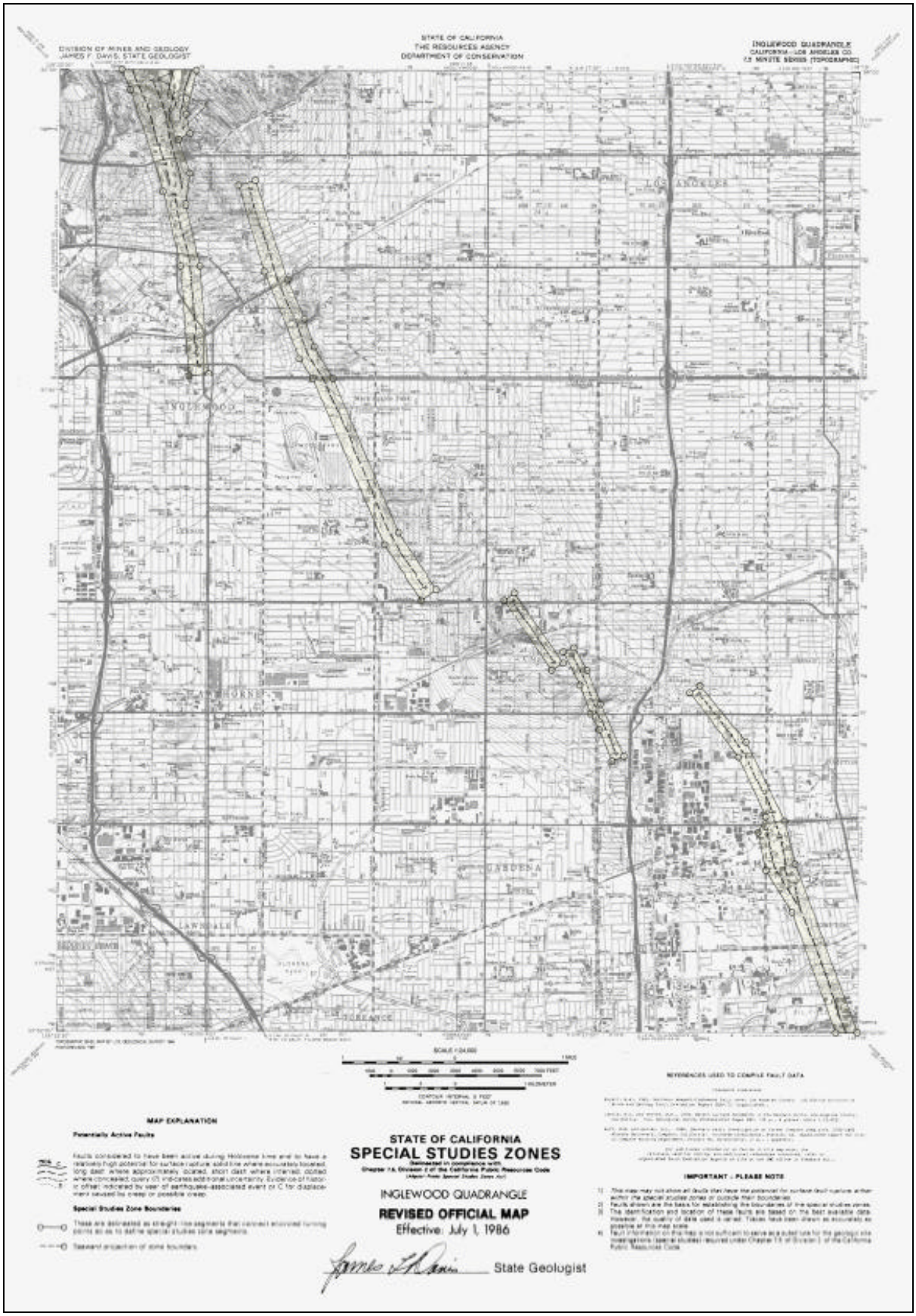
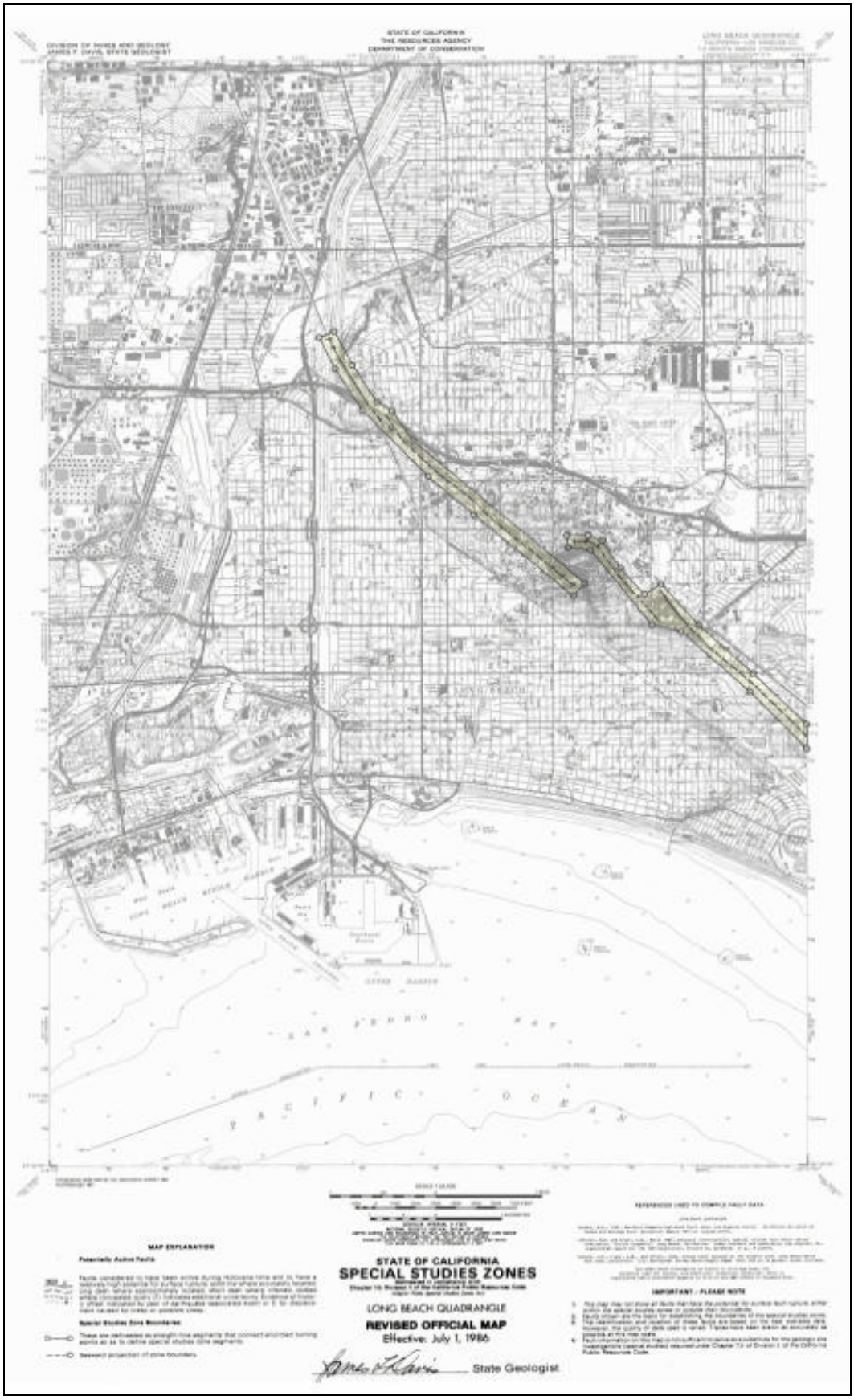
3) The identification of these potentially active faults and the location of such fault traces are based on the best available data. Traces have been drawn as accurately as possible at this map scale, however, the quality of data used is highly varied. The faults shown have not been field checked during this map compilation.
4) Fault information on this map is not sufficient to serve as a substitute for information developed by the special studies that may be required under Chapter 7.5, Division 2, Section 2623 of the California Public Resources Code.


CALIFORNIA DIVISION OF MINES AND GEOLOGY
THOMAS E. GAY JR., ACTING STATE GEOLOGIST
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
MT. WILSON QUADRANGLE
ALTADENA
PASADENA
ARCADIA
MONROVIA
SAN MARINO
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
Delineated in compliance with
Chapter 7.5, Division 2 of the California Public Resources Code
MT. WILSON QUADRANGLE
OFFICIAL MAP
Effective: January 1, 1977
T. E. Gay Jr. Acting State Geologist
REFERENCES USED TO COMPILE FAULT DATA
IMPORTANT - PLEASE NOTE

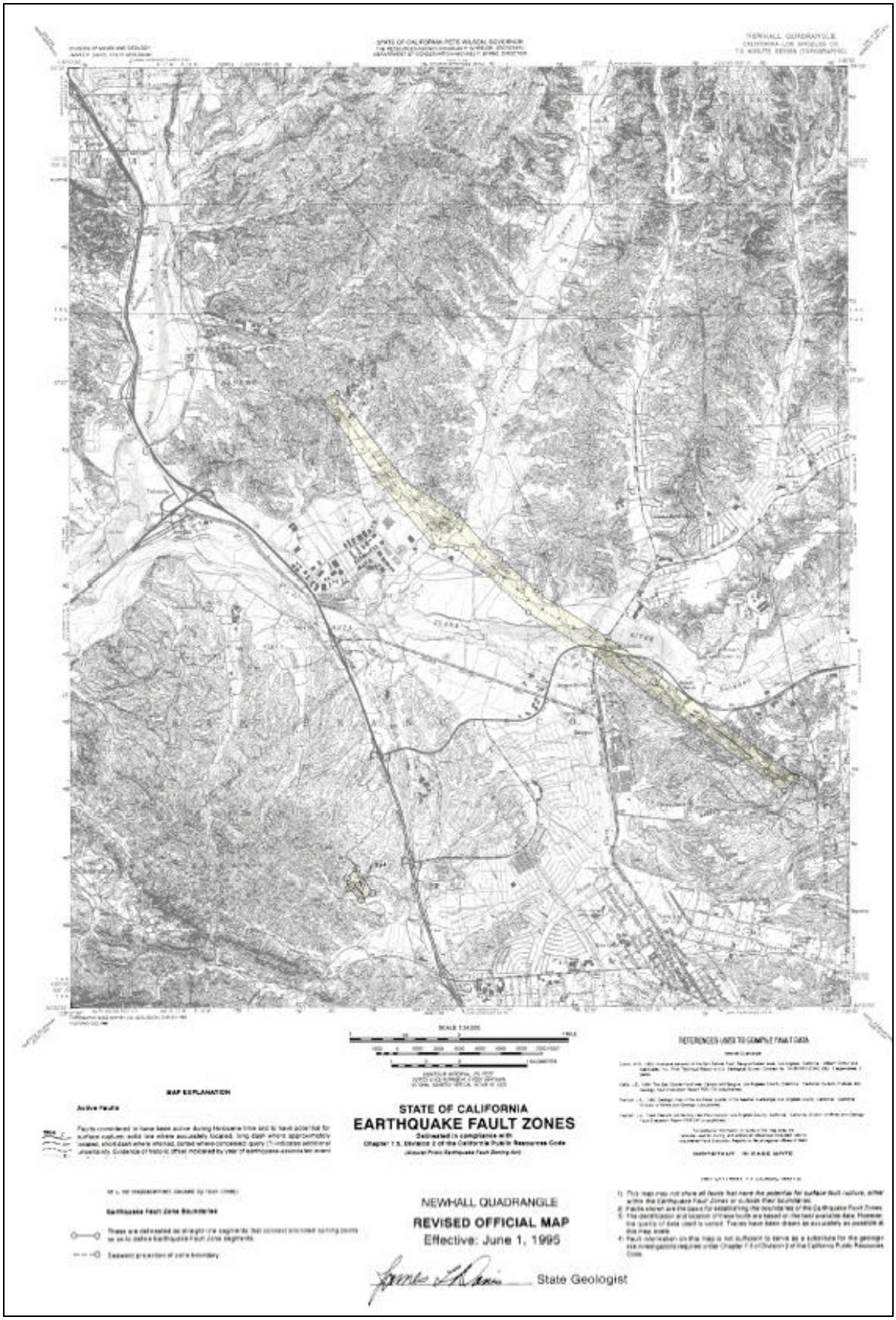

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
DIVISION OF MINES AND GEOLOGY
JAMES F. DAVIS, STATE GEOLOGIST
HOLLYWOOD
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
These are delineated as straight-line segments that connect arbitrarily selected points so as to define special studies zone segments.
Seaward projection of zone boundary.
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
HOLLYWOOD QUADRANGLE
REVISED OFFICIAL MAP
Effective: July 1, 1986
State Geologist
IMPORTANT - PLEASE NOTE

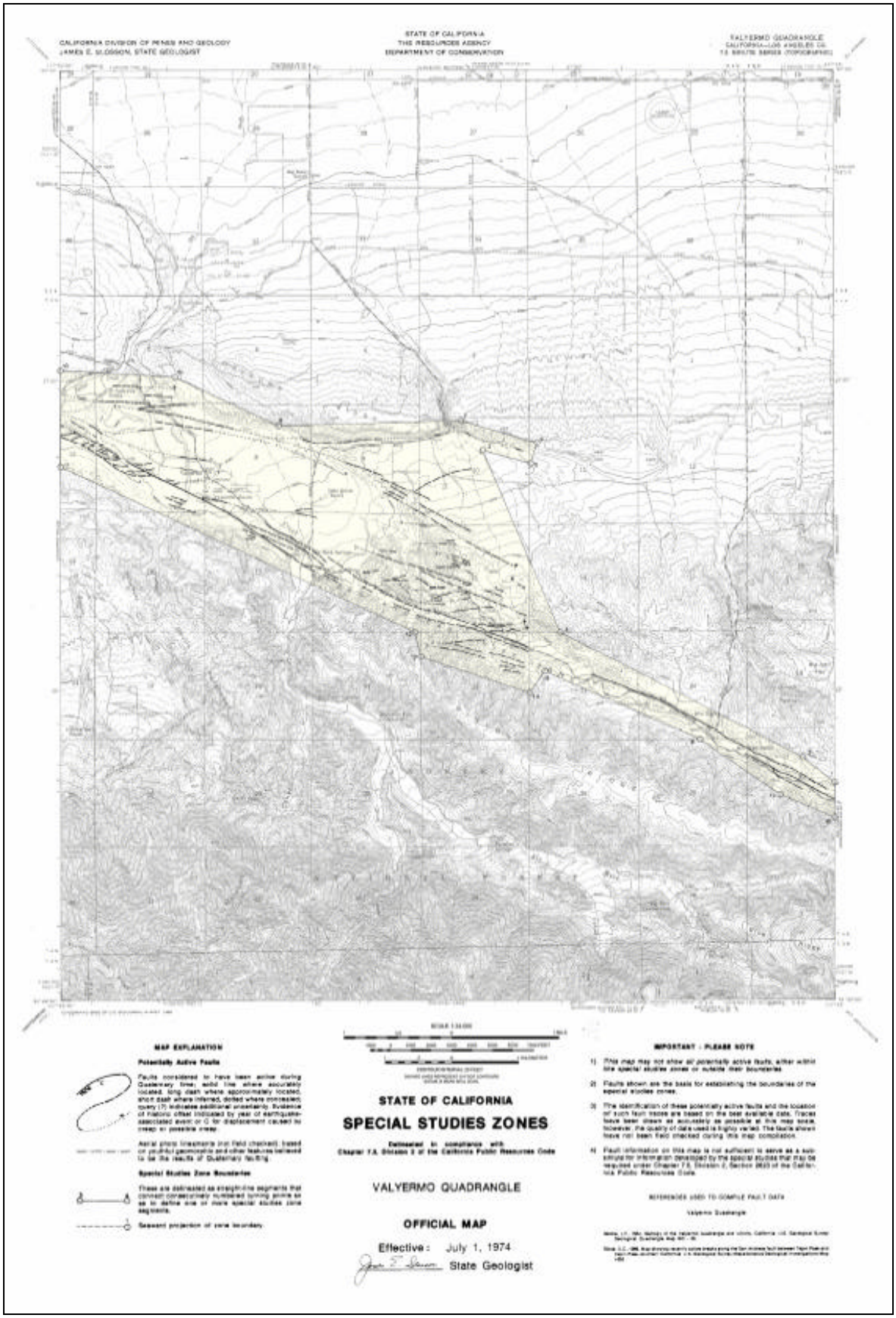

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
DIVISION OF MINES AND GEOLOGY
JAMES F. DAVIS, STATE GEOLOGIST
INGLEWOOD QUADRANGLE
CALIFORNIA—LOS ANGELES CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
INGLEWOOD
LOS ANGELES
HAWTHORNE
GARDENA
LAWNDALE
TORRANCE
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
INGLEWOOD QUADRANGLE
REVISED OFFICIAL MAP
Effective: July 1, 1986
State Geologist
REFERENCES USED TO COMPILE FAULT DATA
IMPORTANT - PLEASE NOTE

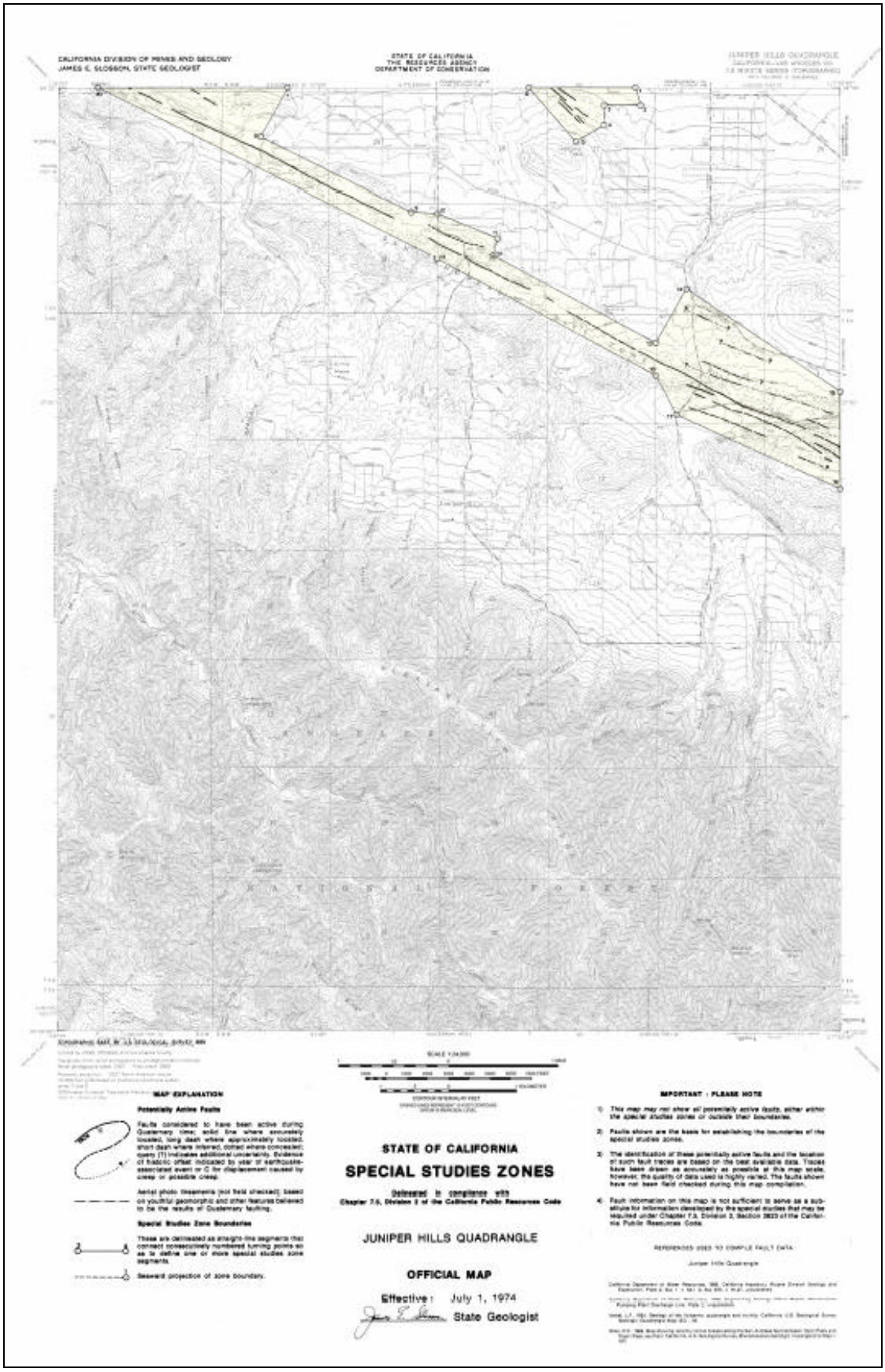

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
LONG BEACH QUADRANGLE
REVISED OFFICIAL MAP
Effective: July 1, 1986
State Geologist

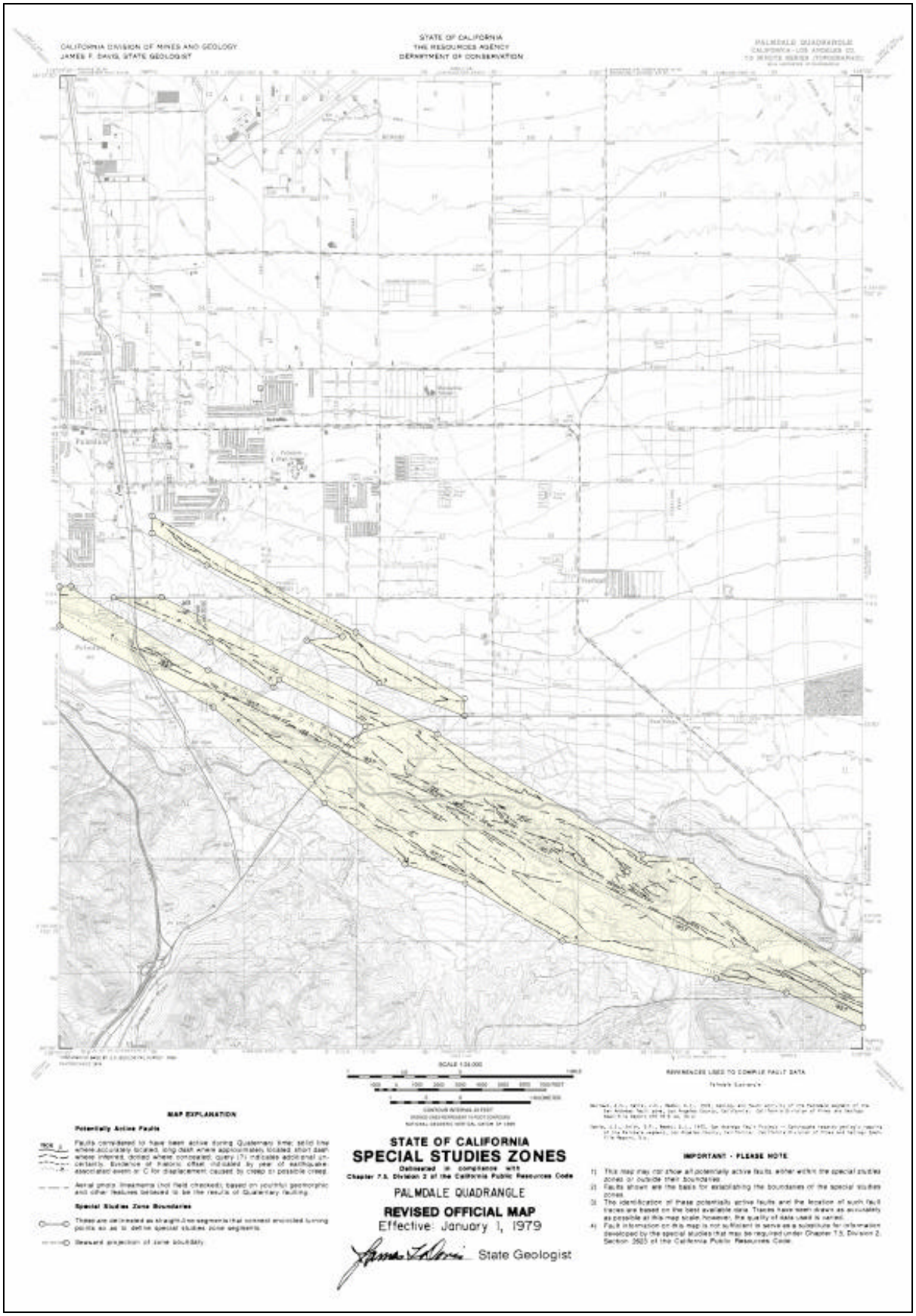

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
DIVISION OF MINES AND GEOLOGY
JAMES F. DAVIS, STATE GEOLOGIST
LOS ALAMITOS QUADRANGLE
CALIFORNIA
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
These are delineated as straight-line segments that connect arbitrarily turning points so as to define special studies zone segments.
Seaward projection of zone boundary.
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
Delineated in compliance with
Chapter 7.5, Division 2 of the California Public Resources Code
LOS ALAMITOS QUADRANGLE
REVISED OFFICIAL MAP
Effective: July 1, 1986
State Geologist
REFERENCES USED TO COMPILE FAULT DATA
IMPORTANT - PLEASE NOTE


STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
LA HABRA QUADRANGLE
REVISED OFFICIAL MAP
Effective: November 1, 1991
State Geologist
MAP EXPLANATION
Active Faults
Special Studies Zone Boundaries
IMPORTANT - PLEASE NOTE


STATE OF CALIFORNIA
EARTHQUAKE FAULT ZONES
NEWHALL QUADRANGLE
REVISED OFFICIAL MAP
Effective: June 1, 1995
State Geologist


CALIFORNIA DIVISION OF MINES AND GEOLOGY
JAMES E. SLOSSON, STATE GEOLOGIST
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
VALYERMO QUADRANGLE
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
VALYERMO QUADRANGLE
OFFICIAL MAP
Effective: July 1, 1974
State Geologist
IMPORTANT - PLEASE NOTE


CALIFORNIA DIVISION OF MINES AND GEOLOGY
JAMES E. SLOSSON, STATE GEOLOGIST
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
JUNIPER HILLS QUADRANGLE
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
Seaward projection of zone boundary.
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
Delineated in compliance with
Chapter 7.5, Division 2 of the California Public Resources Code
JUNIPER HILLS QUADRANGLE
OFFICIAL MAP
Effective: July 1, 1974
State Geologist
IMPORTANT - PLEASE NOTE


CALIFORNIA DIVISION OF MINES AND GEOLOGY
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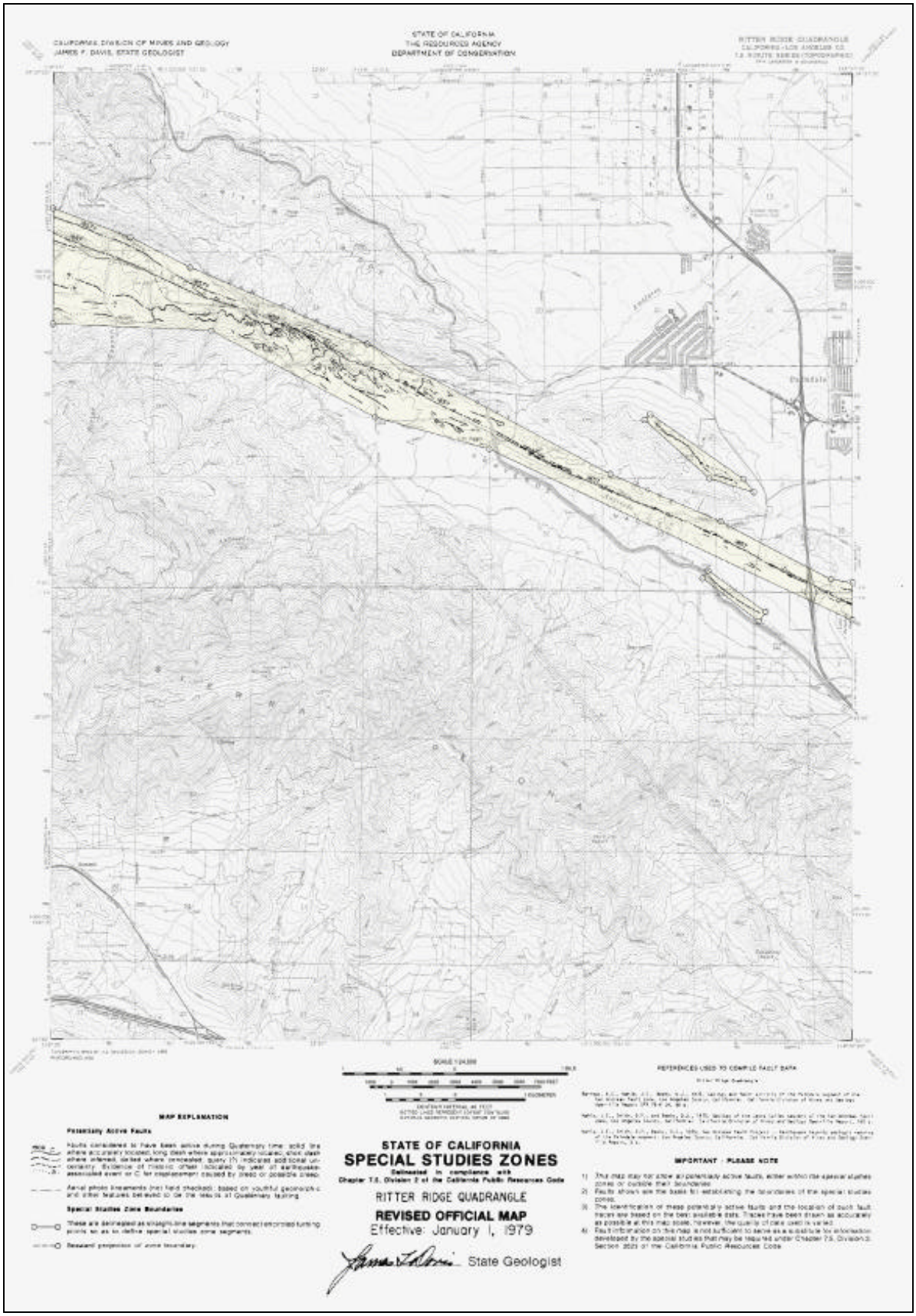
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
PALMDALE QUADRANGLE
CALIFORNIA - LOS ANGELES CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
Delineated in compliance with
Chapter 7.5, Division 2 of the California Public Resources Code
PALMDALE QUADRANGLE
REVISED OFFICIAL MAP
Effective: January 1, 1979
State Geologist
REFERENCES USED TO COMPILE FAULT DATA
IMPORTANT - PLEASE NOTE


CALIFORNIA DIVISION OF MINES AND GEOLOGY
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STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
RITTER RIDGE QUADRANGLE
CALIFORNIA-LOS ANGELES CO.
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
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SPECIAL STUDIES ZONES
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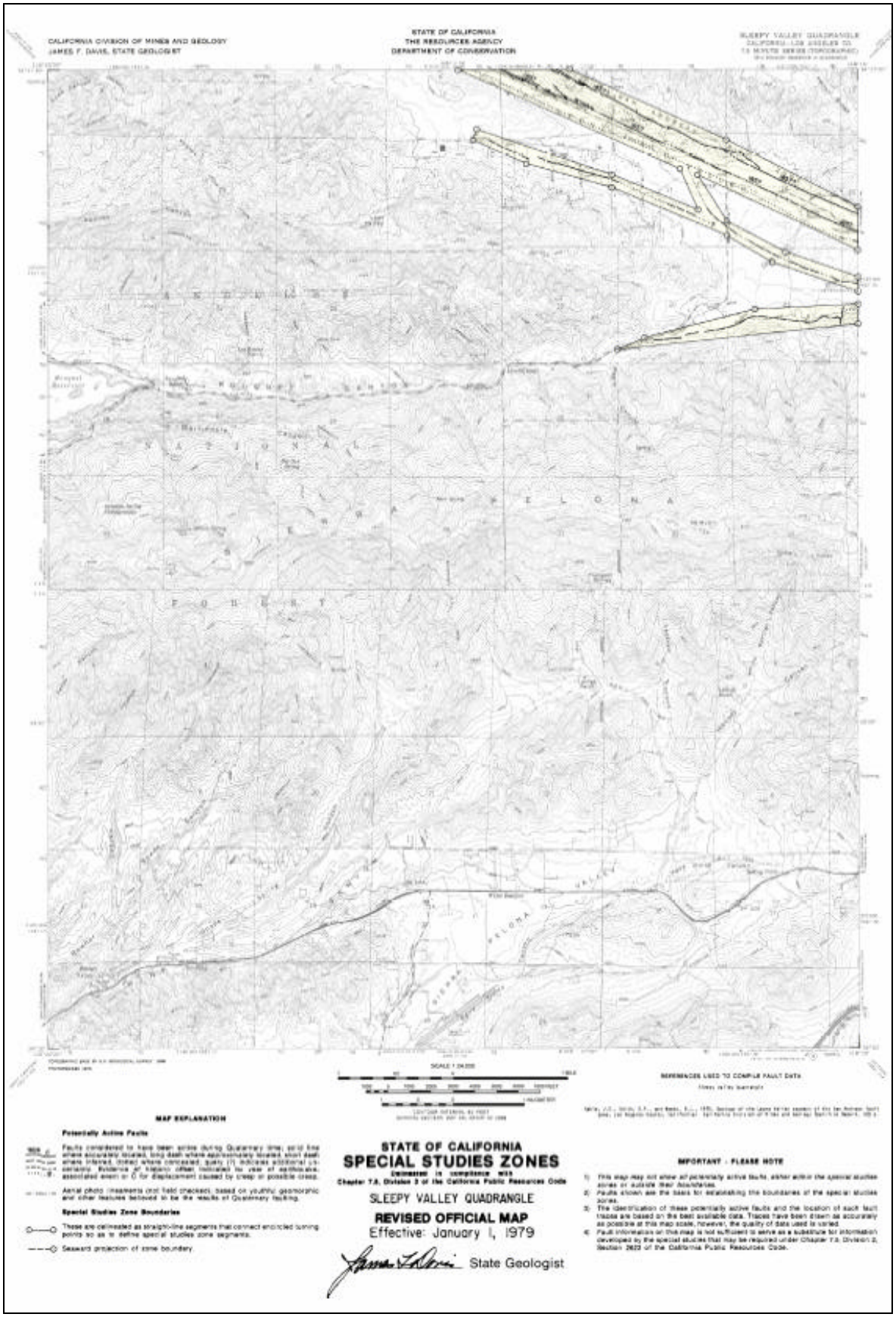
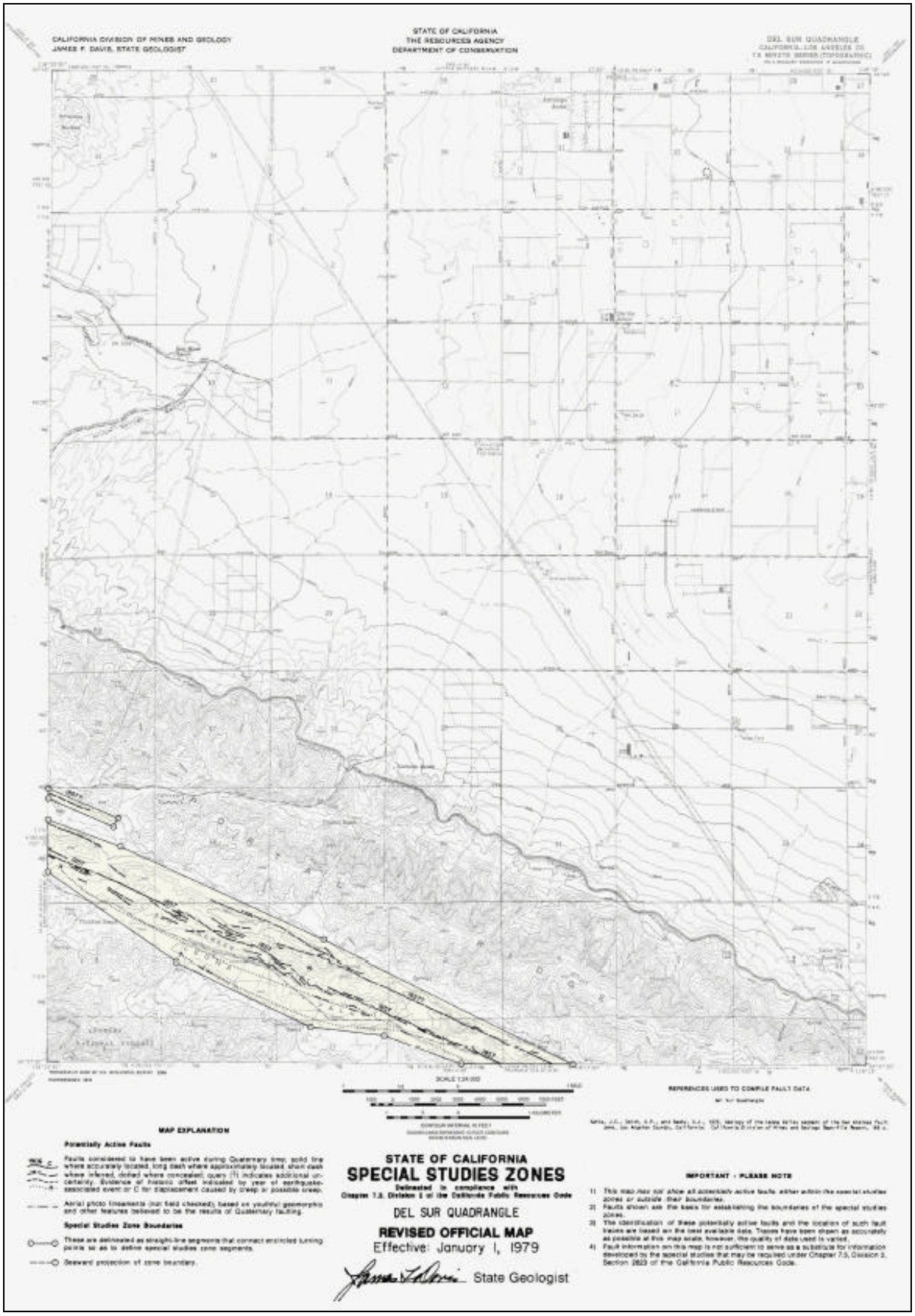
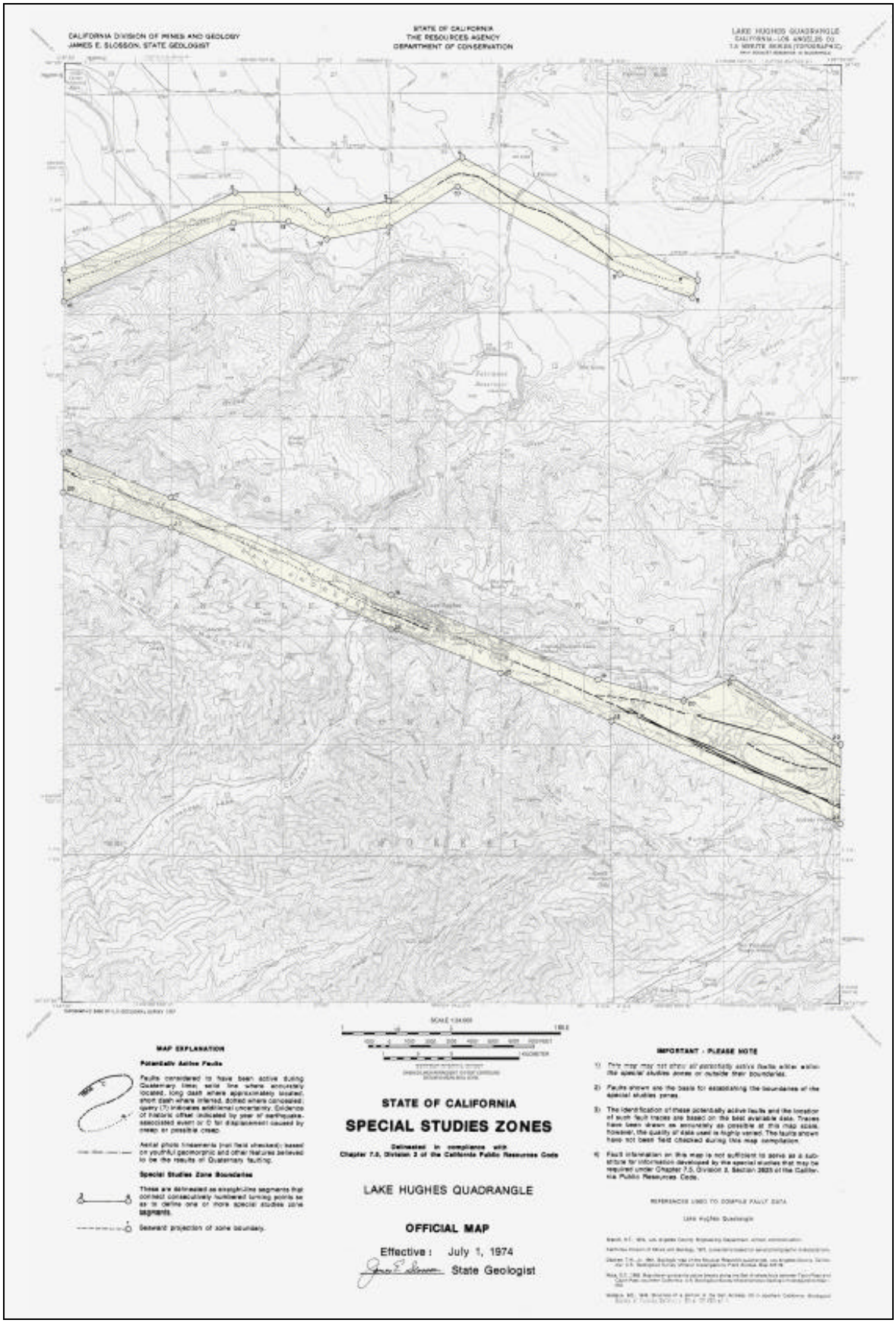
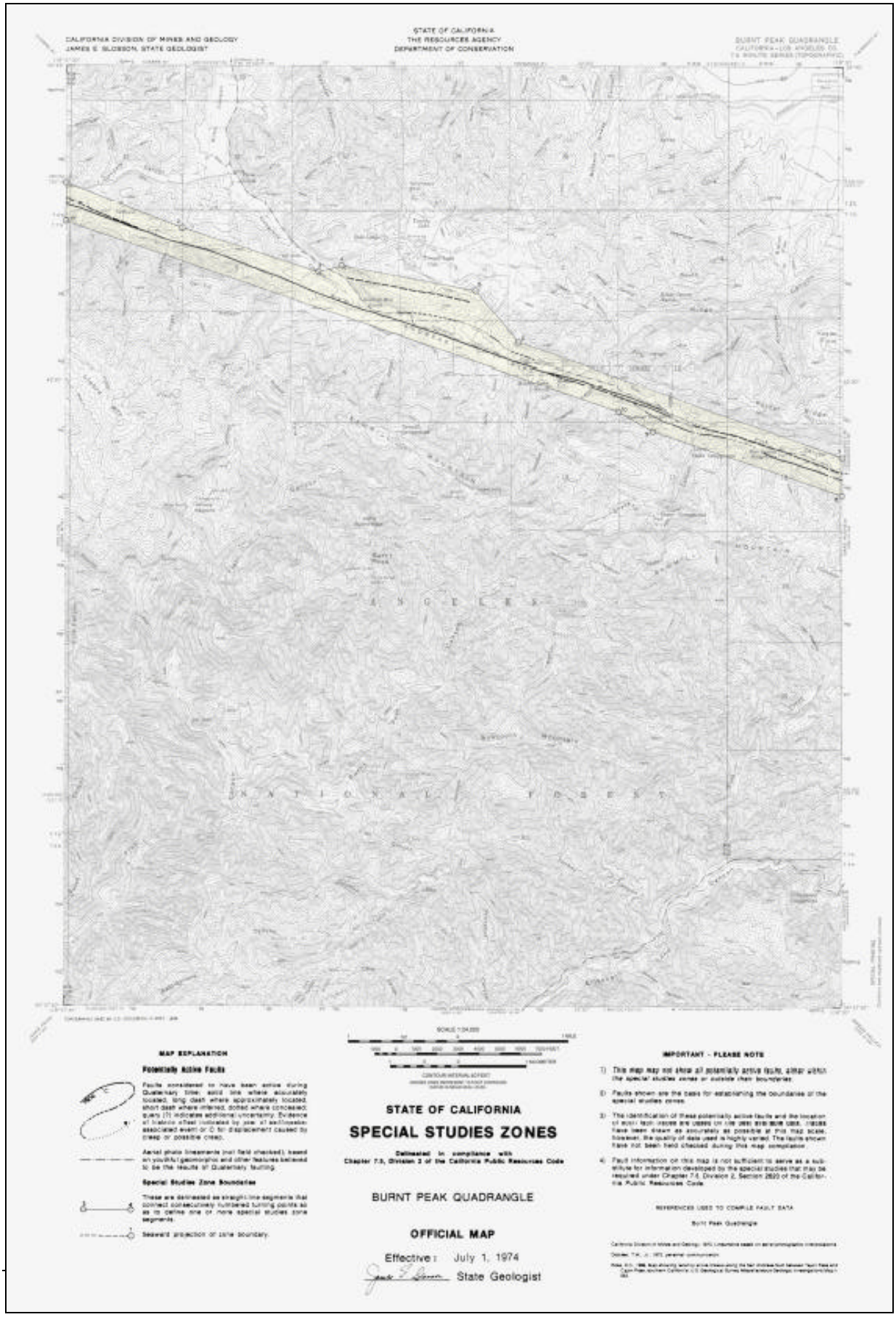
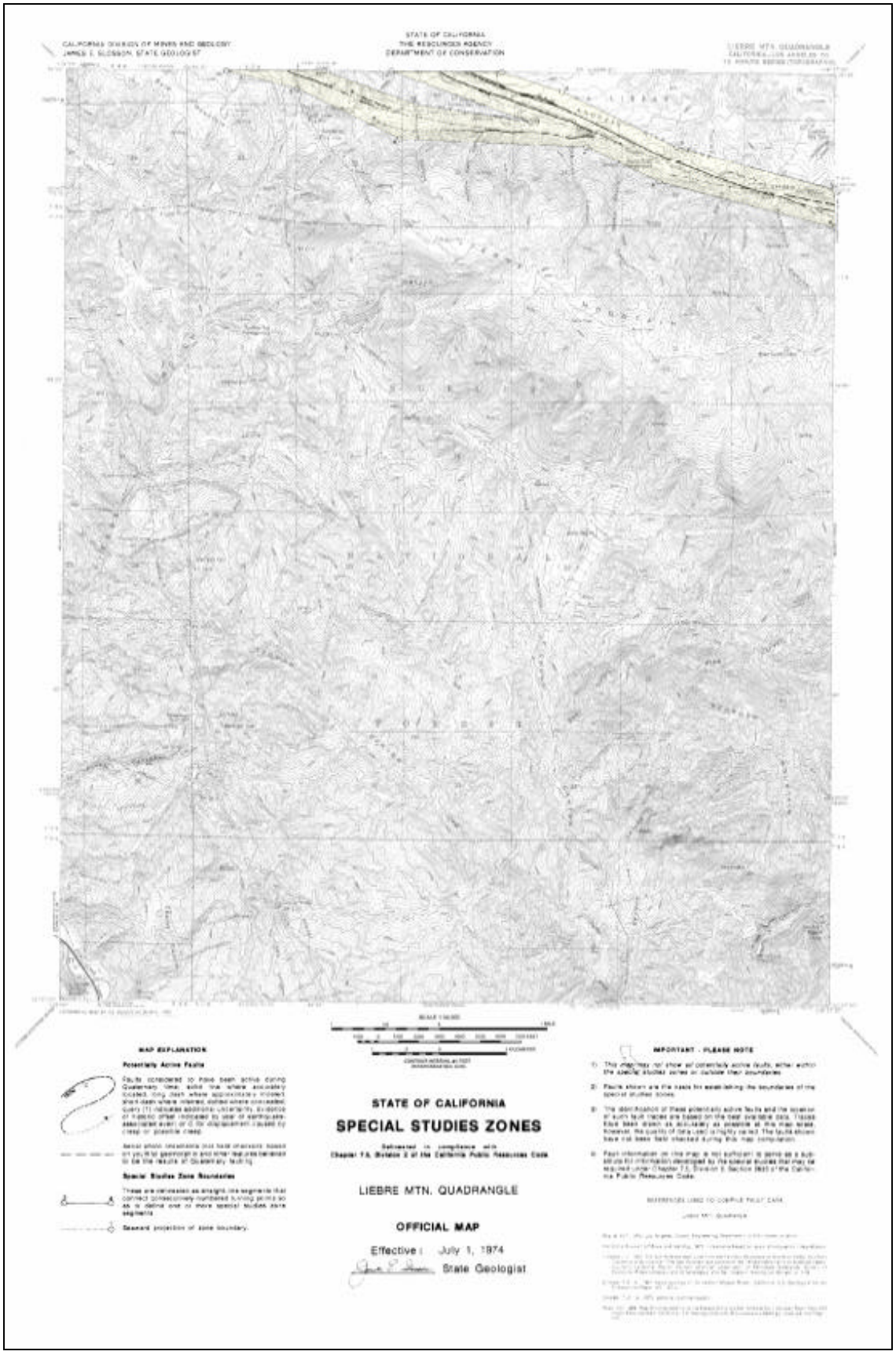
RITTER RIDGE QUADRANGLE
REVISED OFFICIAL MAP
Effective: January 1, 1979
State Geologist
REFERENCES USED TO COMPILE FAULT DATA
IMPORTANT - PLEASE NOTE

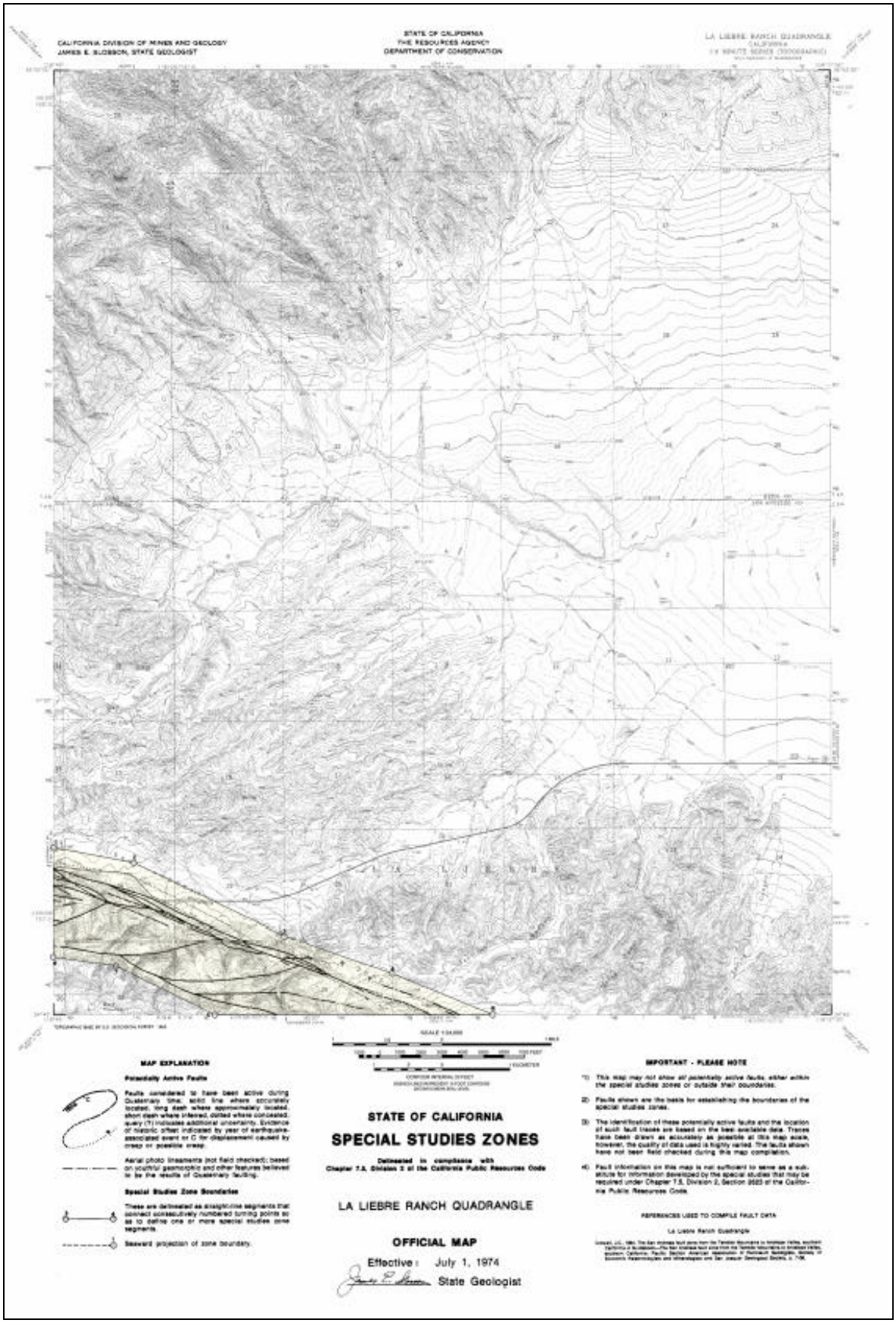

CALIFORNIA DIVISION OF MINES AND GEOLOGY
JAMES F. DAVIS, STATE GEOLOGIST
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
SLEEPY VALLEY QUADRANGLE
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
SLEEPY VALLEY QUADRANGLE
REVISED OFFICIAL MAP
Effective: January 1, 1979
State Geologist
IMPORTANT - PLEASE NOTE

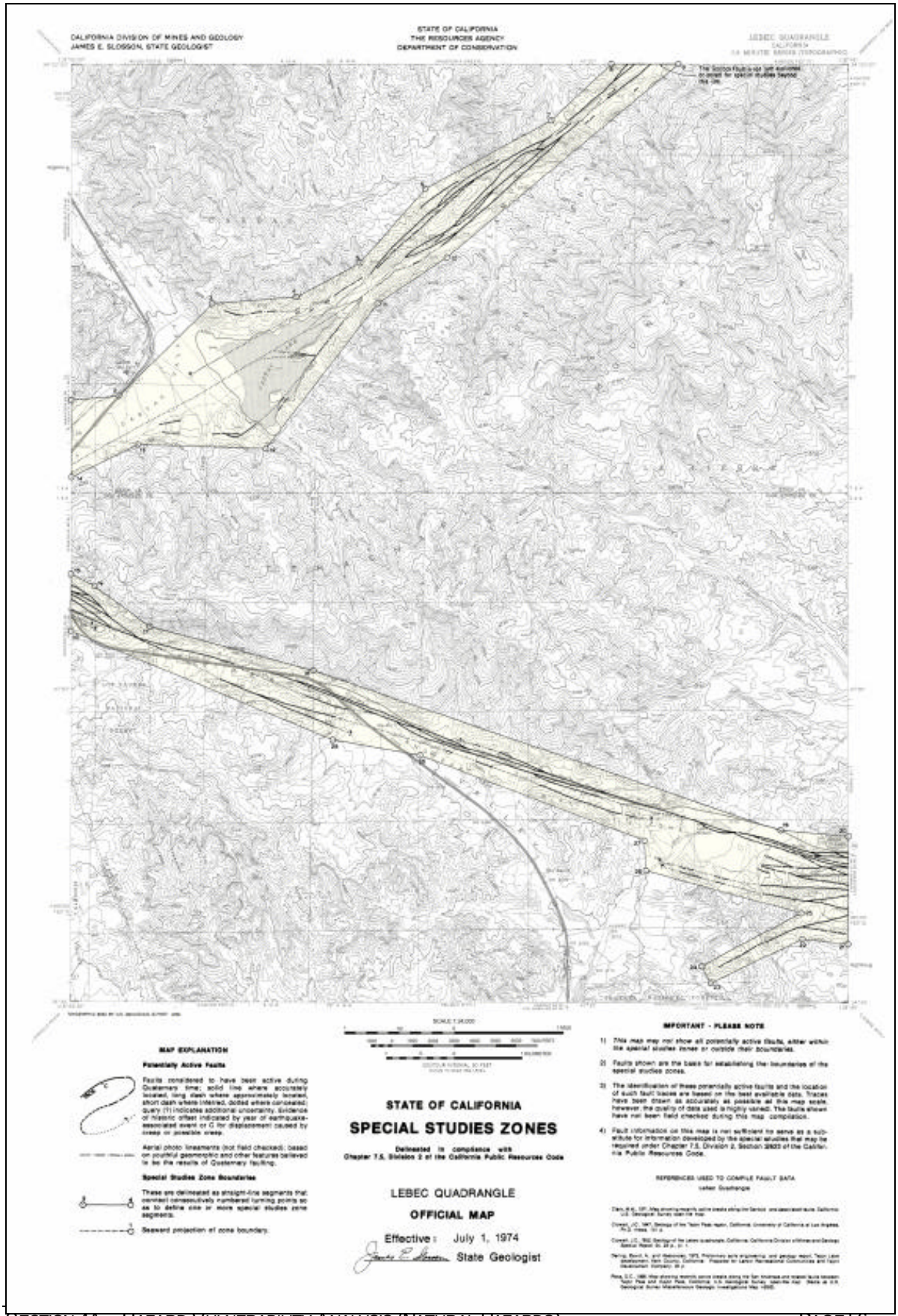

CALIFORNIA DIVISION OF MINES AND GEOLOGY
JAMES F. DAVIS, STATE GEOLOGIST
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
DEL SUR QUADRANGLE
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
These are delineated as straight-line segments that connect encircled turning points so as to define special studies zone segments.
Seaward projection of zone boundary.
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
Delineated in compliance with
Chapter 7.5, Division 2 of the California Public Resources Code
DEL SUR QUADRANGLE
REVISED OFFICIAL MAP
Effective: January 1, 1979
State Geologist
REFERENCES USED TO COMPILE FAULT DATA
IMPORTANT - PLEASE NOTE


CALIFORNIA DIVISION OF MINES AND GEOLOGY
JAMES E. SLOSSON, STATE GEOLOGIST
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
LAKE HUGHES QUADRANGLE
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
Delineated in compliance with
Chapter 7.5, Division 2 of the California Public Resources Code
LAKE HUGHES QUADRANGLE
OFFICIAL MAP
Effective: July 1, 1974
State Geologist
IMPORTANT - PLEASE NOTE


CALIFORNIA DIVISION OF MINES AND GEOLOGY
JAMES E. SLOSSON, STATE GEOLOGIST
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
BURNT PEAK QUADRANGLE
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
Delineated in compliance with
Chapter 7.5, Division 2 of the California Public Resources Code
BURNT PEAK QUADRANGLE
OFFICIAL MAP
Effective: July 1, 1974
State Geologist
IMPORTANT - PLEASE NOTE
REFERENCES USED TO COMPILE FAULT DATA
Burnt Peak Quadrangle


STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
LIEBRE MTN. QUADRANGLE
OFFICIAL MAP
Effective: July 1, 1974
State Geologist
IMPORTANT - PLEASE NOTE


CALIFORNIA DIVISION OF MINES AND GEOLOGY
JAMES E. SLOSSON, STATE GEOLOGIST
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
LA LIEBRE RANCH QUADRANGLE
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
Delineated in compliance with
Chapter 7.5, Division 2 of the California Public Resources Code
LA LIEBRE RANCH QUADRANGLE
OFFICIAL MAP
Effective: July 1, 1974
State Geologist
IMPORTANT - PLEASE NOTE
REFERENCES USED TO COMPILE FAULT DATA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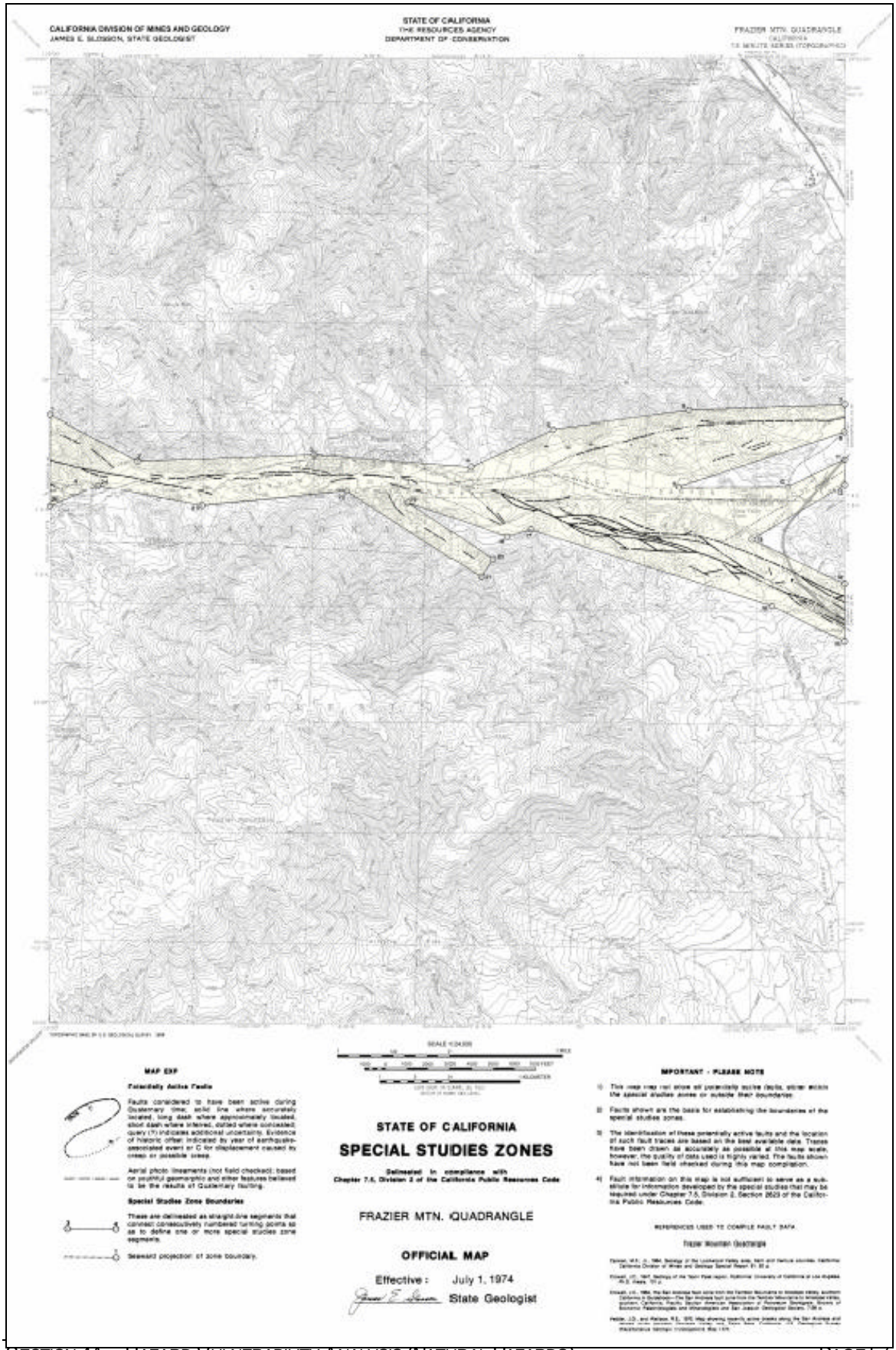
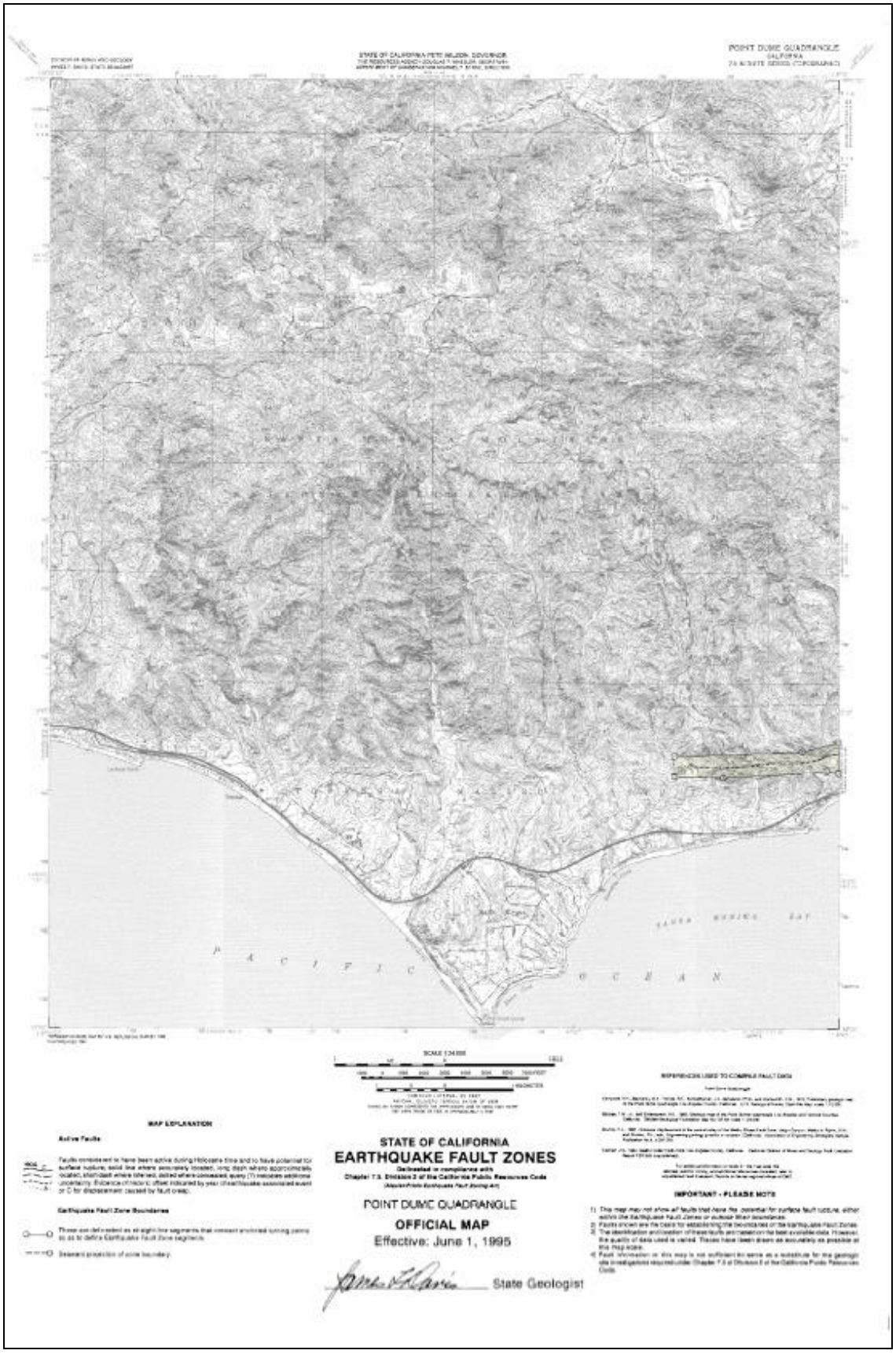
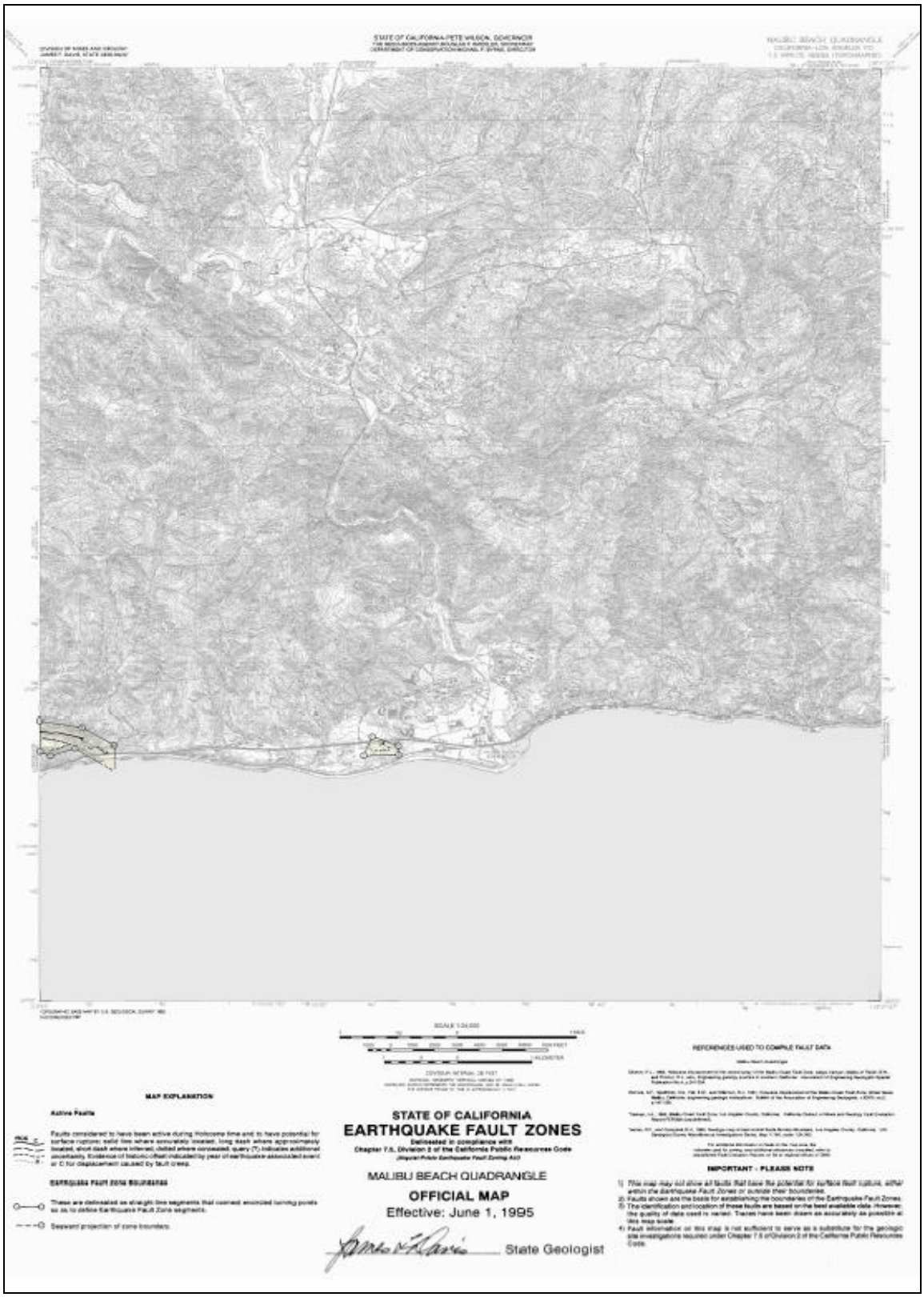
JAMES E. SLOSSON, STATE GEOLOGIST
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
LEBEC QUADRANGLE
MAP EXPLANATION
Potentially Active Faults
Special Studies Zone Boundaries
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
Delineated in compliance with
Chapter 7.5, Division 2 of the California Public Resources Code
LEBEC QUADRANGLE
OFFICIAL MAP
Effective: July 1, 1974
State Geologist
IMPORTANT - PLEASE NOTE
1) This map may not show all potentially active faults, either within the special studies zones or outside their boundaries.
2) Faults shown are the basis for establishing the boundaries of the special studies zones.
3) The identification of these potentially active faults and the location of such fault traces are based on the best available data. Traces have been drawn as accurately as possible at this map scale. However, the quality of data used is highly varied. The faults shown have not been field checked during this map compilation.
4) Fault information on this map is not sufficient to serve as a substitute for information developed by the special studies that may be required under Chapter 7.5, Division 2, Section 2623 of the California Public Resources Code.
REFERENCES USED TO COMPILE FAULT DATA

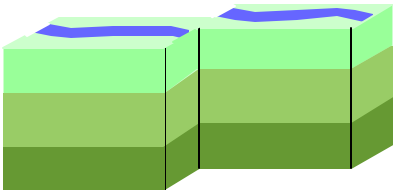

CALIFORNIA DIVISION OF MINES AND GEOLOGY
JAMES E. SLOSSON, STATE GEOLOGIST
STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION
FRAZIER MTN. QUADRANGLE
MAP EXP
Potentially Active Faults
Special Studies Zone Boundaries
STATE OF CALIFORNIA
SPECIAL STUDIES ZONES
Delineated in compliance with
Chapter 7.5, Division 2 of the California Public Resources Code
FRAZIER MTN. QUADRANGLE
OFFICIAL MAP
Effective: July 1, 1974
State Geologist
IMPORTANT - PLEASE NOTE
REFERENCES USED TO COMPILE FAULT DATA
Topar Mountain Quadrangle


POINT DUME QUADRANGLE
CALIFORNIA
7.5 MINUTE SERIES (TOPOGRAPHIC)
PACIFIC OCEAN
MAP EXPLANATION
Active Faults
Earthquake Fault Zone Boundaries
STATE OF CALIFORNIA
EARTHQUAKE FAULT ZONES
Delineated in compliance with
Chapter 7.5, Division 2 of the California Public Resources Code
(Alquist-Priolo Earthquake Fault Zoning Act)
POINT DUME QUADRANGLE
OFFICIAL MAP
Effective: June 1, 1995
State Geologist
IMPORTANT - PLEASE NOTE


STATE OF CALIFORNIA
EARTHQUAKE FAULT ZONES
MALIBU BEACH QUADRANGLE
OFFICIAL MAP
Effective: June 1, 1995
State Geologist
MAP EXPLANATION
IMPORTANT - PLEASE NOTE

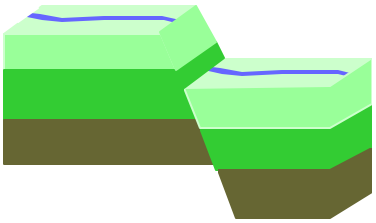
Causes and Characteristics of Earthquakes in Southern California

Fault



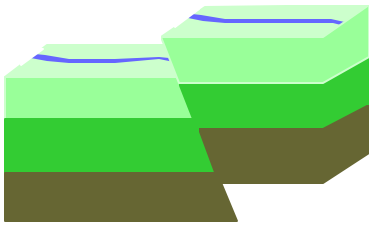
A fault is a fracture along between blocks of the earth's crust where either side moves relative to the other along a parallel plane to the fracture.

Strike-slip



Strike-slip faults are vertical or almost vertical rifts where the earth's plates move mostly horizontally. From the observer's perspective, if the opposite block looking across the fault moves to the right, the slip style is called a right lateral fault; if the block moves left, the shift is called a left lateral fault.

Dip-slip

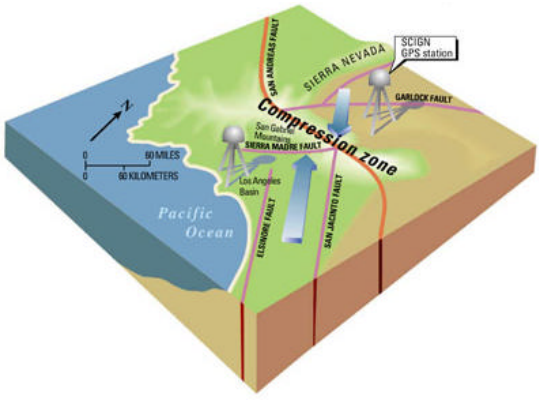


Dip-slip faults are slanted fractures where the blocks mostly shift vertically. If the earth above an inclined fault moves down, the fault is called a normal fault, but when the rock above the fault moves up, the fault is called a reverse fault. Thrust faults have a reverse fault with a dip of 45 ° or less.

The earthquakes of California are caused by the movement of huge blocks of the earth's crust. Southern California straddles the boundary between the Pacific and North American plates. These large sections of the earth's crust (the North American plate extends east to Iceland while the Pacific plate extends west to Japan) are moving past each other. The Pacific plate is moving northwest, scraping horizontally past North America at a rate of about 50 millimeters (2 inches) per year.

About two-thirds of the 50 millimeters per year occurs on the San Andreas fault and some parallel faults—the San Jacinto, Elsinore, and Imperial faults. These four faults are among the fastest moving, and therefore most dangerous, in Southern California. Over time, these four faults produce about half of the significant earthquakes of our region.

However, this is not the whole picture. Unlike central and Northern California, much of this plate movement in Southern California is not parallel to the San Andreas fault. Between the southern end of the San Joaquin Valley and the San Bernardino mountains, in the so-called "big bend," the San Andreas fault runs in a more westerly direction.



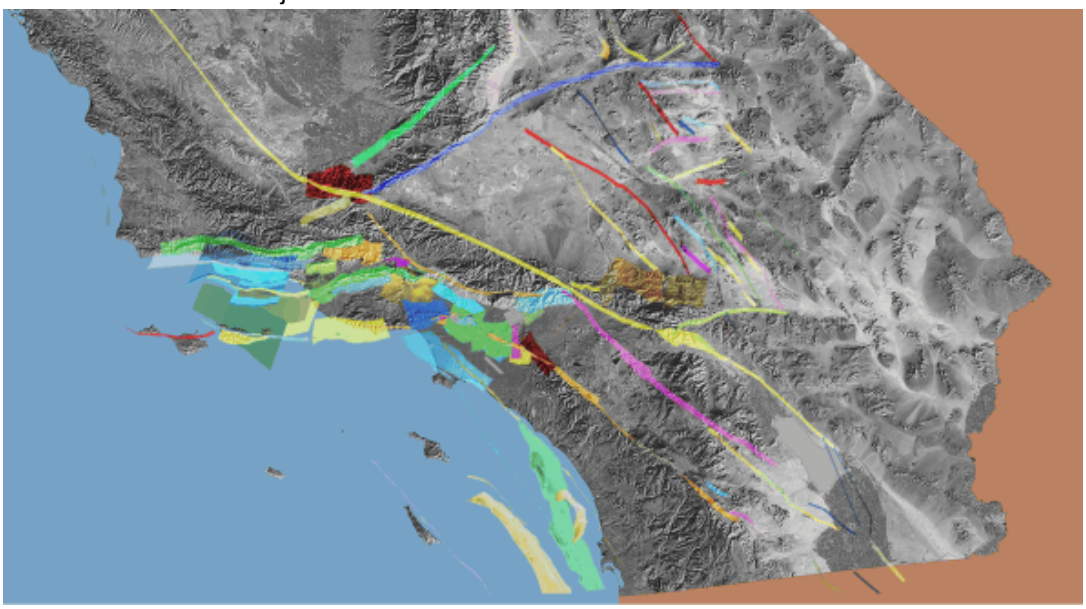
A schematic block model of Southern California showing the motion of the Pacific and North American plates, and the big bend of the San Andreas fault where the plates squeeze together.

Where the fault bends, plate motion is complex. The Pacific and North American plates push into each other, compressing the earth's crust into the mountains of southern California and producing faults and earthquakes. While these 300 or so faults

are generally much shorter and slower moving than the four faults mentioned previously, over half of the significant earthquakes in southern California occur on these faults.

The greatest concentration of these faults is in and near the mountains that have formed around the big bend of the San Andreas fault (the San Bernardino, San Gabriel, and Santa Ynez mountains). These mountains, like most mountains in California, are there because earthquakes are pushing them up. Many of these faults can be detected at the earth's surface, though some are buried beneath the sediments of the Los Angeles basin and the inland valleys.

SCEC Community Fault Model courtesy of Andreas Plesch, Harvard. This map shows the 3-dimensional structure of major faults beneath Southern California. Vertical faults such as the San



Andreas (yellow band from top left to bottom right) are shown as a thin strip. Faults that are at an angle to the surface are shown as wider ribbons of color. The nearest fault to you might be a few miles beneath your home. Areas that seem to have few faults can still experience strong shaking from earthquakes on unmapped faults or from large earthquakes on distant faults

Geologic Rates

The movement between the Pacific and North American plates, 50 millimeters (2 inches) each year, is about how fast your fingernails grow, but it has been going on for eons. Los Angeles City Hall is now 3 meters (10 feet) closer to San Francisco than when it was built in 1924. It would take a mere (geologically speaking) 2 million years for your nails to extend 100 kilometers (60 miles) from San Bernardino to Palmdale. It took many millions of years for our faults to slip enough, and rocks to move enough, to shape Southern California's current landscape.

Unknown Faults

As the Northridge earthquake confirmed, some faults are not known until they move in large and damaging earthquakes. What do we do about the faults we can't see and don't know about yet? Do we still have to wait until the next earthquake reveals them?

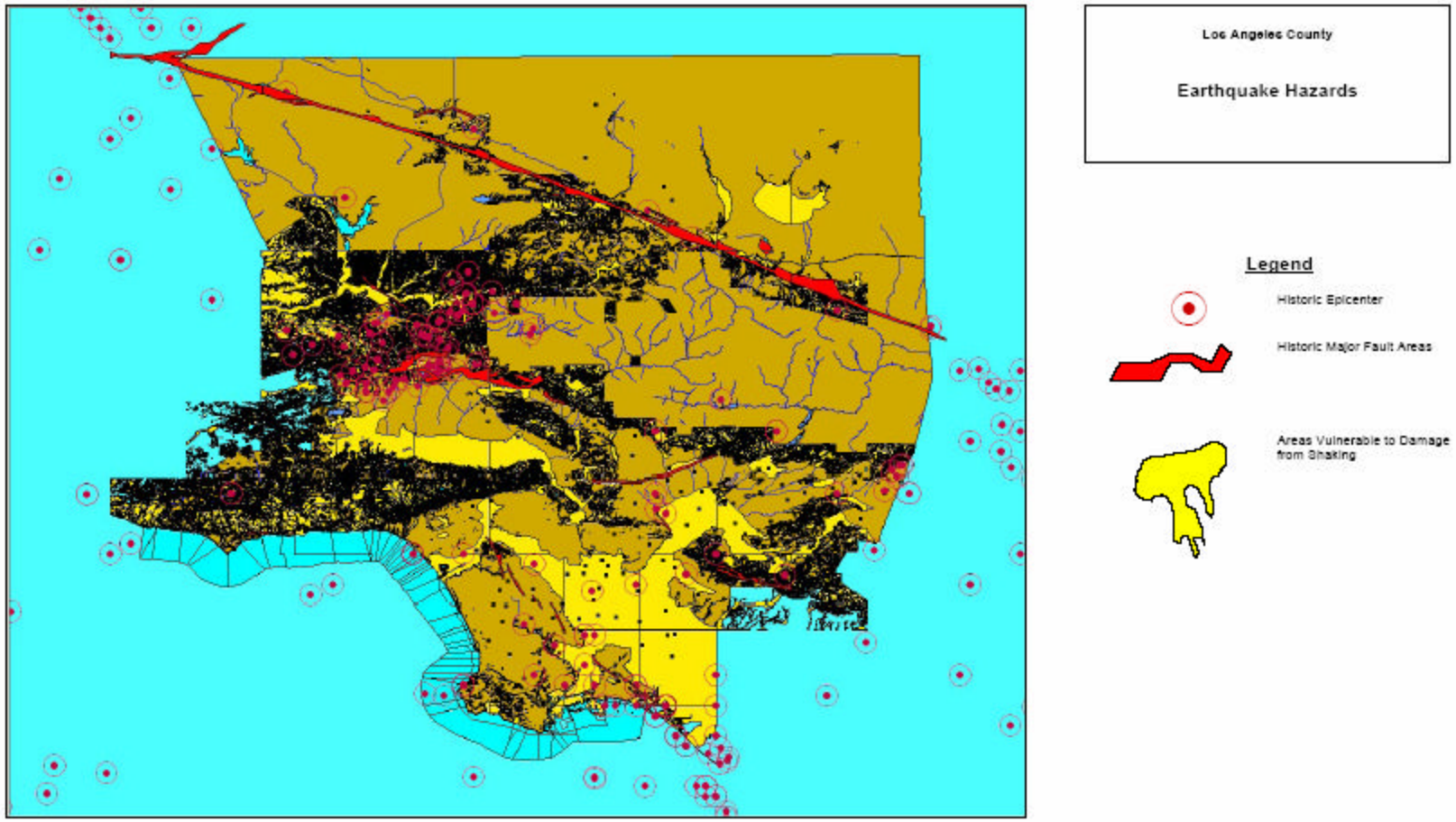
Not necessarily. In 2001, scientists of the Southern California Earthquake Center completed the Southern California Integrated GPS Network (SCIGN), an advanced system of 250 Global Positioning

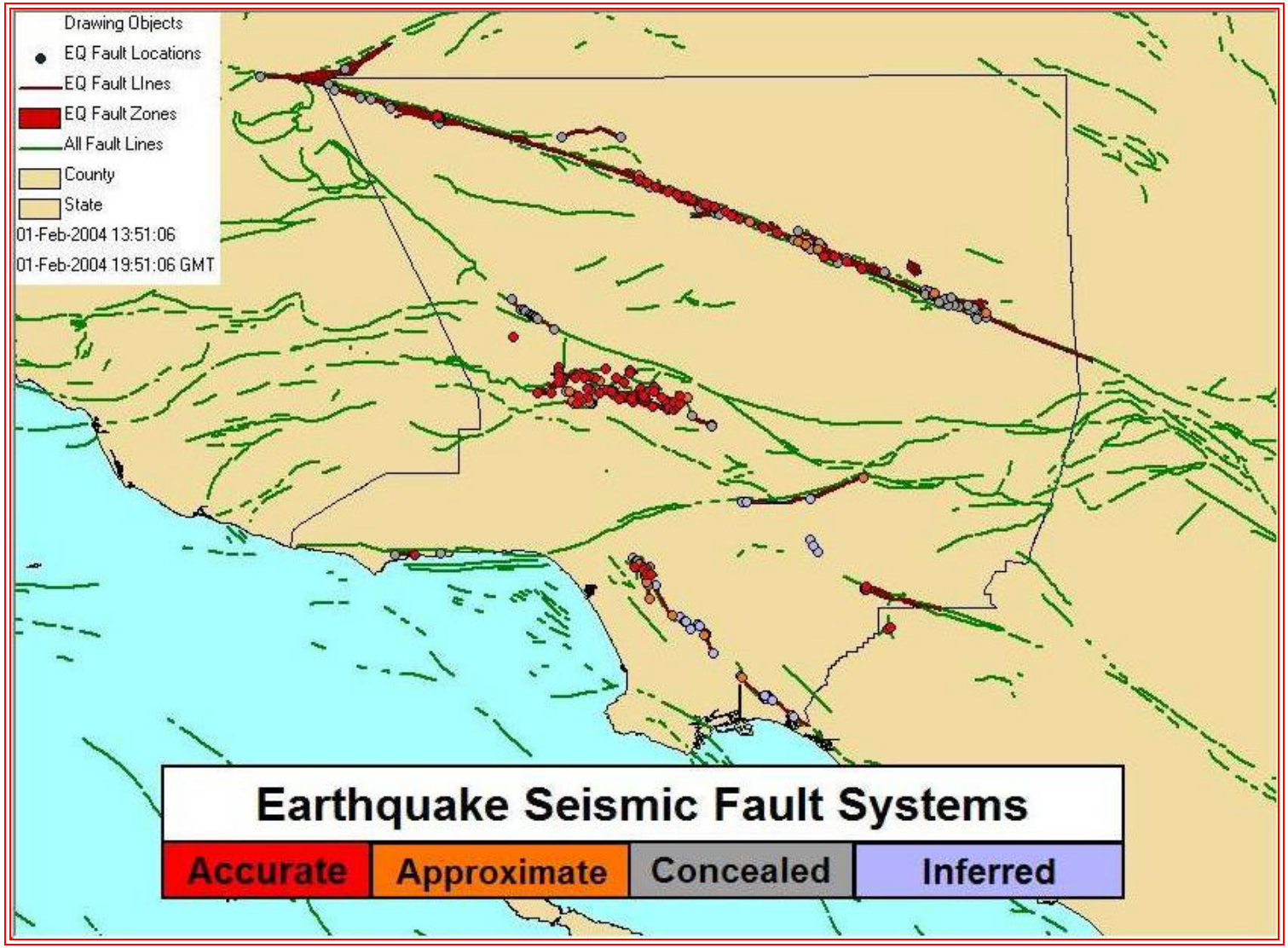
System (GPS) receivers. With this network the positions of locations throughout Southern California can be precisely measured.

By measuring these locations for several years, we can see how different sites are moving relative to each other—for instance, Palos Verdes is moving toward Pasadena at about 4 millimeters (5/32 inch) per year. If movement between two locations is greater than the movement on known faults, then we have a reasonable idea that there may be another fault in the area, perhaps buried by sediment. This can lead to focused research using other methods to identify the unknown fault.

Information from the Southern California Earthquake Center

Earthquake Hazard Map – LA County Los Angeles County GIS Data



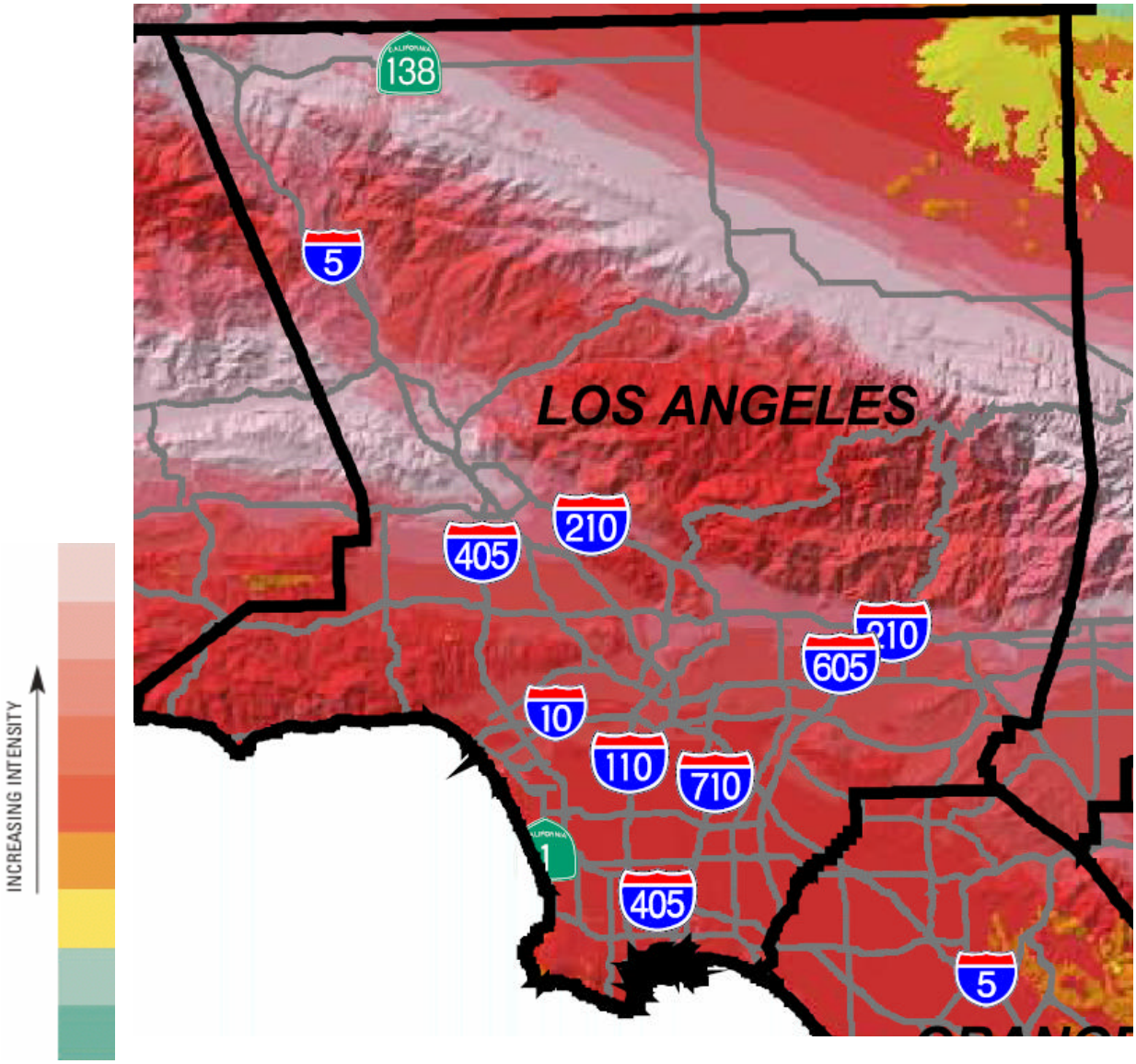

Drawing Objects
EQ Fault Locations
EQ Fault LInes
EQ Fault Zones
All Fault Lines
County
State
01-Feb-2004 13:51:06
01-Feb-2004 19:51:06 GMT
Earthquake Seismic Fault Systems
Accurate
Approximate
Concealed
Inferred

Earthquake Related Hazards

Ground shaking, landslides, liquefaction, and amplification are the specific hazards associated with earthquakes. The severity of these hazards depends on several factors, including soil and slope conditions, proximity to the fault, earthquake magnitude, and the type of earthquake.

Ground Shaking

Ground shaking is the motion felt on the earth's surface caused by seismic waves generated by the earthquake. It is the primary cause of earthquake damage. The strength of ground shaking depends on the magnitude of the earthquake, the type of fault, and distance from the epicenter (where the earthquake originates). Buildings on poorly consolidated and thick soils will typically see more damage than buildings on consolidated soils and bedrock.



These regions are near major, active faults and will on average experience stronger earthquake shaking more frequently. This intense shaking can damage even strong, modern buildings. The regions distant from known, active faults will experience lower levels of shaking.

Earthquake Shaking Potential in Southern California

Residents cannot live in southern California worrying about every one of the more than 300 faults described on the previous page. We also do not need to. As described on pages 8 and 9, the ground shaking in an earthquake depends on the magnitude, the distance from the fault and local soil conditions. For, example, look at the patterns of shaking for two different earthquakes in these figures. The magnitude 4.2 earthquake produced stronger shaking near Beverly Hills than did the much larger but more distant magnitude 7.1 Hector Mine earthquake. These patterns can be simulated by computers to make maps of the shaking to expect from any potential earthquake. Shaking intensities from all possible earthquakes are added to determine the total hazard for each site.

Each area of southern California will be shaken by a different set of earthquakes, though larger earthquakes may shake many areas. In the long run most everywhere in southern California will experience heavy earthquake shaking. Some locations will experience such shaking more frequently because they are closer to more faults or have local soil conditions that amplify earthquake shaking.

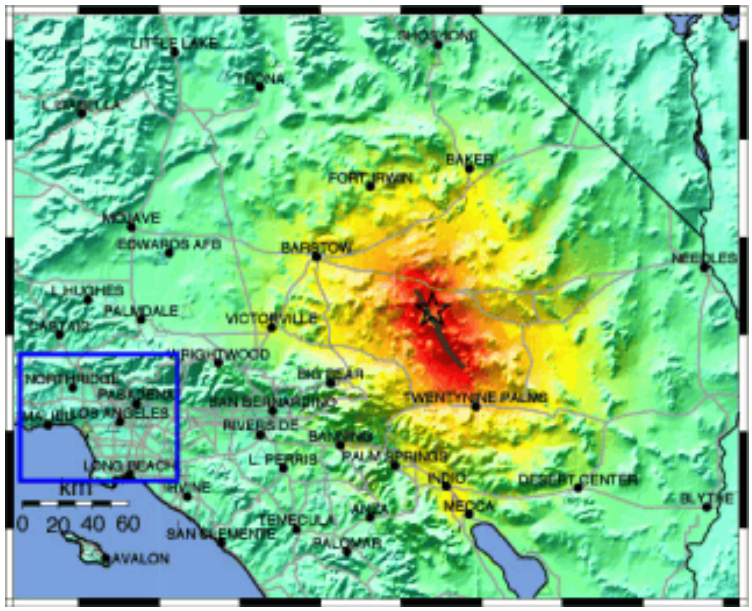
Unfortunately, scientists do not yet have the information needed to predict which earthquakes will happen first, so we must be ready for the shaking in our area from any possible earthquake. To help, scientists have summed up the probable shaking from all our known faults to create this map. It shows the relative intensity of ground shaking in California from all anticipated future earthquakes. Areas in red and pink are nearer major, active faults and on average experience stronger earthquake shaking more frequently. Although the greatest hazard is in these areas, no region within the state is immune from the potential for earthquake damage.

Rapid Instrumental Intensity Maps

A small nearby earthquake can cause more shaking than a distant large earthquake, as shown in the intensity maps for the magnitude 7.1 Hector Mine earthquake and the magnitude 4.2 Beverly Hills earthquake. The blue square on the map on the right shows the location of the map below.

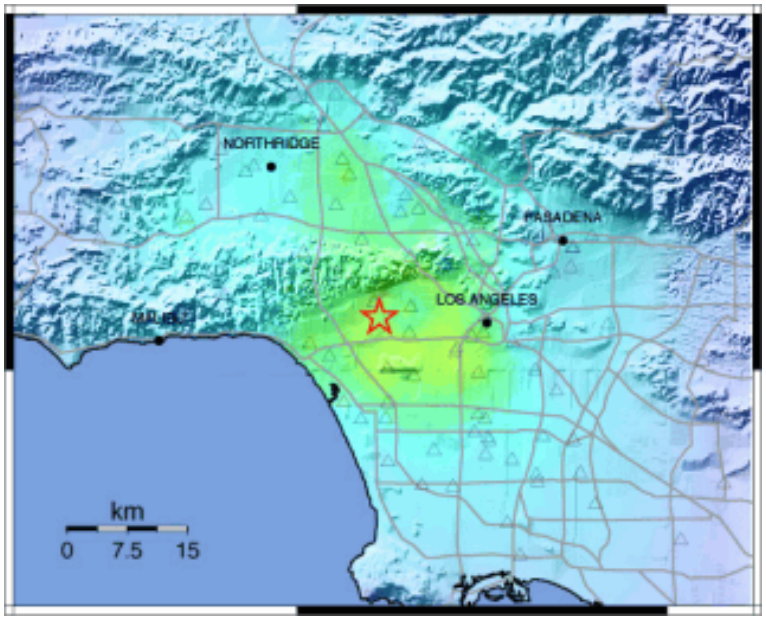
Magnitude 7.1 Hector Mine Earthquake

Saturday, October 16, 1999 03:04:53 a.m. PDT



Magnitude 4.2 Beverly Hills Earthquake

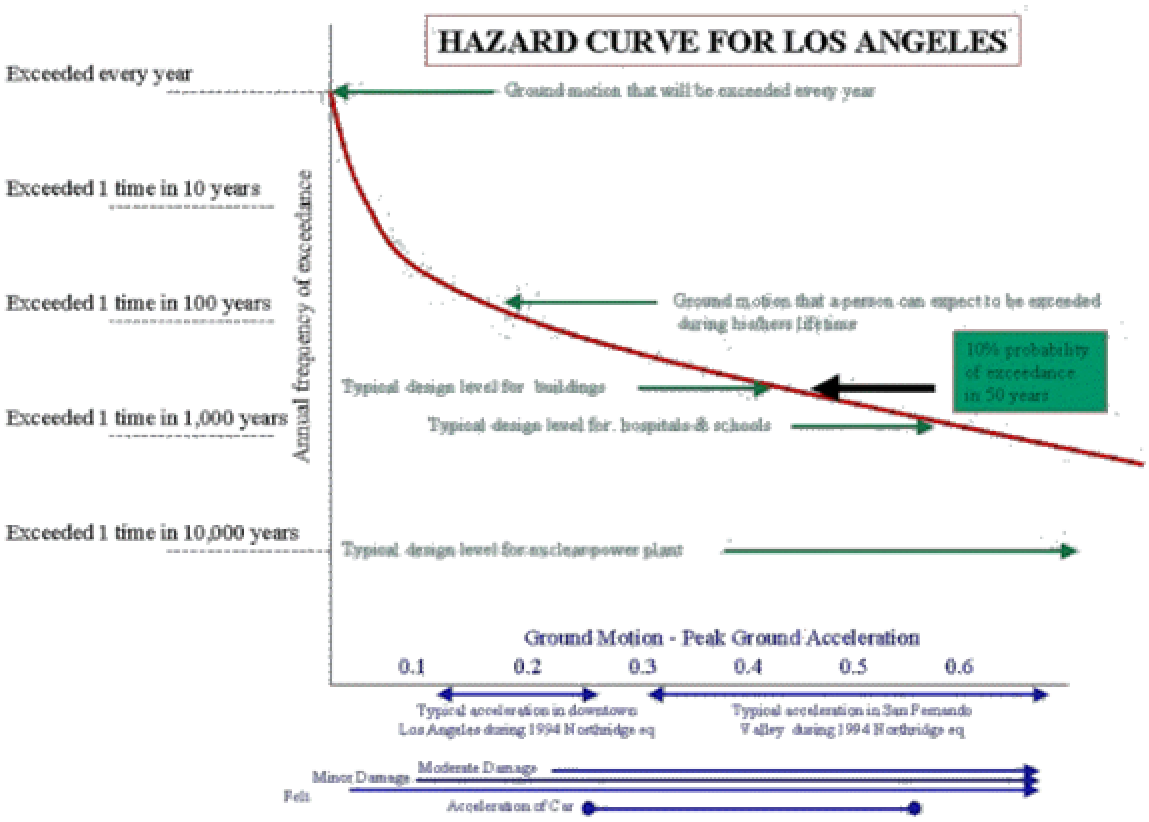
Sunday, September 9, 2001 04:59:18 p.m. PDT



U. S. GEOLOGICAL SURVEY

Hazard Curve

Hazard curves show the probability of exceeding different ground motion values at a site. For example, the 10% probability of exceedance in 50 years is one point on a hazard curve. The hazard curves are important for comparing the hazard at different sites. Some sites may have a high probability of exceeding small ground motions, but a very small probability of exceeding large ground motions. These curves are important for understanding the types of ground motions that one can expect to exceed at a site. Also the hazard curve is important for determining the expected losses. Losses can be caused by frequent smaller events or from less frequent large events. An example of a Hazard Curve is shown below.

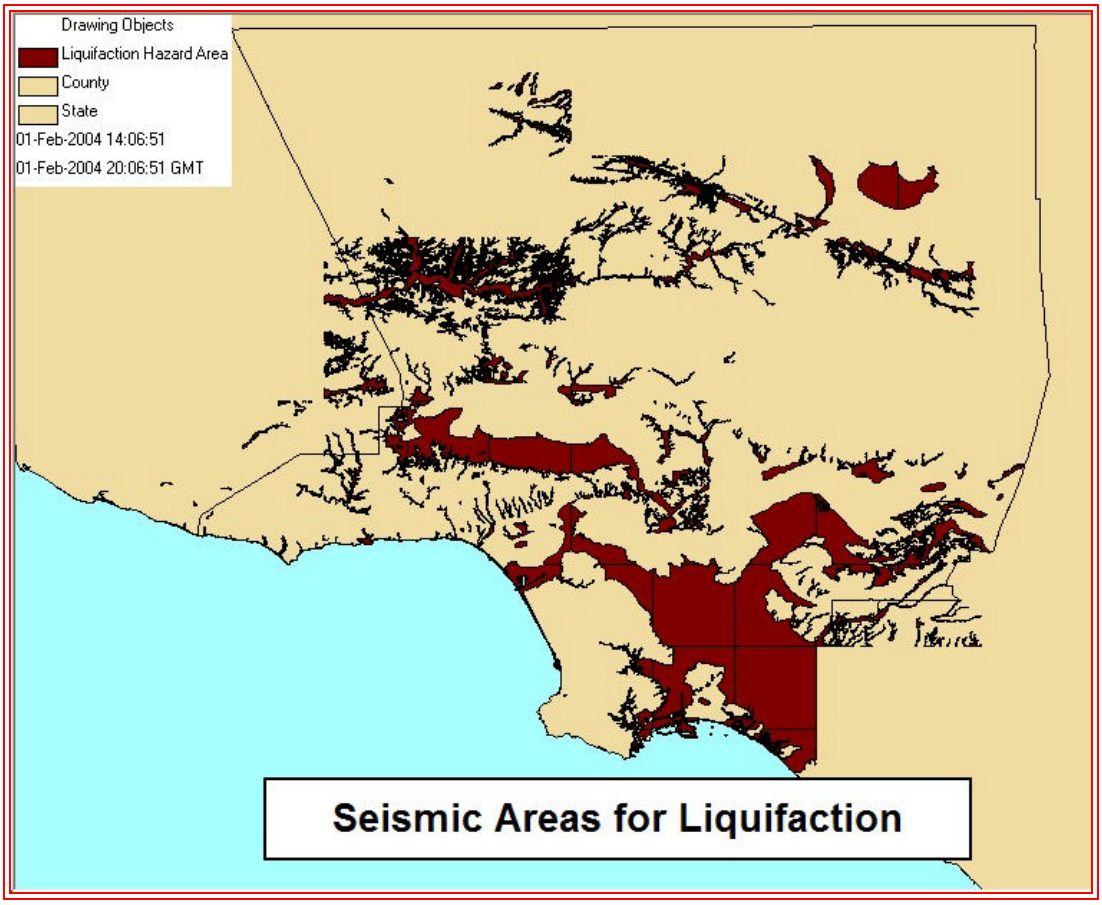


Earthquake Induced Landslides

Earthquake induced landslides are secondary earthquake hazards that occur from ground shaking. They can destroy the roads, buildings, utilities, and other critical facilities necessary to respond and recover from an earthquake. Many communities in Southern California have a high likelihood of encountering such risks, especially in areas with steep slopes. (See Landslide Hazard Description)

Liquefaction

Liquefaction occurs when ground shaking causes wet granular soils to change from a solid state to a liquid state. This results in the loss of soil strength and the soil's ability to support weight. Buildings and their occupants are at risk when the ground can no longer support these buildings and structures. Many communities in Southern California are built on ancient river bottoms and have sandy soil. In some cases this ground may be subject to liquefaction, depending on the depth of the water table.



Amplification

Soils and soft sedimentary rocks near the earth's surface can modify ground shaking caused by earthquakes. One of these modifications is amplification. Amplification increases the magnitude of the seismic waves generated by the earthquake. The amount of amplification is influenced by the thickness of geologic materials and their physical properties. Buildings and structures built on soft and

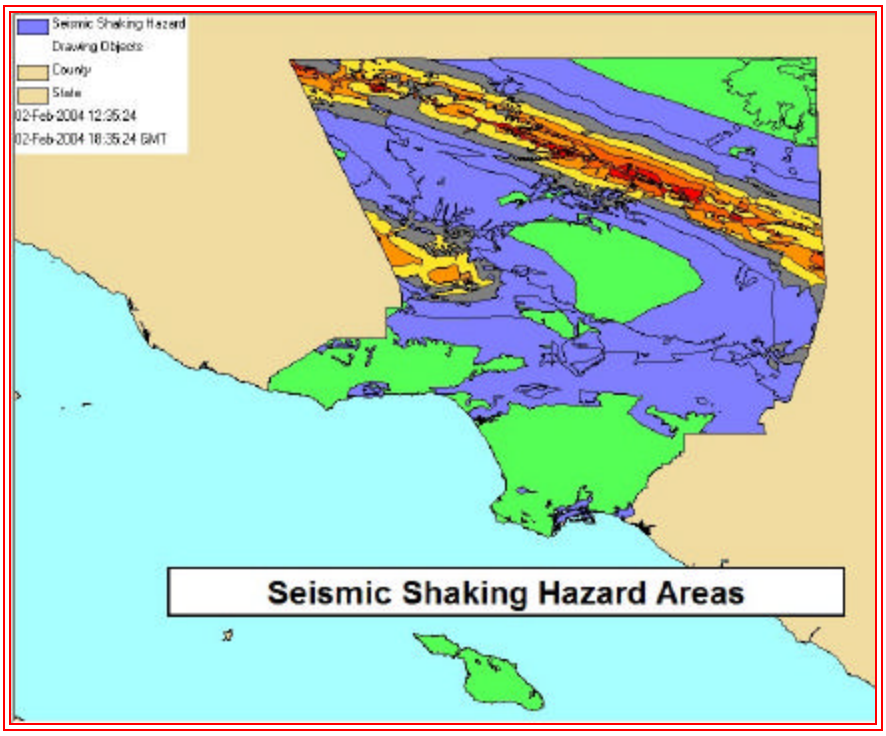
unconsolidated soils can face greater risk.[2] Amplification can also occur in areas with deep sediment filled basins and on ridge tops.

Earthquake Hazard Assessment

Hazard Identification

In California, many agencies are focused on seismic safety issues: the State's Seismic Safety Commission, the Applied Technology Council, Governor's Office of Emergency Services, United States Geological Survey, Cal Tech, the California Geological Survey as well as a number of universities and private foundations.

These organizations, in partnership with other state and federal agencies, have undertaken a rigorous program in California to identify seismic hazards and risks including active fault identification, bedrock shaking, tsunami inundation zones, ground motion amplification, liquefaction, and earthquake induced landslides. Seismic hazard maps have been published and are available for many communities in California through the State Division of Mines and Geology. The map below illustrates Seismic Shaking Hazard Areas in Los Angeles County.



[2] Planning for Natural Hazards: The California Technical Resource Guide, Department of Land Conservation and Development (July 2000)

Earthquake Threats to Los Angeles County Communities

HAZUS Earthquake Scenario for Los Angeles County

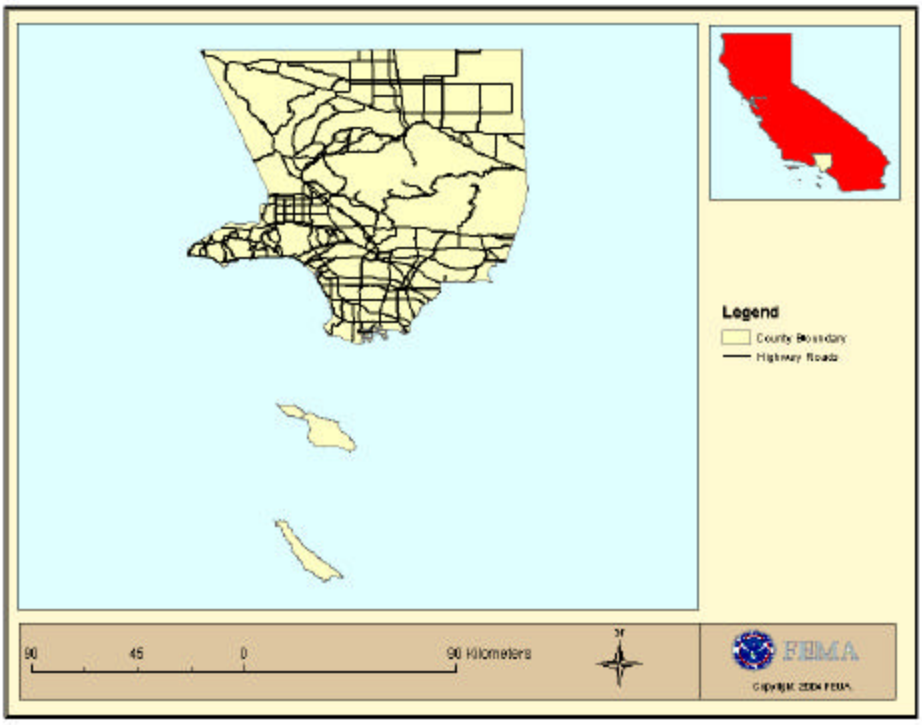
Introduction

HAZUS is a GIS-based regional loss estimation model developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences (NIBS). The primary purpose of HAZUS is to provide loss estimates for earthquake, hurricane and flood hazards. These loss estimates may be used by local, state and regional officials to plan and stimulate efforts to mitigate risks from natural hazards and to prepare for emergency response and recovery.

The information provided in this report can be used to support mitigation planning through the assessment of risk and is associated with the earthquake hazard for the region. Similar reports are available for the hurricane and flood hazards. The first section provides earthquake hazard information. The next section provides information on assets associated with building, lifeline infrastructure, and critical facilities. The final section provides loss estimates associated with the earthquake hazard. The six appendices to the report provided additional information on the county's critical facilities.

Los Angeles County, California covers an area of over 4,087 square kilometers and contains 2,054 census tracts (see Figure 1). The population of the county is over 9,519 thousand people (2000 Census data). There are an estimated 2,161 thousand buildings in the region with a building replacement value (excluding contents) of $522,562M. Approximately 98% of the buildings (and 0% of the building value) are associated with residential housing.

Figure 1: County Map - Los Angeles, California

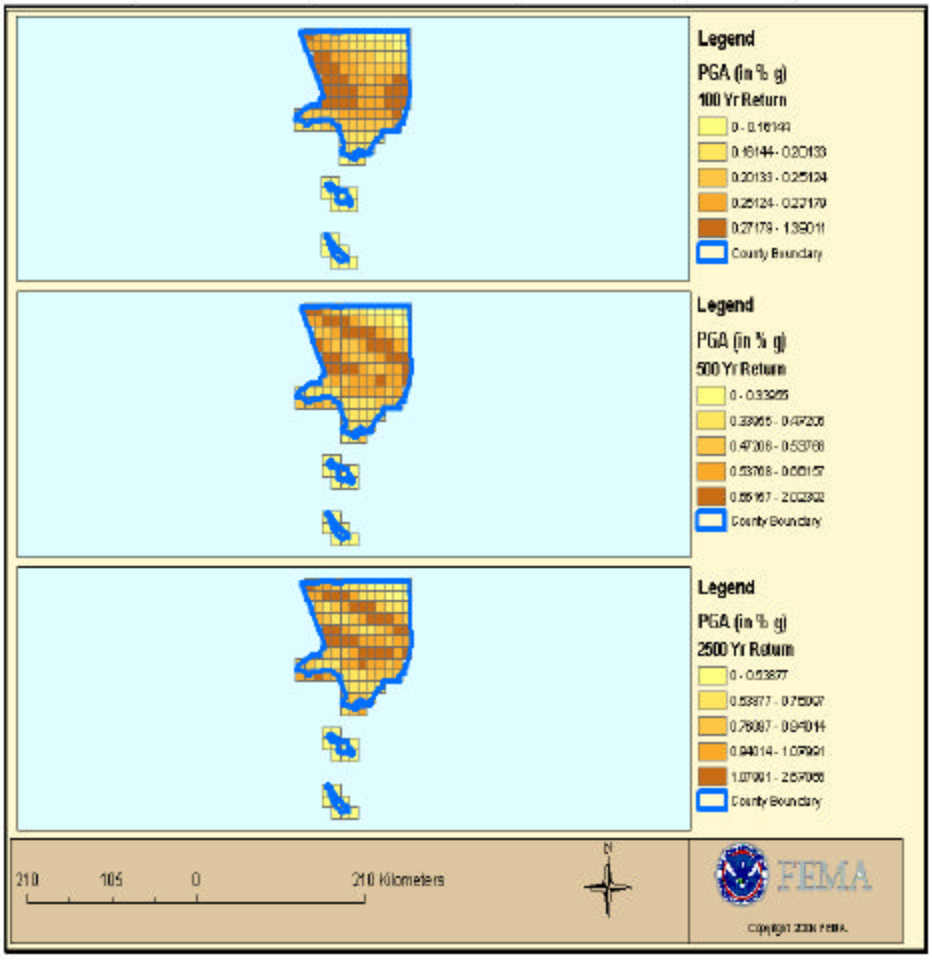


Earthquake Hazard Information

Probabilistic Earthquake Hazard

HAZUS contains probabilistic earthquake hazard information for the entire United States (USGS Open Field Report 02-420) and was used for the 2002 update of the National Seismic Hazard Map. This hazard information was developed by the United States Geological Survey (USGS); Golden, CO. Figure 2 provides earthquake hazard maps for 100, 500, and 2500 year return periods for Los Angeles County. Peak Ground Acceleration (PGA) is the intensity measure used in the maps.

Figure 2: Probabilistic Earthquake Hazard Maps
(PGA for 100, 500 and 2500 year return periods)

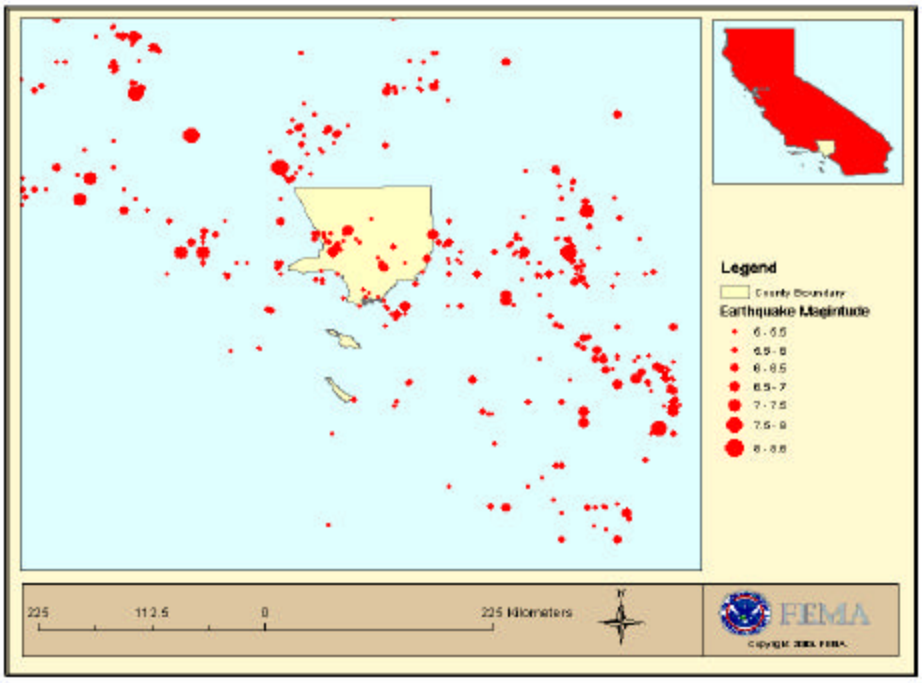


Earthquake Hazard Information (continued)

Historical Earthquake Epicenters

HAZUS contains a catalog of historical earthquake epicenters. The historical epicenter catalog was developed based on information from the CNSS Worldwide Earthquake Catalog (now ANSS), the National Earthquake Information Center (NEIC) database, and the Earthquake Seismicity Catalog Volume 1 (NOAA/USGS).
Figure 3 provides a map of the historical earthquake epicenters that have occurred within 150 km of Los Angeles County. The historical earthquake epicenters (and associated data) shown in the map are also listed in Appendix F of this report.

Figure 3: Historical Earthquake Epicenter Map (within 150 km of county boundary)



Inventory of Assets: Building

Building Inventory

HAZUS estimates that there are 2,161 thousand buildings in the county which have an aggregate total replacement value of $522,562M. Tables 1 and 2 provide information about the building stock in Los Angeles County. Table 1 provides the distribution by occupancy and Table 2 provides the distribution by building type.

Table 1: Building Inventory
(by General Occupancy)

Occupancy	Number of Buildings (In Thousands)	Building Value *	Contents Value *
Residential	2,113.62	$416,398M	$208,199M
Commercial	38.61	$80,334M	$84,345M
Industrial	6.26	$17,934M	$25,958M
Agricultural	0.09	$396M	$396M
Religion	1.32	$3,726M	$3,726M
Government	0.67	$768M	$853M
Education	0.24	$3,005M	$3,609M
Total	2,160.79	$522,562M	$327,085M

Table 2: Building Inventory
(by General Building Type)

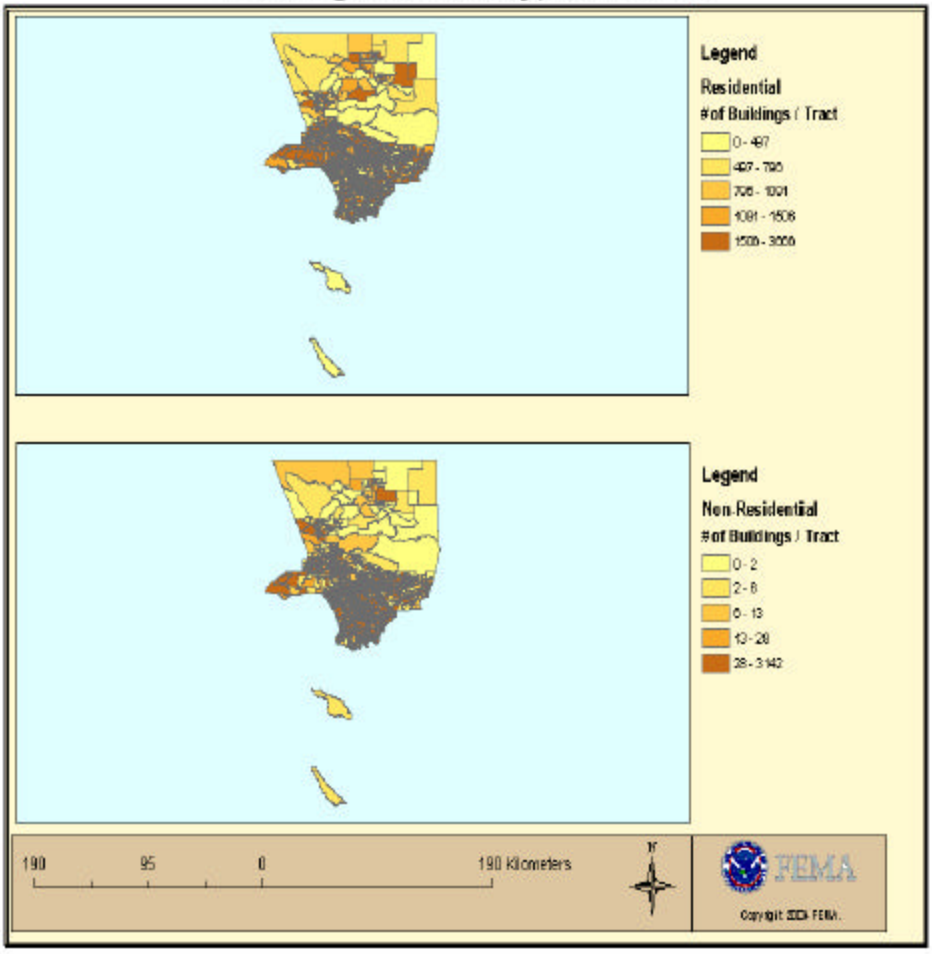
Building Type	Number of Buildings (In Thousands)	Building Value *	Content Value *
Wood	2,015.10	$398,991M	$212,922M
Steel	18.12	$27,795M	$28,392M
Concrete	28.15	$50,347M	$47,554M
Masonry	46.65	$43,511M	$37,145M
Mobile Homes	52.77	$1,918M	$1,073M
Total	2,160.79	$522,562M	$327,085M

* 'M' in Building and Content Value represents Millions.

Inventory of Assets: Building Inventory (continued)

Figure 4 provides a map showing the residential and non-residential building count in the county. The building count is presented by census tract within the county.

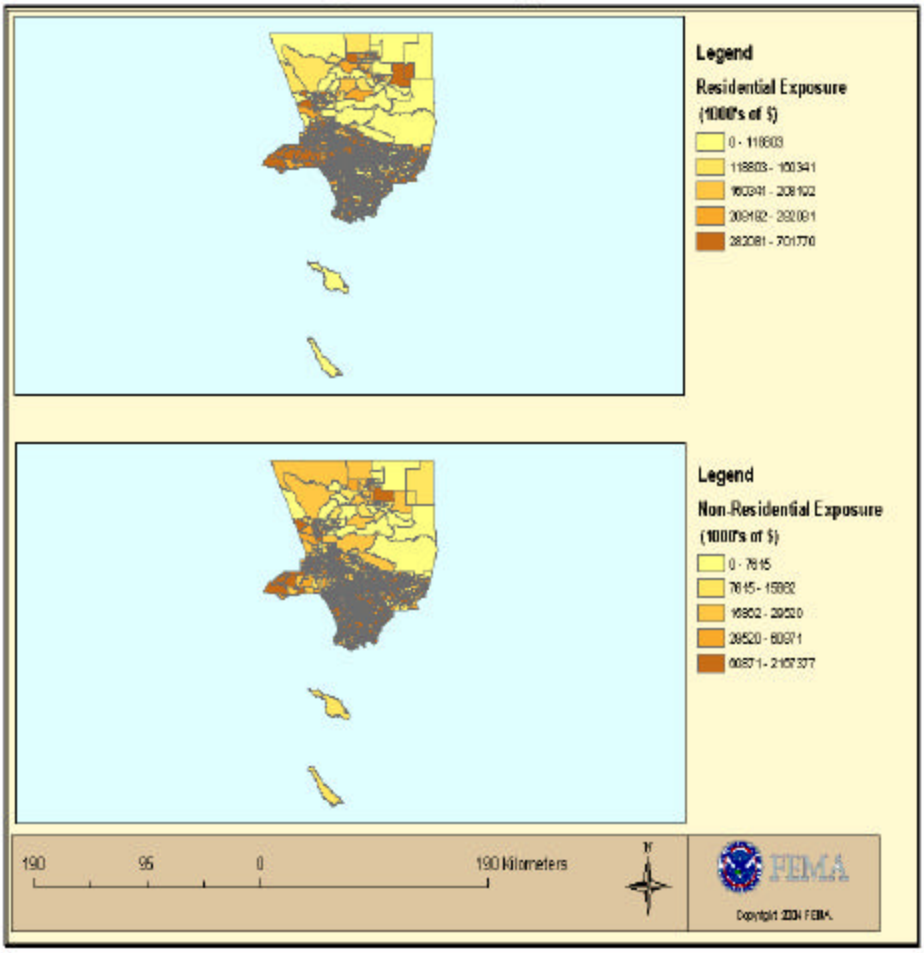
Figure 4: Building Count Map
Los Angeles County, California



Inventory of Assets: Building Inventory (continued)

Figure 5 provides a map showing the residential and non-residential building exposure in the county. The building exposure is presented by census tract within the county.

Figure 5: Building Exposure Map
Los Angeles County, California



Inventory of Assets: Lifeline Infrastructure

Lifeline Inventory

Within HAZUS, the lifeline inventory is divided between transportation and utility lifeline systems. There are seven (7) transportation systems that include highways, railways, light rail, bus, ferry, ports and airports. There are six (6) utility systems that include potable water, waste water, natural gas, crude & refined oil, electric power and communications. The lifeline inventory data is provided in Tables 3 and 4.

Table 3: Transportation System Lifeline Inventory

System	Component	# Locations / Length	Replacement Value*
Highway	Roadways	2,876 km	$11,300.54M
	Bridges	3,128	$10,914.99M
	Tunnels	17	$34.27M
	Sub-Total		**$22,249.80M**
Railway	Tracks	1,011 km	$869.59M
	Bridges	144	$28.36M
	Tunnels	0	$0.00M
	Facilities	84	$216.08M
	Sub-Total		**$1,114.03M**
Light Rail	Tracks	149 km	$128.53M
	Bridges	28	$6.17M
	Tunnels	0	$0.00M
	Facilities	0	$0.00M
	Sub-Total		**$134.70M**
Bus	Facilities	42	$54.02M
	Sub-Total		**$54.02M**
Ferry	Facilities	0	$0.00M
	Sub-Total		**$0.00M**
Port	Facilities	155	$398.72M
	Sub-Total		**$398.72M**
Airport	Facilities	24	$154.34M
	Runways	38	$1,393.63M
	Sub-Total		**$1,547.97M**
	Total		**$25,499.25M**

* **'M'** in Replacement Value represents Millions

Inventory of Assets: Lifeline Infrastructure (continued)

Table 4: Utility System Lifeline Inventory

System	Component	# Locations / Length	Replacement Value*
Potable Water	Pipelines	0 km	$0.00M
	Facilities	15	$589.41M
	Distribution Lines	43,126 km	$862.53M
	Sub-total		**$1,451.94M**
Waste Water	Pipelines	0 km	$0.00M
	Facilities	19	$1,493.17M
	Distribution Lines	25,875 km	$517.52M
	Sub-total		**$2,010.69M**
Natural Gas	Pipelines	0 km	$0.00M
	Facilities	1	$1.29M
	Distribution Lines	17,250 km	$345.01M
	Sub-total		**$346.30M**
Oil Systems	Pipelines	0 km	$0.00M
	Facilities	44	$5.19M
	Sub-total		**$5.19M**
Electrical Power	Facilities	41	$5,321.80M
	Sub-total		**$5,321.80M**
Communication	Facilities	94	$11.09M
	Sub-total		**$11.09M**
	Total		**$9,147.01M**

* 'M' in Replacement Value represents Millions

Inventory of Assets: Essential Facilities

Essential Facility Inventory

Essential facilities include hospitals, schools, fire stations, police stations and emergency operations facilities. High potential loss facilities include dams, levees, military installations, nuclear power plants and hazardous material sites.

The following table provides the number of hospitals, emergency response facilities and schools that are in the county and their replacement value. The individual hospitals, schools and emergency response facilities are listed in Appendix A, B and C respectively of this report. The Figures 6, 7 and 8 on following pages provide maps for hospitals, emergency response facilities and schools respectively.

Table 5: Essential Facility Inventory

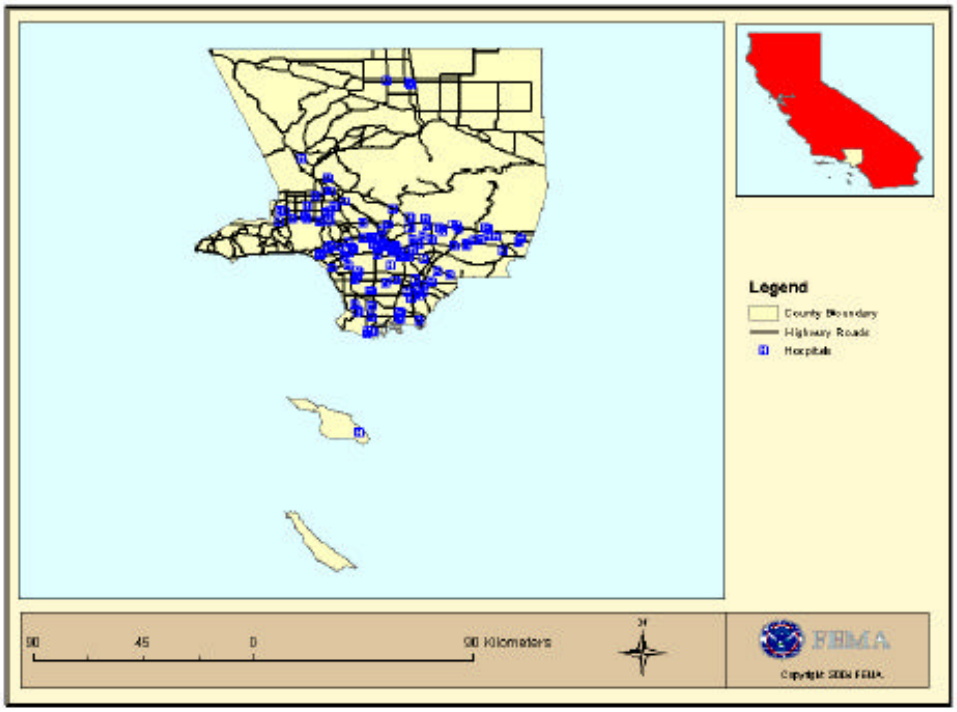
Building Type	Number of Buildings	Replacement Value *
Hospitals	120	$1,569M
Fire Stations	111	$79M
Police Stations	166	$274M
EOCs	12	$14M
Schools	3,022	$1,783M
Total	3,431	**$3,719M**

* Replacement Value does not include contents, which can be substantial for essential facilities. 'M' in Replacement Value represents Millions.

Inventory of Assets: Essential Facilities (continued)

Figure 6 provides a map of the hospitals in the county.

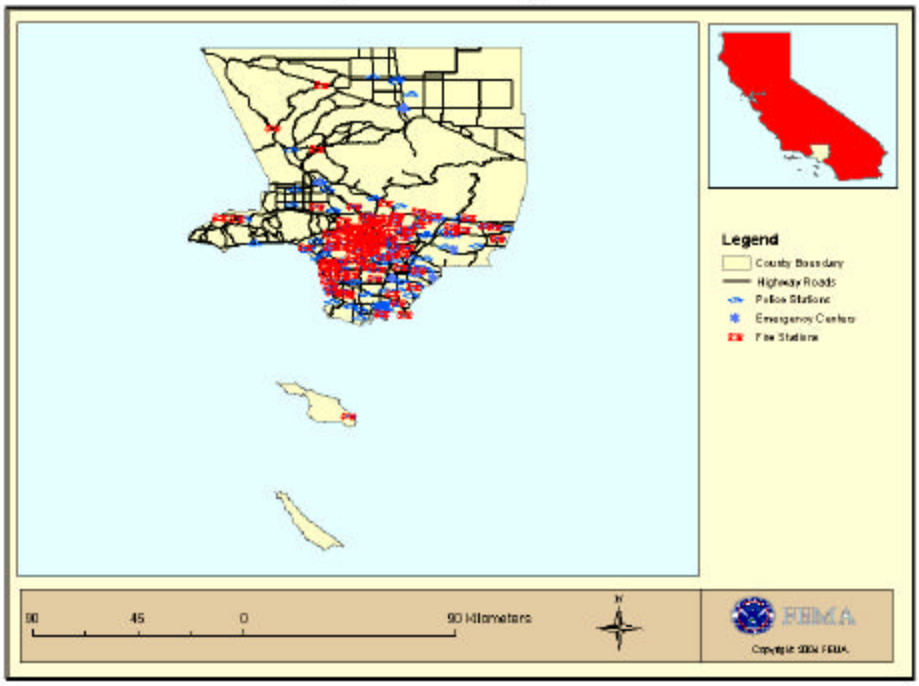
Figure 6: Hospitals Map
Los Angeles County, California



Inventory of Assets: Essential Facilities (continued)

Figure 7 provides a map of the emergency response facilities (police stations, fire stations and emergency operation centers) in the county.

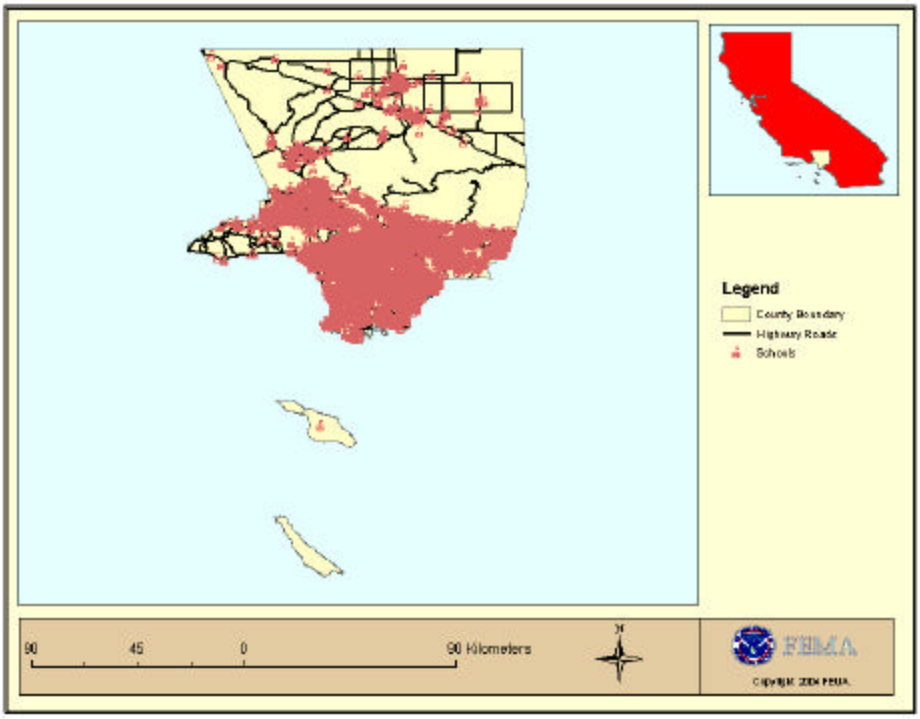
Figure 7: Emergency Response Facilities Map
Los Angeles County, California



Inventory of Assets: Essential Facilities (continued)

Figure 8 provides a map of the schools the county.

Figure 8: Schools Map
Los Angeles County, California



Inventory of Assets: Demographic Information

Demographic Information

HAZUS provides the following statistics (2000 Census data) on the County's population:

- Population by Income
- Population by Age
- Population by Ethnicity
- Population by Gender and
- by Occupancy.

Tables 6-9 present the various groupings.

Table 6: Population by Age and Gender (in thousands)

Category	Age < 16	16 < Age < 65	Age > 65	Total *
Male	1,226.41	3,084.90	381.57	4,692.88
Female	1,166.83	3,111.78	546.28	4,824.88
Total	2,393.24	6,196.68	927.84	9,517.77

Table 7: Population by Ethnicity (in thousands)

	White	Black	Native American	Hispanic	Pacific Islander	Asian	Other	Total *
Population	2,959.61	901.47	25.61	4,242.21	23.27	1,124.57	19.94	9,296.68
Percentage	31.84	9.70	0.28	45.63	0.25	12.10	0.21	

Table 8: Household Distribution by Annual Income (in thousands)

	Income < 20	Income >= 20	Total
Households	730.51	2,558.43	3,288.93
Percentage	22.21	77.79	

Table 9: Household Distribution by Residence Type (in thousands)

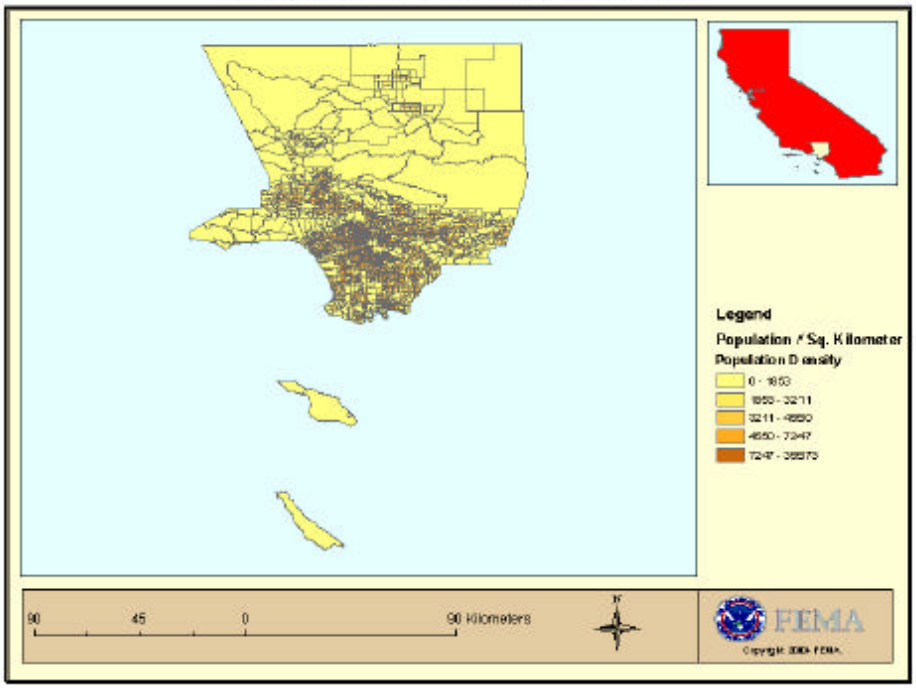
Category	Single Family	Multi-Family	Mobile Homes	Total *
Owner Occupied	1,333.58	128.22	37.83	1,499.63
Renter Occupied	441.95	1,179.89	9.74	1,631.57
Total	1,775.53	1,308.11	47.57	3,131.20

* Total population and household values may not match because of differences in the Census data.

Inventory of Assets: Demographic Information (continued)

The Figure 9 below displays the population density map (number of residents per square kilometer) for the county. The population density is presented by census tract within the county.

Figure 9: Population Density Map
Los Angeles County, California

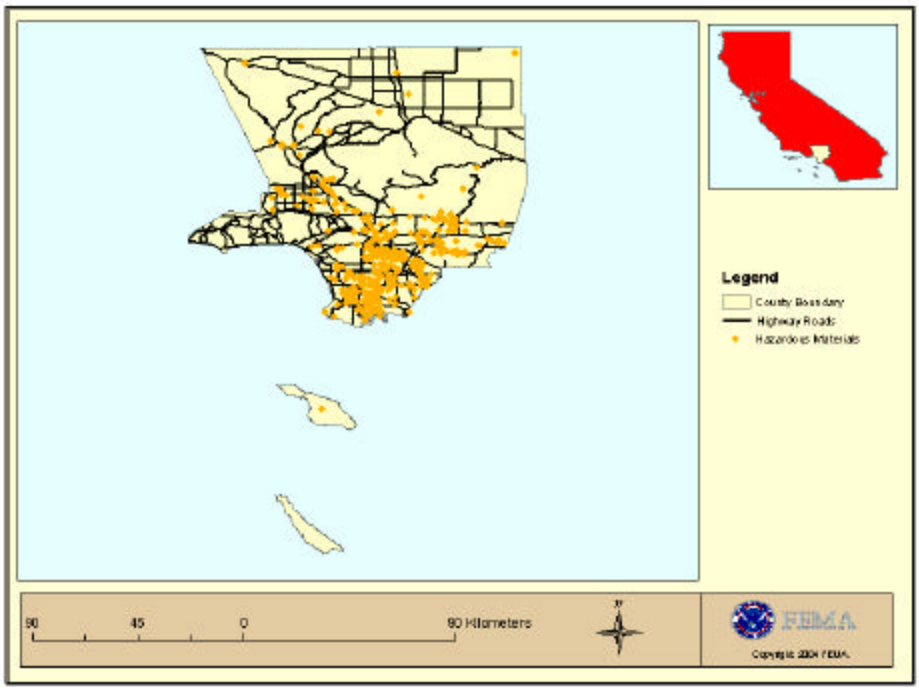


Inventory of Assets: Hazardous Materials Facilities

Hazardous Materials Facilities

Hazardous material sites are identified as High Potential Loss Facilities in HAZUS. In Los Angeles County, there are 1,735 hazardous materials sites. In HAZUS, a 'site' is defined for each facility / chemical combination, so there may be multiple entries for a single facility. Figure 10 provides a map of the sites in the county. The hazardous material sites shown in the map are also listed in Appendix D of this report.

Figure 10: Hazardous Material Sites Map
Los Angeles County, California

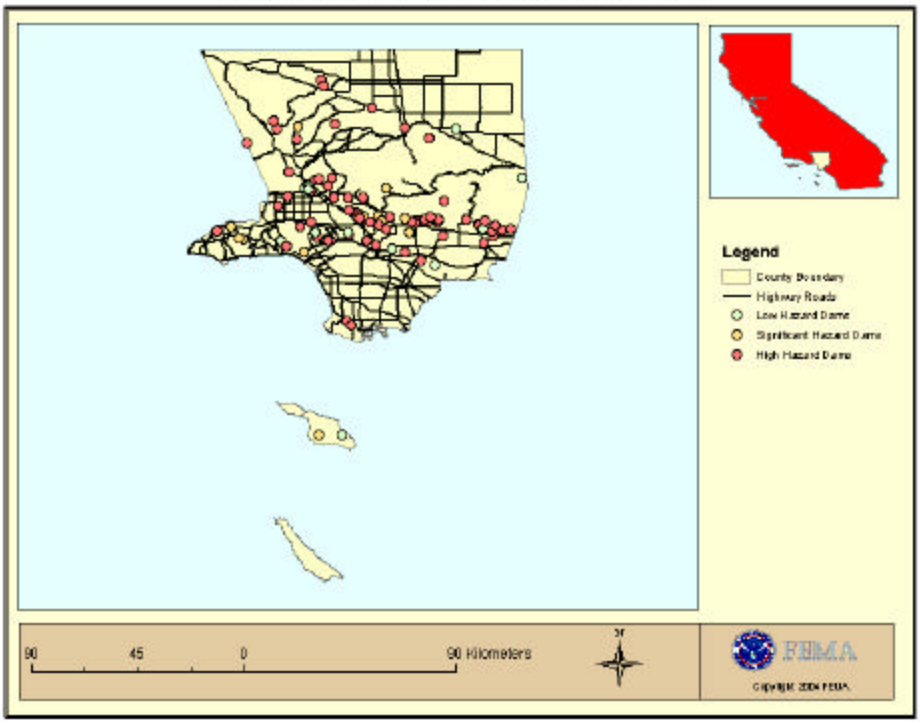


Inventory of Assets: Dams

Dams

Dams are identified as High Potential Loss Facilities in HAZUS. In Los Angeles County, there are 73 high hazard dams, 16 significant hazard dams and 14 low hazard dams. The 'hazard' levels are determined by the US Army Corp of Engineers. Figure 11 provides a map of the dams in the county. The dams shown in the map are also listed in Appendix E of this report.

Figure 11: Dams Map
Los Angeles County, California



Loss Estimates: Buildings

Scenario Definition

Scenario Name:

LA County 100 year prob (6.5)

Building Damage

HAZUS estimates that about 411.34 thousand buildings will be at least moderately damaged. This is over 19% of the total number of buildings in the region. Table 10 below summarizes the expected damage by occupancy for the buildings in the region. Table 11 below summarizes the expected damage by building type.

Table 10: Building Damage by General Occupancy (in thousands of buildings)

Occupancy	None	Slight	Moderate	Extensive	Complete	Total
Residential	921.99	801.56	335.09	44.17	10.82	2,113.62
Commercial	11.51	9.77	11.26	4.87	1.20	38.61
Industrial	1.77	1.47	1.91	0.87	0.23	6.26
Agriculture	0.05	0.02	0.01	0.01	< 0.01	0.09
Religion	0.43	0.36	0.34	0.15	0.04	1.32
Government	0.20	0.17	0.19	0.09	0.02	0.67
Education	0.09	0.06	0.06	0.02	< 0.01	0.24
Total	936.04	813.41	348.86	50.17	12.31	2,160.79

Table 11: Building Damage by Building Type (in thousands of buildings)

Building Type	None	Slight	Moderate	Extensive	Complete	Total
Wood	900.80	782.23	302.23	23.40	6.42	2,015.10
Steel	4.28	3.85	6.19	3.11	0.69	18.12
Concrete	8.10	7.55	7.96	3.74	0.80	28.15
Masonry	18.07	10.15	12.07	5.32	1.03	46.65
Mobile Home	4.78	9.62	20.41	14.59	3.36	52.77
Total	936.04	813.41	348.86	50.17	12.31	2,160.79

Loss Estimates: Buildings (continued)

Economic Loss to Buildings

The total building-related losses were $47,452.90M (2003 dollars); 25% of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 60% of the total loss. Table 12 below provides a summary of the losses associated with the building damage by occupancy. Table 13 below provides a summary of the losses associated with the building damage by building type.

Table 12: Economic Loss by General Occupancy

Occupancy	Structural Damage	Nonstructural Damage	Content Loss	Business Interruption	Total
Residential	$3,353.54M	$18,134.15M	$5,049.49M	$1,576.29M	$28,113.46M
Commercial	$2,089.23M	$5,820.19M	$2,641.16M	$4,846.15M	$15,396.72M
Industrial	$406.45M	$1,292.51M	$869.34M	$349.31M	$2,917.61M
Agriculture	$16.91M	$14.00M	$10.82M	$2.86M	$44.58M
Religion	$83.04M	$259.45M	$114.27M	$36.35M	$493.10M
Government	$16.94M	$58.05M	$25.38M	$24.84M	$125.21M
Education	$40.05M	$196.76M	$97.23M	$28.18M	$362.23M
Total	$6,006.15M	$25,775.11M	$8,807.69M	$6,863.97M	$47,452.91M

Table 13: Economic Loss by General Building Type

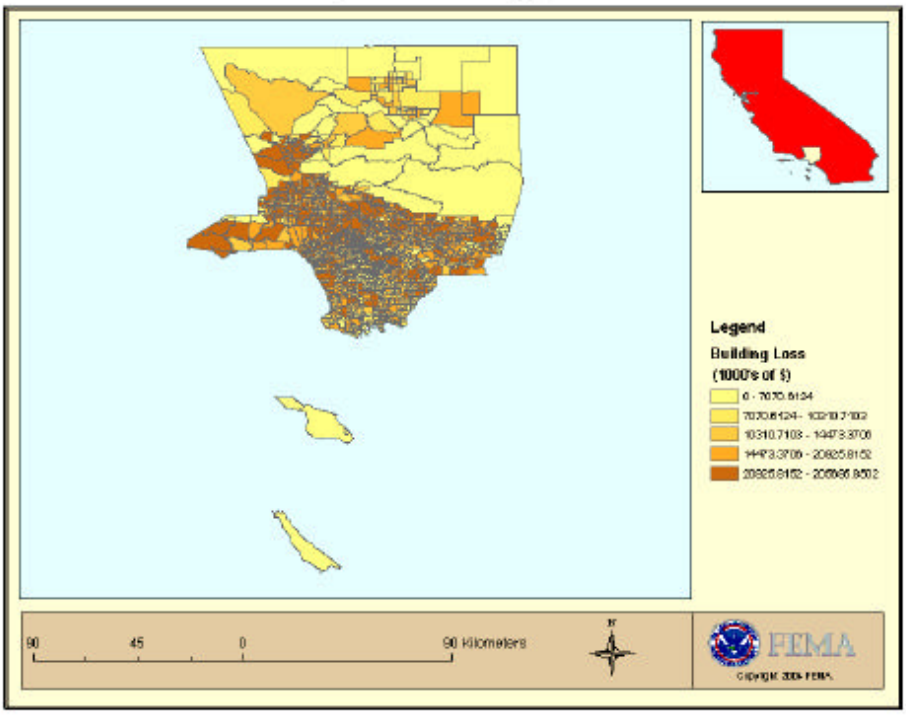
Building Type	Structural Damage	Nonstructural Damage	Content Loss	Business Interruption	Total
Wood	$2,889.51M	$16,329.90M	$5,084.32M	$1,542.81M	$25,846.54M
Steel	$747.87M	$2,327.13M	$892.82M	$1,594.90M	$5,562.72M
Concrete	$1,315.19M	$3,772.70M	$1,561.20M	$1,826.52M	$8,475.60M
Masonary	$967.16M	$3,100.64M	$1,231.73M	$1,889.42M	$7,188.96M
Mobile Home	$86.42M	$244.73M	$37.62M	$10.32M	$379.09M
Total	$6,006.15M	$25,775.11M	$8,807.69M	$6,863.97M	$47,452.91M

* 'M' in all the values above represents Millions

Loss Estimates: Buildings (continued)

Figure 12 provides a thematic map of building (structural damage + nonstructural damage) loss in the county.

Figure 12: Building Loss Map
Los Angeles County, California



Loss Estimates: Lifelines Infrastructure

Economic Loss to Lifelines

For the transportation and utility lifeline systems, HAZUS computes the direct repair cost for each component. There are no losses computed by HAZUS for business interruption due to lifeline outages. Tables 14 & 15 provide a breakdown in the expected lifeline losses.

Table 14: Transportation System Lifeline Losses

System	Component	Replacement Value *	Economic Loss *	Loss Ratio (%)
Highway	Roadways	$11,300.54M	$0.00M	0.00
	Bridges	$10,914.99M	$575.40M	5.27
	Tunnels	$34.27M	$0.99M	2.89
	Sub-total	**$22,249.80M**	**$576.39M**	
Railway	Tracks	$869.59M	$0.00M	0.00
	Bridges	$28.36M	$0.77M	2.71
	Tunnels	$0.00M	$0.00M	0.00
	Facilities	$216.08M	$47.26M	21.87
	Sub-total	**$1,114.03M**	**$48.02M**	
Light Rail	Tracks	$128.53M	$0.00M	0.00
	Bridges	$6.17M	$0.17M	2.76
	Tunnels	$0.00M	$0.00M	0.00
	Facilities	$0.00M	$0.00M	0.00
	Sub-total	**$134.70M**	**$0.17M**	
Bus	Facilities	$54.02M	$13.57M	25.12
	Sub-total	**$54.02M**	**$13.57M**	
Ferry	Facilities	$0.00M	$0.00M	0.00
	Sub-total	**$0.00M**	**$0.00M**	
Port	Facilities	$398.72M	$78.66M	19.73
	Sub-total	**$398.72M**	**$78.66M**	
Airport	Facilities	$154.34M	$34.64M	22.44
	Runways	$1,393.63M	$0.00M	0.00
	Sub-total	**$1,547.97M**	**$34.64M**	
	Total	**$25,499.25M**	**$751.45M**	

* '**M**' in Replacement Value and Economic Loss represents Millions

Loss Estimates: Lifelines Infrastructure (continued)

Table 15: Utility System Lifeline Losses

System	Component	Replacement Value *	Economic Loss *	Loss Ratio (%)
Potable Water	Pipelines	$0.00M	$0.00M	0.00
	Facilities	$589.41M	$103.19M	17.51
	Distribution Lines	$862.53M	$161.46M	18.72
	Sub-total	**$1,451.94M**	**$264.65M**	
Waste Water	Pipelines	$0.00M	$0.00M	0.00
	Facilities	$1,493.17M	$215.40M	14.43
	Distribution Lines	$517.52M	$127.70M	24.68
	Sub-total	**$2,010.69M**	**$343.10M**	
Natural Gas	Pipelines	$0.00M	$0.00M	0.00
	Facilities	$1.29M	$0.00M	0.00
	Distribution Lines	$345.01M	$136.51M	39.57
	Sub-total	**$346.30M**	**$136.51M**	
Oil Systems	Pipelines	$0.00M	$0.00M	0.00
	Facilities	$5.19M	$0.73M	13.98
	Sub-total	**$5.19M**	**$0.73M**	
Electrical Power	Facilities	$5,321.80M	$837.78M	15.74
	Sub-total	**$5,321.80M**	**$837.78M**	
Communication	Facilities	$11.09M	$1.88M	16.99
	Sub-total	**$11.09M**	**$1.88M**	
	Total	**$9,147.01M**	**$1,584.65M**	

* 'M' in Replacement Value and Economic Loss represents Millions

Loss Estimates: Essential Facilities

Essential Facility Damage

Of the 3,431 essential facilities in the county, HAZUS estimates that 609 facilities may be at least moderately damaged. This is over 18% of the total number in the region. Table 16 summarizes the expected damage for the essential facilities in the region.

Table 16: Building Damage for Essential Facilities (number of buildings)

Classification	None	Slight	Moderate	Extensive	Complete	Total
Hospitals	54.21	49.87	14.93	0.95	0.02	120
Fire Stations	50.43	48.36	11.62	0.48	0.08	111
Police Stations	78.21	70.65	16.32	0.66	0.12	166
EOCs	5.63	5.13	1.18	0.05	0.01	12
Schools	1,629.78	829.03	496.19	60.27	5.97	3,021
Total	1,818.26	1,003.04	540.24	62.41	6.20	3430

Loss Estimates: Casualties

Casualty Estimates

The casualty estimates are provided for three (3) times of day: 2:00 AM, 2:00 PM and 5:00 PM. These times represent the periods of the day that different sectors of the community are at their peak occupancy loads. HAZUS estimates the number of people that will be injured and killed by the earthquake. The casualties are broken down into four (4) severity levels that describe the extent of the injuries. The levels are described as follows;

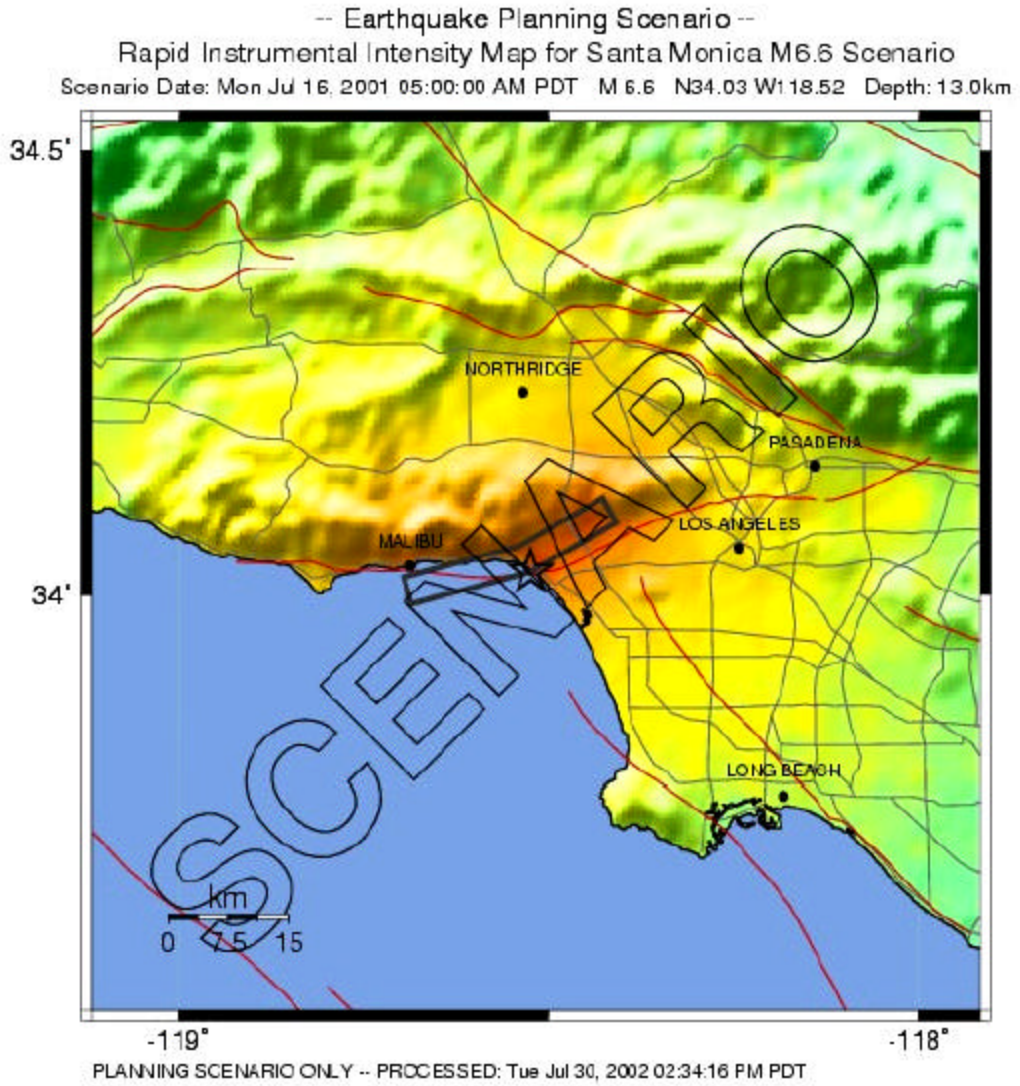
- Severity Level 1: Injuries will require medical attention but hospitalization is not needed
- Severity Level 2: Injuries will require hospitalization but are not considered life-threatening
- Severity Level 3: Injuries will require hospitalization and can become life threatening
- Severity Level 4: Victims are killed by the earthquake

Table 17 provides a summary of the casualties estimated for this earthquake (by occupancy).

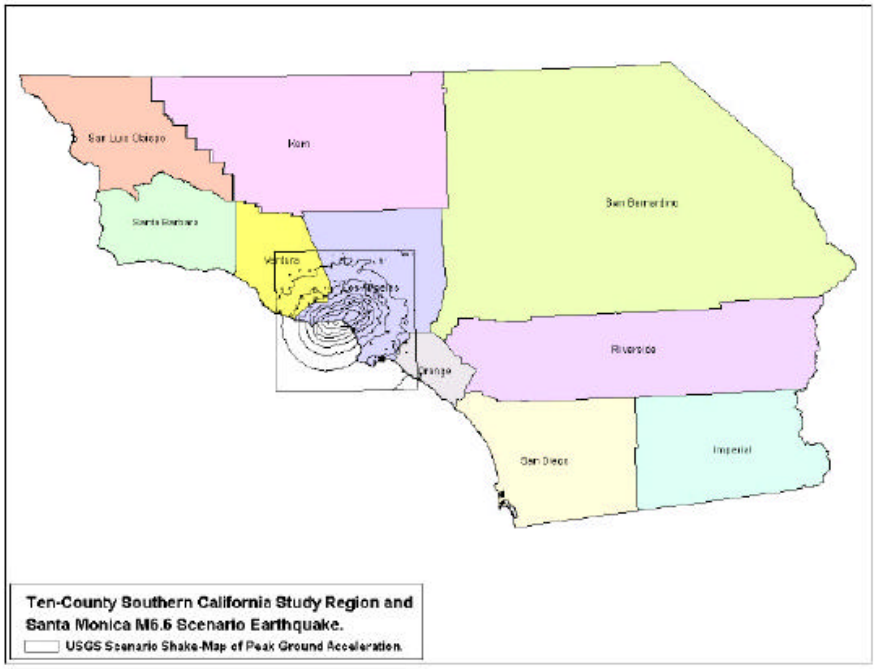
Table 17: Casualty Estimates

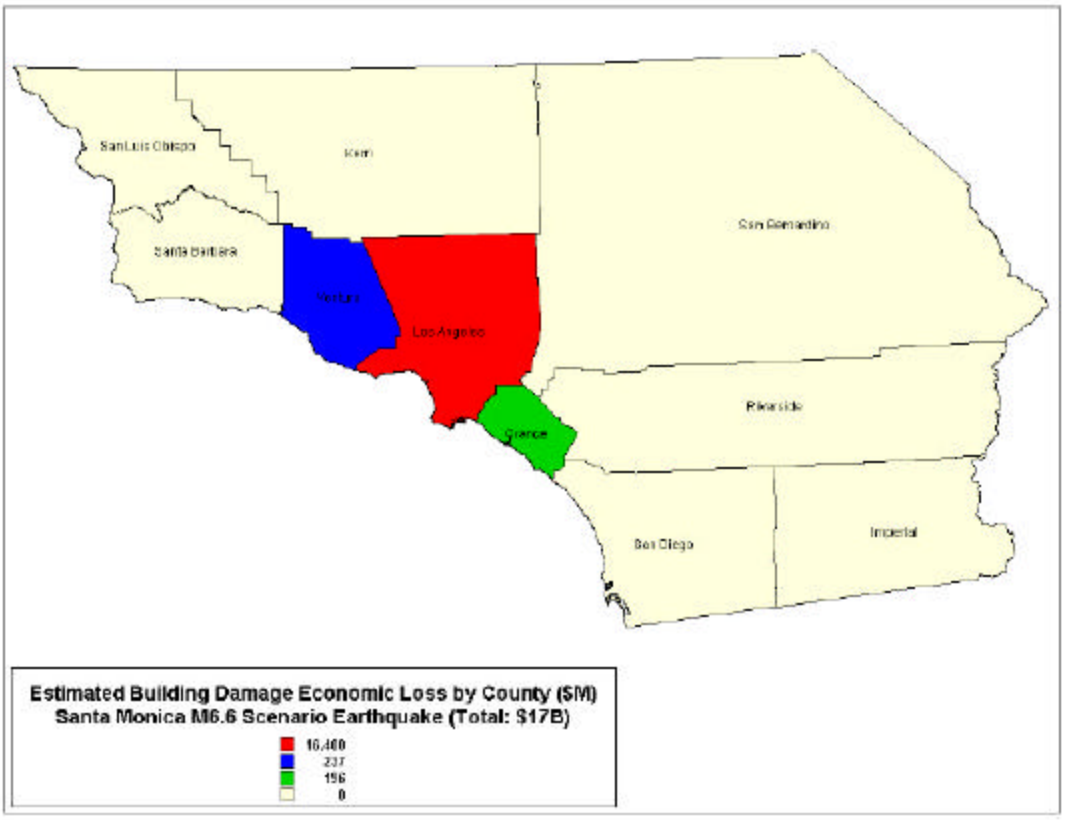
		Level 1	Level 2	Level 3	Level 4
2 AM	Commercial	265.48	64.23	9.43	18.61
	Commuting	1.08	1.66	2.54	0.51
	Educational	0.00	0.00	0.00	0.00
	Hotels	171.18	38.29	5.24	10.29
	Industrial	270.80	66.84	9.67	19.02
	Other-Residential	6,874.69	1,397.86	160.81	310.32
	Single Family	5,156.54	633.28	22.45	36.85
	Total	**12,739.78**	**2,202.16**	**210.16**	**395.59**
2 PM	Commercial	15,863.10	3,839.35	565.38	1,108.71
	Commuting	9.75	14.94	22.88	4.55
	Educational	1,759.52	401.58	58.32	113.65
	Hotels	32.92	7.37	1.01	1.97
	Industrial	1,993.81	491.16	71.35	138.94
	Other-Residential	1,416.11	291.67	34.72	64.45
	Single Family	1,021.12	127.39	5.60	7.49
	Total	**22,096.33**	**5,173.46**	**759.25**	**1,439.76**
5 PM	Commercial	11,909.01	2,881.98	427.90	821.09
	Commuting	412.12	594.48	949.26	186.56
	Educational	283.01	64.72	9.40	18.38
	Hotels	51.26	11.47	1.57	3.08
	Industrial	1,246.13	306.98	44.59	86.84
	Other-Residential	2,626.28	541.69	64.62	119.97
	Single Family	1,977.95	247.98	10.96	14.66
	Total	**18,505.77**	**4,649.29**	**1,508.30**	**1,250.58**

Graphic Depictions of Specific Fault Scenarios (HAZUS)

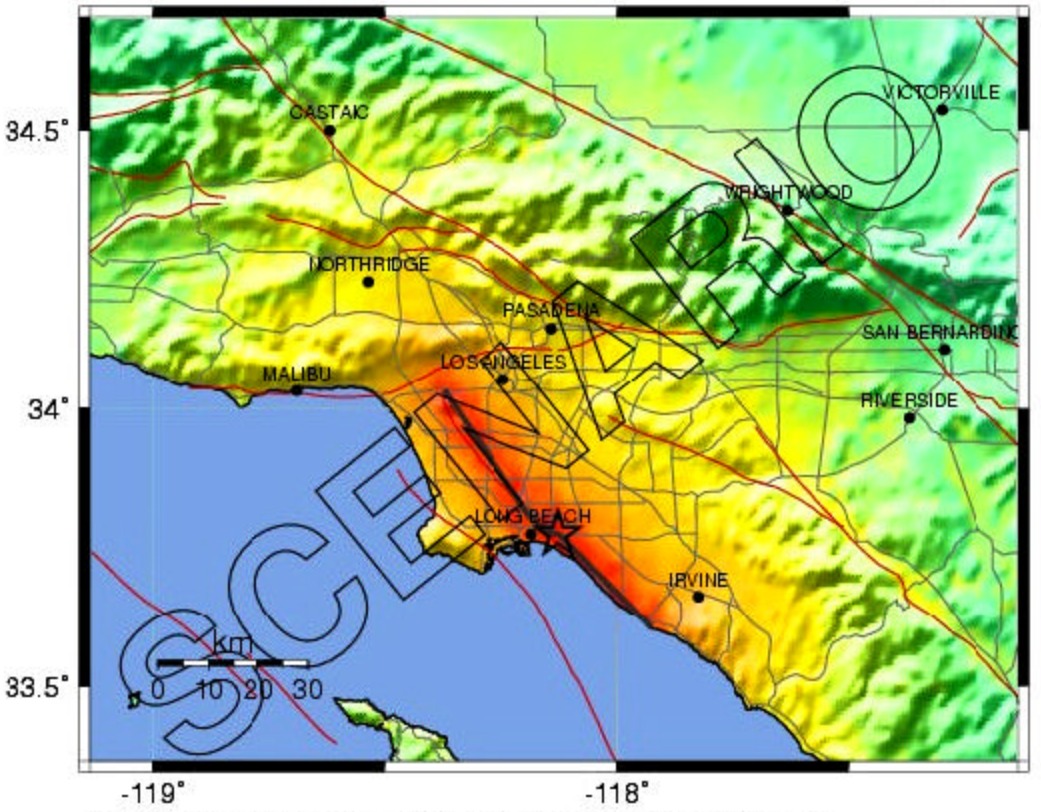


PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<.17*	*.17-1.4*	*1.4-3.9*	*3.9-9.2*	*9.2-18*	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	*16-31*	*31-60*	*60-116*	*>116*
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+


San Luis Obispo
Kern
San Bernardino
Santa Barbara
Ventura
Los Angeles
Orange
Riverside
San Diego
Imperial
Ten-County Southern California Study Region and
Santa Monica M6.6 Scenario Earthquake.
USGS Scenario Shake-Map of Peak Ground Acceleration

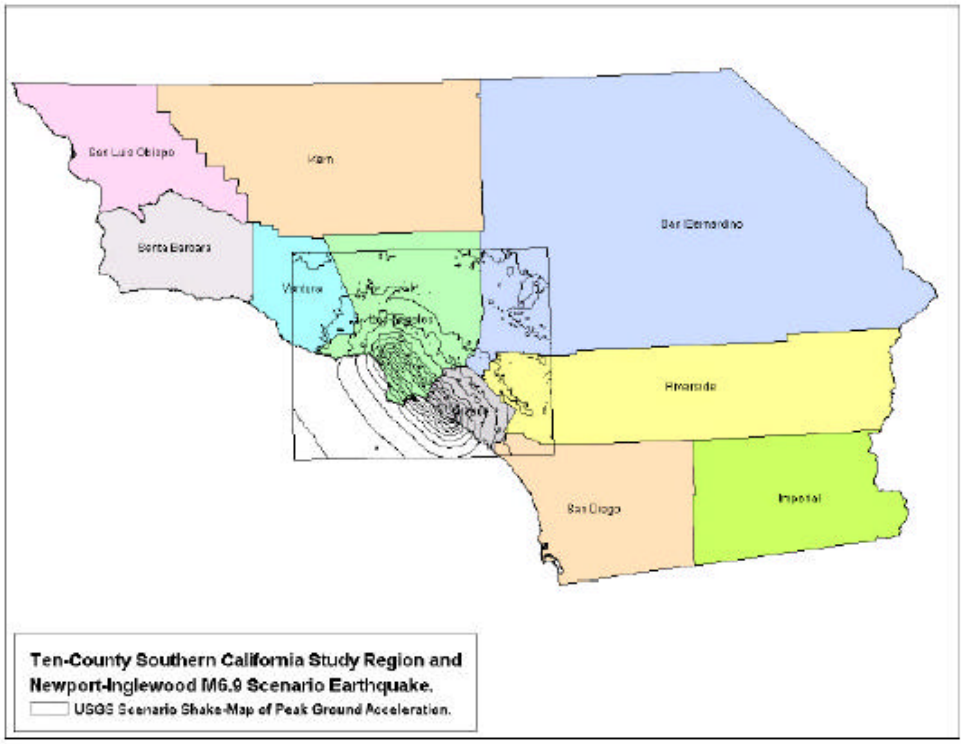

San Luis Obispo
Kern
San Bernardino
Santa Barbara
Ventura
Los Angeles
Orange
Riverside
San Diego
Imperial
Estimated Building Damage Economic Loss by County ($M)
Santa Monica M6.6 Scenario Earthquake (Total: $17B)
16,480
237
156
0

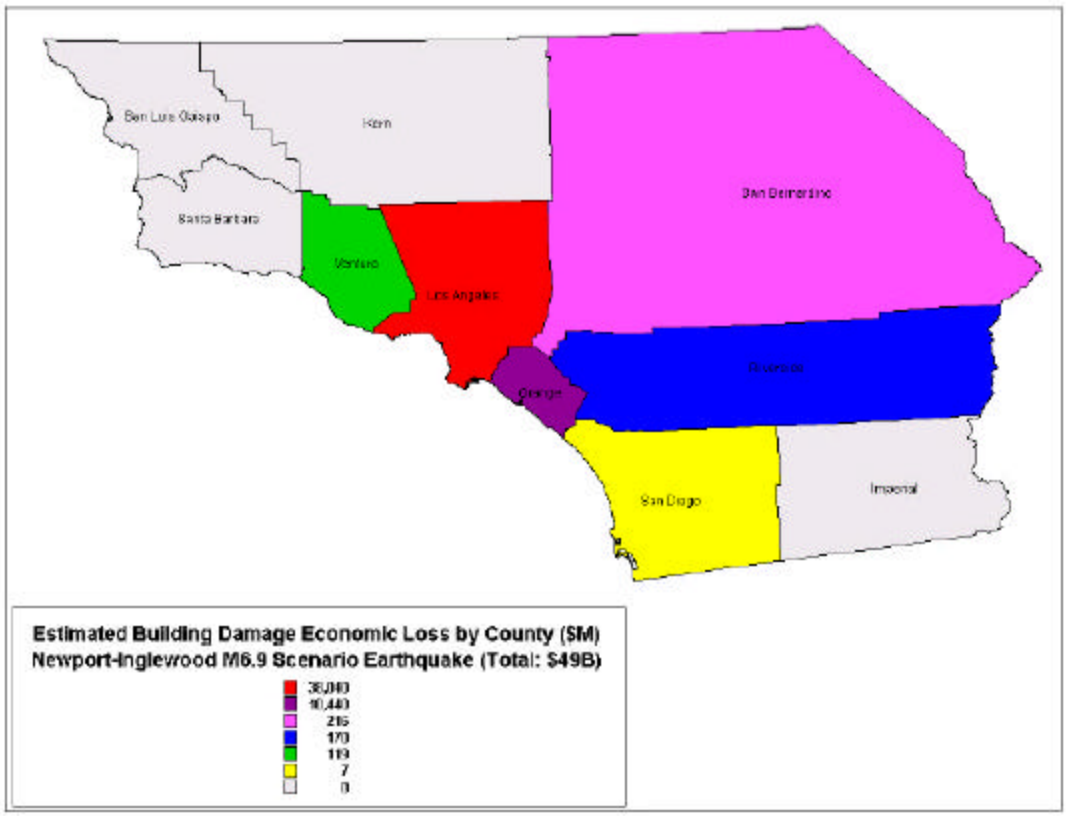
-- Earthquake Planning Scenario --
Rapid Instrumental Intensity Map for Newport-Inglewood M6.9 Scerario
Scenario Date: Fri Aug 3, 2001 05:00:00 AM PDT M 6.9 N33.78 W118.13 Depth: 5.0km

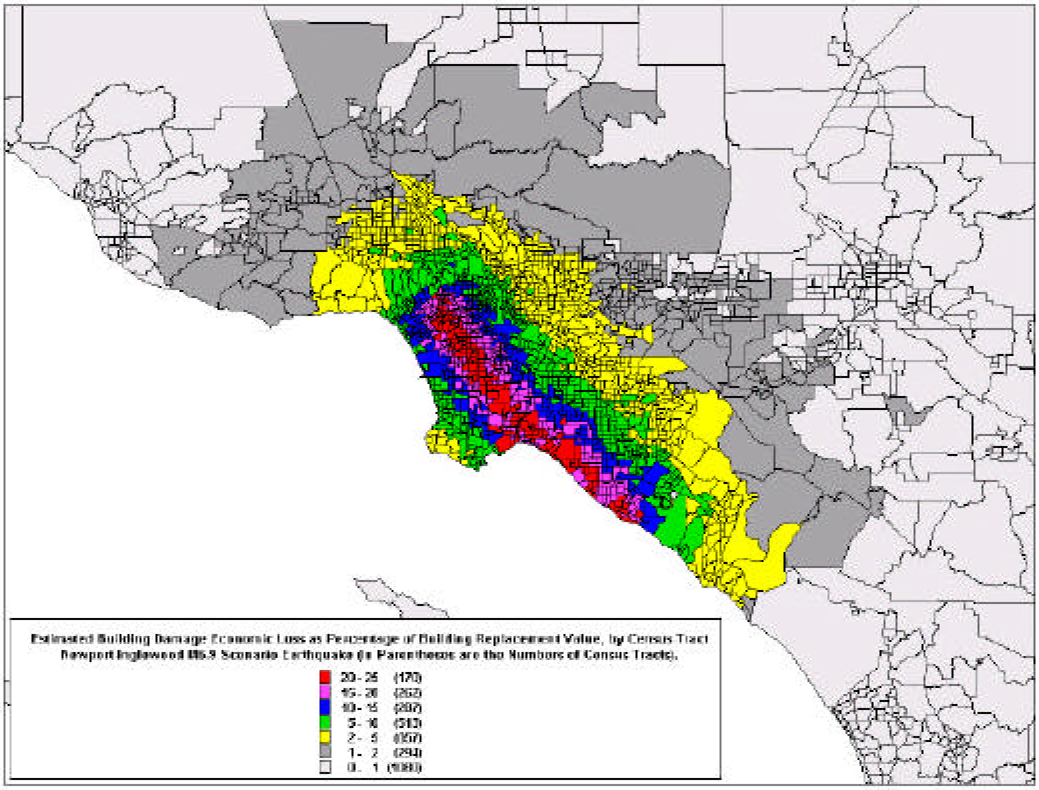


PLANNING SCENARIO ONLY -- PROCESSED: Tue Jul 30, 2002 02:01:27 PM PDT

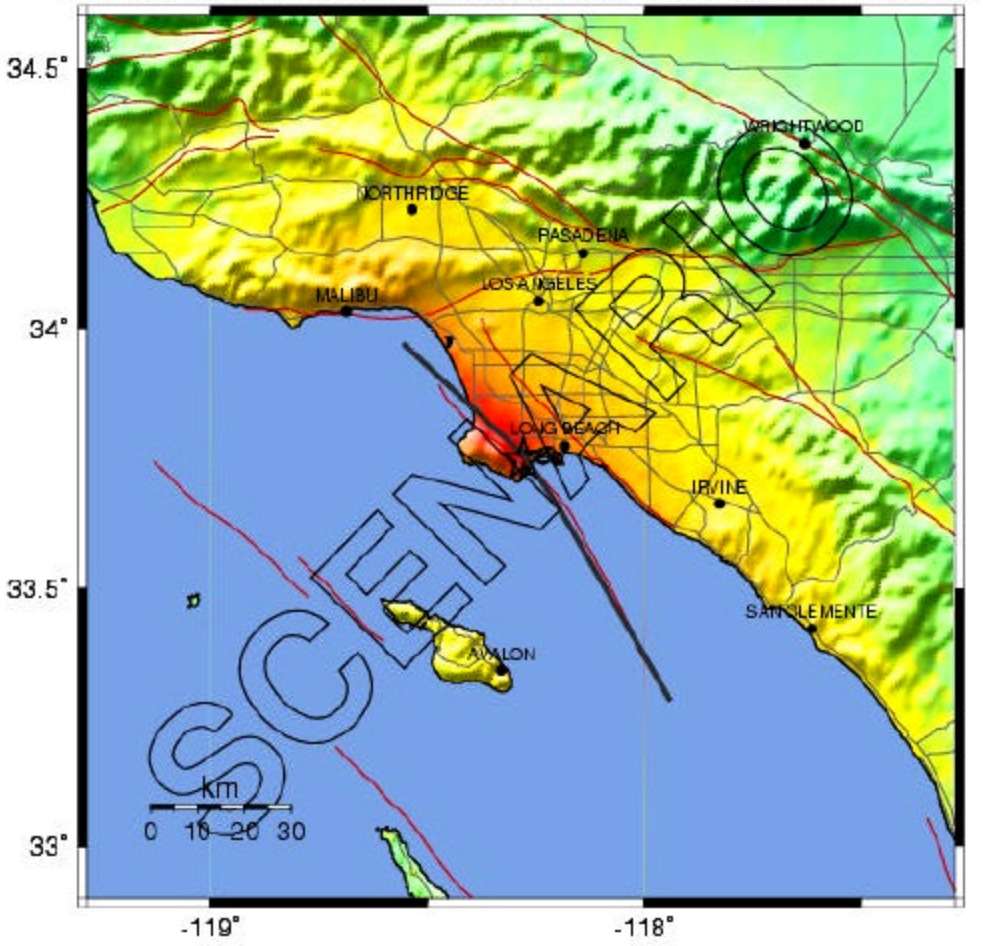
PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<.17*	*.17-1.4*	*1.4-3.9*	*3.9-9.2*	*9.2-18*	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	*16-31*	*31-60*	*60-116*	*>116*
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+


San Luis Obispo
Kern
San Bernardino
Santa Barbara
Ventura
Los Angeles
Riverside
Orange
San Diego
Imperial
Ten-County Southern California Study Region and
Newport-Inglewood M6.9 Scenario Earthquake.
USGS Scenario Shake-Map of Peak Ground Acceleration.


San Luis Obispo
Kern
San Bernardino
Santa Barbara
Ventura
Los Angeles
Riverside
Orange
San Diego
Imperial
Estimated Building Damage Economic Loss by County ($M)
Newport-Inglewood M6.9 Scenario Earthquake (Total: $49B)
38,000
10,440
215
170
119
7
0

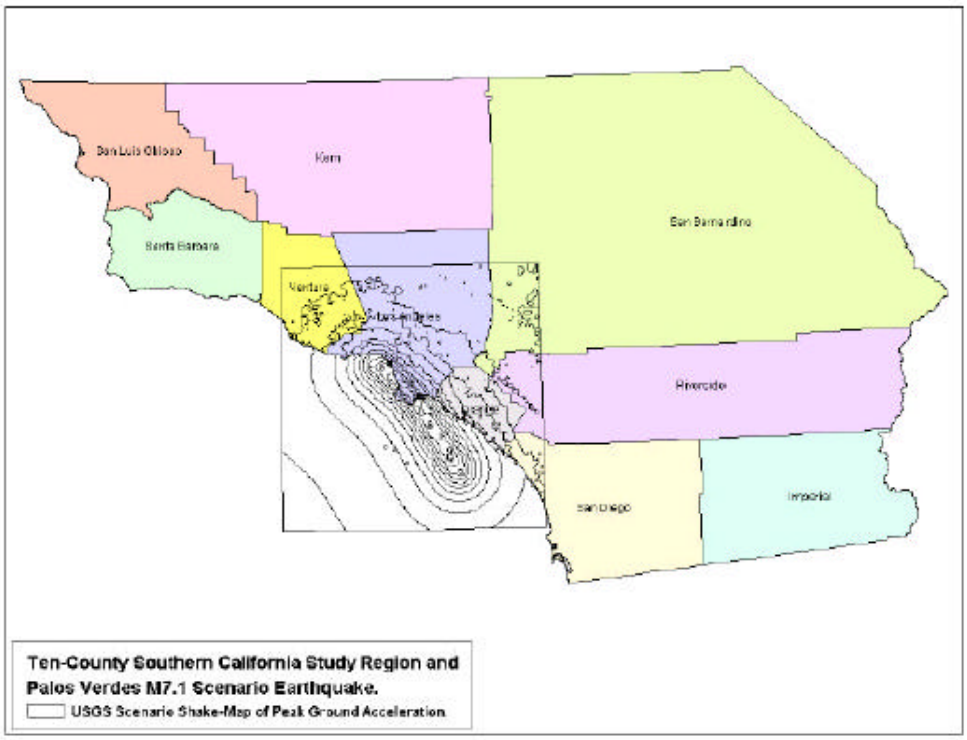

Estimated Building Damage Economic Loss as Percentage of Building Replacement Value, by Census Tract
Newport Inglewood M6.9 Scenario Earthquake (In Parentheses are the Numbers of Census Tracts).
20 - 25 (170)
15 - 20 (262)
10 - 15
5 - 10
2 - 5
1 - 2 (294)
0 - 1

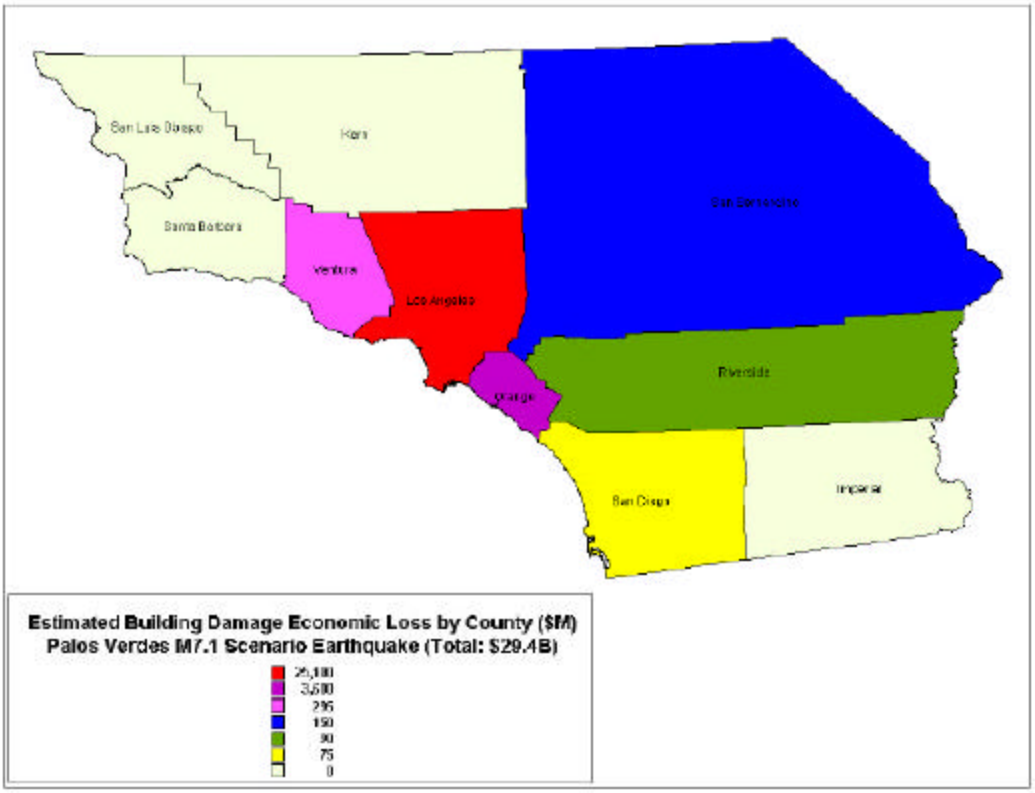
-- Earthquake Planning Scenario --
Rapid Instrumental Intensity Map for Palos Verdes M7.1 Scenario
Scenario Date: Fri Aug 3, 2001 05:00:00 AM PDT M 7.1 N33.75 W118.28 Depth: 10.0km



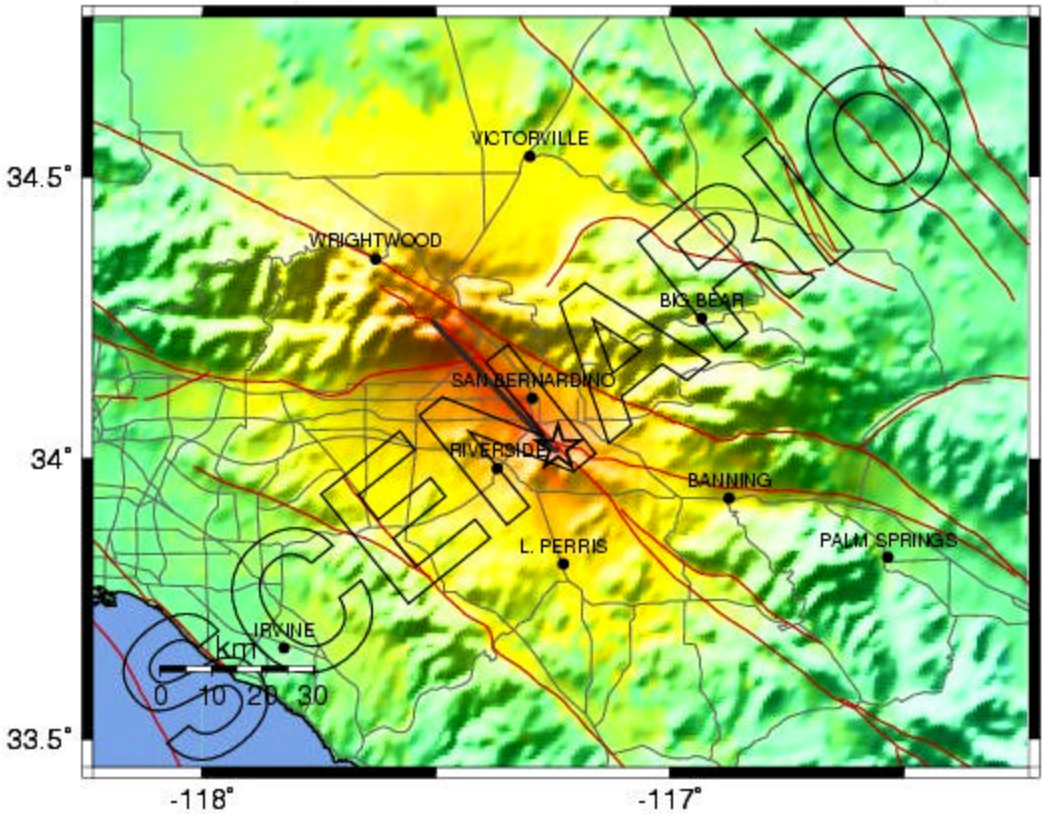
PLANNING SCENARIO ONLY -- PROCESSED: Tue Jul 30, 2002 02:06:42 PM PDT

PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC. (%g)	<.17	.17-1.4	1.4-3.9	3.9-9.2	9.2-18	18-34	34-65	65-124	>124
PEAK VEL(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	16-31	31-60	60-116	>116
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+


San Luis Obispo
Kern
Santa Barbara
Ventura
Los Angeles
San Bernardino
Riverside
San Diego
Imperial
Ten-County Southern California Study Region and
Palos Verdes M7.1 Scenario Earthquake.
USGS Scenario Shake-Map of Peak Ground Acceleration

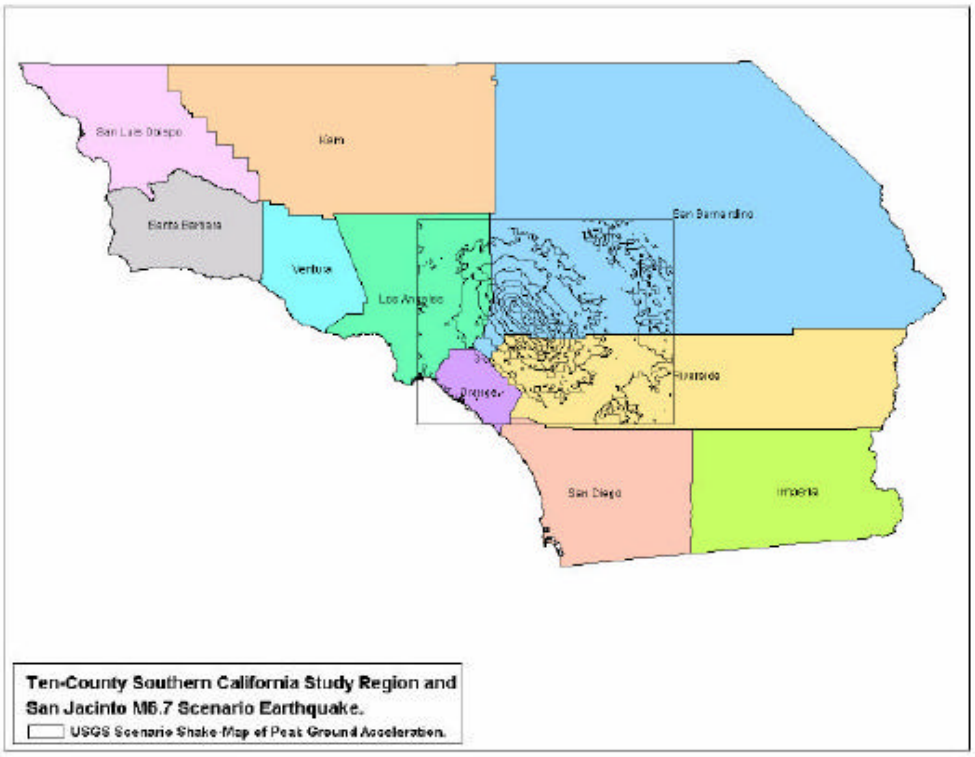

San Luis Obispo
Kern
Santa Barbara
Ventura
Los Angeles
San Bernardino
Riverside
Orange
San Diego
Imperial
Estimated Building Damage Economic Loss by County ($M)
Palos Verdes M7.1 Scenario Earthquake (Total: $29.4B)
25,100
3,580
295
150
90
75
0

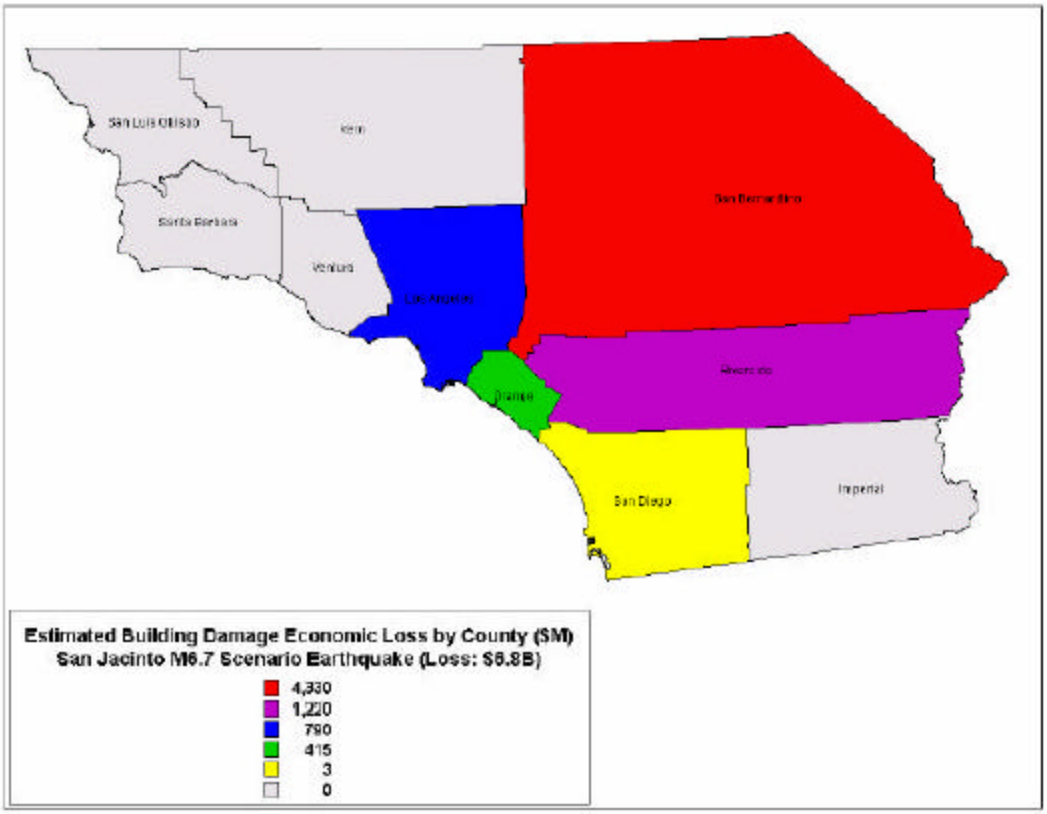
-- Earthquake Planning Scenario --
Rapid Instrumental Intensity Map for San Jacinto M6.7 Scenario
Scenario Date: Fri Sep 14, 2001 07:00:00 AM PDT M 6.7 N34.02 W117.24 Depth: 10.0km



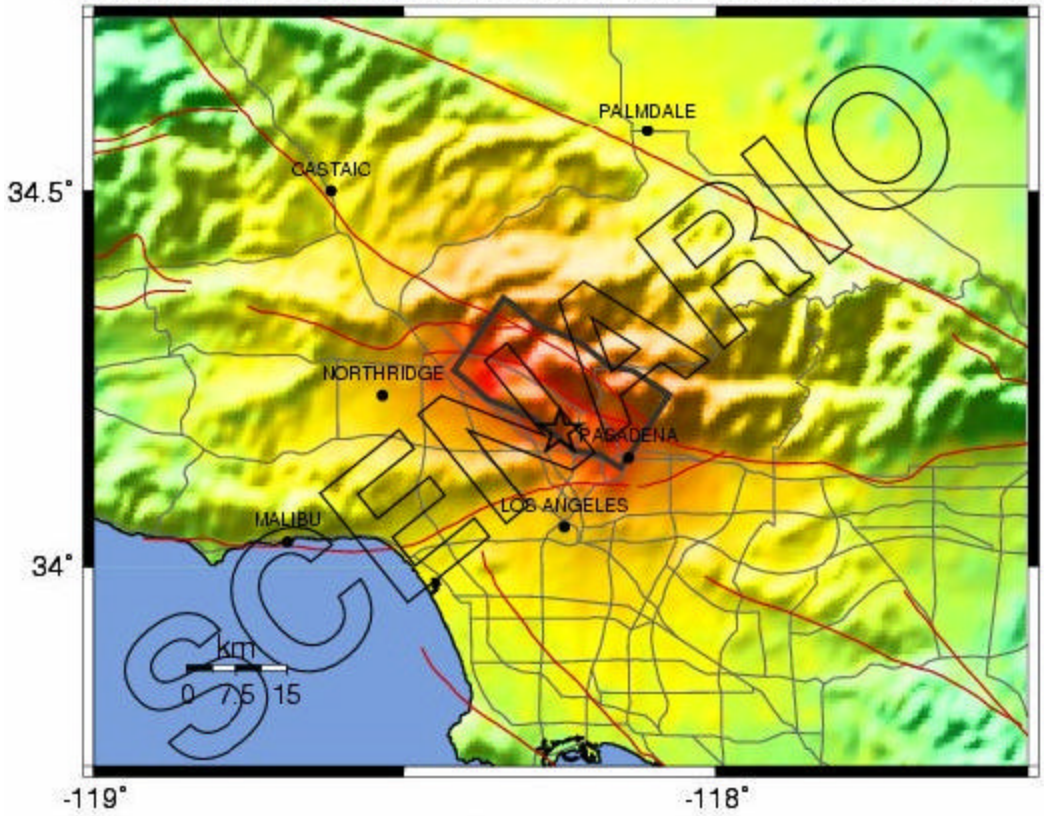
PLANNING SCENARIO ONLY -- PROCESSED: Tue Jul 30, 2002 02:29:03 PM PDT

PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<.17*	*.17-1.4*	*1.4-3.9*	*3.9-9.2*	*9.2-18*	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	*16-31*	*31-60*	*60-116*	*>116*
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+


San Luis Obispo
Kern
Santa Barbara
Ventura
Los Angeles
San Bernardino
Orange
Riverside
San Diego
Imperial
Ten-County Southern California Study Region and
San Jacinto M6.7 Scenario Earthquake.
USGS Scenario Shake-Map of Peak Ground Acceleration.

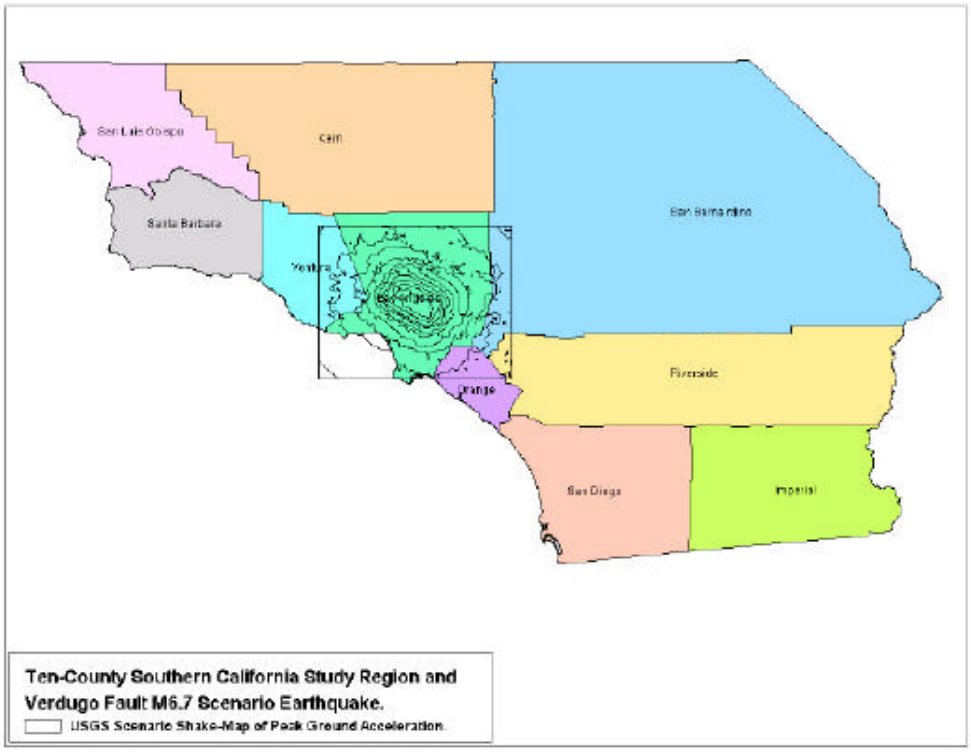

San Luis Obispo
Kern
Santa Barbara
Ventura
Los Angeles
San Bernardino
Orange
Riverside
San Diego
Imperial
Estimated Building Damage Economic Loss by County ($M)
San Jacinto M6.7 Scenario Earthquake (Loss: $6.8B)
4,330
1,220
790
415
3
0

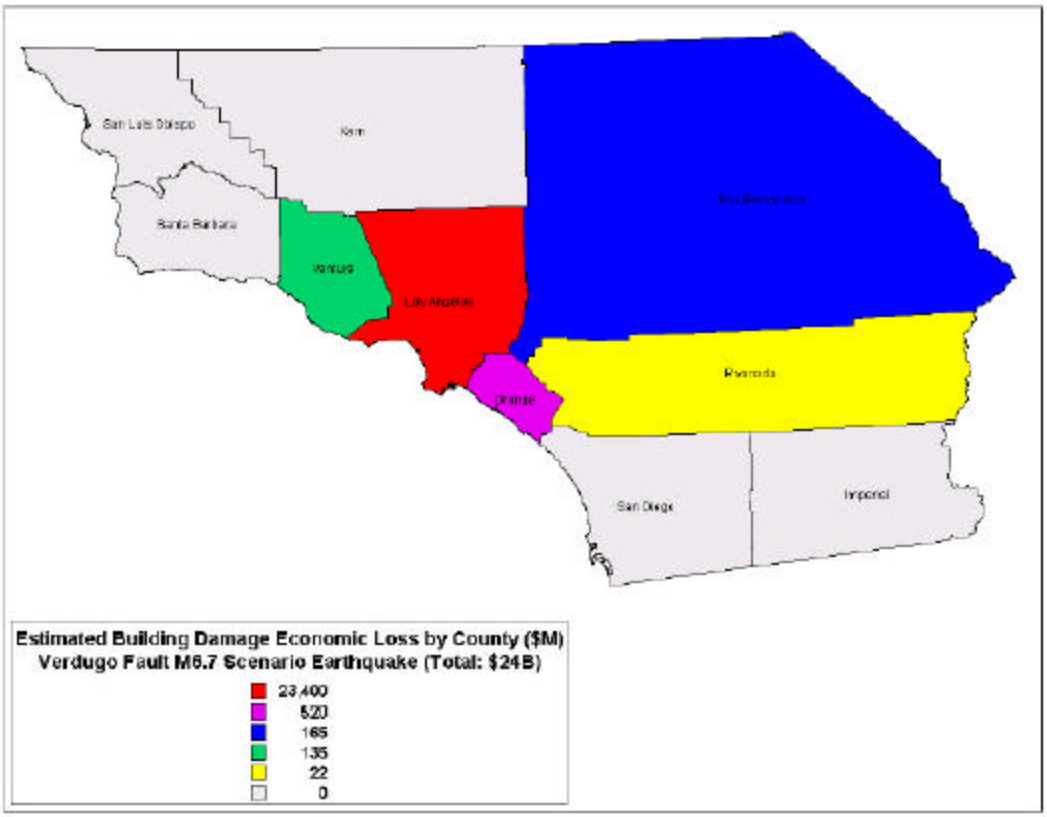
-- Earthquake Planning Scenario --
Rapid Instrumental Intensity Map for Verdugo Fault M6.7 Scenario
Scenario Date: Tue Oct 30, 2001 04:00:00 AM PST M 6.7 N34.18 W118.25 Depth: 6.0km



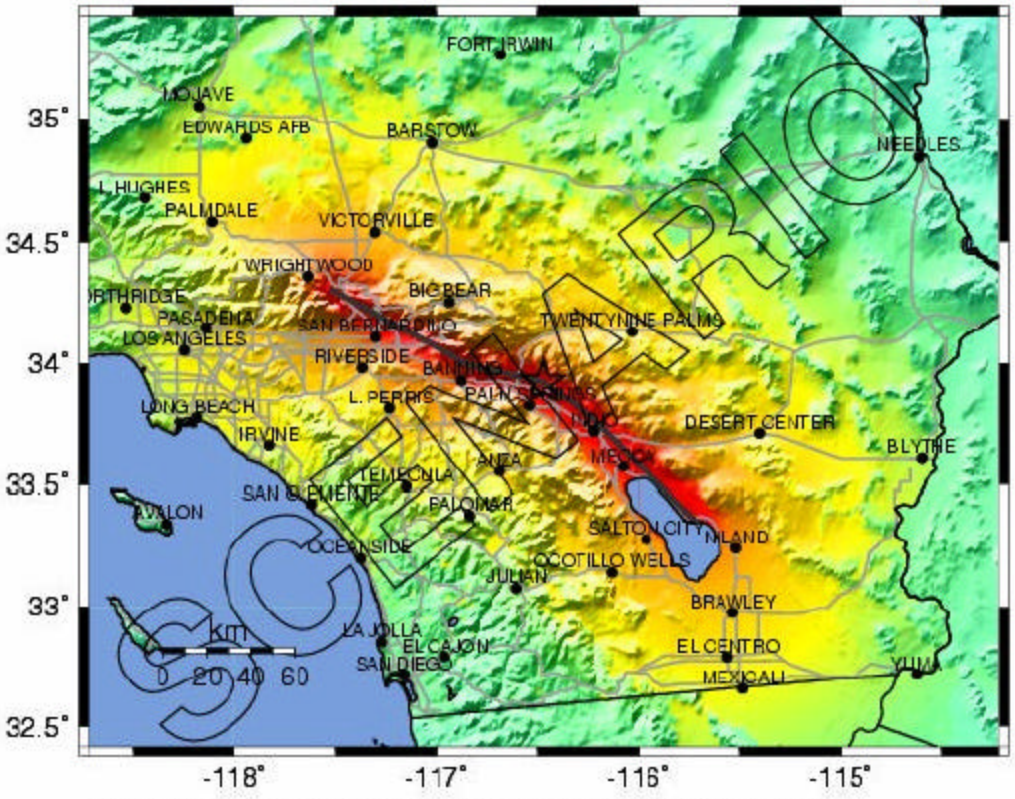
PLANNING SCENARIO ONLY -- PROCESSED: Tue Jul 30, 2002 02:40:13 PM PDT

PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<.17*	*.17-1.4*	*1.4-3.9*	*3.9-9.2*	*9.2-18*	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	*16-31*	*31-60*	*60-116*	*>116*
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+


San Luis Obispo
Kern
Santa Barbara
Ventura
San Bernardino
Riverside
Orange
San Diego
Imperial
Ten-County Southern California Study Region and
Verdugo Fault M6.7 Scenario Earthquake.
USGS Scenario Shake-Map of Peak Ground Acceleration

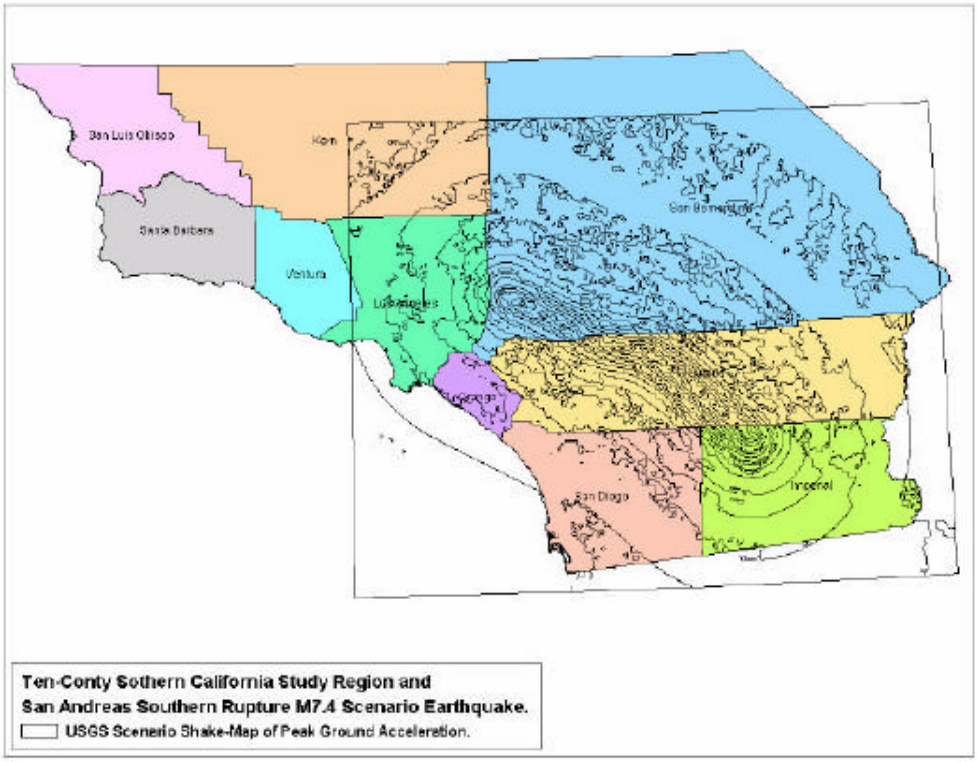

San Luis Obispo
Kern
Santa Barbara
Ventura
Los Angeles
San Bernardino
Riverside
Orange
San Diego
Imperial
Estimated Building Damage Economic Loss by County ($M)
Verdugo Fault M6.7 Scenario Earthquake (Total: $24B)
23,400
520
165
135
22
0

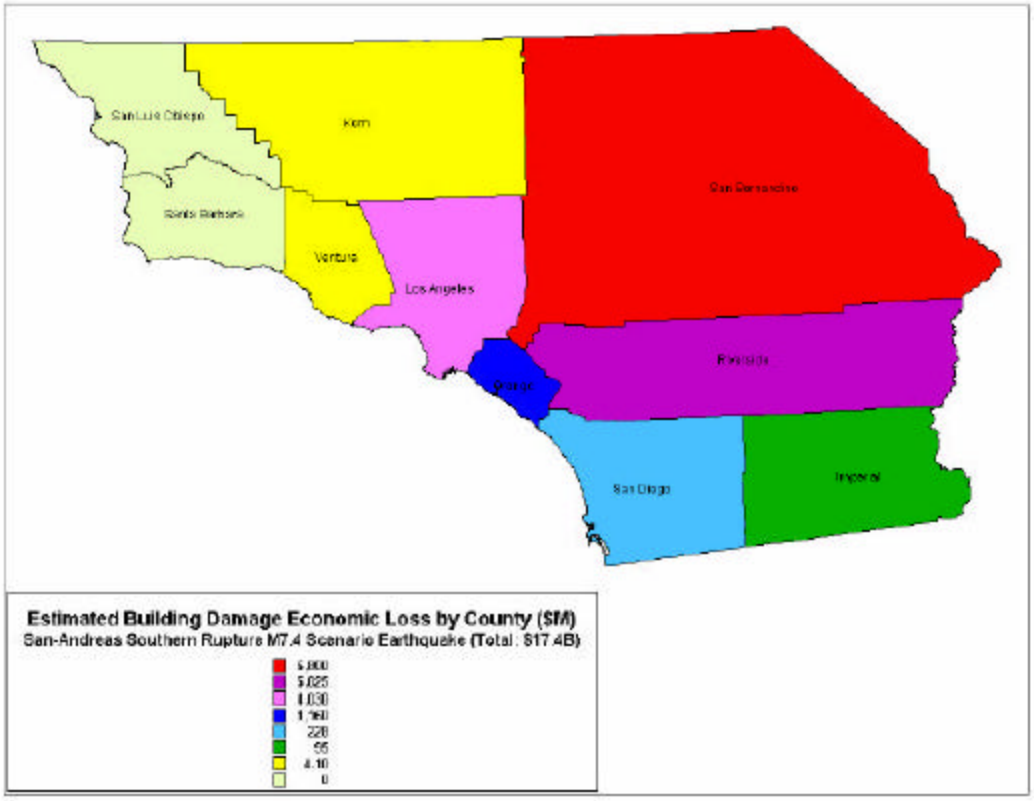
-- Earthquake Planning Scenario --
Rapid Instrumental Intensity Map for San Andreas southern rupture Scenario
Scenario Date: Wed Nov 14, 2001 04:00:00 AM PST M 7.1 N33.92 W116.47 Depth: 10.0km

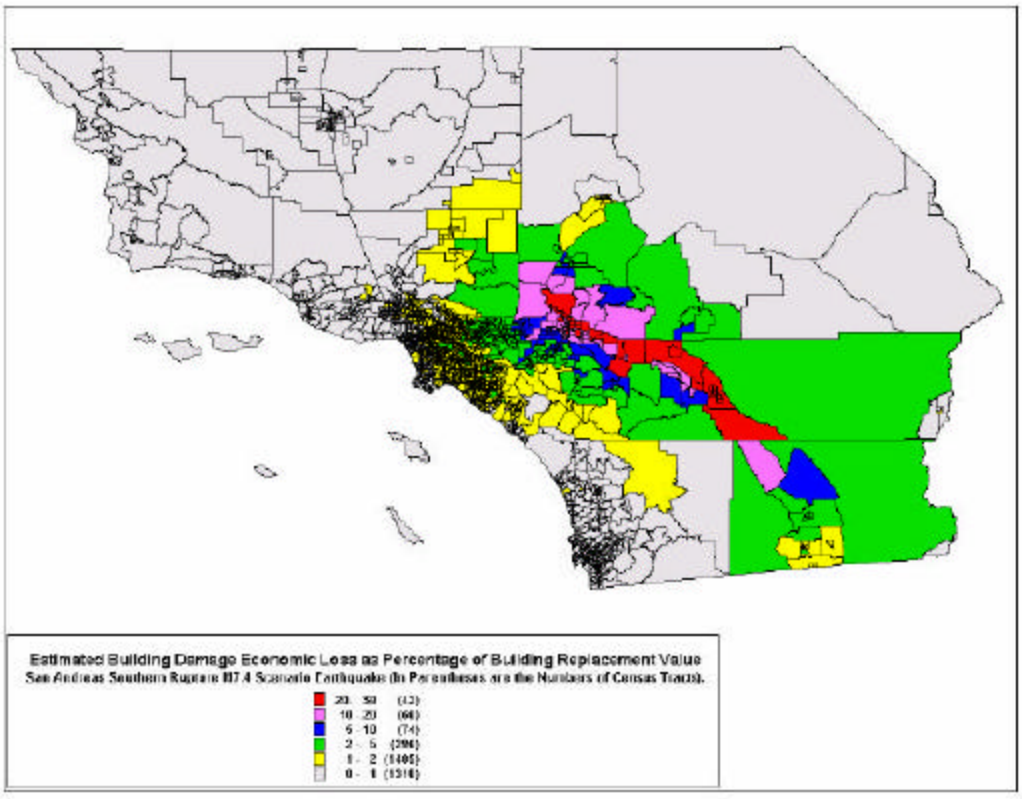


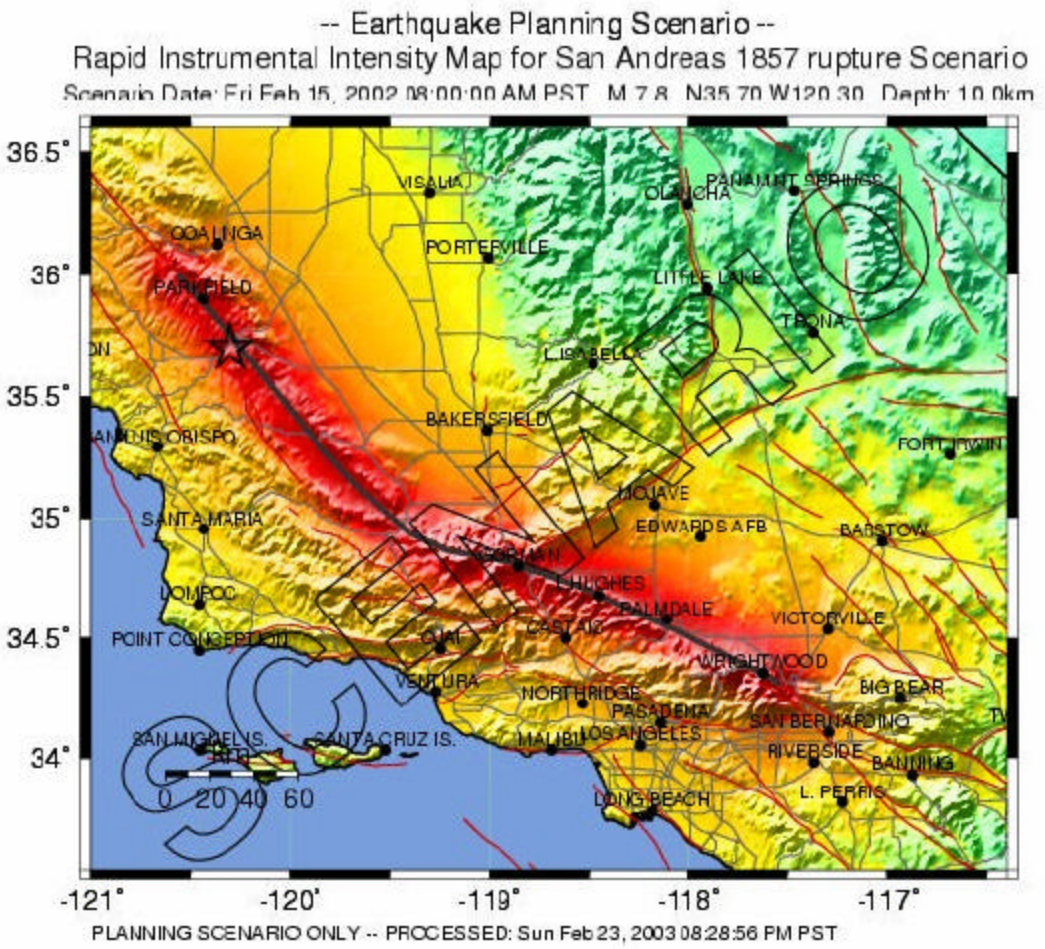
PLANNING SCENARIO ONLY - PROCESSED: Tue Jul 30, 2002 02:23:34 PM PDT

PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<.17*	*.17-1.4*	*1.4-3.9*	*3.9-9.2*	*9.2-18*	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	*16-31*	*31-60*	*60-116*	*>116*
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

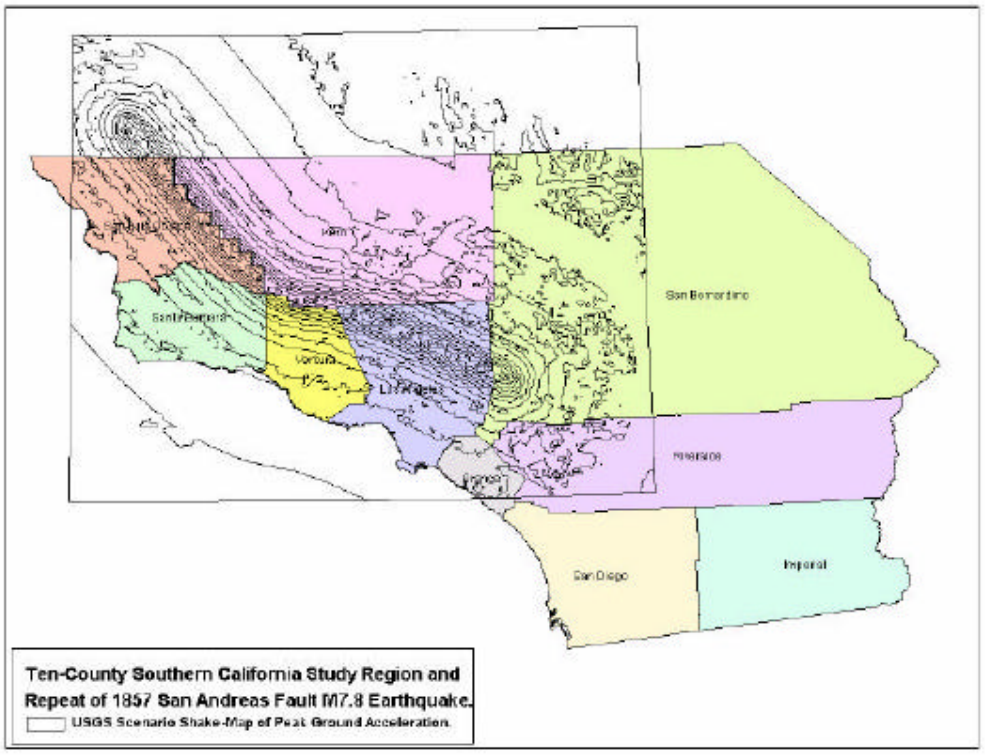

San Luis Obispo
Kern
Santa Barbara
Ventura
Los Angeles
San Bernardino
Riverside
Orange
San Diego
Imperial
Ten-Conty Sothern California Study Region and
San Andreas Southern Rupture M7.4 Scenario Earthquake.
USGS Scenario Shake-Map of Peak Ground Acceleration.

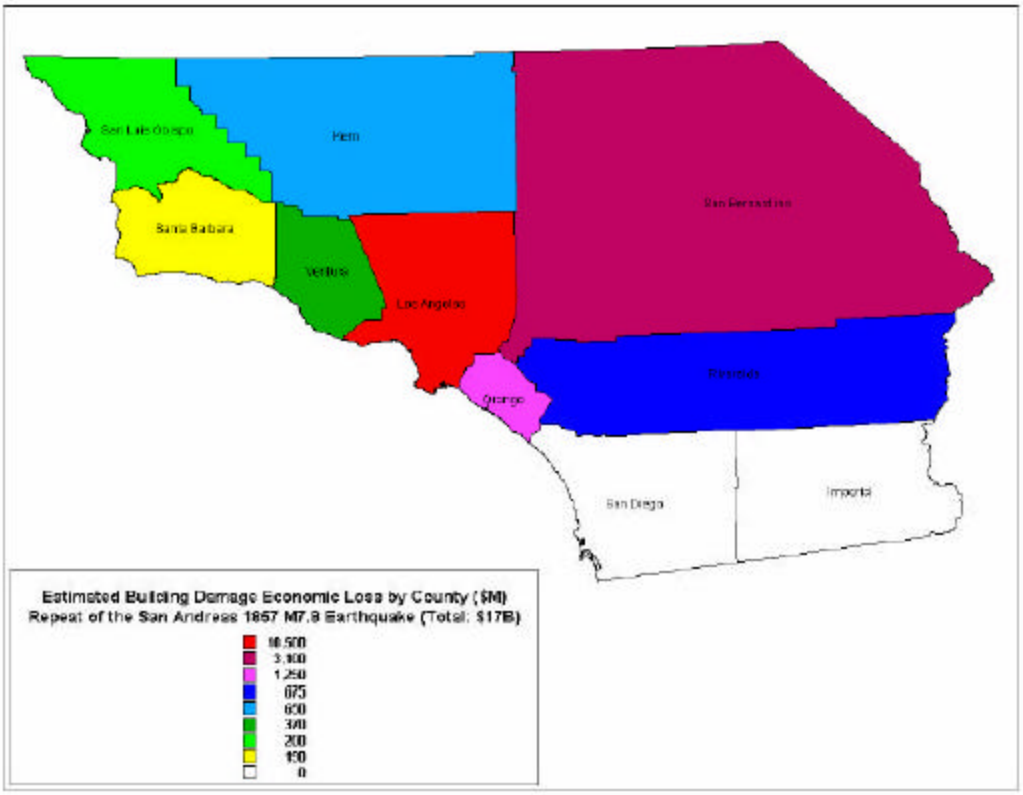

San Luis Obispo
Kern
Santa Barbara
Ventura
Los Angeles
San Bernardino
Riverside
Orange
San Diego
Imperial
Estimated Building Damage Economic Loss by County ($M)
San-Andreas Southern Rupture M7.4 Scenario Earthquake (Total: $17.4B)


Estimated Building Damage Economic Loss as Percentage of Building Replacement Value
San Andreas Southern Rupture M7.4 Scenario Earthquake (In Parentheses are the Numbers of Census Tracts).
20 - 50 (12)
10 - 20 (66)
5 - 10 (74)
2 - 5 (396)
1 - 2 (1405)
0 - 1 (1514)

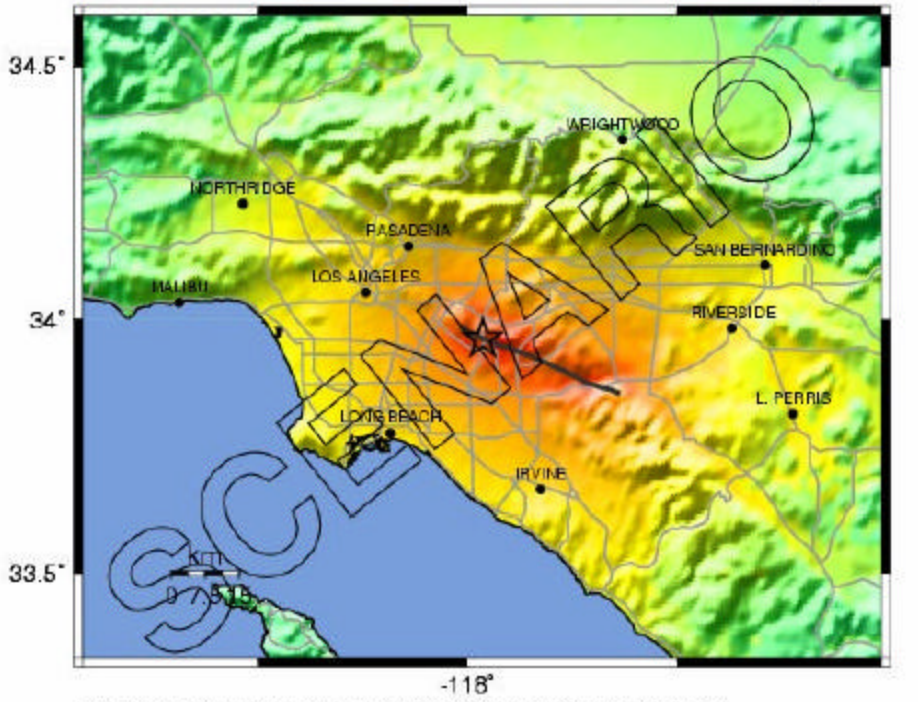


PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<.17*	*.17-1.4*	*1.4-3.9*	*3.9-9.2*	*9.2-18*	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	*16-31*	*31-60*	*60-116*	*>116*
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+


San Bernardino
Riverside
San Diego
Imperial
Ten-County Southern California Study Region and
Repeat of 1857 San Andreas Fault M7.8 Earthquake.
USGS Scenario Shake-Map of Peak Ground Acceleration

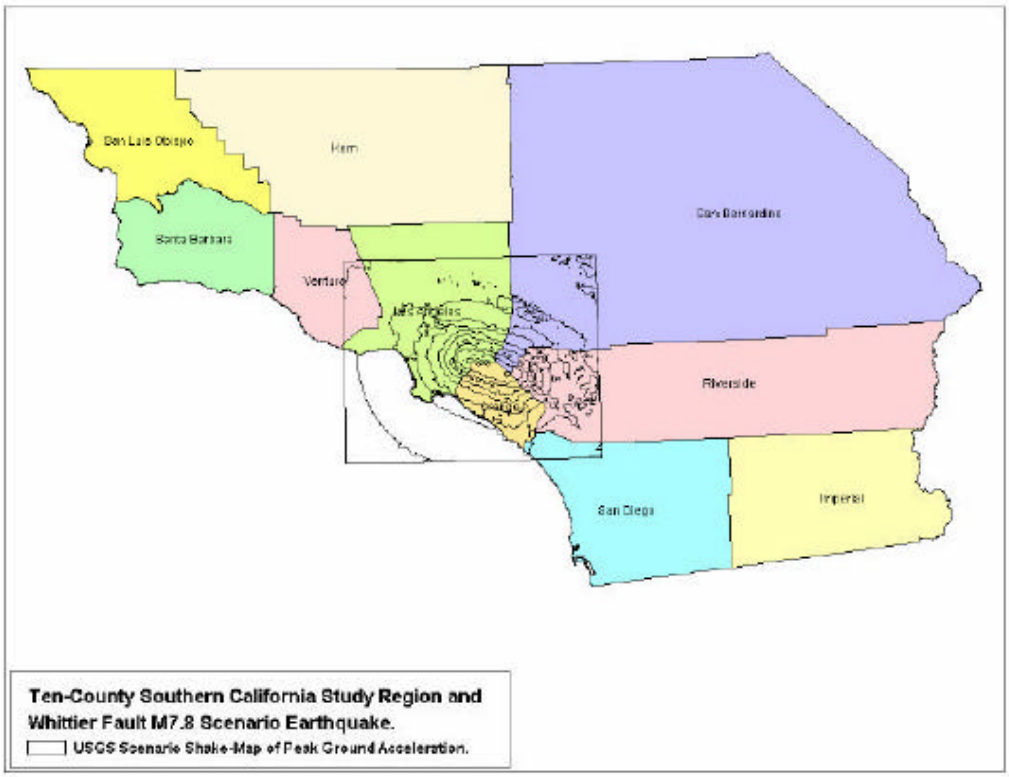

Kern
Santa Barbara
Ventura
Los Angeles
Orange
San Diego
Imperial
Estimated Building Damage Economic Loss by County ($M)
Repeat of the San Andreas 1857 M7.8 Earthquake (Total: $17B)

-- Earthquake Planning Scenario --
Rapid Instrumental Intensity Map for Whittier M6.8 Fault Scenario
Scenario Date: Mon Mar 11, 2002 04:00:00 AM PST M 6.8 N33.96 W117.96 Depth: 10.0km

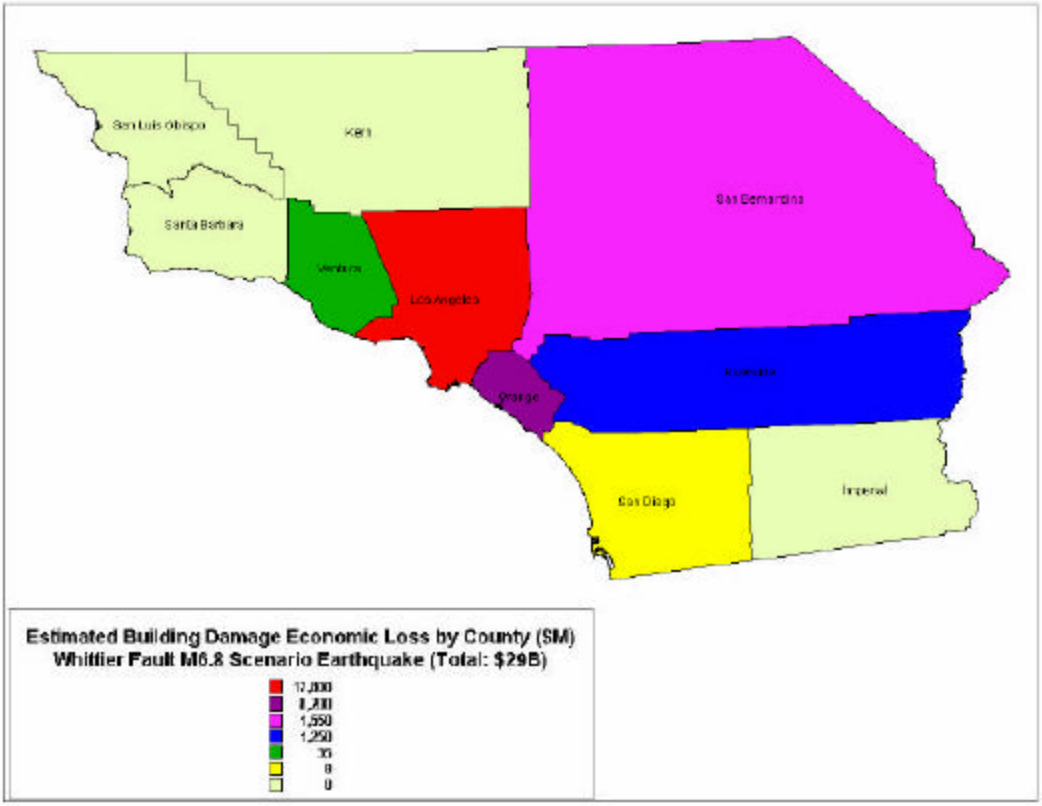


PLANNING SCENARIO ONLY -- PROCESSED: Tue Jul 30, 2002 02:45:43 PM PDT

PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	<.17	.17-1.4	1.4-3.9	3.9-9.2	9.2-18	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	16-31	31-60	60-116	>116
INSTRUMENTAL INTENSITY	I	I-III	IV	V	VI	VII	VIII	IX	X+

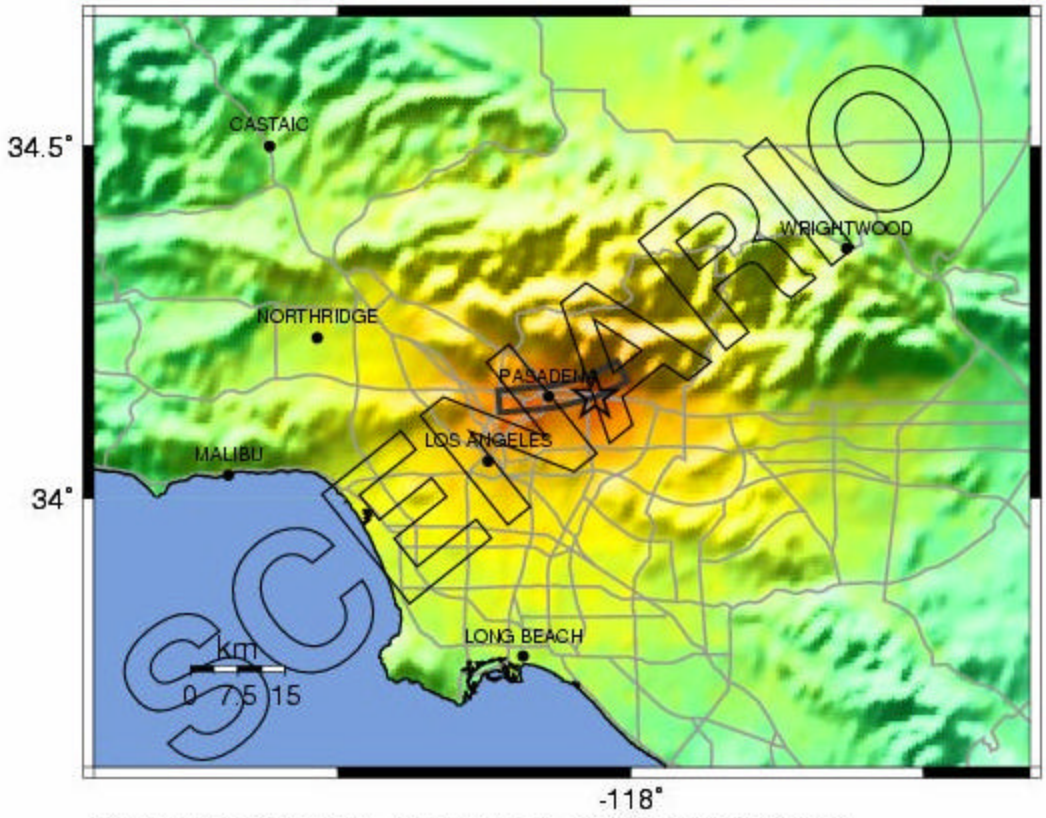


Ten-County Southern California Study Region and Whittier Fault M7.8 Scenario Earthquake.
USGS Scenario Shake-Map of Peak Ground Acceleration.



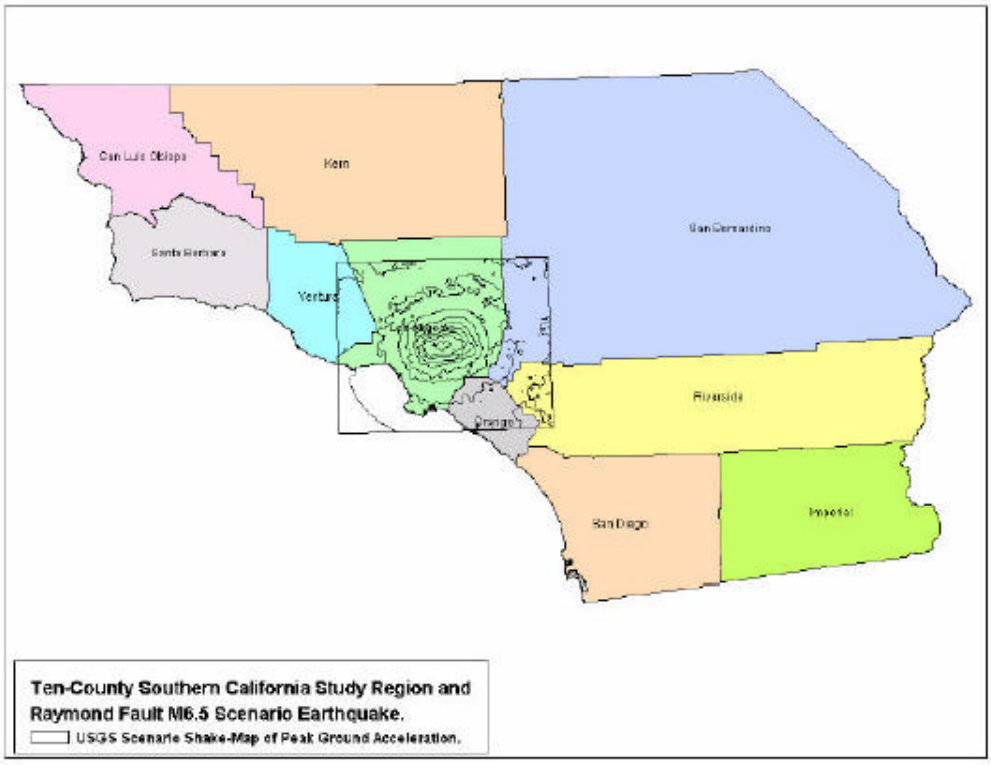
Estimated Building Damage Economic Loss by County ($M)
Whittier Fault M6.8 Scenario Earthquake (Total: $29B)

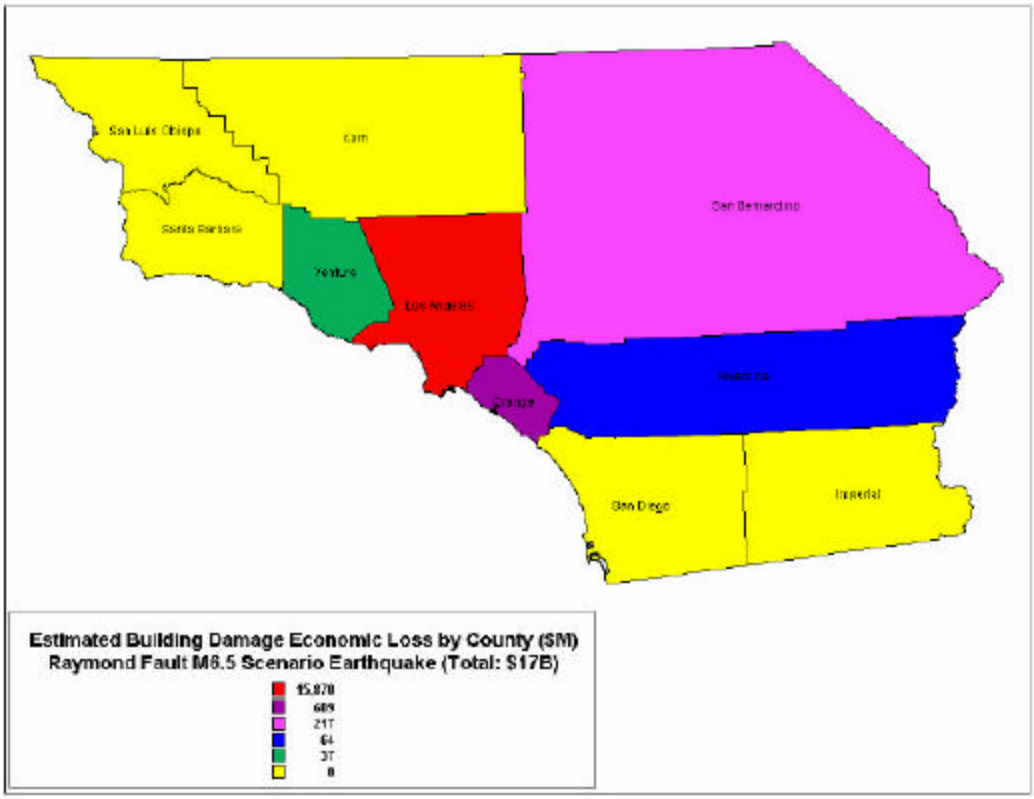
-- Earthquake Planning Scenario --
Rapid Instrumental Intensity Map for Raymond Fault M6.5 Scenario
Scenario Date: Thu Apr 4, 2002 09:15:00 AM PST M 6.5 N34.14 W118.06 Depth: 13.0km



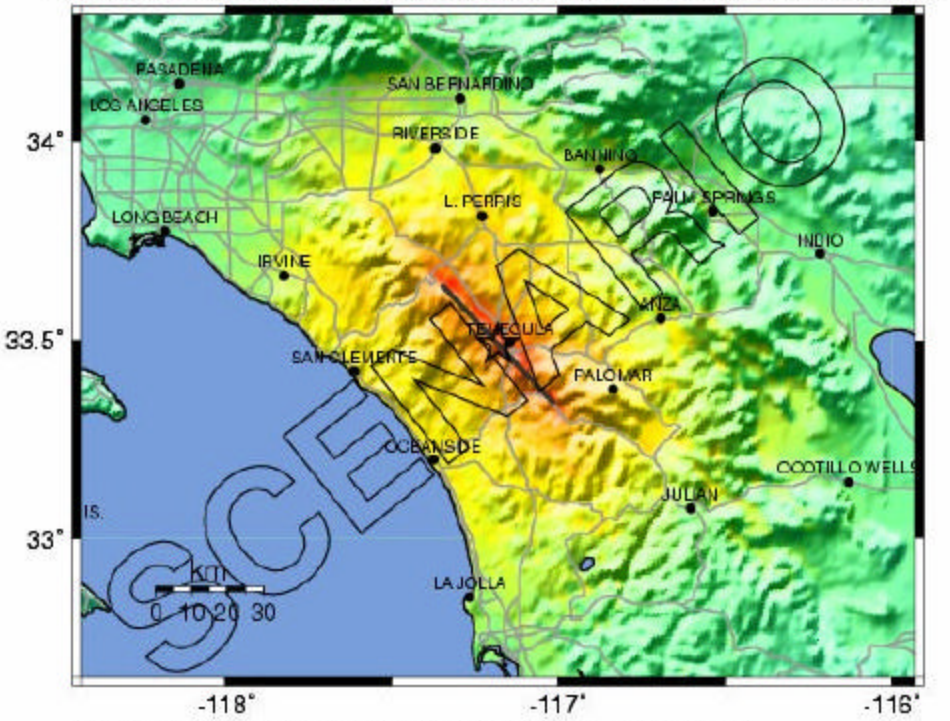
PLANNING SCENARIO ONLY -- PROCESSED: Tue Jul 30, 2002 02:12:15 PM PDT

PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<.17*	*.17-1.4*	*1.4-3.9*	*3.9-9.2*	*9.2-18*	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	*16-31*	*31-60*	*60-116*	*>116*
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+


San Luis Obispo
Kern
San Bernardino
Santa Barbara
Ventura
Riverside
Orange
San Diego
Imperial
Ten-County Southern California Study Region and
Raymond Fault M6.5 Scenario Earthquake.
USGS Scenario Shake-Map of Peak Ground Acceleration.

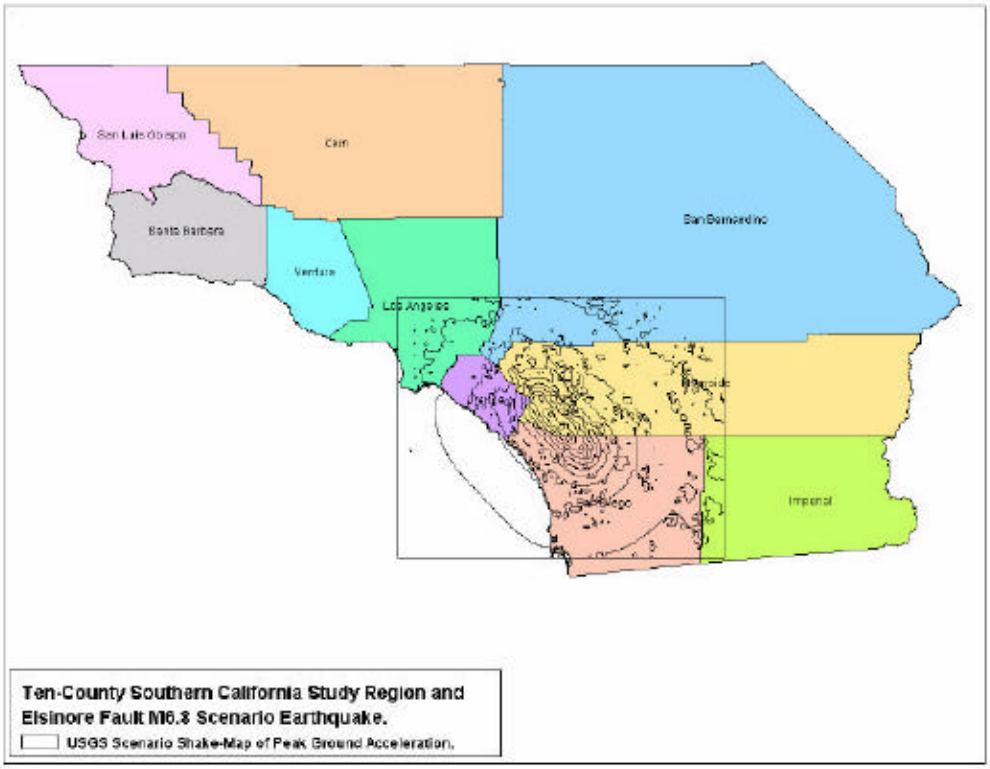

San Luis Obispo
Kern
San Bernardino
Santa Barbara
Ventura
Los Angeles
Orange
Riverside
San Diego
Imperial
Estimated Building Damage Economic Loss by County ($M)
Raymond Fault M6.5 Scenario Earthquake (Total: $17B)
15,870
689
217
64
37
0

-- Earthquake Planning Scenario --
Rapid Instrumental Intensity Map for Elsinore Fault M6.8 Scenario
Scenario Date: Wed Apr 10, 2002 05:00:00 AM PDT M 6.8 N33.49 W117.18 Depth: 6.0km

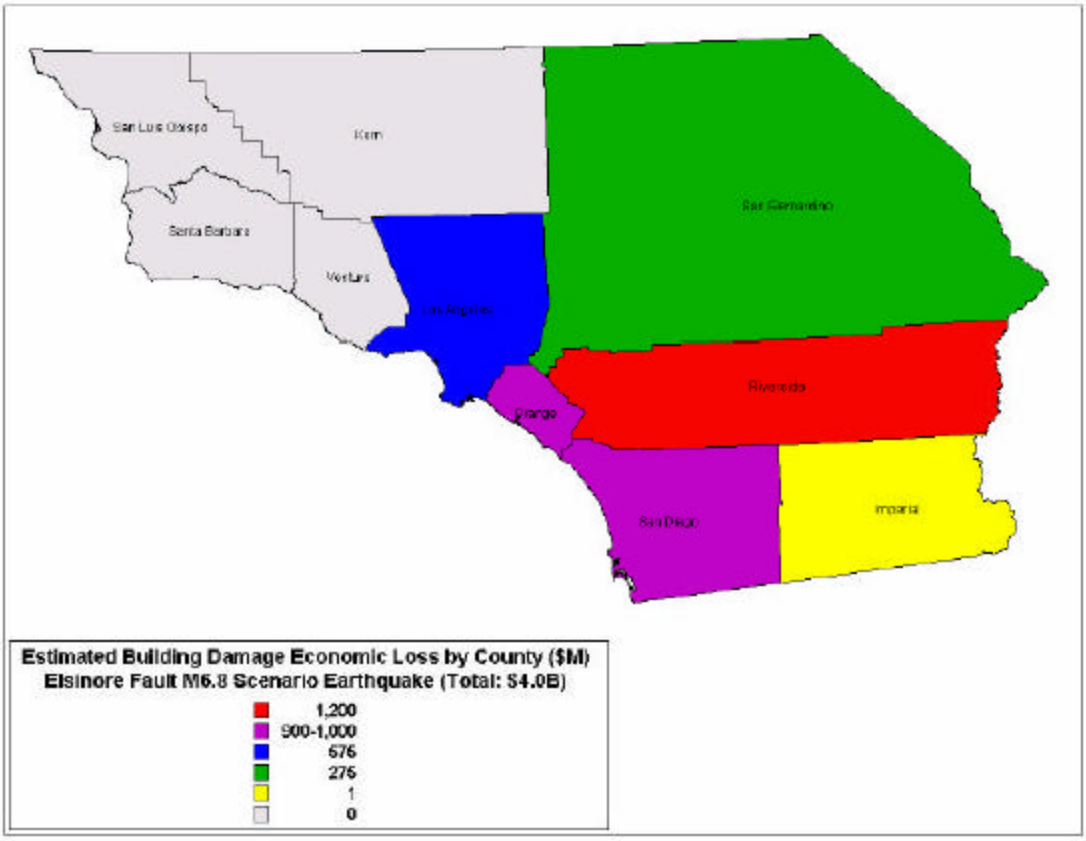


PLANNING SCENARIO ONLY -- PROCESSED: Tue Jul 30, 2002 01:47:02 PM PDT

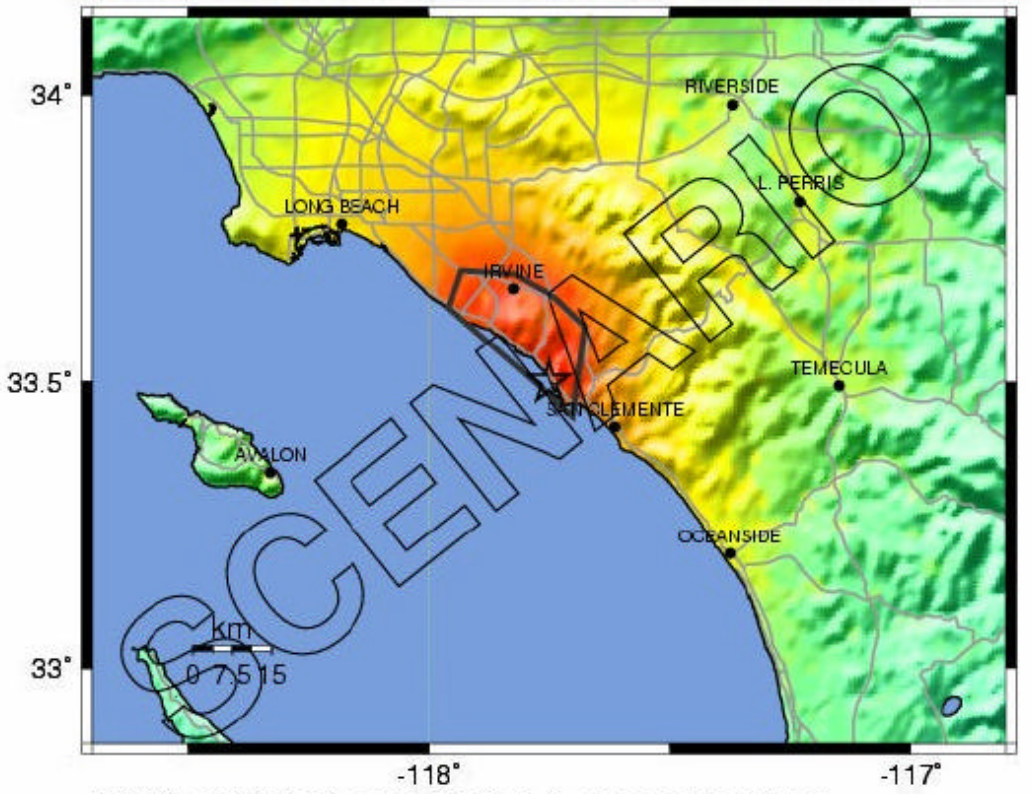
PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	<.17	.17-1.4	1.4-3.9	3.9-9.2	9.2-18	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	16-31	31-60	60-116	>116
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+



Ten-County Southern California Study Region and Elsinore Fault M6.8 Scenario Earthquake.
USGS Scenario Shake-Map of Peak Ground Acceleration.

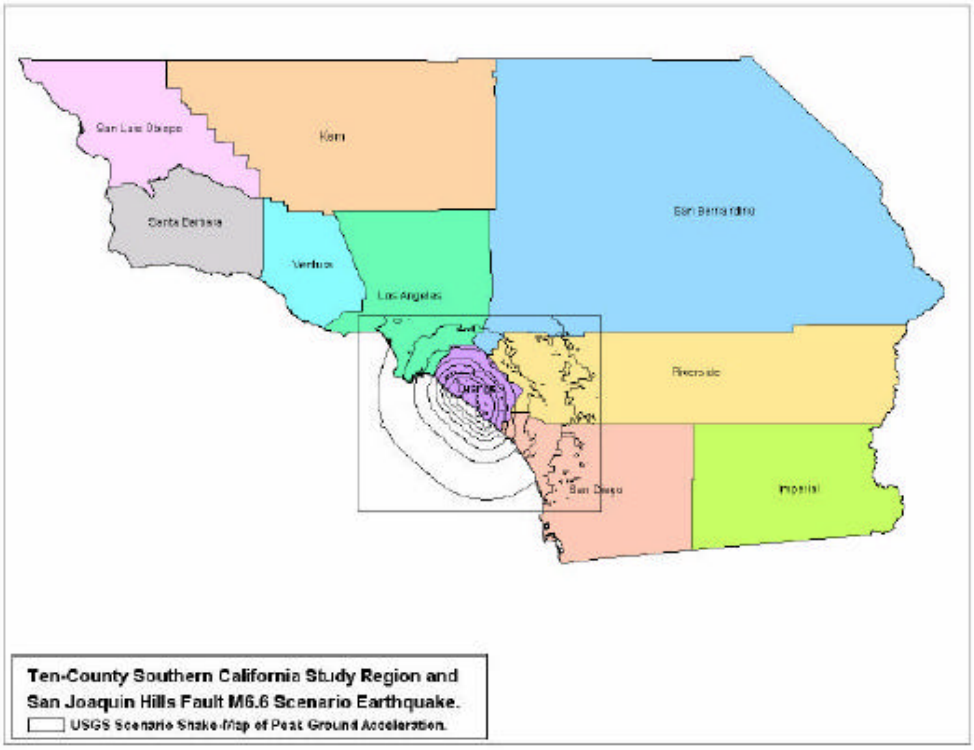

San Luis Obispo
Kern
Santa Barbara
Ventura
Los Angeles
San Bernardino
Riverside
Orange
San Diego
Imperial
Estimated Building Damage Economic Loss by County ($M)
Elsinore Fault M6.8 Scenario Earthquake (Total: $4.0B)
1,200
900-1,000
576
275
1
0

-- Earthquake Planning Scenario --
Rapid Instrumental Intensity Map for San_Joaquin Fault Scenario
Scenario Date: Sat Jan 11, 2003 04:00:00 AM PST M 6.6 N33.50 W117.75 Depth: 7.5km

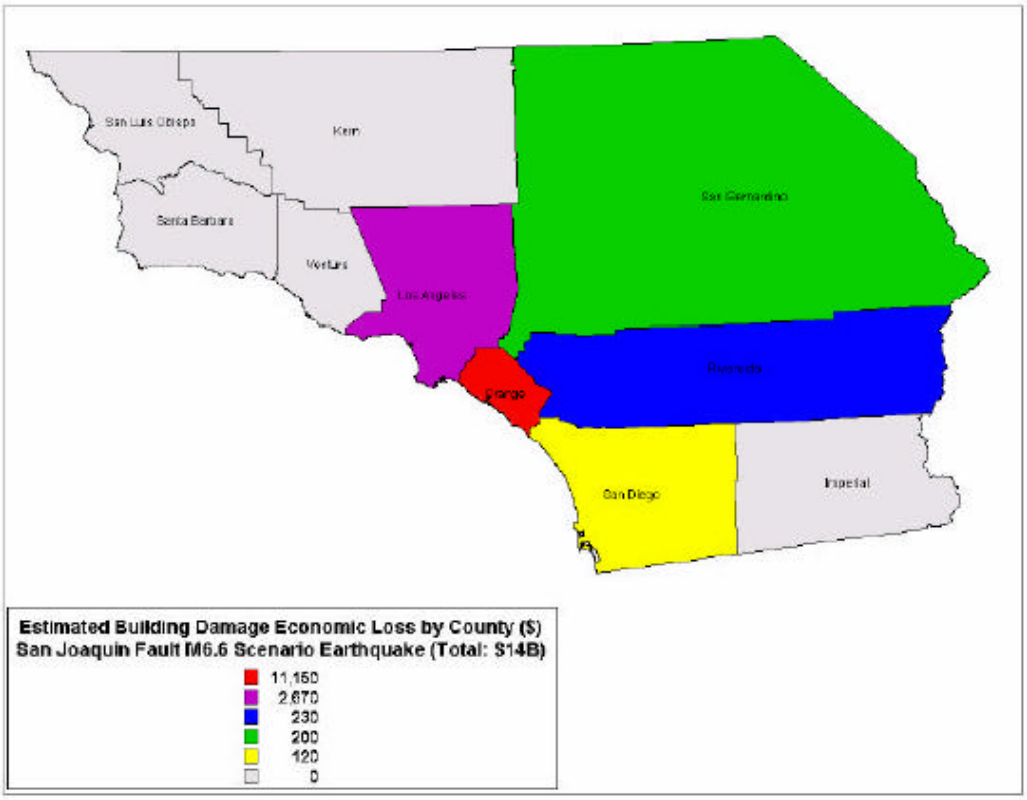


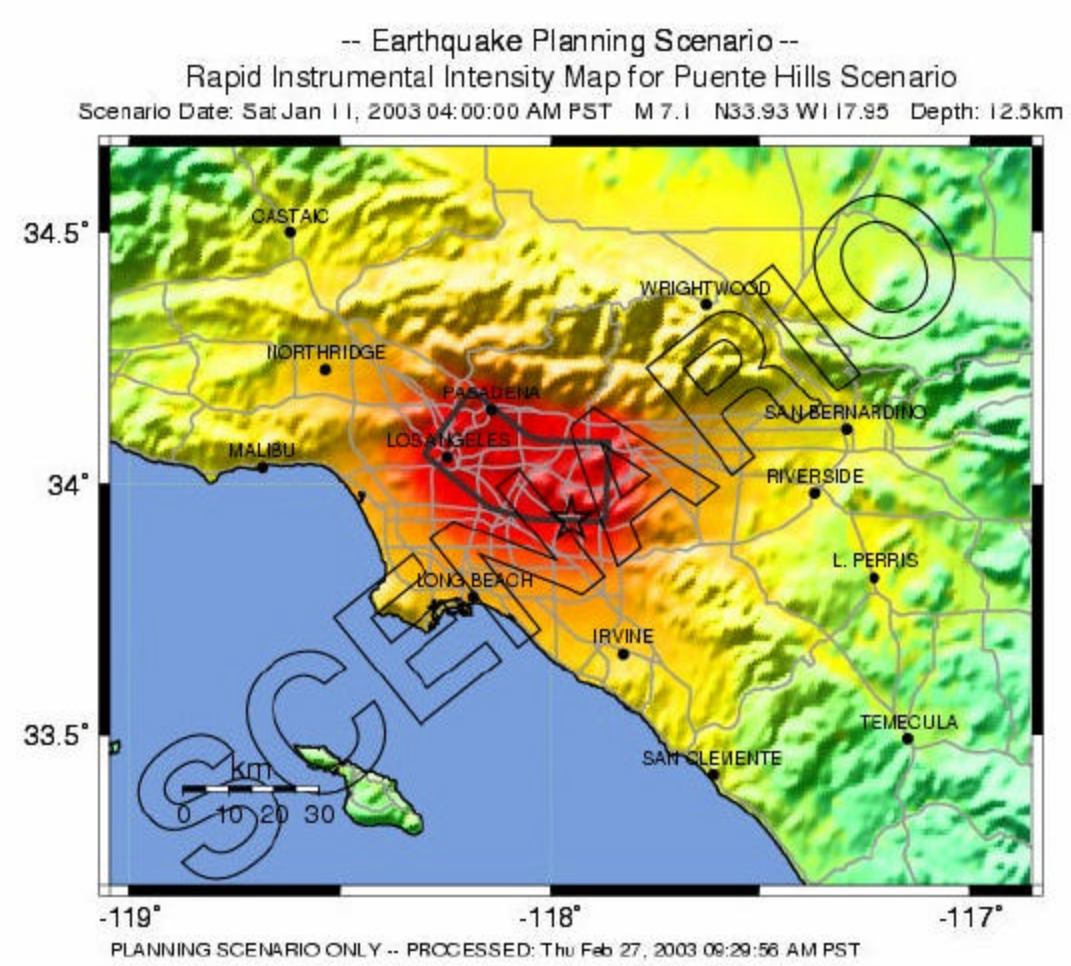
PLANNING SCENARIO ONLY -- PROCESSED: Sat Jan 25, 2003 07:12:13 PM PST

PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<.17*	*.17-1.4*	*1.4-3.9*	*3.9-9.2*	*9.2-18*	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	*16-31*	*31-60*	*60-116*	*>116*
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

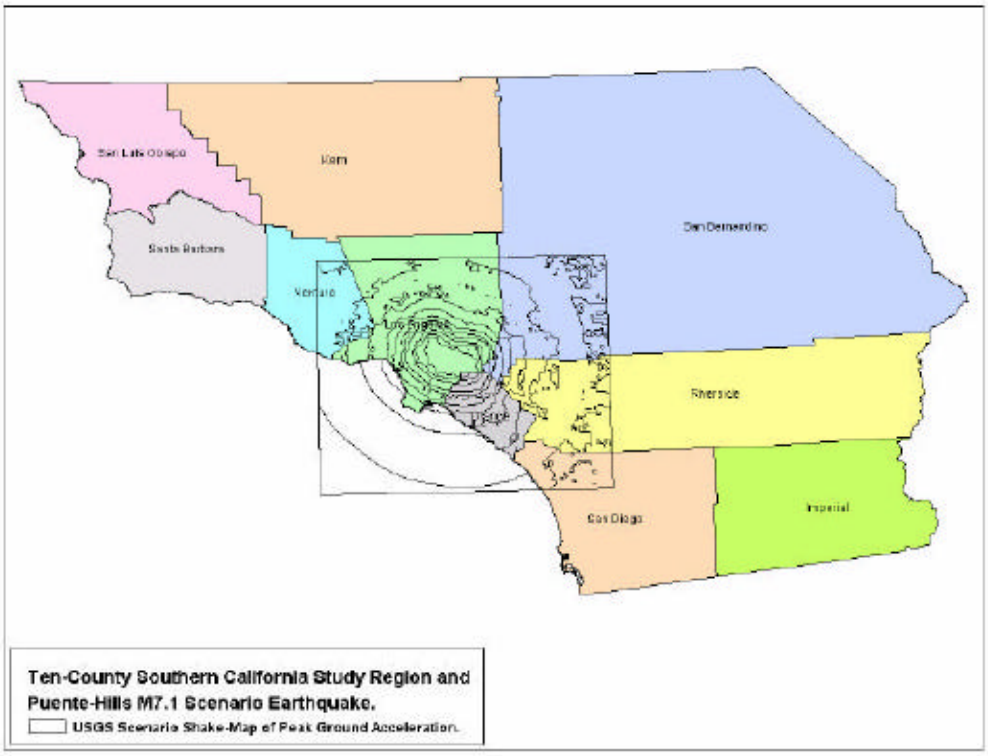


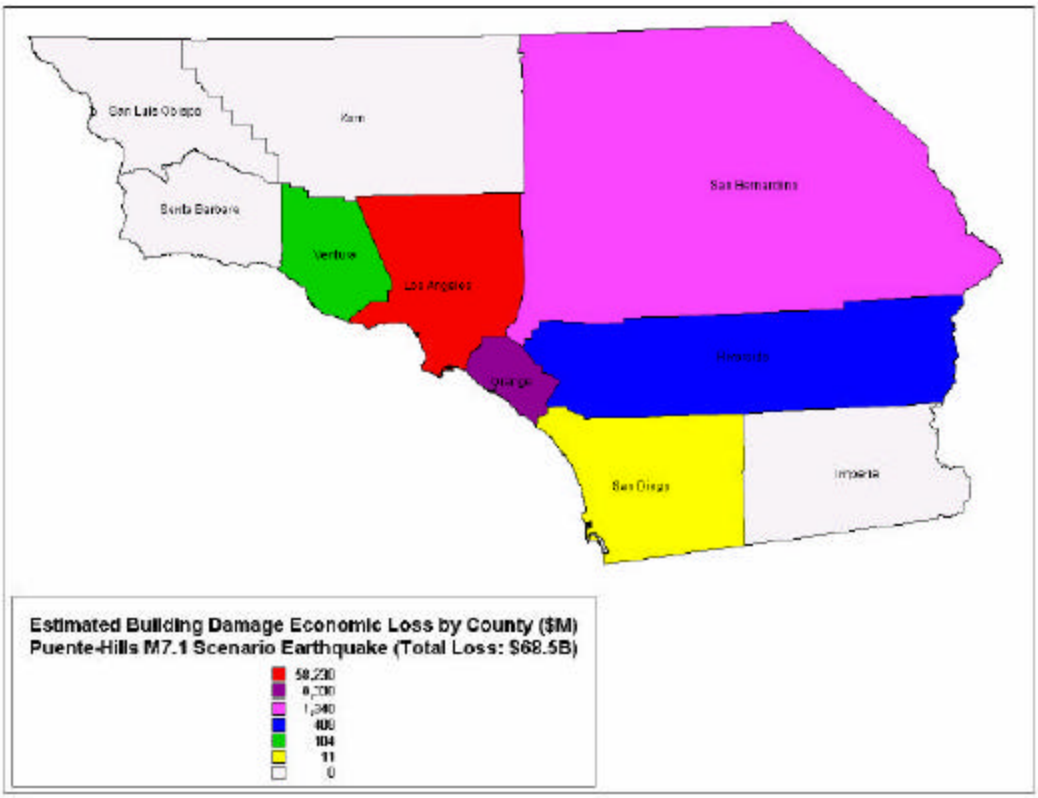
Ten-County Southern California Study Region and San Joaquin Hills Fault M6.6 Scenario Earthquake.
USGS Scenario Shake-Map of Peak Ground Acceleration.

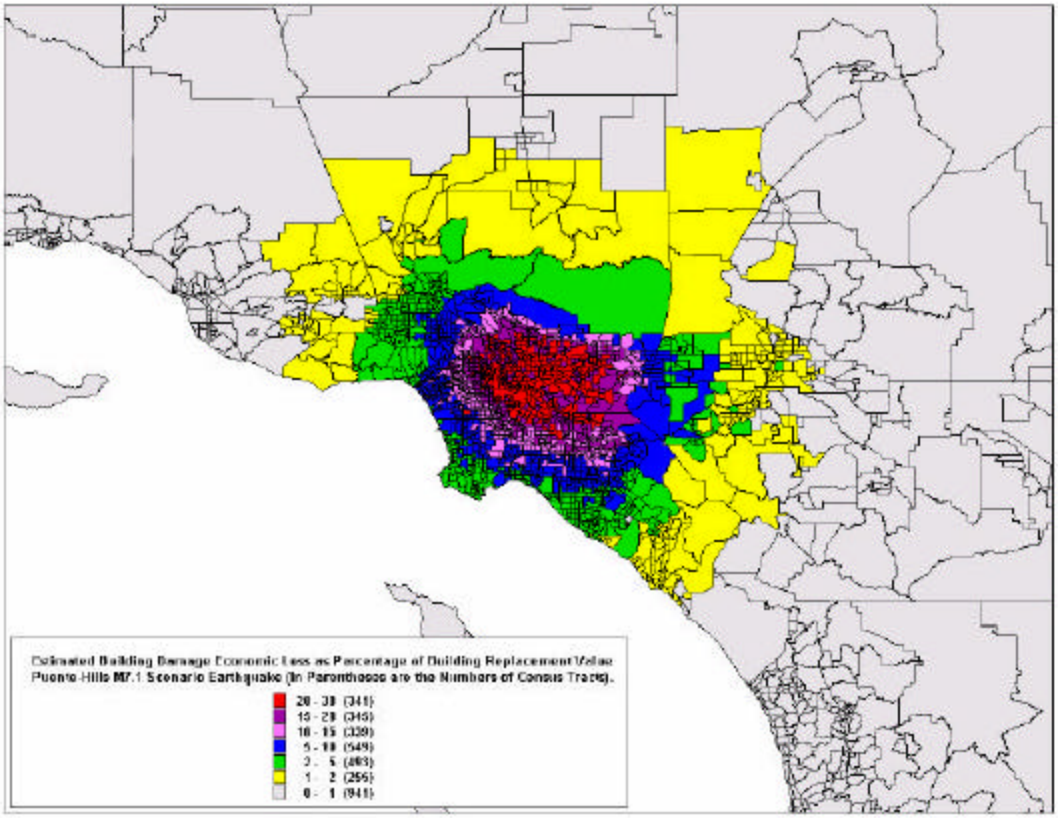




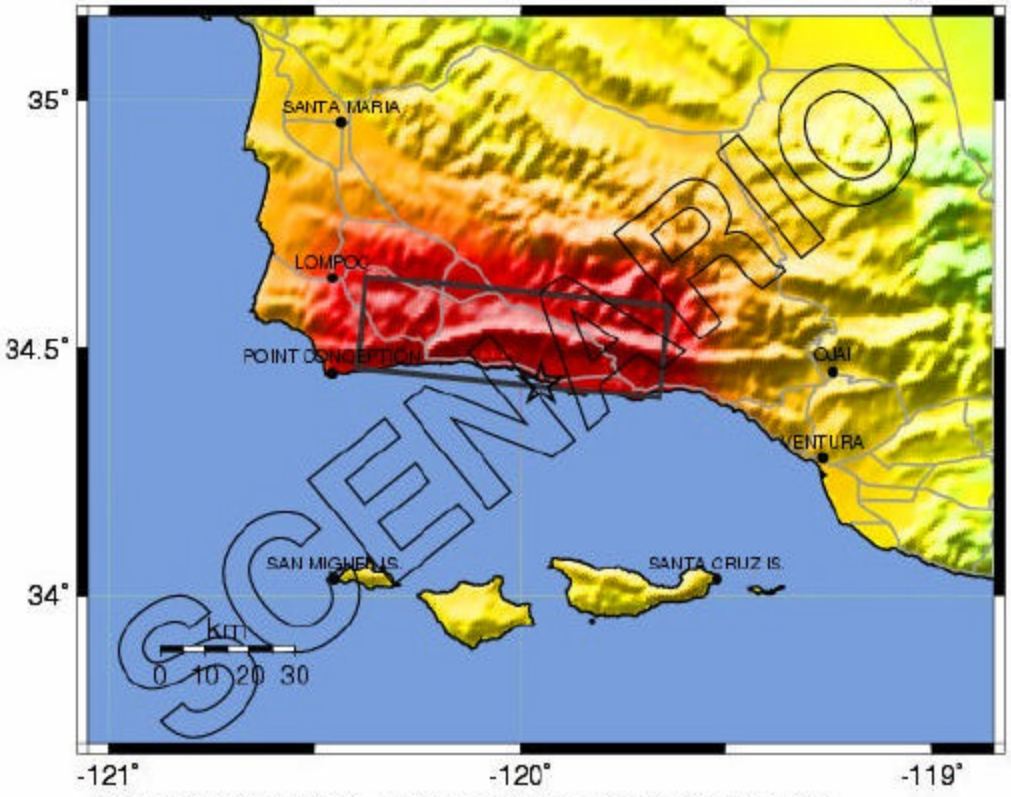
PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<.17*	*.17-1.4*	*1.4-3.9*	*3.9-9.2*	*9.2-18*	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	*16-31*	*31-60*	*60-116*	*>116*
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+


San Luis Obispo
Kern
San Bernardino
Santa Barbara
Ventura
Los Angeles
Riverside
San Diego
Imperial
Ten-County Southern California Study Region and
Puente-Hills M7.1 Scenario Earthquake.
USGS Scenario Shake-Map of Peak Ground Acceleration.


San Luis Obispo
Kern
San Bernardino
Santa Barbara
Ventura
Los Angeles
Riverside
Orange
San Diego
Imperial
Estimated Building Damage Economic Loss by County ($M)
Puente-Hills M7.1 Scenario Earthquake (Total Loss: $68.5B)
58,230
8,200
1,340
400
104
11
0

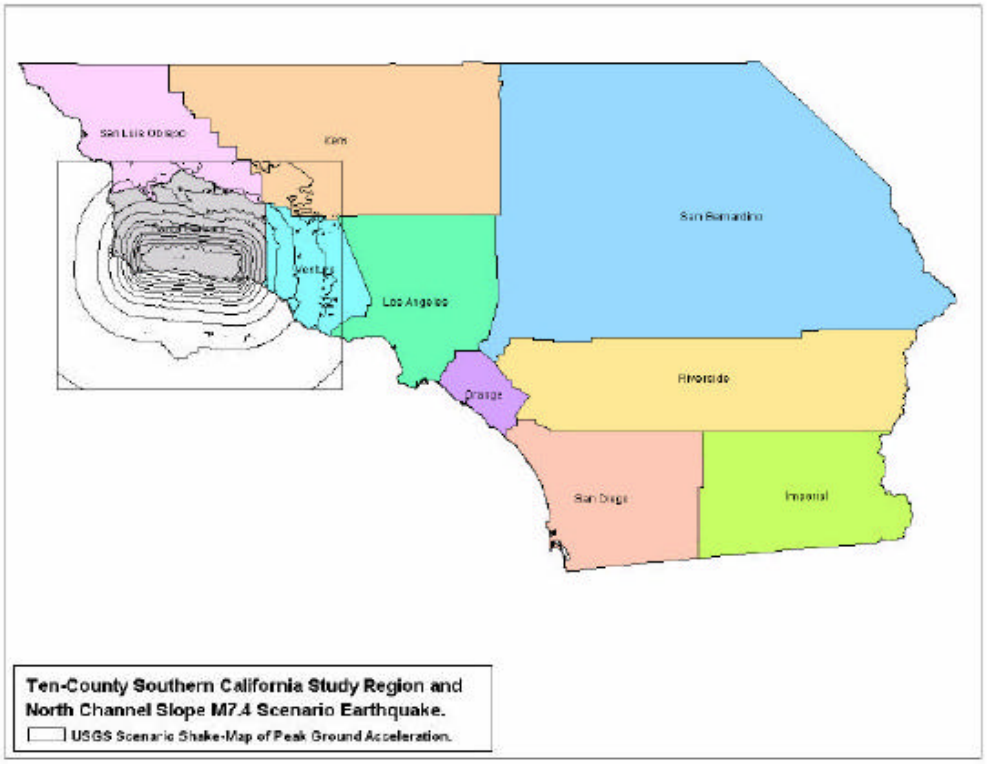

Estimated Building Damage Economic Loss as Percentage of Building Replacement Value
Puente Hills M7.1 Scenario Earthquake (In Parentheses are the Numbers of Census Tracts).
20 - 30 (341)
10 - 20 (345)
5 - 10 (549)
2 - 5 (483)
1 - 2 (256)
0 - 1 (941)

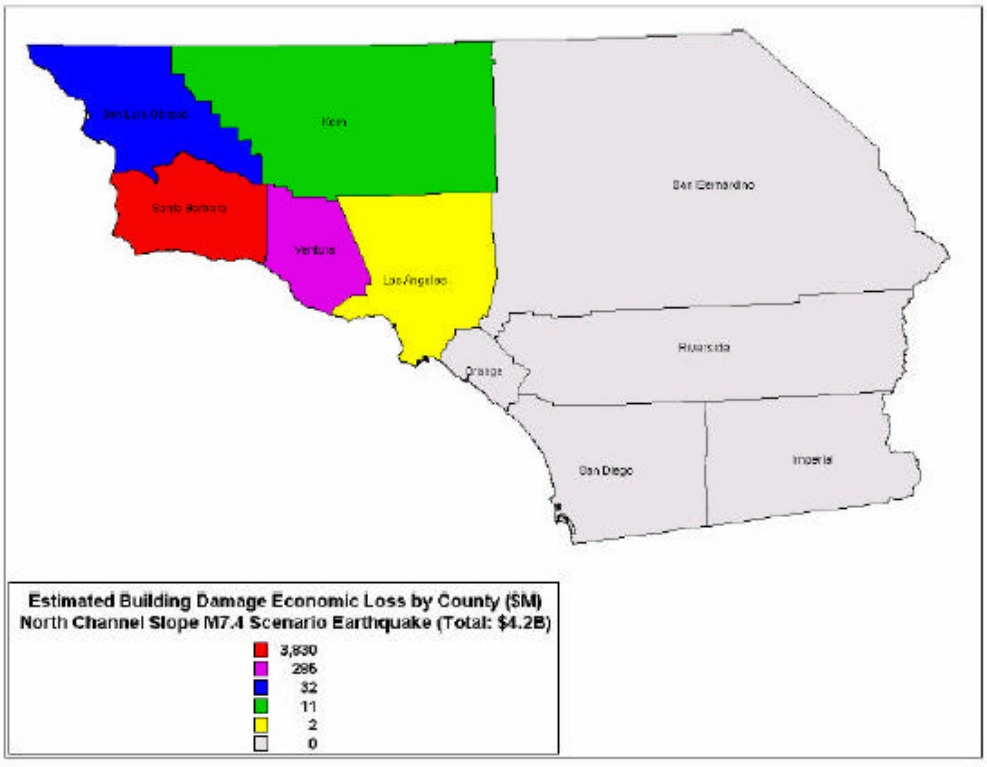
-- Earthquake Planning Scenario --
Rapid Instrumental Intensity Map for North Channel Slope Scenario
Scenario Date: Mon Mar 24, 2003 04:00:00 AM PST M 7.4 N34.43 W119.95 Depth: 12.5km



PLANNING SCENARIO ONLY -- PROCESSED: Mon Mar 24, 2003 08:26:39 PM PST

PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	<.17	.17-1.4	1.4-3.9	3.9-9.2	9.2-18	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	16-31	31-60	60-116	>116
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+


San Luis Obispo
Kern
San Bernardino
Ventura
Los Angeles
Riverside
Orange
San Diego
Imperial
Ten-County Southern California Study Region and
North Channel Slope M7.4 Scenario Earthquake.
USGS Scenario Shake-Map of Peak Ground Acceleration.


San Luis Obispo
Kern
San Bernardino
Santa Barbara
Ventura
Los Angeles
Riverside
Orange
San Diego
Imperial
Estimated Building Damage Economic Loss by County ($M)
North Channel Slope M7.4 Scenario Earthquake (Total: $4.2B)
3,830
286
32
11
2
0

Vulnerability

Studies (HAZUS and Historical Data) indicate that a major earthquake in the Los Angeles County area could be devastating. With the highly concentrated population of over 10 million and the heavy use of the transportation infrastructure (over 92 million vehicles per day use LA County highways and roads with over 3.9 million commuters per day), a major earthquake could virtually shut down the county. Government services could be paralyzed for up to 72 hours. Business and industry would essentially cease, at least through the initial response stages.

Impact

A major earthquake in Los Angeles County could directly affect 2.7 million people and indirectly affect another 7.5+ million with another 3.9 million commuters into LA County every day for a total of 14.1 million people. Potential losses (based on a 19% loss as estimated in the HAZUS study) could be as follows:

Potential dollar losses to County-owned facilities	$2.8 Billion
Potential dollar losses to Critical Facilities & Infrastructure	$722 Million
Potential dollar losses to Commercial Buildings	$33.7 Billion
Potential dollar losses to Residential or Private Property	$138.1 Billion
Potential Other $ losses (Environmental, historical, economic, human)	$68.9 Billion
TOTAL POTENTIAL DOLLAR LOSSES	**$243.5 BILLION**

Wild Land Urban Interface Fire

Wildland Urban Interface Fire was rated a HIGH PRIORITY HAZARD in Los Angeles County.

Levels of Wildland Fire Protection Services

The history of California wildfires indicates that the following trends will continue. Risk from wildfire to life, property, natural resources, and firefighter safety is increasing.

- Population will grow and more people will live and use wildland areas, especially in the Central Sierra and in the Southern California counties of Riverside, San Bernardino and San Diego.
- Topography and climate support ecosystems where large wildfires can be expected.
- Drought and fuel moisture conditions will be unpredictable but almost always dangerous in fire season.
- More structures will be constructed in areas that are very susceptible to wildfire.
- Historical legacy of narrow roads, difficult entrance, insufficient water supplies, flammable building construction and location that make many communities and homes wildfire-prone still exits.
- Public demand for wildland fire protection and other services will increase.

Deteriorating forest health, increasing fuel loads and other factors have led to more intense, destructive wildfires; unabated this pattern will continue.

Assets at risk will increase, especially watershed assets, because of the rapid rise in the demand for water to supply more people. Based on population projections, the potential for accelerating loss of protected assets, especially life and property, will be greater from disastrous wildfires.

Large wildfires do not respect political or property boundaries. Historically, a strength of California's firefighting agencies is found within a concept of mutual cooperation at the federal, state, and local levels of government. Day-to-day mutual aid for initial attack, as well as a statewide mutual-aid system for fire disasters, is the basis of this cooperation and coordination. The ability to rapidly mobilize, effectively deploy and support large numbers of specialized firefighting resources is essential to cope with large multiple fires. Hence, CDF, in cooperation with other fire agencies, must maintain infrastructure, including communications and capital improvements necessary to facilitate such a response.

Fire protection forces in California must have sufficient depth to respond to large, multiple wildfires and still prevent other small fires from becoming large damaging fires. CDF plays a key role in supplying and coordinating such forces; it should maintain and enhance this ability. The 1985 Fire Plan includes a model to provide adequate depth of resources that show CDF needing 96 additional engines and 825 personnel for managing large fires using the Incident Command System. There is a greater need today as reflected in the California Fire Plan.

California Fire Plan 2003

Wildland Fire Protection Fiscal Issues

Multi-year fiscal problems are occurring at all governmental levels, constraining the availability of funding to address the increasing workload, costs and losses of the California wildland fire protection system.

The increasing number of structures and people in California wild lands and the growing importance of the state's natural resources create a growing demand to fund additional wildland fire protection services for both the structures and the wildland resource assets.

The primary fiscal responsibilities for the initial attack responsibilities: (1) for federal wildland fire protection are the federal taxpayers, (2) for privately owned wildland fire protection are the state taxpayers, and (3) for structure fire protection in wildland areas are the local taxpayers. However, during the annual fire season, the state and federal taxpayers provide a minimum level of structural fire protection that is incidental to their primary missions of wildland fire protection. Similarly, in most wildland areas, local taxpayers provide year-round wildland fire protection on both state and federal responsibility areas that is incidental to the local government primary mission of structural fire protection.

Over the last decade, part of the increased costs for additional initial attack wildland resource protection and structural protection have been funded by local taxpayers through property taxes, fire district fees and volunteer firefighters. However, when a wildland fire overwhelms local resources and reaches a major fire status, both the state and the federal taxpayers pay for the costs of wildfires, structure protection, and the resulting disaster relief.

For the local taxpayers, the following continue to increase: (1) the structural values and number of people being protected on wild lands, (2) the costs of wildland and structure initial attack fire suppression funded at the local levels, and (3) the losses from the extended attack and larger fires.

For state and federal taxpayers, the following will continue to increase: (1) extended and large fire emergency fund expenditures for wildland fires, (2) protecting structures during initial attack and extended attack fires, and (3) state and federal agency disaster expenditures for damages to wildland resources and structures.

Health and Safety Code Section 13009 allows for recovery of fire suppression costs which, when obtained, be placed back into the state's general fund rather than invested in a pre-fire management program.

There is a direct relationship between reduced expenditures for pre-fire management and suppression and increased emergency fund expenditures, disaster funding, and private taxpayers expenditures and losses. Reduction of pre-fire management or suppression resources allows more fires to become major

disastrous fires. Major fires create additional suppression and disaster relief costs at all levels of government and increase citizen and business losses.

According to representatives of the insurance industry that insures structures in California wildland areas, (1) the insurer average costs and losses are about $1.09 for each $1.00 received in premiums, and (2) the urban dwellers are subsidizing the wildland homeowner through service-wide rating schedules.

Fire-Safe and Land Use Planning

Population increases in wildland areas have raised strategic concerns about wildfire protection. Clearance laws, zoning, and related fire safety requirements implemented by state and local authorities need to address these factors:

Fire-resistant construction standards: We can no longer view a wildland fire as affecting only watershed, wildlife and vegetation resources; we must now consider their effect on people and their structures. Further, this increase in people and structures have provided increasing ignition sources for fire which, due to their proximity, can spread into the wildland. Building construction standards that encompass such items as roof covering, opening protection and fire resistance are designed to both protect the structure from external fires and to contain internal fires for longer periods.

Hazard reduction near structures (defensible space): The public image of defensible space as part of pre-fire management should be expanded to include such immediate benefits as improved aesthetics, increased health of large remaining trees and other valued plants, and enhanced wildlife habitat. The use of defensible space that provides landscape naturalness, along with its compatibility with wildlife, water conservation and forest health, should be emphasized.

Infrastructure: Effective fire protection in the intermix cannot be accomplished solely through the acquisition of equipment, personnel and training. The area's infrastructure also must be considered during the formulation of development plans. Specific fire hazard areas should be evaluated and reasonable safety standards adopted, covering such elements as adequacy of nearby water supplies, routes or throughways for fire equipment, addresses and street signs, and maintenance. The ultimate objectives for fire-safe planning and construction are (1) improve the ability of communities and other high value assets that will survive a large, high intensity wildfire with minimal fire suppression effort and (2) provide for improved citizen and firefighter safety.

California Fire Plan 2003

Fire History

Large Fires (over 300 acres) in 2003

INCIDENT #	% CONT.	COUNTY / UNIT	FIRE NAME	DATE START	DATE CONT.	ORIGIN DPA	ACRES BURNED CDF	ACRES BURNED OTHER	ACRES BURNED TOTAL	VEG. TYPE	CAUSE	STRUCTURES DEST.	STRUCTURES DAM.	FATALITIES FIRE	FATALITIES CIVIL
LAC-0300429	100%	Los Angeles	Pacific	1/6/2003	1/8/2003	CC	1300		1300		Under Inv.				
LAC-150988	100%	Los Angeles	Hauser	07/24/03	07/27/03	CC	2,044		2,044	B	Under Inv.	0	0	0	0
LAC-03220027	100%	Los Angeles	Verdale	10/24/03	10/28/03	CC	8,650		8,650	GB	Under Inv.	1	0	0	0
ANF-4490	100%	Los Angeles	Padua	10/21/03	11/02/03	USFS		10,446	10,446	B	Human	59	0	0	0
ANF-3468	100%	Los Angeles	Alamos	08/23/03	08/26/03	USFS		300	300		Under Inv.	0	0	0	0
ANF-003154	100%	Los Angeles	Middle	08/07/03	08/09/03	USFS		300	300	BT	Under Inv.	0	0	0	0

CDF Statistics

20 Largest California Wildland Fires by Structures Destroyed

	FIRE NAME/*CAUSE*	DATE	COUNTY	ACRES	*STRUCTURES*	DEATHS
1	TUNNEL *(REKINDLE)*	October 1991	ALAMEDA	1,600	2,900	25
*2	CEDAR *(HUMAN)*	October 2003	SAN DIEGO	273,246	2,820	15
*3	OLD *(HUMAN)*	October 2003	SAN BERNARDINO	91,281	1,003	6
4	JONES *(UNDETERMINED)*	October 1999	SHASTA	26,200	954	1
5	PAINT *(ARSON)*	June 1990	SANTA BARBARA	4,900	641	1
6	FOUNTAIN *(ARSON)*	August 1992	SHASTA	63,960	636	0
7	CITY OF BERKELEY *(POWERLINES)*	September 1923	ALAMEDA	130	584	0
8	BEL AIR *(UNDETERMINED)*	November 1961	LOS ANGELES	6,090	484	0
9	LAGUNA FIRE *(ARSON)*	October 1993	ORANGE	14,437	441	0
*10	PARADISE *(HUMAN)*	October 2003	SAN DIEGO	56,700	415	2
11	LAGUNA *(POWERLINES)*	September 1970	SAN DIEGO	175,425	382	5
12	PANORAMA *(ARSON)*	November 1980	SAN BERNARDINO	23,600	325	4
13	TOPANGA *(ARSON)*	November 1993	LOS ANGELES	18,000	323	3
14	49ER *(BURNING DEBRIS)*	September 1988	NEVADA	33,700	312	0
*15	SIMI *(UNDER INVESTIGATION)*	October 2003	VENTURA	108,204	300	0
16	SYCAMORE *(MISC. - KITE)*	July 1977	SANTA BARBARA	805	234	0
17	CANYON *(VEHICLE)*	September 1999	SHASTA	2,580	230	0
18	KANNAN *(ARSON)*	October 1978	LOS ANGELES	25,385	224	0
19	KINNELOA *(CAMPFIRE)*	October 1993	LOS ANGELES	5,485	196	1
*19	GRAND PRIX *(HUMAN)*	October 2003	SAN BERNARDINO	69,894	136	0
20	OLD GULCH *(EQUIP. USE)*	August 1992	CALAVERAS	17,386	170	0

Note that this list does not include fire jurisdiction. These are the Top 20 within California, regardless of whether they were state, federal, or local responsibility. Also note that "structures" is meant to include all loss - homes and outbuildings, etc.

4/22/2004

Los Angeles County accounts for 20%

20 Largest California Wildland Fires by Acres Burned

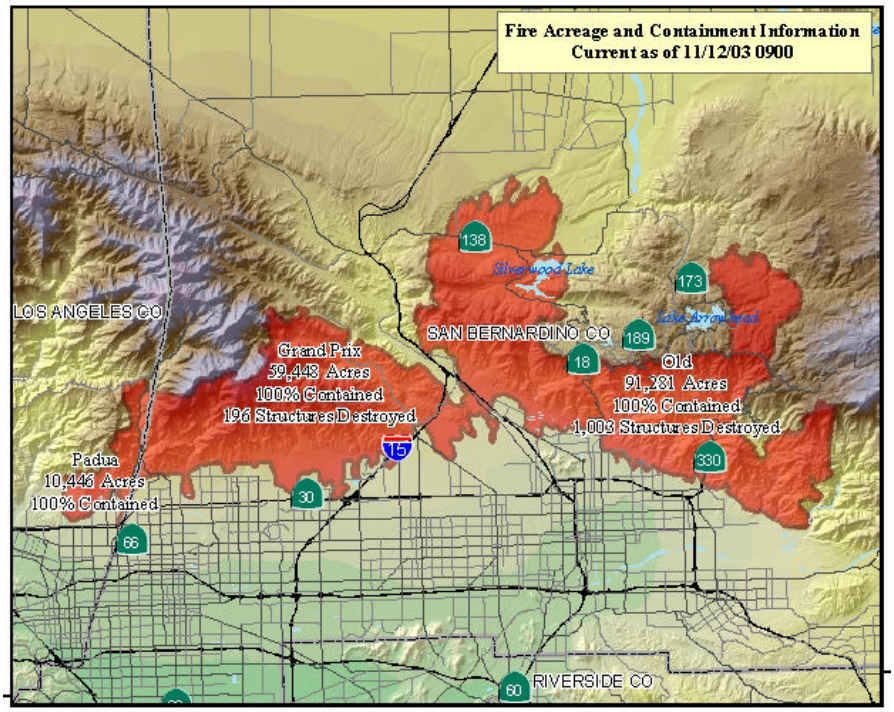
	FIRE NAME/CAUSE	DATE	COUNTY	*ACRES*	STRUCTURES	DEATHS
*1	CEDAR *(HUMAN)*	October 2003	SAN DIEGO	273,246	2,820	15
2	MATILIJA *(UNDETERMINED)*	September 1932	VENTURA	220,000	0	0
3	MARBLE CONE *(LIGHTNING)*	July 1977	MONTEREY	177,866	0	0
4	LAGUNA *(POWERLINES)*	September 1970	SAN DIEGO	175,425	382	5
5	MCNALLY *(HUMAN)*	July 2002	TULARE	150,696	17	0
6	STANISLAUS COMPLEX *(LIGHTNING)*	August 1987	TUOLUMNE	145,980	28	1
7	BIG BAR COMPLEX *(LIGHTNING)*	August 1999	TRINITY	140,948	0	0
8	CAMPBELL COMPLEX *(POWERLINES)*	August 1990	TEHAMA	125,892	27	0
9	WHEELER *(ARSON)*	July 1985	VENTURA	118,000	26	0
*10	SIMI *(UNDER INVESTIGATION)*	August 1996	VENTURA	108,204	300	0
11	HWY. 58 *(VEHICLE)*	August 1996	SAN LUIS OBISPO	106,668	13	0
12	CLAMPITT *(POWERLINES)*	September 1970	LOS ANGELES	105,212	86	4
13	WELLMAN *(EQUIP. USE)*	June 1966	SANTA BARBARA	93,600	0	0
*14	OLD *(HUMAN)*	October 2003	SAN BERNARDINO	91,281	1,003	6
15	KIRK *(LIGHTNING)*	September 1999	MONTEREY	86,700	0	0
16	REFUGIO *(MISC. - STRUCTURE)*	September 1955	SANTA BARBARA	84,770	20	0
17	FORK *(UNDETERMINED)*	August 1996	LAKE	82,980	40	0
18	SCARFACE *(LIGHTNING)*	August 1977	MODOC	79,904	0	0
19	LAS PILITAS *(EQUIP. USE)*	July 1985	SAN LUIS OBISPO	74,640	41	0
20	MANTER *(UNDER INVESTIGATION)*	July 2000	TULARE	74,439	15	0

There is no doubt that there were fires with significant acreage loss in years prior to 1932, but those records are less reliable, and this list is meant to give an overview of the large acreage-loss fires in more recent times. (Also note that this list does not include fire jurisdiction. These are the top 20 within the state, regardless of whether they were state, federal, or local responsibility.)

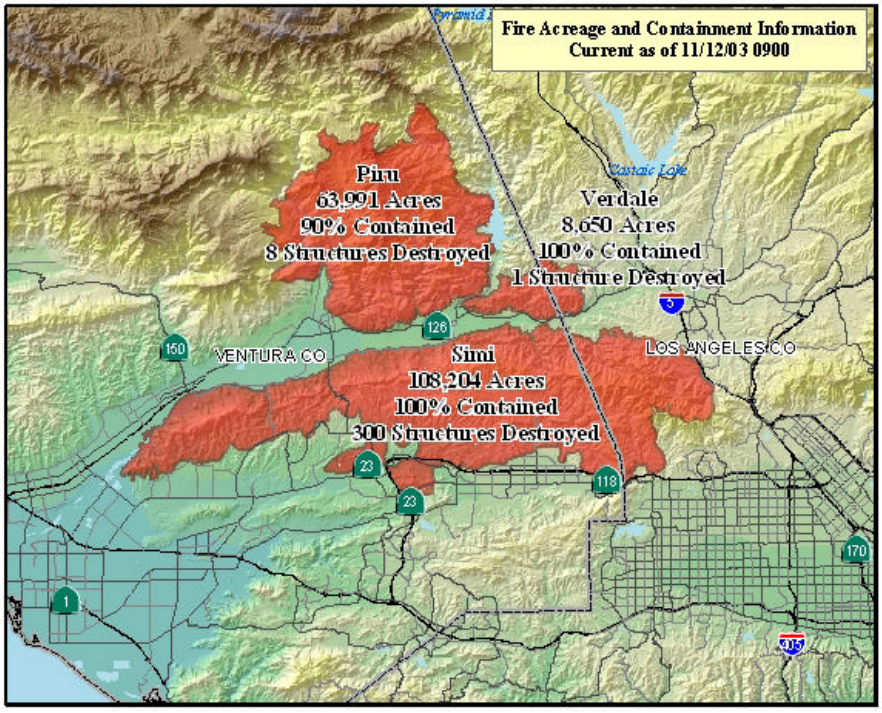
Los Angeles County accounts for 5%

Wild Fires of 2003

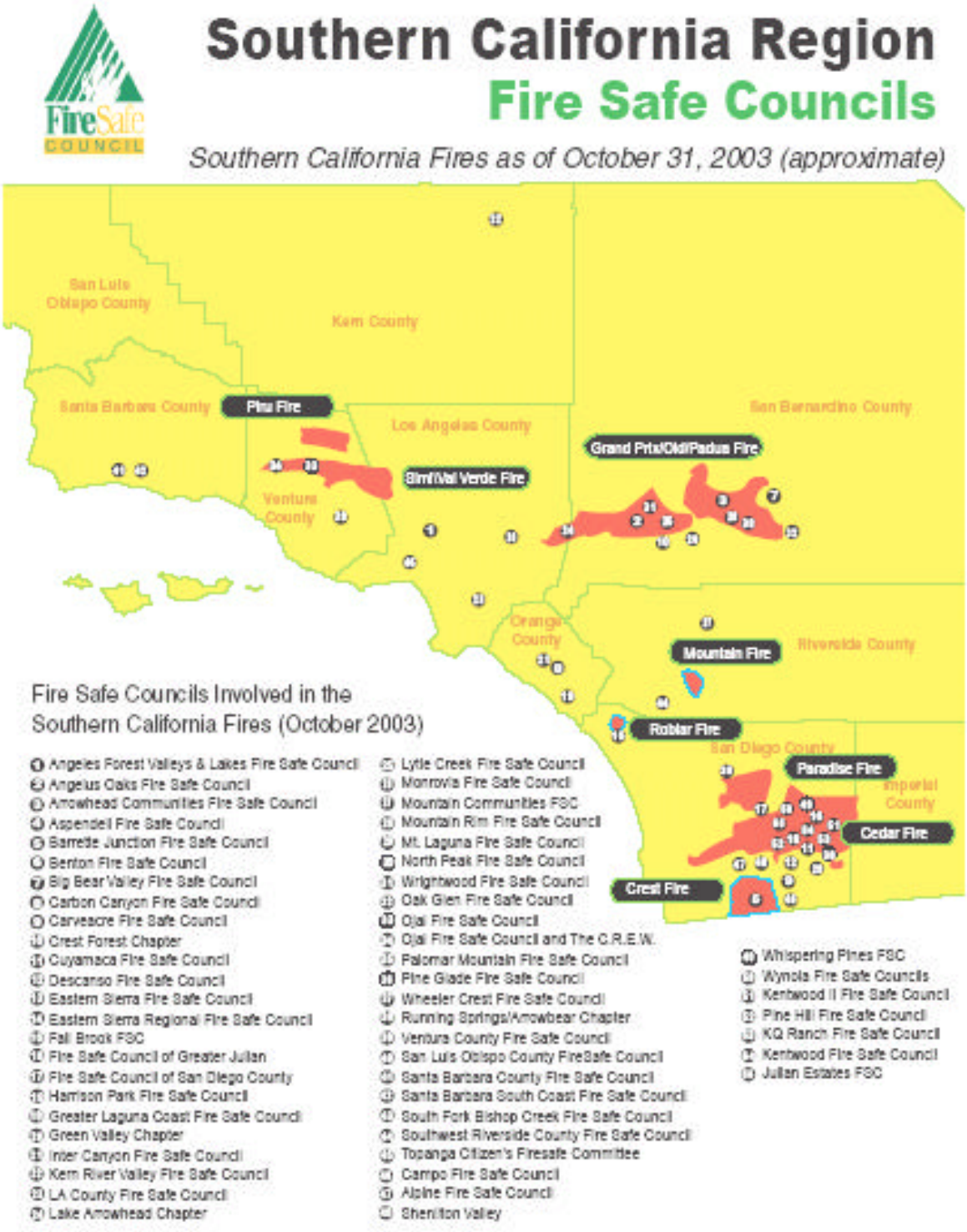
Grand Prix Fire within Los Angeles County (11/2003)



Simi & Verdale Fires within Los Angeles County (11/2003)



Prevention & Safety



Wildfire Smoke

Characteristics of Wildfire Smoke

The behavior of smoke depends on many factors, including the fire's size and location, the topography of the area and the weather. Inversions are common in mountainous terrain. Smoke often fills the valleys, where people usually live. Smoke levels are unpredictable: a wind that usually clears out a valley may simply blow more smoke in, or may fan the fires, causing a worse episode the next day. Smoke concentrations change constantly. By the time public health officials can issue a warning or smoke advisory, the smoke may already have cleared. National Weather Service satellite photos, weather and wind forecasts, and knowledge of the area can all help in predicting how much smoke will come into an area, but predictions are rarely accurate for more than a few hours.

Estimating Particulate Matter Levels

Particulate matter levels are measured as micrograms (*m*g) of particles per cubic meter of air. Most particle monitoring devices measure particulate matter with a median diameter of 10 micrometers or less (PM_{10}). An increasing number of monitors now measure smaller particles, also known as fine particles, which have median diameters of 2.5 micrometers or less ($PM_{2.5}$). In wildfire smoke, most particles are less than one micrometer, so the values obtained by measuring either PM_{10} or $PM_{2.5}$ are virtually interchangeable, and are treated as such in this document.

Communities with established air quality programs may issue public alerts based on predicted 24-hour average concentrations of particulate matter. Smoke emergencies need to be handled differently, however, as smoke concentrations generally tend to be very high for only a few hours at a time. These short-term peaks may cause some of the most deleterious health effects.

Another factor is public perception. Since smoke is so effective at scattering light, visibility changes drastically as smoke concentrations increase. Even without being told, the public can tell when the smoke is getting worse, and they want authorities to respond to changes as they are happening. Many communities don't have continuous PM monitoring, and therefore need to estimate particle levels. Continuous PM monitors give an instant reading of particulate matter concentrations. However, visibility can sometimes serve as a good surrogate. Even in areas with monitors, this index can be useful, since smoke levels change constantly and can vary dramatically even between monitors that are near one another. A visibility index gives members of the public a quick way to assess smoke levels for themselves.

Estimating particulate matter concentrations from visibility assessment

Categories	**Visibility in Miles**	**Particulate matter levels* (1-hour average, $\mu g/m^3$)**
Good	10 miles and up	0 - 40
Moderate	6 to 9	41 - 80
Unhealthy for Sensitive Groups	3 to 5	81 - 175
Unhealthy	1 1/2 to 2 1/2	176 - 300
Very Unhealthy	1 to 1 1/4	301 - 500
Hazardous	3/4 mile or less	over 500

*In wildfire smoke, most particles are less than one micrometer, so the values obtained by measuring either PM_{10} or $PM_{2.5}$ are virtually interchangeable, and are treated as such in this document. Therefore, in the table above, the different particle levels can be measured using either PM_{10} or $PM_{2.5}$ monitors.

Smoke Hazards as a Result of Wildland Fires

Smoke is composed primarily of carbon dioxide, water vapor, carbon monoxide, particulate matter, hydrocarbons and other organic chemicals, nitrogen oxides, trace minerals and several thousand other compounds. The actual composition of smoke depends on the fuel type, the temperature of the fire, and the wind conditions. Different types of wood and vegetation are composed of varying amounts of cellulose, lignin, tannins and other polyphenolics, oils, fats, resins, waxes and starches, which produce different compounds when burned.

Particulate matter is the principal pollutant of concern from wildfire smoke for the relatively short-term exposures (hours to weeks) typically experienced by the public. Particulate matter is a generic term for particles suspended in the air, typically as a mixture of both solid particles and liquid droplets. Particles from smoke tend to be very small - less than one micrometer in diameter. For purposes of comparison, a human hair is about 60 micrometers in diameter. Particulate matter in wood smoke has a size range near the wavelength of visible light (0.4 – 0.7 micrometers). Thus, smoke particles efficiently scatter light and reduce visibility. Moreover, such small particles can be inhaled into the deepest recesses of the lung and are thought to represent a greater health concern than larger particles.

Another pollutant of concern during smoke events is carbon monoxide. Carbon monoxide is a colorless, odorless gas, produced by incomplete combustion of wood or other organic materials. Carbon monoxide levels are highest during the smoldering stages of a fire. Other air pollutants, such as acrolein, benzene, and formaldehyde, are present in smoke, but in much lower concentrations than particulate matter and carbon monoxide.

The effects of smoke range from eye and respiratory tract irritation to more serious disorders, including reduced lung function, bronchitis, exacerbation of asthma, and premature death. Studies have found that fine particles are linked (alone or with other pollutants) with increased mortality and aggravation of pre-existing respiratory and cardiovascular disease. In addition, particles are respiratory irritants, and exposures to high concentrations of particulate matter can cause persistent cough, phlegm, wheezing and difficulty breathing. Particles can also affect healthy people, causing respiratory symptoms, transient reductions in lung function, and pulmonary inflammation. Particulate matter can also affect the body's immune system and make it more difficult to remove inhaled foreign materials from the lung, such as pollen and bacteria. The principal public health threat from short-term exposures to smoke is considered to come from exposure to particulate matter.

Wildfire smoke also contains significant quantities of respiratory irritants. Formaldehyde and acrolein are two of the principal irritant chemicals that add to the cumulative irritant properties of smoke, even though the concentrations of these chemicals individually may be below levels of public health concern.

Sensitive Populations

Most healthy adults and children will recover quickly from smoke exposures and will not suffer long-term consequences. However, certain sensitive populations may experience more severe short-term and chronic symptoms from smoke exposure. Much of the information about how particulate matter affects these groups has come from studies involving airborne particles in cities, though a few studies examining the effects of exposure to smoke suggest that the health effects of wildfire smoke are likely to be similar. More research is needed to determine whether particles from wildfires affect susceptible subpopulations differently.

Individuals with asthma and other respiratory diseases: Levels of pollutants that may not affect healthy people may cause breathing difficulties for people with asthma or other chronic lung diseases. Asthma, derived from the Greek word for panting, is a condition characterized by chronic inflammation

of the airways, with intermittent bronchial-constriction and airflow obstruction, causing shortness of breath, wheezing, chest tightness, coughing, sometimes accompanied by excess phlegm production. During an asthma attack, the muscles tighten around the airways and the lining of the airways becomes inflamed and swollen, constricting the free flow of air. Because children's airways are narrower than those of adults, irritation that would create minor problems for an adult may result in significant obstruction in the airways of a young child. However, the highest mortality rates from asthma occur among older adults. Individuals with chronic obstructive pulmonary disease (COPD), which is generally considered to encompass emphysema and chronic bronchitis, may also experience a worsening of their conditions because of exposure to wildfire smoke. Patients with COPD often have an asthmatic component to their condition, which may result in their experiencing asthma-like symptoms. However, because their pulmonary reserve has typically been seriously compromised, additional bronchial-constriction in individuals with COPD may result in symptoms requiring medical attention. Epidemiological studies have indicated that individuals with COPD run an increased risk of requiring emergency medical care after exposure to particulate matter or forest fire smoke. Exposure to smoke may also depress the lung's ability to fight infection. People with COPD may develop lower respiratory infections after exposure to wildfire smoke, which may require urgent medical care as well. In addition, because COPD is usually the result of many years of smoking, individuals with this condition may also have heart disease, and are potentially at risk from both conditions.

Individuals with airway hyper-responsiveness: A significant fraction of the population may have airway hyper-responsiveness, an exaggerated tendency of the bronchi and bronchioles to constrict in response to respiratory irritants and other stimuli. While airway hyper-responsiveness is considered a hallmark of asthma, this tendency may also be found in many non-asthmatics, as well; for example, during and following a lower respiratory tract infection. In such individuals, smoke exposure may cause bronchial-spasm and asthma-like symptoms.

Individuals with cardiovascular disease: Diseases of the circulatory system include, among others, high blood pressure, cardiovascular diseases, such as coronary artery disease and congestive heart failure, and cerebro-vascular conditions, such as atherosclerosis of the arteries bringing blood to the brain. These chronic conditions can render individuals susceptible to attacks of angina pectoris, heart attacks, sudden death due to a cardiac arrhythmia, acute congestive heart failure, or stroke. Cardiovascular diseases represent the leading cause of death in the United States, responsible for about 30 to 40 percent of all deaths each year. The vast majority of these deaths are in people over the age of 65. Studies have linked urban particulate matter to increased risks of heart attacks, cardiac arrhythmias, and other adverse effects in those with cardiovascular disease. People with chronic lung or heart disease may experience one or more of the following symptoms: shortness of breath, chest tightness, pain in the chest, neck, shoulder or arm, palpitations, or unusual fatigue or lightheadedness. Chemical messengers released into the blood because of particle-related lung inflammation may increase the risk of blood clot formation, angina episodes, heart attacks and strokes.

The elderly. In several studies researchers have estimated that tens of thousands of elderly people die prematurely each year from exposure to particulate air pollution, probably because the elderly are more likely to have pre-existing lung and heart diseases, and therefore are more susceptible to particle-associated effects. The elderly may also be more affected than younger people because important respiratory defense mechanisms may decline with age. Particulate air pollution can compromise the function of alveolar macrophages, cells involved in immune defenses in the lungs, potentially increasing susceptibility to bacterial or viral respiratory infections.

Children. Children, even those without any pre-existing illness or chronic conditions, are considered a sensitive population because their lungs are still developing, making them more susceptible to air pollution than healthy adults. Several factors lead to increased exposure in children compared with adults: they tend to spend more time outside; they engage in more vigorous activity, and they inhale

more air (and therefore more particles) per pound of body weight. Studies have shown that particulate pollution is associated with increased respiratory symptoms and decreased lung function in children, including symptoms such as episodes of coughing and difficulty breathing. These can result in school absences and limitations of normal childhood activities.

Pregnant women. While there have not been studies of the effects of exposure to wildfire smoke on pregnancy outcomes, there is substantial evidence of adverse effects of repeated exposures to cigarette smoke, including both active and passive smoking. Wildfire smoke contains many of the same compounds as cigarette smoke. In addition, recent data suggest that exposures to ambient air pollution in cities may result in low birth weight and possibly other, more serious adverse reproductive effects. Therefore, it would be prudent to consider pregnant women as a potentially susceptible population as well.

Smokers. People who smoke, especially those who have smoked for many years, have already compromised their lung function. However, due to adaptation of their lungs to ongoing irritation, smokers are less likely to report symptoms from exposure to irritant chemicals than are nonsmokers. However, they may still be injured by wildfire smoke. Therefore, some smokers may unwittingly put themselves at greater risk of potentially harmful wildfire smoke exposures, believing that they are not being affected.

Hazards Associated Cleanup of Wildland Fires

Heat sources may remain as a result of smoldering wood or other debris that could reignite if contact is made with a combustible material or if oxygen becomes available. Workers and employers must therefore take extra precautions.

Cleanup activities may involve walking on unstable surfaces such as construction debris, trees and other vegetation. Piles of debris and other unstable work surfaces create a risk for traumatic injury from slips, falls, puncture wounds from nails and sharp objects, and collapsing materials. Extreme caution is necessary when working on these surfaces. Protective equipment, such as hard hats, safety glasses, leather gloves, and steel toe boots should be considered to minimize the risk of injury.

Cleanup workers are at risk for developing serious musculoskeletal injuries to the hands, back, knees, and shoulders. Special attention is needed to avoid back injuries associated with manual lifting and handling of debris and building materials.

Cleanup workers are at serious risk for developing heat stress. Excessive exposure to hot environments can cause a variety of heat-related problems, including heat stroke, heat exhaustion, heat cramps, and fainting

Fires can rearrange and damage natural walkways, as well as sidewalks, parking lots, roads, and buildings. Never assume that fire-damaged structures or ground are stable. Buildings that have been burned may have suffered structural damage and could be dangerous.

Fires to commercial and residential buildings and water used to fight the fire can dislodge tanks, drums, pipes, and equipment, which may contain hazardous materials such as pesticides or propane. Containers may be damaged by fire and heat.

Los Angeles County Fire Plan

The Fire Plan framework identifies for state, federal, and local officials and for the public those areas of concentrated assets and high risk.

- Allow the County of Los Angeles Fire Department to create a more efficient fire protection system focused on meaningful solutions for identified problem areas.
- Give citizens an opportunity to identify public and private assets to design and carry out projects to protect those assets.
- Identify, before fires start, where cost-effective pre-fire management investments can be made to reduce taxpayer cost and citizen losses from wildfire.
- Encourage an integrated intergovernmental approach to reducing cost and losses.
- Enable policy makers and the public to focus on what can be done to reduce future cost and losses from wildfire.

The County of Los Angeles Fire Department

The history of the County of Los Angeles Fire Department started in the early 1900s with the formation of two separate departments. The County Forester, in charge of protecting forest lands and responsible for planting and maintaining the landscape, and the County Fish and Game Warden, who was assigned the additional position of County Fire Warden.

In 1919, over 135,000 acres of wildland fires blackened the County of Los Angeles prompting the merging of these two separate departments and resulting in a greater emphasis on fire suppression. Between September 1923 and 1925, 31 separate fire districts were formed; the first two being in Signal Hill and Santa Monica Canyon.

In 1956, the late Fire Chief Emeritus Keith E. Klinger created the visionary Lakewood Plan, allowing incorporated cities within the County to contract with the Department for fire protection services. Today, 57 cities contract with the County of Los Angeles Fire Department which staffs a total of 163 engine companies, 31 truck companies, 79 paramedic units, and numerous other pieces of specialized apparatus.

The County of Los Angeles Fire Department is credited with the creation of the nation's second Firefighter Paramedic Program and the nation's first 911 Emergency Calling System. Throughout its history, the Department has emerged as a leader in the fire service on local, regional and national levels, growing to become the nation's second largest fire protection agency.

The County of Los Angeles Fire Department operates with 9 divisions, 20 battalions, 159 fire stations and 11 fire suppression camps and answers over 234,000 emergency calls annually. Additionally, the Department has Planning, Information Management, Fire Prevention, Air and Wildland, Lifeguard, Forestry and Health Hazardous Materials Divisions, which provide valuable services to the more than 3.5 million people who reside in the 1.1 million housing units located throughout the Department's 2,278 square mile area.

The County of Los Angeles Fire Department currently has 159 fire stations, 235 fire engines, 21 ladder trucks, 20 grass units, 85 paramedic squads, 11 wildland fire suppression camps, 8 bulldozers, 7

helicopters, 23 Prevention Offices, 12 Forestry Units and numerous other response vehicles and facilities. The Department serves 57 incorporated, as well as the unincorporated areas of the County.

Wildland Fire Protection Strategy

Prevention

The most effective way to limit damage and loss due to wildfire is to prevent all but the most blatant ignitions due to arson or unforeseeable circumstances. The focus of the entire Department is on prevention through educational programs, development and enforcement of fire codes and building codes in the Very High Fire Hazard Severity Zones, Pre-Fire Planning, Vegetation Management, Brush Clearance, Environmental Review and Fuel Modification Programs. These programs are focused on awareness and mitigation of fire causes, fire spread potential, total costs and effects of fire damage associated with the protection of life, property and the environment. The Department's Fire Plan Unit coordinates the efforts and activities of these programs with the intent of creating efficient and timely Pre-Fire Management projects.

Vegetation Management

Vegetation management, as it relates to wildland fire, refers to the total or partial removal of high fire hazard grasses, shrubs, or trees. This includes thinning to reduce the amount of fuel and modification of vegetation arrangement and distribution to disrupt fire progress. In addition to fire hazard reduction, vegetation management has other benefits. These include increased water yields, improved habitat for wildlife, reduction of invasive exotic plant species, and open access for recreational purposes.

The Vegetation Management Program (VMP) is a cost-sharing program that focuses on the use of prescribed fire, mechanical, biological and chemical means, for addressing wildland fire fuel hazards and other resource management issues on State Responsibility Area (SRA) and Local Responsibility Area (LRA) lands. The use of prescribed fire mimics natural processes, restores fire to its historic role in wildland ecosystems, and provides significant fire hazard reduction benefits that enhance public and firefighter safety.

VMP allows private landowners to enter into a contract with CDF to use prescribed fire to accomplish a combination of fire protection and resource management goals. The Forestry Division's Vegetation Management Unit and the Air and Wildland Division's Prescribed Fire Office implement the VMP projects which fit within the Department's priority areas (e.g., those identified through the fire plan) and are considered to be of most value to the County will be completed. The Vegetation Management Program typically treats about 40,000 acres each year statewide.

Brush Clearance

The Brush Clearance Program is a joint effort between the County of Los Angeles Fire Department and the County of Los Angeles Department of Agricultural Commissioner/Weights and Measures, Weed Hazard and Pest Abatement Bureau (Weed Abatement Division). This unified enforcement legally declares both improved and unimproved properties a public nuisance, and where necessary, requires the clearance of hazardous vegetation. These measures create "Defensible Space" for effective fire protection of property, life and the environment. The Department's Brush Clearance Unit enforces the Fire Codes as it relates to brush clearance on improved parcels, coordinates inspections and compliance efforts with fire station personnel, and provides annual brush clearance training to fire station personnel.

Fuel Modification

The Fuel Modification Program objective is to create the Defensible Space necessary for effective fire protection in newly constructed and/or remodeled homes within the Department's Very High Fire Hazard Severity Zones (VHFHSZ). Fuel modification reduces the radiant and convective heat, and provides valuable defensible space for firefighters to make an effective stand against an approaching fire front. Fuel modification zones are strategically placed as a buffer to open space, or areas of natural vegetation and generally would occur surrounding the perimeter of a subdivision, commercial development, or isolated development of a single-family dwelling.

The fuel modification plan identifies specific zones within a property which are subject to fuel modification. A fuel modification zone is a strip of land where combustible native or ornamental vegetation has been modified and/or partially or totally replaced with drought-tolerant, low-fuel-volume plants.

The Fuel Modification Unit provides guidelines and reviews the landscape and irrigation plans submitted by the property owner for approval before construction or remodeling of a structure. The fuel modification plans vary in complexity and reflect the fire history, the amount and type of vegetation, the arrangement of the fuels, topography, local weather patters, and construction, design and placement of structures.

Environmental Review

The Environmental Review Unit works with the County of Los Angeles Department of Regional Planning in implementing existing environmental ordinances. The unit personnel review all County Oak Tree Permit applications submitted to the Department of Regional Planning and develop recommendations for implementation. Additionally, the unit personnel produce environmental documentation and recommendations such as non-significant impact documents, negative declarations and mitigation measures consistent with the California Environmental Quality Act (CEQA) mandates for construction projects and developments. The Environmental Review Unit ensures that the statutory responsibilities of the County of Los Angeles Fire Department, Forestry Division are addressed in the project planning phase.

Passive Protection

When the inevitable wildfire does occur, the primary protection of life, property, and the environment will come from passive protection such as defensible space (fuel reduction/brush clearance), fire-resistive landscaping, fire-resistive construction and good housekeeping. Sufficient firefighting water sources must be on site for use by the property owner and/or the fire department. Moreover, residents must have the means of self-evacuating and escaping danger through safe and sufficient egress routes while maintaining appropriate ingress routes for responding fire equipment. The sum effect of passive protection is a force multiplier for active firefighting resources. A single firefighting resource may protect many more structures when passive protection is properly employed. In some cases, firefighting resources may not be necessary at all thus freeing them for other uses.

Fire Suppression

The most effective time to control a wildfire is in the incipient stages when intensities are lower and the perimeter is small. The combined resource attack is a coordinated suppression effort including ground assets (engines, crews & dozers), aviation assets (fixed and rotary wing), passive fire protection measures, and command elements. Using in-place passive fire protection systems, incident

commanders weave the varied active fire suppression assets into an aggressive and coordinated fire fighting effort.

Stakeholders

A stakeholder can be defined as any person, agency or organization with a particular interest, a stake in fire safety, and protection of assets from wildfires. The stakeholders already identified include federal, state, local, private agencies, or interest groups, with assets at risk from wildfire. The County of Los Angeles Fire Department is constantly attempting to involve as many stakeholders as possible in the development of the County of Los Angeles Fire Department Pre-Fire Management Plan. The process of identifying stakeholders and their interests is an ongoing process and will be evaluated continuously through the evolution of future pre-fire management plans. It is the goal of the County of Los Angeles Fire Department to participate with as many stakeholders as is possible and continually update planning efforts involving stakeholder input.

Other Agencies

Other agencies within and which County of Los Angeles Fire Department works closely with are:

Political Entity	Jurisdiction
LOS ANGELES COUNTY SUPERVISORS	LOCAL GOVERNMENT
LOS ANGELES COUNTY SHERIFF'S DEPARTMENT	LOCAL GOVERNMENT/ LAW ENFORCEMENT
LOS ANGELES, CITY OF	LOCAL GOVERNMENT/LRA FIRE PROTECTION
MONROVIA, CITY OF	LOCAL GOVERNMENT/LRA FIRE PROTECTION
ORANGE COUNTY FIRE AUTHORITY	LRA AND SRA FIRE PROTECTION
KERN COUNTY FIRE DEPARTMENT	LRA AND SRA FIRE PROTECTION
VENTURA COUNTY FIRE DEPARTMENT	LRA AND SRA FIRE PROTECTION
NATIONAL PARK SERVICE	PUBLIC LAND OWNERSHIP, D PA FIRE PROTECTION
CLAREMONT, CITY OF	CONTRACT CITY
WHITTIER, CITY OF	CONTRACT CITY
MALIBU, CITY OF	CONTRACT CITY
INDUSTRY, CITY OF	CONTRACT CITY
GLENDORA, CITY OF	CONTRACT CITY
LA CANADA FLINTRIDGE, CITY OF	CONTRACT CITY
SANTA CLARITA, CITY OF	CONTRACT CITY
WESTLAKE VILLAGE, CITY OF	CONTRACT CITY
CALABASAS, CITY OF	CONTRACT CITY
CALIFORNIA STATE PARKS	PUBLIC LAND OWNERSHIP, SRA FIRE PROTECTION
SANTA MONICA MOUNTAINS CONSERVANCY	PUBLIC LAND OWNERSHIP, RECREATIONAL USE
LOCAL WATER COMPANIES	WATER STORAGE & TREATMENT
NON-PROFIT OPEN SPACE DISTRICTS	LOCAL GOVERNMENT
PUBLIC UTILITY COMPANIES	STATE/COUNTY
CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION	STATE/COUNTY
AIR QUALITY MANAGEMENT DISTRICT	STATE/COUNTY
CALIFORNIA DEPARTMENT OF FISH AND GAME	STATE/COUNTY
USDA-SOILS CONSERVATION	FEDERAL GOVERNMENT
U.S FISH AND WILDLIFE SERVICE	FEDERAL GOVERNMENT
BUREAU OF RECLAMATION	FEDERAL GOVERNMENT
USDA- FOREST SERVICE	FEDERAL GOVERNMENT
USDI- NATIONAL PARK SERVICE	FEDERAL GOVERNMENT
TOPANGA COALITION FOR EMERGENCY PREPAREDNESS	HOMEOWNER'S ASSOCIATION
MALIBU LAKESIDE	HOMEOWNER'S ASSOCIATION
MALIBOU LAKE MOUNTAIN CLUB	HOMEOWNER'S ASSOCIATION
BIG ROCK	HOMEOWNER'S ASSOCIATION
HORIZON HILLS	HOMEOWNER'S ASSOCIATION
GANESHA HILLS	HOMEOWNER'S ASSOCIATION
THE COUNTRY ESTATES	HOMEOWNER'S ASSOCIATION
COLBY RANCH	RELIGIOUS FOUNDATION

Fire Safe Councils

Monrovia Fire Safe Council

Derek Young
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Angeles Forest Valleys & Lakes Fire Safe Council

Micki Geyer
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Topanga Citizen's Fire Safe Committee

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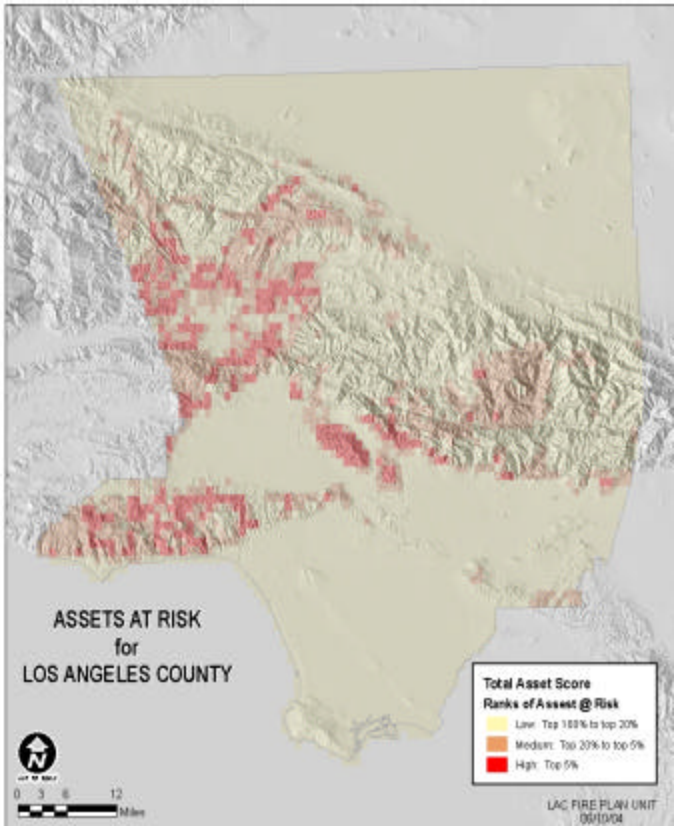
oaksrus@aol.com
Office: (310) 455-2885

Assets at Risk

The assets addressed in the plan are citizen and firefighter safety, watersheds and water, timber, wildlife and habitat (including rare and endangered species), unique areas (scenic, cultural, and historic), recreation, range, structures, and air quality. As part of the overall fire plan process, assets will be addressed at two levels. First, generalized assets at risk need to be identified within the County to indicate what areas contain highly valuable assets. The areas with the highest combined asset values and fire risk are then targeted for pre-fire management projects, particularly where such projects will reduce damage should a fire start in the project area during high fire hazard weather.

Second, as potential projects are identified, a subjective analysis will determine the degree to which the projects will reduce potential suppression costs and damage to assets. The asset framework and validation process will be refined as stakeholders are identified and are participating in the fire plan process. Diverse agencies have played a vital role in identifying the assets within Los Angeles County. Knowledge of the types and magnitudes of assets at risk to wildland fire, as well as their locations, are critical to fire protection planning. Given the limits on fire protection resources, they should be allocated, in part, based on the magnitude of the assets being protected.



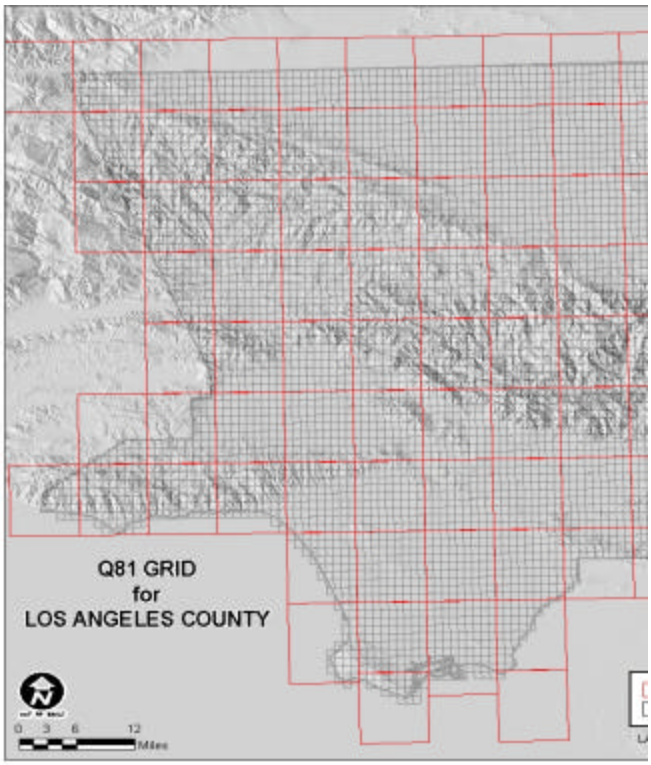
Knowledge of assets at risk is necessary to choose those pre-fire management projects that will provide the greatest benefit for a given amount of investment.

At this stage of development of the Pre-Fire Management Plan, the County of Los Angeles Fire Department's primary concern is reducing the fire risk and potential loss of the various assets described herein to provide for the safety and protection of life, property and the environment while reducing suppression costs.

Assets at Risk Table

Asset at risk	Public issue category	Location and ranking methodology
Fire flood watersheds	Public safety, public welfare	Watershed with a history of problems or proper conditions for future problems. Ranks are based on affected downstream populations
Soil	Environment	Watershed ranked based on erosion potential
Water supply	Public health	1) Watershed area up to 20 miles from water supply facility (high rank); 2) Grid cells containing domestic water diversions, ranked based on number of connections; 3) Cells containing ditches that contribute to the water supply systems (high rank)
Scenic value	Public welfare	Four mile view shed around scenic highways, ranked based on potential impact to vegetation types (tree versus non-tree types)
Air quality	Public welfare, public health, environment	Potential damages to health, materials, vegetation and visibility; rank based on vegetation type and air basin
Historic building	Public welfare	From State Office of Historic Preservation; ranked based on fire susceptibility
Recreation	Public welfare	Unique recreation areas of areas with potential damage to facilities, rank based on fire susceptibility
Structures	Public welfare, public safety	Rank based on housing density and fire susceptibility
Non-game wildlife	Public welfare, environment	Critical habitats and species location based on input from California Dept. of Fish and Game and other stakeholders
Game wildlife	Public welfare, environment	Critical habitats and species location based on input from California Dept. of Fish and Game and other stakeholders
Infrastructure	Public welfare, public safety	Infrastructure for delivery of emergency and other critical services (i.e. Repeater sites, transmission lines)

General Description of Current Fire Situation



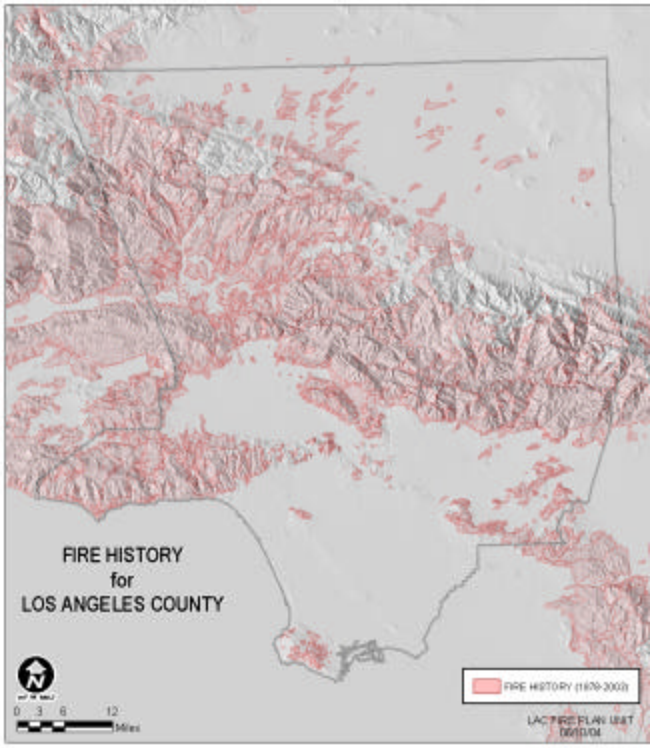
Determining the wildfire problem in Los Angeles County involves assessing the interrelated results of chaparral covered, fire dependent ecosystems, the resulting weather of a Mediterranean climate, the values at risk, and the fire protection system's ability to deal with the occurrence of wildfire (levels of service). A major element of the California Fire Plan is an extensive assessment process, that graphically depicts fuels, weather, level of service and assets at risk data, in a computer based Geographic Information System (GIS). The GIS thematic layers are then continually field-validated and used to identify the wildland urban-interface/intermix fire problem. The CDF Fire and Resource Assessment Program (FRAP) has built a methodology of assigning fire hazard ranks to the diverse landscapes of California using United States Geological Survey (USGS) 7.5 minute quadrangle maps, which are partitioned, nine by nine, into 81 cells. Each cell is approximately 450 acres and is referred to as Q81st cells.

It is a commonly accepted concept, that fire is a necessary part of the natural life cycle of the chaparral ecosystem in Los Angeles County. Without fire, the chaparral-covered terrain of Los Angeles County reaches an unhealthy state where the ratio of dead material to live plant structure becomes unbalanced. As the chaparral ages, more and more decadent growth adds to the fuel load (expressed in tons per acre), which contributes to the high intensity, costly, large loss wildfires. Historically, fires occurred naturally as a result of lightning and were introduced by native inhabitants. Native Americans, during the late 18th century, were said to have purposefully burned the native vegetation to promote the growth of certain plant resources.

The occurrence of fire on a regular basis whether natural or introduced tended to promote ecosystem health and reduced the number of large acreage, high intensity fires. As the County continues to grow in population, values at risk are encroaching on and intermixing with the wildlands. Conse- quently, wildfires threaten the values at risk and are seen as bad and should be extinguished promptly. Suppression efforts are quite successful, but result in the eventual, unnatural build-up of fuel for fire, making wildfires more intense and more destructive. Although the fire protection system has become more efficient, those fires that do escape initial attack efforts can quickly overwhelm the available suppression resources. Wildfires under certain severe fire weather conditions, such as a Santa Ana wind event, can prevent initial attack resources from suppressing the fire, while still small, and can spread so quickly and threaten so many values at risk that suppression resources cannot arrive quickly enough to prevent a majority of the damage.

Fire History

The County of Los Angeles and the State of California have experienced many large damaging and costly wildfires. A historical look at the damaging and costly wildfires indicates that all other threats to life, property and the economy pale in comparison. In one wildfire incident, the "Paint Fire" in Santa Barbara, more structures were lost at a higher cost, than individual structure fires occurring in a ten-year period (1991-2000). Considering that the County has experienced many catastrophic fires of this nature, it is evident that addressing the wildfire problem needs to be a top priority of the County of Los Angeles Fire Department.



Significant Fires in California

Fire	Year	Lost Homes
Bel Air	1961	505
Oakland/Berkeley	1991	3,403
Painted Cave	1991	600
Kinneloa	1993	157
Old Topanga	1993	388
Southern California	2003	over 3,000

The Wildfire Environment

A cursory understanding of the wildfire environment is helpful in understanding the fire problem in Los Angeles County and what projects and programs are most effective in preventing large loss incidents. The wildfire environment can be regarded as the conditions, influences, and modifying forces that control the fire behavior. Firefighters become skilled at recognizing the status of the three components that make up the wildfire environment. The nature and or condition of fuels, weather and topography dictate the likelihood of a fire starting, the direction and rate of spread a fire takes and the intensity at which a fire burns.

Fuel

Wildland fuel is the vegetation layer that covers the topography. Fuel provides the thermal energy source upon which fire behavior relies.

Weather

Weather is the most variable component of the fire environment and can change rapidly in space and time. Weather represents such elements as temperature, wind, relative humidity, cloud cover, precipitation, and atmospheric stability.

Topography

Topography includes such elements as slope, aspect, elevation and configuration or lay of the land. In relation to time, topography can be considered static, for the forces that change it generally work very slowly. In horizontal space, however, topography can change quickly, particularly in mountainous country.

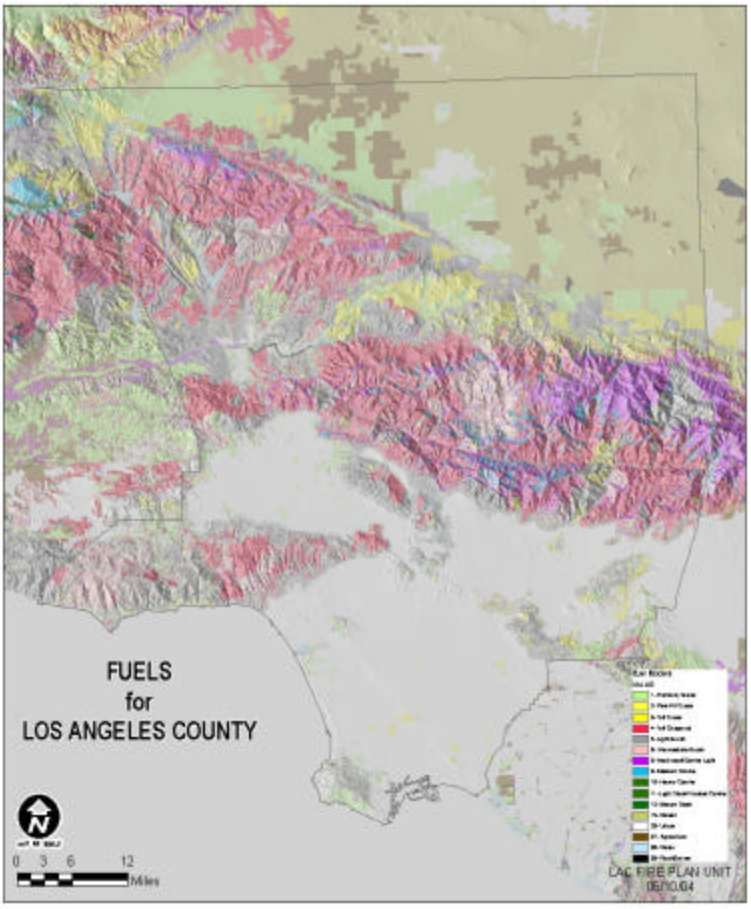
Hazardous Fuels

Los Angeles County has 515,817 acres of state responsibility area, the bulk of which is covered with fire prone vegetation. Additionally, there are 778,427 acres of federal responsibility area (FRA) and 847,768 acres of local responsibility area (LRA) within the County.

Chaparral provides the most widespread wildland threat in Los Angeles County. It can be found on the slopes of the Santa Monica Mountains throughout the San Gabriel Mountains. This chaparral community is characterized by woody shrubs of chamise, ceanothus, and sugar bush, which dominate dry rocky slopes and provide erosion control and watershed protection. Numerous grasslands and

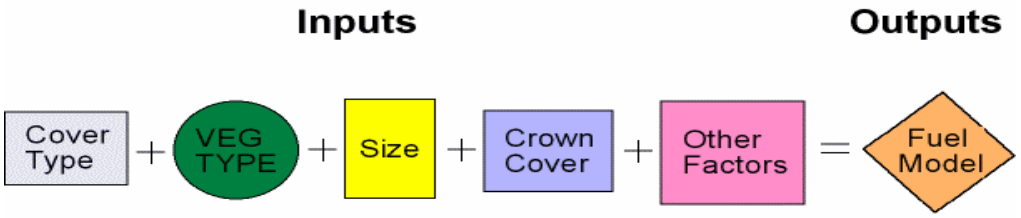
fields are found throughout the County, especially in the Antelope Valley, and present the potential for fast moving wildland fires that can transition into heavier fuel and tree canopies.

The first step in the hazard assessment process is development of a land/vegetation coverage map for the County from the most recent and detailed vegetation composition and structure information. Vegetation data from a variety of sources are patched together to provide a complete, albeit heterogeneous, surface fuel coverage map for the County. The various vegetation types (fuels) found in Los Angeles County, have specific characteristics that allow them to be categorized according to how they burn.



Translating the variety of vegetation data into stylized fuel characteristics models used to predict fire behavior develops the surface fuel map. This process, known as "cross walking", translates information on plant species, crown cover and tree size into 13 standard fuel models. The crosswalk process uses other factors, such as watershed boundaries; slope, aspect and elevation, to further refine vegetation/fuel model relationships. The system used to categorize these fuels is documented in the National Wildfire Coordinating Group (NWCG) document NFES 1574 "Aids to Determining Fuel Models for Estimating Fire Behavior" by Hal E. Anderson. These fuel models are commonly referred to as the Fire

Behavior Prediction System (FBPS) fuel models. The assessment process further creates four additional custom models to represent non-wildland fuels: (28) Urban Fuels, (97} Agricultural Lands, (98) Water and (99) Barren/Rock/ Other. This method produces a fine-grained portrayal of surface fuel conditions.

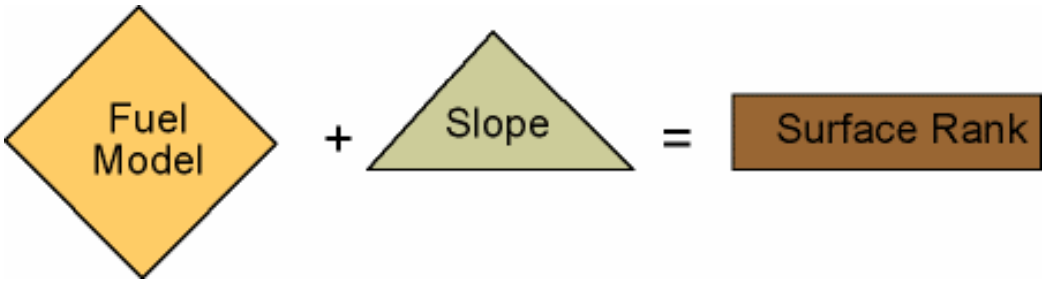


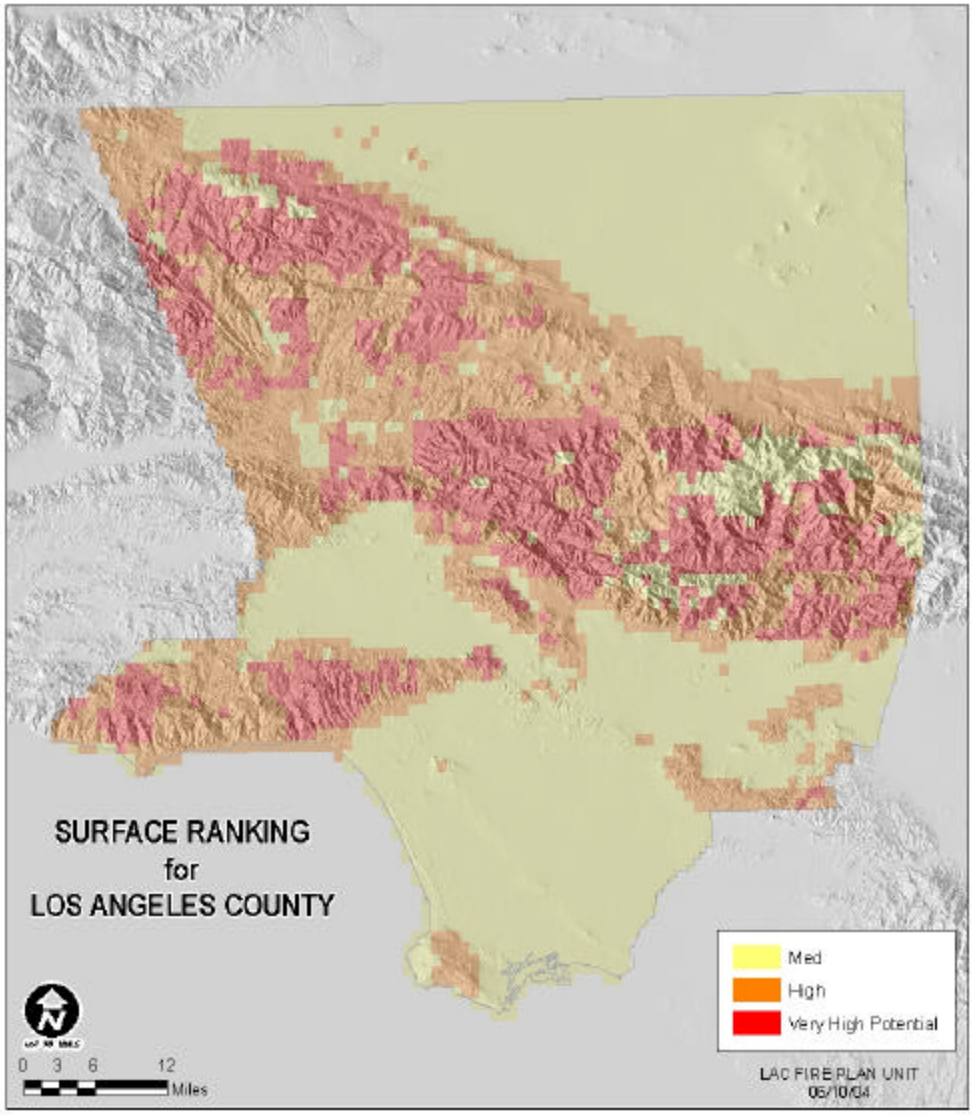
The second step is to assign a surface fuel ranking, which introduces topography into the fuels ranking equation. The method first calculates the fire behavior to be expected for unique combinations of topography and fuels under a given weather condition. BEHAVE (Fire Behavior Prediction and Fuel Modeling System -Andrews 1986) provided estimates of fire behavior under standard severe fire weather conditions for FBPS fuel models located on six slope classes: on flat ground and at the midpoints of the five National Fire Danger Rating System (NFDRS) slope classes (USDA Forest Service,1983). Surface ranks were assigned according to the rate of spread and heat per unit area associated with each unique fuel model-slope combination. The table below shows the surface rank, from Moderate to Very High, for unique combinations of surface fuel model and six different slope classes (0-10%, 11-25%, 26-40%, 41-55%, 56-75%, > 76) as derived from USGS 7 -1/2 minute Digital Elevation Models (DEM).

Fuel Model		Slope		Fuel Hazard Ranking
1	Grass	<10%	=	Moderate
1	Grass	>10%	=	High
2	Woodland	<40%	=	High
2	Woodland	>40%	=	**Very High**
6	Brush	<75%	=	High
6	Brush	>75%	=	**Very High**

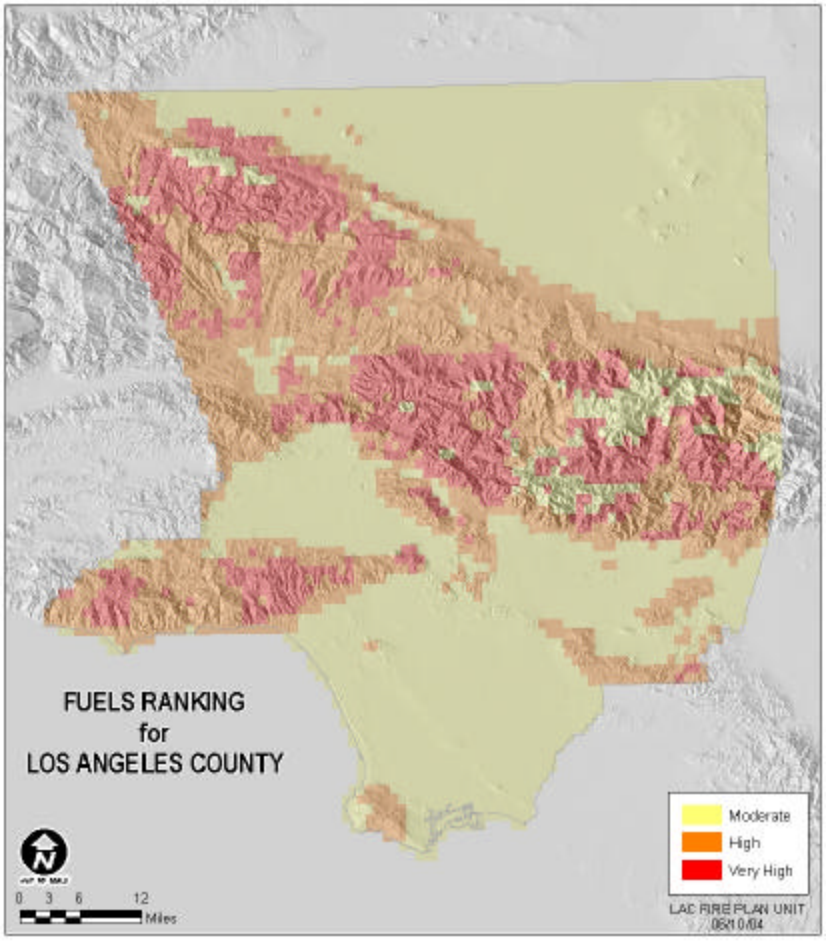
Finally, fire perimeter data are used to update fuel model characteristics based on "time since last burned," to account for both initial changes in fuels resulting from consumption by the fire and for vegetation re-growth. The fuels assessment process includes both current and historic fuel conditions. The historic fuels are those that existed in the climax or mature state before the occurrence of fire or other fuel modification process. After a fuel modification event, such as a fire, the re-growth process goes through a succession of fuel types on its way back to its climax fuel type. This succession is called the "Fuel Dynamic Pathway" (FDP).

The FDP is intended to account for growth rates, rainfall, elevation, aspect and other factors that influence an area's rate of growth.

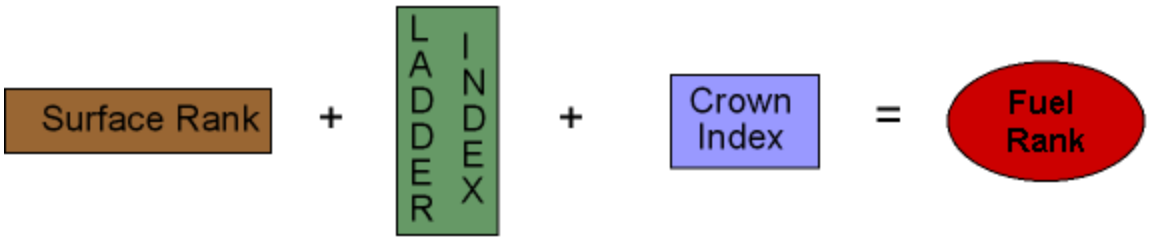



SURFACE RANKING
for
LOS ANGELES COUNTY
Med
High
Very High Potential
0 3 6 12
Miles
LAC FIRE PLAN UNIT
06/10/04

Total fire hazard includes not only hazard posed by surface fire, but also hazard posed by involvement of canopy fuels. The hazard ranking method includes this additional hazard component by adjusting the surface hazard rank according to the value of the ladder and crown fuel indices. Specifically, the surface hazard rank increases a maximum of one class in all situations where the sum of the ladder and crown fuel indices is greater than or equal to two. Otherwise the final fuel rank is identical to the initial surface rank.



For instance, lodge pole pine types modeled as fuel model 8 have a moderate surface rank on all slopes. However, the presence of ladder fuels in areas of dense canopy cover would result in a final fuel rank one class higher than the surface rank (high instead of moderate) in such areas. Estimates of ladder and crown fuels support assessment of crown fire potential. The ladder and crown fuel indices estimate the relative abundance of these fuels. These indices measure in a rough manner the probability that individual tree torching and/or crown fire would occur if the stand experienced a wildfire during extreme weather conditions. The indices take values ranging from O to 2, with O indicating "absent," 1 representing "present but spatially limited," and 2 indicating "widespread." CDF has determined that there are no "low" hazard fuels in California. Consequently, fuels are ranked medium, high or very high. Fuel models 4 (mature brush) and 10 (timber) are always ranked very high regardless of slope.



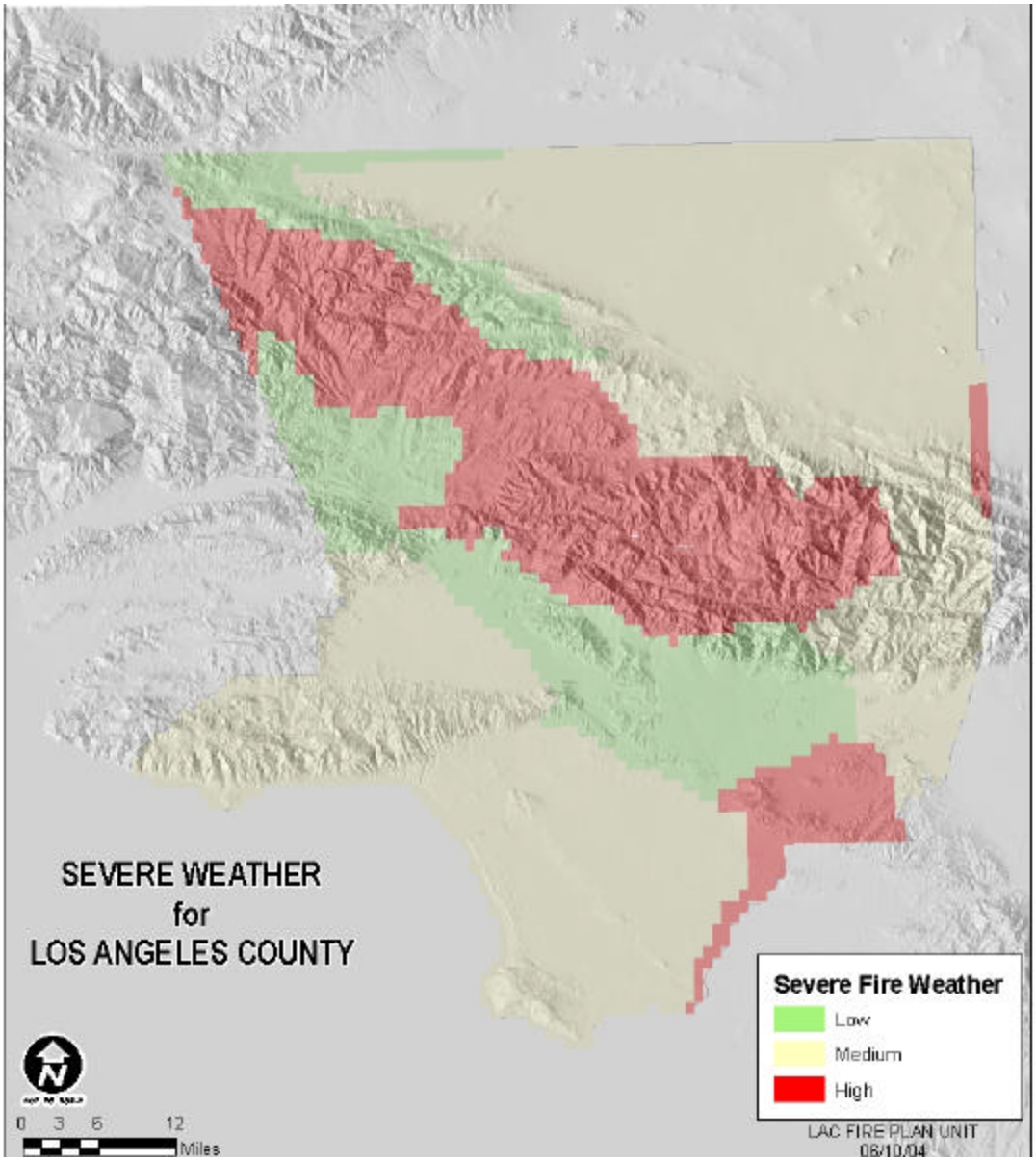
Fuel hazard ranking in Los Angeles County, 34% of the Q81st are ranked moderate, 36% high and 30% very high. Thus two thirds of the County has high ranked fuels. 66% of the County is ranked high to very high due to fuels.

Severe Fire Weather

Fire behavior is dramatically influenced by weather conditions. Large costly fires are frequently associated with severe fire weather conditions. High temperatures, low humidity, and strong surface winds typify fire weather. The weather assessment considers the different climates of the County, from the foggy coastline to the hot, dry interior valleys, to the cooler windy mountains, and to the arid and windy upper deserts. Each of these local climates experiences a different frequency of weather events that lead to severe fire behavior (severe fire weather). The weather assessment uses a Fire Weather Index (FWI) developed by USDA Forest Service researchers at the Riverside Fire Lab. This index combines air temperature, relative humidity, and wind speed into a single value index. This index can be calculated from hourly weather readings such as those collected in the Remote Automated Weather Station (RAWS) data collection system. The FWI does not include fuel moistures or fuel models.

The FWI includes topography only to the extent that RAWS station weather readings are influenced by local topography. Each quad 81st (Q81) in the County has a weather station assignment in order to establish a link between Q81s and weather data. This link enables the calculation of the number of days of severe fire weather for each Q81, and eventually a link will be established between CFIRS/NFIRS ignitions and Q81s, that will be used to determine the burn indices (from weather data) for each CFIRS/NFIRS ignition, which will be used as part of the Level of Service (LOS) calculation. Weather stations are assigned to Q81s based on local knowledge, completeness of weather data, proximity, and similarities in the weather environment such as elevation, landforms (e.g., within the same basin or ridge), and coastal influence.

Ideally the best weather station assignment is the closest weather station that is within the same fire weather forecast zone and has a complete stream of weather data. Because many zones have no weather stations, and some weather stations may have incomplete data, both the amount of data available for each station, and the similarity in weather environment of the weather station and Q81s will be considered. To the extent possible, weather stations are picked that have enough observations to adequately represent ignitions during the peak fire season, and are in a physical setting that experiences similar weather conditions as the Q81s being validated.


SEVERE WEATHER
for
LOS ANGELES COUNTY
Severe Fire Weather
Low
Medium
High
0 3 6 12
Miles
LAC FIRE PLAN UNIT
08/10/04

Fire Protection Level of Service

Ignition/Workload Analysis

Before discussing what constitutes an initial attack success or failure, we must first concede that our fire prevention efforts have failed or a natural event, such as lightning, has occurred. Once a fire starts, success is defined as the ability of the fire protection system to limit damage and costs within an acceptable level. Determining what an acceptable cost or damage amount is ultimately defining the level of service desired by the stakeholders involved.

Although the County of Los Angeles Fire Department management, working with stakeholders, must define and provide a particular level of service, the County Fire Department (as the California Department of Forestry and Fire Protection's agent in Los Angeles County) must, at a minimum, deliver a fire protection system that provides an equal level of protection to lands of similar type in State Responsibility Area (SRA). The legislature has charged the State Board of Forestry and CDF with providing this equal level of protection to lands of similar type (PRC 4130) in SRA.

To evaluate this, the Department is initially using both a performance-based fire protection planning system and a prescription based fire protection planning system. The performance-based approach is used on a limited basis since the dataset collected from the California Fire Incident Reporting System (CARS) needs to have fire intensity data attached. Another limiting factor is that the CDF uses an agency specific data collection system called Emergency Activity Reporting System (EARS) that is not consistent with CARS. Consequently the CARS data will need to be reviewed to categorize low, medium, and high fire intensity and will need to be exported to EARS. Once this is accomplished the CDF Level of Service (LOS) calculator can be used.

The performance based approach uses planning belts that group lands of similar type, along with a Level of Service Rating (LOS). The process measures the relative impact of fire on the various assets at risk and produces a level of service rating that is used to compare one area of the State with another, recognizing that the assets at risk may be quite different.

The level of service ranking is expressed as the percentage of incidents where initial attack effort succeeds. Successful initial attack is defined in terms of the amount of resources needed to suppress the fire and of fire intensity. It is that effort which contains the fire within an acceptable level of resource commitment, acceptable suppression cost and minimal damage to assets at risk.

$$\frac{\text{Number of initial attack successes}}{\text{Total initial attack workload}} = \text{Percent LOS rating}$$

A matrix is used to define and display successful initial attacks in this framework (see next page). The matrix axes, represents fire sizes and intensities. The body of the matrix contains the fire activity workload for each planning belt. The shaded portion of the matrix indicates fires that would be expected to exceed budgeted suppression costs. The non-shaded portion indicates successful initial attack suppression, fires that are normally contained within allowable suppression cost. The successful initial attacks represented in the non-shaded portion would also represent wildfires that are managed without either adversely affecting the initial attack system's ability to respond to other incidents, or expending significant unallocated resources.

Assuming that the prescription based planning fire protection system is properly applied, an appropriate and timely response, with properly equipped and trained firefighters based on fire danger, the matrix can provide wildfire managers with a simple tool to determine where the suppression system would be expected to fail. For example: a medium size, high intensity wildfire might overwhelm a "high" level initial attack response, even if an equal level of protection were provided statewide. This might be the threshold where wildfire managers decide to focus intense pre-fire mitigation projects in order to bring initial attack efforts back into the successful range. On the other hand, a large fire of low intensity where initial attack fails may indicate an un-equal level of protection or some other weakness in the prescription based system.

The prescription based approach focuses primarily on the reasons for an initial attack success or failure. Unfortunately, the prescription based approach makes it difficult to integrate the interrelationships of various fire protection programs, such as the value of fuel reduction programs in reducing the level of fire suppression effort required. The prescription-based approach is useful for establishing initial attack fire suppression standards on those fires that don't exceed expected suppression costs, as identified in the performance based approach, assuming an appropriate initial attack effort is applied.

Several factors influence the determination of what constitutes an appropriate initial attack effort. Detecting a wildfire in its incipient stage is vital if initial attack resources are to be successful. Response time for the initial attack resources to arrive at and begin taking suppression action on an incident is paramount to success. A response tailored to the incident potential increases the degree of success by applying appropriate reinforcement and resource type. For example, engine companies are usually the closest resource dispatched to a wildfire and are typically the measuring stick for response times.

However, an engine company that encounters an incipient wildfire with intensity beyond its ability might only be successful with resources such as water-dropping helicopters and bulldozers included in the initial attack response. The Fire Characteristics charts are useful guidelines for understanding initial attack resource capability. Staffing levels, training and physical fitness are also important elements of wildland fire company success.

Ignitions Workload Analysis Matrix

Unit: LAC
Planning Belt: B (brush)

FIRE SIZE

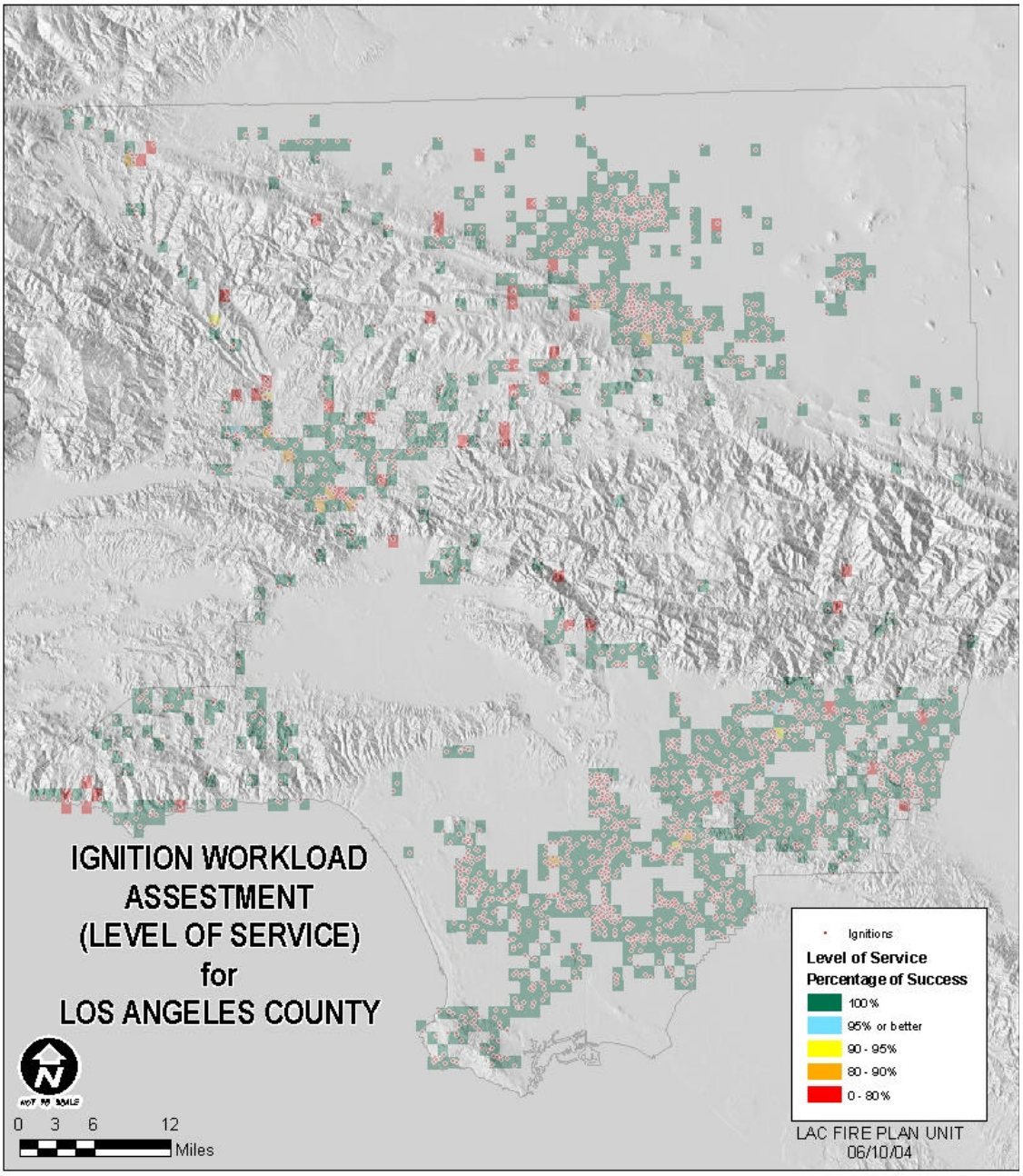
FWI

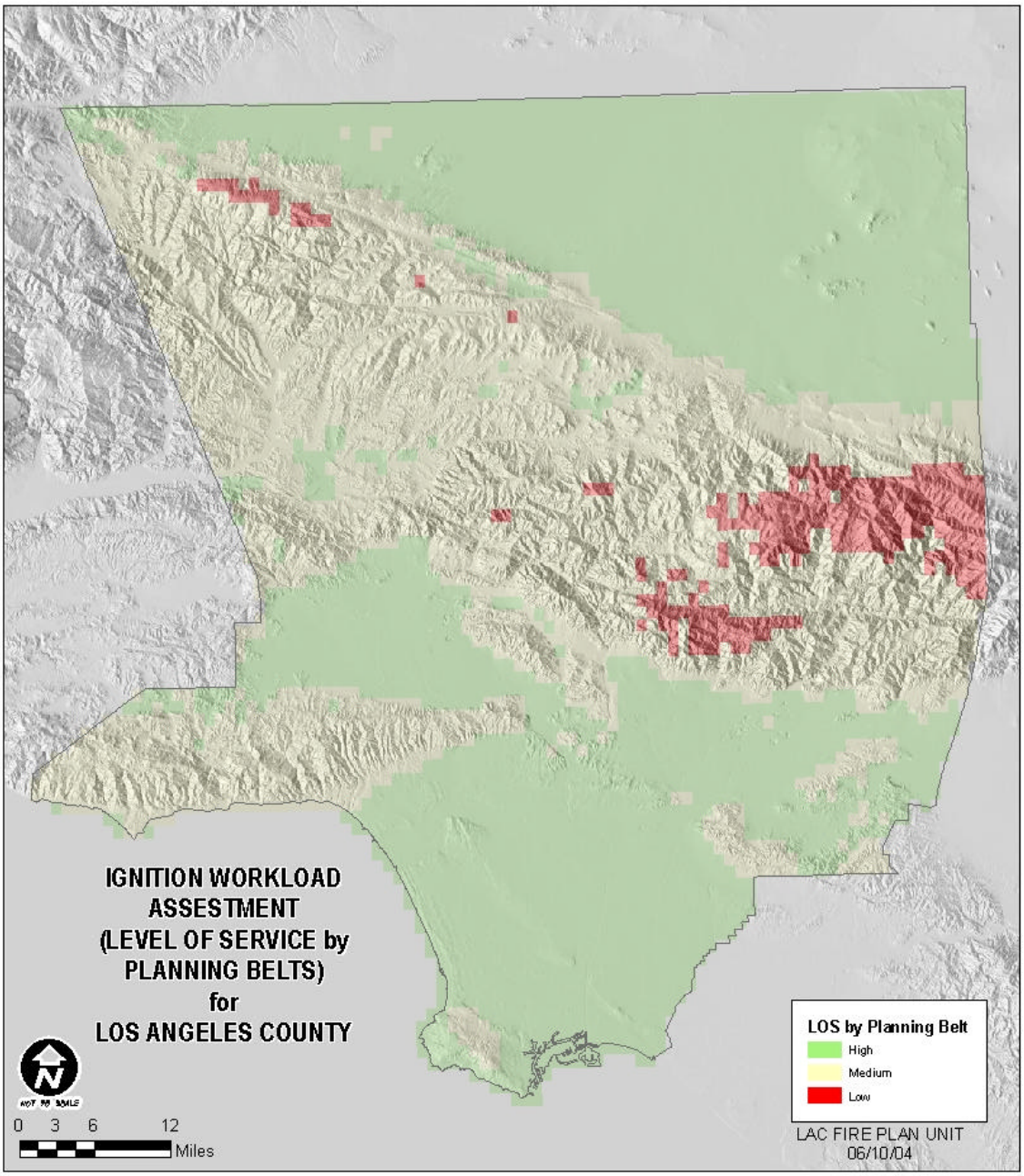
	Spot	Small	Medium	Large	Escape
LOW	186	25	17	3	4
MEDIUM	49	3	0	1	1
HIGH	27	4	1	1	1
UNMATCHED	273	40	17	7	14

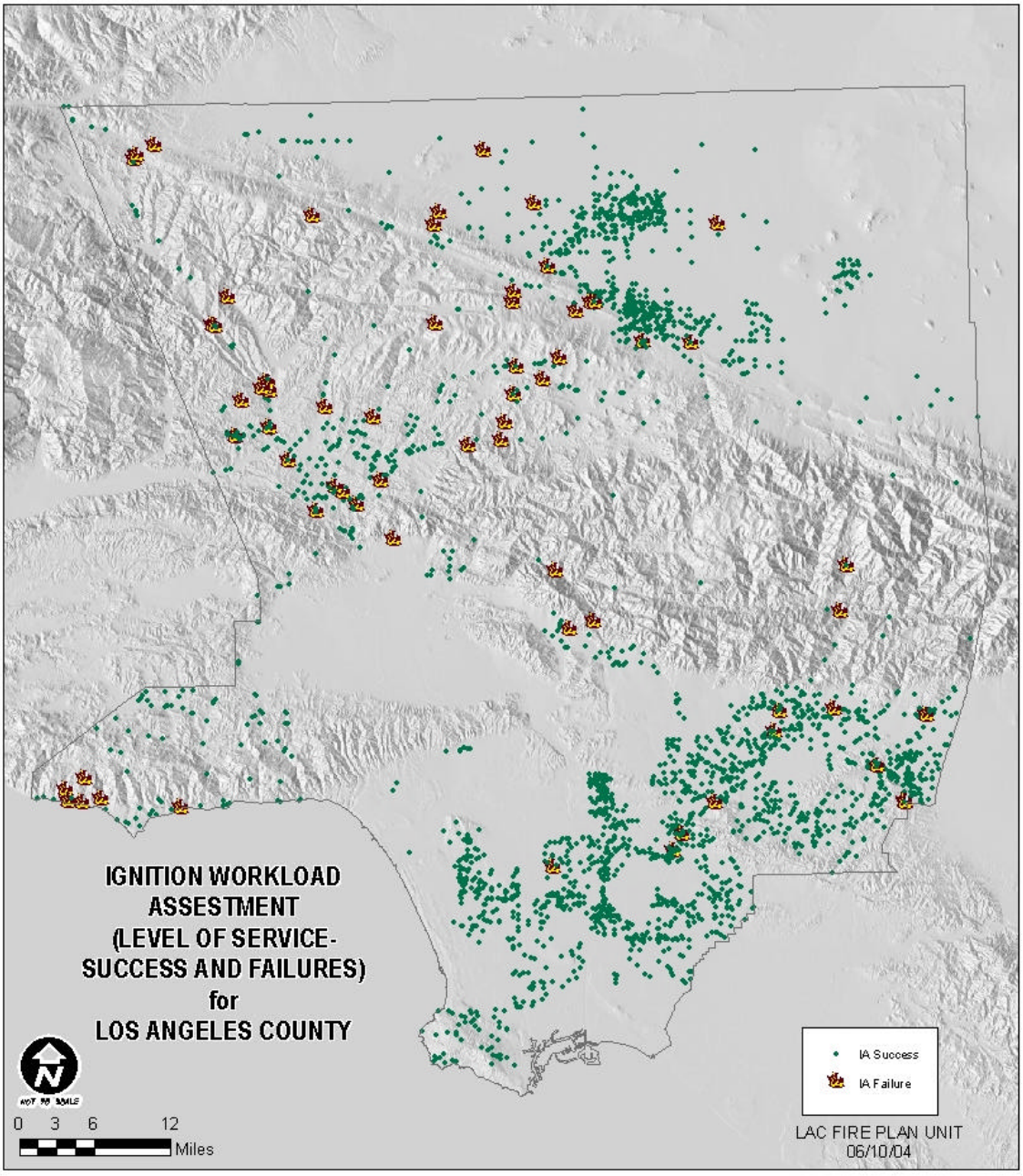
Planning Belt ID: B (brush) **Unit ID:** LAC Refresh Matrix

Success: 93 %

Fire Size class Cutoffs for brush planning belt	FWI Index Intensity Cutoffs
Spot: Less than 1 acre(s)	Low: less than 15
Small: 1 - 5 acres	Medium: 15 - 30
Medium: 5 - 25 acres	High: greater than 30
Large: 25 - 100 acres	Unmatched: no weather observation available
Escape: greater than 100 acres	


IGNITION WORKLOAD
ASSESTMENT
(LEVEL OF SERVICE)
for
LOS ANGELES COUNTY
0 3 6 12
Miles
Ignitions
Level of Service
Percentage of Success
100%
95% or better
90 - 95%
80 - 90%
0 - 80%
LAC FIRE PLAN UNIT
06/10/04


IGNITION WORKLOAD
ASSESTMENT
(LEVEL OF SERVICE by
PLANNING BELTS)
for
LOS ANGELES COUNTY
LOS by Planning Belt
High
Medium
Low
0 3 6 12
Miles
LAC FIRE PLAN UNIT
06/10/04


IGNITION WORKLOAD
ASSESTMENT
(LEVEL OF SERVICE-
SUCCESS AND FAILURES)
for
LOS ANGELES COUNTY
IA Success
IA Failure
0 3 6 12
Miles
LAC FIRE PLAN UNIT
06/10/04

Fire Suppression Philosophy

As mentioned in other areas of this document, "initial attack" is the focus of all wildfire suppression activities for the County of Los Angeles Fire Department. With so much emphasis placed on quickly extinguishing all wildfires, it might seem that all fire in the wildland is a bad thing. Quite to the contrary, fire is absolutely a necessary element in the County's ecosystem. Since too many assets are at risk to allow the natural occurrence of wildfire, prescribed or controlled burns must take the place of naturally occurring wildfire.

The human element is always the number one priority for all fire suppression efforts. Many rules and guidelines have been developed to stress firefighter and public safety during wildfires. These rules and guidelines can be helpful for the layperson to understand why firefighters may say or do certain things related to wildfire. Some of these rules and guidelines are: "The Ten Standard Firefighting Orders," "The Eighteen Watch out Situations," "Common Denominators of Fire Behavior on Tragedy and Near-miss Forest Fires," "LCES - Lookouts, Communications, Escape Routes, Safety Zones," "Look Up, Look Down, Look Around." With all wildfires, certain strategic and tactical actions must take place. From the time of alarm to the abandonment or closure of a wildfire, one single unified entity must be in command of the incident. To accomplish this, all fire agencies in the County and in the State, for that matter, use the Incident Command System (ICS). Tactically all wildfires must be anchored, which means that a secure starting point is established from which all other strategic and tactical decision-making can build upon.

Once a wildfire grows beyond the initial attack stage where there are assets at risk, particularly in the wildland/urban interface/intermix, two additional dimensions are added to the already complex nature of wildland firefighting. In addition to anchoring and flanking the fire, to narrow the flame front, firefighting resources must also be committed to protecting assets out in front of the fire and resources must be left to protect assets from residual embers and fire after the fire passes through.

The Fire Protection System

Although fire is a necessary component of the local ecosystem, in most cases, unchecked wildfire is no longer a viable fire/fuel management option in Los Angeles County. Mostly because of population growth, assets at risk have interfaced and intermixed with the wildlands to such an extent that uncontrolled fires must be quickly extinguished. Therefore, at the heart of the wildfire protection system in Los Angeles County is an aggressive initial attack firefighting strategy.

The County of Los Angeles Fire Department actually has a dual fire protection role. The County of Los Angeles Fire Department provides structural fire protection and rescue services to the Los Angeles County unincorporated areas and contract cities.

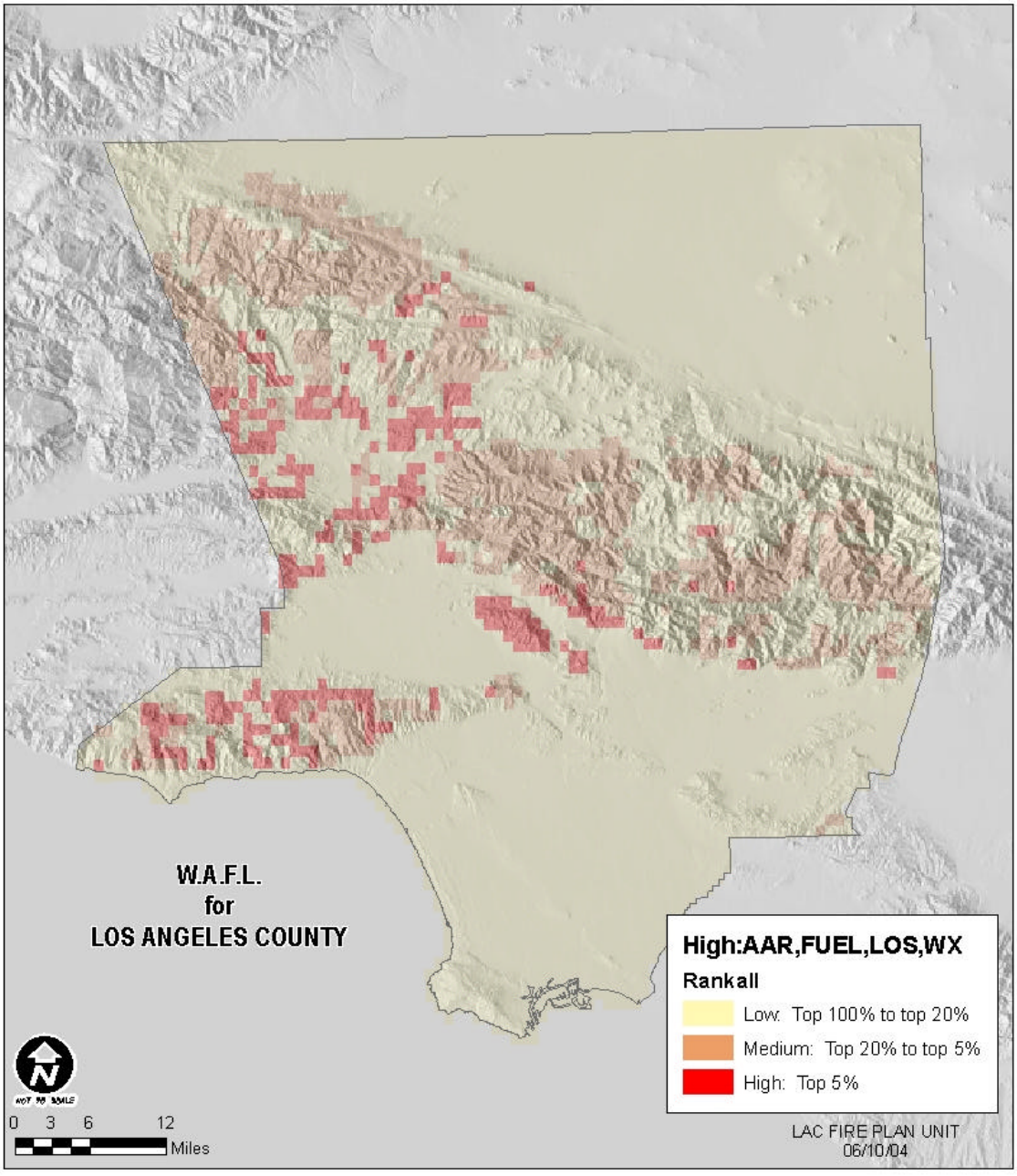
The Los Angeles County Fire Department is also one of six contract counties, which has executed a contract with the State of California to provide wildland fire protection on state responsibility area (SRA). The SRA within the jurisdiction of the County of Los Angeles Fire Department is 515,817 acres.

Priority Areas

The fire plan assessment process utilizes a W.A.F.L. calculator to combine the four fire plan assessments (weather, assets at risk, fuel & level of service) in to an aggregate score which can be used to help target critical areas and prioritize projects. The W.A.F.L. score, however, does not take in to consideration subjective factors critical to achieving on the ground fuel reduction. Fire plan assessments aside, it is extremely difficult if not impossible to achieve fuel reduction on the ground without community involvement, whether that be in the form of a community fire safe council, homeowners association or other organized forum. With that said, the W.A.F.L. score, with its science-based approach is evaluated in conjunction with other intangibles to arrive at a "reasonable" assessment of the needs and likelihood of accomplishing a project. A simple glance at the W.A.F.L. score map below indicates that there is a significant need throughout the foothills, especially in the urban interface areas of Los Angeles County for hazardous fuel reduction.

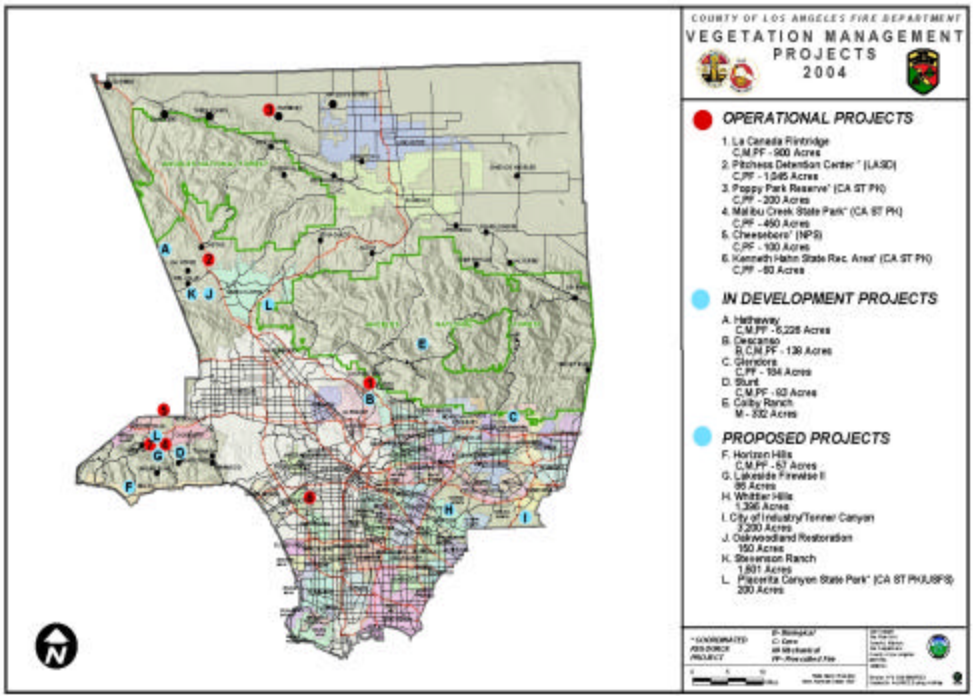
Each of Department's battalions are consulted for pre-fire projects they consider important to achieving their goals of reducing the potential and impact of catastrophic fire. Projects are assigned a relative ranking by combining the four fire plan assessments, fuel hazard ranking, severe fire weather, level of service (workload), total assets at risk, with subjective factors including fire history and community involvement. Values are assigned by looking at the fire plan assessment maps and interpolating the assessment output which best represents each project.

Theoretically, the project with the highest score would have the first priority for funding of any given project or other pre-fire program. However, there are a number of circumstances where other then the highest priority would be given preference to a project. Circumstances when this might occur include the following: the Department's current commitment to an existing pre-fire project, community participation necessary to complete a project, preparatory work and ease of instituting the project, project type and match for grant funding and simply sharing the wealth and commitment toward pre-fire projects between the Department and communities. The Fire Plan Unit acts to coordinate countywide projects, and projects occurring between battalions, and provides direction in the planning of pre-fire projects.

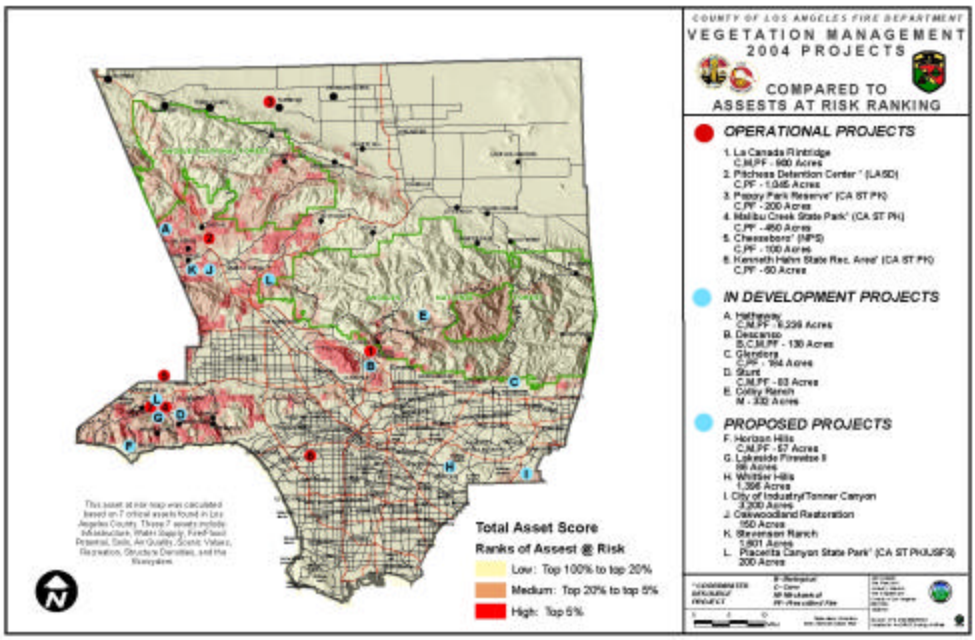

W.A.F.L.
for
LOS ANGELES COUNTY
High:AAR,FUEL,LOS,WX
Rankall
Low: Top 100% to top 20%
Medium: Top 20% to top 5%
High: Top 5%
0 3 6 12
Miles
LAC FIRE PLAN UNIT
06/10/04

Target & Priority Areas

VMP Matrix Map



VMP Matrix Map with Assets at Risk



Vulnerability

Historically, wild fire disasters consist of a series of major wild fires occurring at or near the same time (due to meteorological and vegetation conditions). Many areas of Los Angeles County have proven to be exceptionally vulnerable to damage and destruction from wild land fire. Land surrounding heavily populated areas are generally safe from disastrous fire consequences, but urban and suburban expansion into fire-prone areas continues at an alarming rate. Expensive homes and associated infrastructure in vulnerable areas could be destroyed or severely damaged from a disastrous wild fire.

Impact

At any given time during hazardous fire conditions, 204,000 people are at risk from the disastrous affects of a series of wild fires in Los Angeles County.

Potential damage estimates are as follows:

Potential dollar losses to County-owned facilities and assets	$298 Million
Potential dollar losses to Critical Facilities and Infrastructure	$76 Million
Potential dollar losses to Commercial Buildings	$3.5 Billion
Potential dollar Losses to Residential or Private Property	$12.8 Billion
Potential other dollar losses (Environmental, Historical, Economic, and Human)	$7.3 Billion
TOTAL POTENTIAL DOLLAR LOSSES FOR THIS HAZARD	**$23.9 BILLION**

Operational Projects (Current Mitigation)

La Canada Flintridge Project

This project is located in the center of the County and consists of the treatment of 900 acres using manual (crews), biological (goats), mechanical (brush crusher) and prescribed fire. The project provides protection to the City of La Canada Flintridge, La Cresenta, and Pasadena. The project started in 2001 and a total of 183 acres have been burned. The biological treatment will continue in 2004 and 30 additional acres will be burned in 2004 and 2005.

Pitchess Detention Center (No Map)

This project is located in the Santa Clarita area and consists of the treatment of 1,045 acres using manual (crews) and prescribed fire. This is a Coordinated Resource Project with the Los Angeles County Sheriff's Department. This project provides fire protection to the Pitchess Ranch Detention Center. A secondary benefit to the project is the annual training of firefighters on firing operations and grass fire fighting.

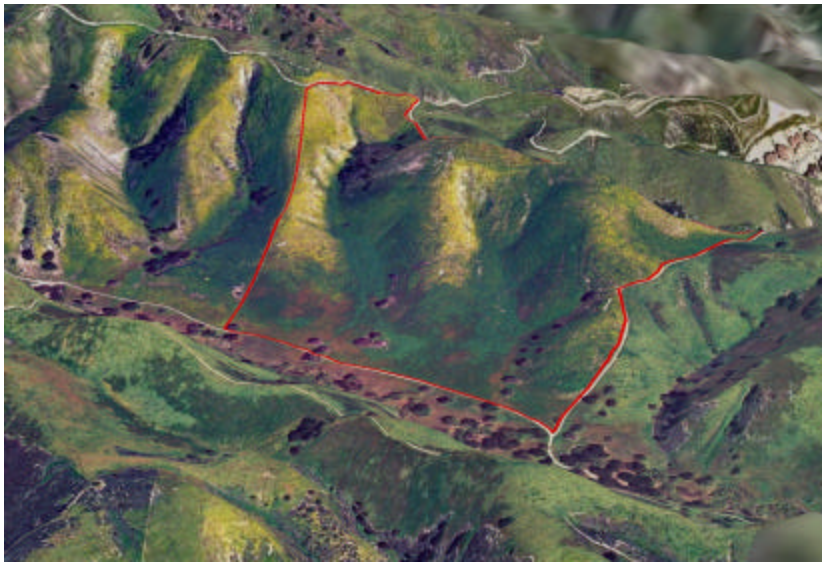
Poppy Park Reserve

This project is located in northern Los Angeles County and consists of the treatment of 200 acres using prescribed fire to enhance the growth of California Poppies and eliminating non-native vegetation. The project also provides fire protection to the Poppy Park Reserve Visitor Center and the community of Lake Hughes.

Malibu Creek State Park (No Map)

This project is located in the Santa Monica Mountains and consists of the treatment of 450 acres using manual (crews) and prescribed fire. This is a Coordinated Resource Project with the California State Parks. This project provides fire protection to the Malibu Creek State Park and the City of Malibu including enhancing the growth of native vegetation and eliminating non-native vegetation. A secondary benefit to the project is the annual training of firefighters on fire control of grasses and thistle.

Cheeseboro



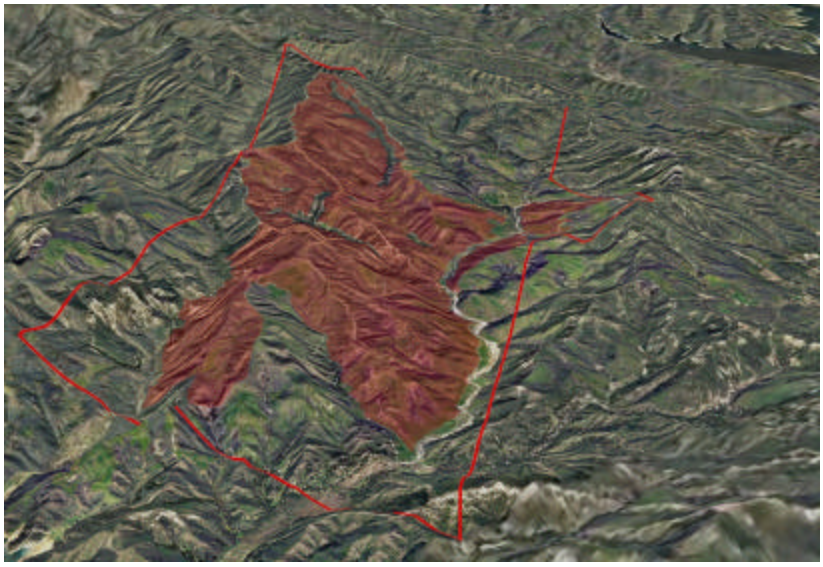
This project is located in the Santa Monica Mountains and consists of the treatment of 100 acres using manual (crews) and prescribed fire. This is a Coordinated Resource Project with the National Parks Service. This project provides fire protection to the Cheeseboro Park and the City of Agoura Hills including enhancing the growth of native vegetation by eliminating non-native vegetation. A secondary benefit to the project is the annual training of firefighters on fire control of grasses and thistle.

Kenneth Hahn State Recreational Area (No Map)

This project is located in the Kenneth Hahn State Recreational Area and consists of the treatment of 60 acres using prescribed fire to enhance the growth of native species and eliminating non-native vegetation. The project also provides fire protection to the Park's Visitor Center and the Cities of Los Angeles, Culver City Inglewood, and the unincorporated community of Baldwin Hills.

In Development Projects

Hathaway



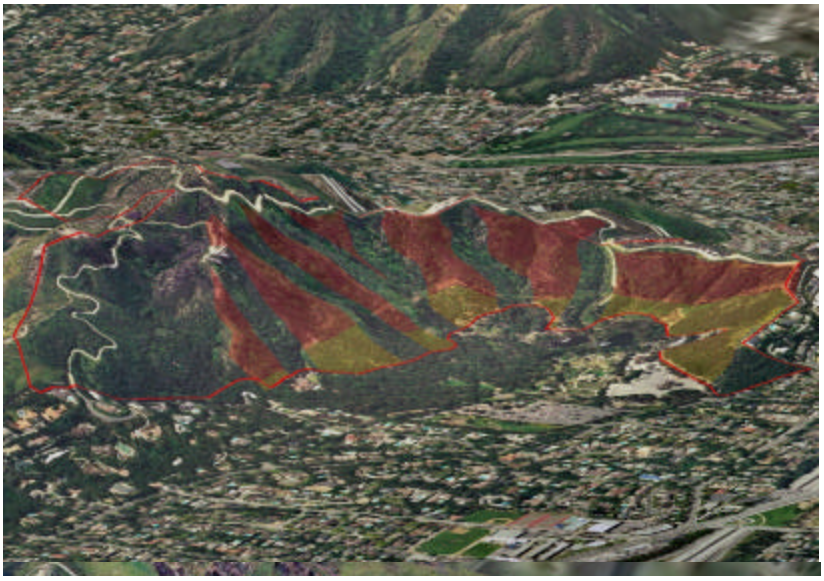
The Hathaway Project is a 6,226-acre area located northwest of the City of Santa Clarita. The County of Los Angeles Fire Department has determined the need of a Vegetation Management Plan to provide a long-term mitigation for the hazardous wildfire problem affecting the communities in Hasley and Oak Canyons, and the communities of Castaic, Piru, Del Valle and Valverde.

The County and the property owners recognize the potential threat of catastrophic wildfires burning in the ranch property and surrounding lands. This plan addresses the potential wildfire problem through the use of current technologies, scientific studies, and related fire behavior computer programs. Laws and regulations which could affect fire hazard reduction activities have also been considered. This plan is being developed to improve the fire safety for residents and firefighters without compromising environmental concerns and to manage the fire/flood cycle, which characterizes most urban/wildland interface areas located throughout Southern California.

Fuel reduction zones in open space areas within the Hathaway property will substantially reduce the potential hazard posed by airborne embers. Embers have been documented to cause 40 to 60 percent of structure losses in catastrophic wildfires.

The following treatment methods will be used throughout this project: biological: strategic recycling, grazing; manual: clearing, mowing, thinning, multi-cutting; equipment: brush crusher and prescribed fire.

Descanso



The Descanso project area is a 138-acre area located in the City of La Canada Flintridge. The County of Los Angeles Fire Department, The City of La Canada Flintridge and the Descanso Gardens Board have determined the need of a Vegetation Management Plan to provide a long-term mitigation for the hazardous wildfire problem affecting the communities La Canada, Montrose, Glendale and the Historical Descanso Gardens.

The County and the property owners recognize the potential threat of catastrophic wildfires burning in the Gardens property and surrounding lands. This plan addresses the potential wildfire problem through the use of current technologies, scientific studies and related fire behavior computer programs. Laws and regulations which could affect fire hazard reduction activities have also been considered. This plan is being developed to improve the fire safety for residents and firefighters without compromising environmental concerns and to manage the fire/flood cycle, which characterizes most urban/wildland interface areas located throughout Southern California.

Fuel reduction zones in open space areas within the Descanso Project will substantially reduce the potential hazard posed by airborne embers. Embers have been documented to cause 40 to 60 percent of structure losses in catastrophic wildfires.

The following treatment methods will be used throughout this project: biological: strategic recycling, grazing; manual: clearing, mowing, thinning, multi-cutting; equipment: brush crusher and prescribed fire.

Glendora

The Glendora Project area is a 184-acre area located in the San Gabriel Mountains Conservancy Land north of the City of Glendora. The County of Los Angeles Fire Department, the City of Glendora and the San Gabriel Mountains Conservancy have determined the need of a Vegetation Management Plan to provide a long-term mitigation for the hazardous wildfire problem affecting the cities of Glendora, San Dimas and Azusa. The enhancement of the growth of native vegetation that requires fire for propagation and by eliminating non-native vegetation is also a primary goal of this project.

This plan addresses the potential wildfire problem through the use of current technologies, scientific studies and related fire behavior computer programs. Laws and regulations which could affect fire hazard reduction activities have also been considered. This plan is being developed to improve the fire safety for residents and firefighters without compromising environmental concerns and to manage the fire/flood cycle, which characterizes most urban/wildland interface areas located throughout Southern California.

Fuel reduction zones in open space areas within the Glendora Project will substantially reduce the potential hazard posed by airborne embers. Embers have been documented to cause 40 to 60 percent of structure losses in catastrophic wildfires.

The following treatment methods will be used throughout this project: biological: strategic recycling, grazing; manual: clearing, mowing, thinning, multi-cutting; equipment: brush crusher and prescribed fire.

Stunt

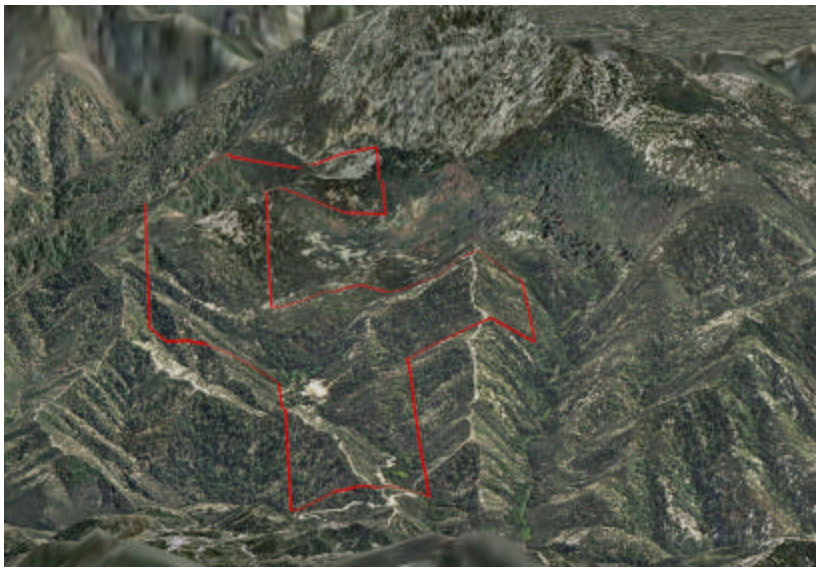
The Stunt Project area is an 83-acre area located in the Santa Monica Mountains eight miles north of the City of Malibu. The County of Los Angeles Fire Department and the National Park Service have determined the need of a Vegetation Management Plan to provide a long-term mitigation for the hazardous wildfire problem affecting the communities of Monte Nido, El Nido, Calabasas, Agoura Hills and the City of Malibu.

This plan addresses the potential wildfire problem through the use of current technologies, scientific studies and related fire behavior computer programs. Laws and regulations which could affect fire hazard reduction activities have also been considered. This plan is being developed to improve the fire safety for residents and firefighters without compromising environmental concerns and to manage the fire/flood cycle, which characterizes most urban/wildland interface areas located throughout Southern California.

Fuel reduction zones in open space areas within the Stunt Project will substantially reduce the potential hazard posed by airborne embers. Embers have been documented to cause 40 to 60 percent of structure losses in catastrophic wildfires.

The following treatment methods will be used throughout this project: biological: strategic recycling, grazing; manual: clearing, mowing, thinning, multi-cutting; equipment: brush crusher and prescribed fire.

Colby Ranch



The Colby Ranch project area is a 332-acre area nestled in Angeles National Forest north of the City of La Canada Flintridge. The County of Los Angeles Fire Department, the U.S. Forest Service and the Colby Ranch have determined the need of a Vegetation Management Plan to provide a long-term mitigation for the hazardous wildfire problem affecting the ranch, the Angeles National Forest and surrounding cities and communities.

The County and the property owner recognize the potential threat of catastrophic wildfires burning in the Angeles National Forest and surrounding lands. This plan addresses the potential wildfire problem through the use of current technologies, scientific studies and related fire behavior computer programs. Laws and regulations which could affect fire hazard reduction activities have also been considered. This plan is being developed to improve the fire safety for residents and firefighters without compromising environmental concerns and to manage the fire/flood cycle, which characterizes most urban/wildland interface areas located throughout Southern California.

Fuel reduction zones in open space areas within the Colby Ranch Project will substantially reduce the potential hazard posed by airborne embers. Embers have been documented to cause 40 to 60 percent of structure losses in catastrophic wildfires.

The following treatment methods will be used throughout this project: biological: strategic recycling: manual: clearing, mowing, thinning, and multi-cutting.

Proposed Projects

Horizon Hills

The Horizon Hills Project is a California Fire Safe Council sponsored vegetation management project. The project area is 57 acres located in the City of Malibu. The County of Los Angeles Fire Department, the Horizon Hills Homeowners Association and the California Fire Safe Council have determined the need of a Vegetation Management Plan to provide a long-term mitigation for the hazardous wildfire problem affecting the communities Horizon Hills and the City of Malibu.

The County and the property owners recognize the potential threat of catastrophic wildfires burning in the Horizon Hills property and surrounding lands. This plan addresses the potential wildfire problem through the use of current technologies, scientific studies and related fire behavior computer programs. Laws and regulations which could affect fire hazard reduction activities have also been considered. This plan is being developed to improve the fire safety for residents and firefighters without compromising environmental concerns and to manage the fire/flood cycle, which characterizes most urban/wildland interface areas located throughout Southern California.

Fuel reduction zones in open space areas within the Horizon Hills Project will substantially reduce the potential hazard posed by airborne embers. Embers have been documented to cause 40 to 60 percent of structure losses in catastrophic wildfires.

The following treatment methods will be used throughout this project: biological: strategic recycling, grazing; manual: clearing, mowing, thinning, multi-cutting.

Lakeside Firewise II

The Lakeside Firewise II Project is a California Fire Safe Council sponsored vegetation management project. The project area is 86 acres located in the community of Malibu Lake. The County of Los Angeles Fire Department, the Malibu Lakeside Homeowners Association and the California Fire Safe Council have determined the need of a Vegetation Management Plan to provide a long-term mitigation for the hazardous wildfire problem affecting the community of Malibu Lake and the Cities of Agoura Hills and Malibu.

The County and the property owners recognize the potential threat of catastrophic wildfires burning in the Malibu Lake property and surrounding lands. This plan addresses the potential wildfire problem through the use of current technologies, scientific studies and related fire behavior computer programs. Law and regulations which could affect fire hazard reduction activities have also been considered. This plan is being developed to improve the fire safety for residents and firefighters without compromising environmental concerns and to manage the fire/flood cycle, which characterizes most urban/wildland interface areas located throughout Southern California.

Fuel reduction zones in open space areas within the Lakeside Firewise II Project will substantially reduce the potential hazard posed by airborne embers. Embers have been documented to cause 40 to 60 percent of structure losses in catastrophic wildfires.

The following treatment methods will be used throughout this project: biological: strategic recycling, grazing; manual: clearing, mowing, thinning, multi-cutting.

Whittier Hills

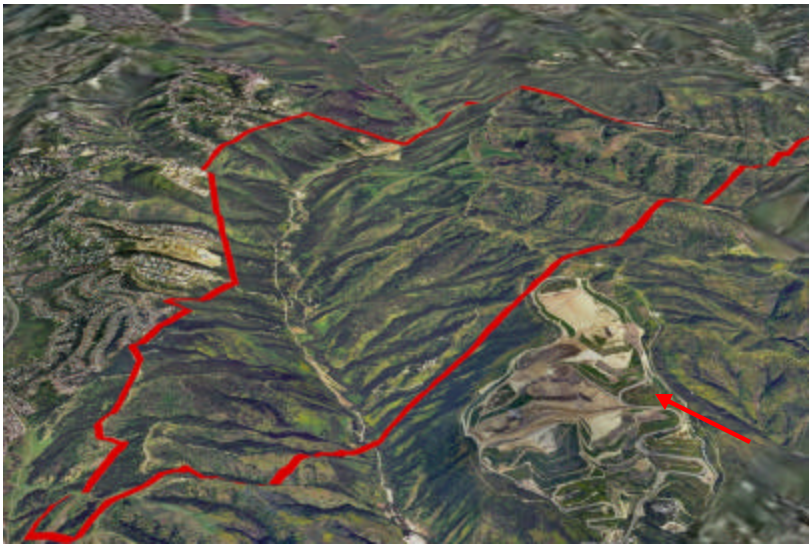
The Whittier Hills is a 1,396-acre area located north of the City of Whittier. The County of Los Angeles Fire Department and the Whittier City Council have determined the need of a Vegetation Management Plan to provide a long-term mitigation for the hazardous wildfire problem affecting the City of Whittier and community of Hacienda Heights.

The County and the property owners recognize the potential threat of catastrophic wildfires burning in the Wilderness Park property and surrounding lands. This plan addresses the potential wildfire problem through the use of current technologies, scientific studies and related fire behavior computer programs. Laws and regulations which could affect fire hazard reduction activities have also been considered. This plan is being developed to improve the fire safety for residents and firefighters without compromising environmental concerns and to manage the fire/flood cycle, which characterizes most urban/wildland interface areas located throughout Southern California.

Fuel reduction zones in open space areas within the Whittier Hill Wilderness Park property will substantially reduce the potential hazard posed by airborne embers. Embers have been documented to cause 40 to 60 percent of structure losses in catastrophic wildfires.

The following treatment methods will be used throughout this project: biological: strategic recycling, grazing; manual: clearing, mowing, thinning, multi-cutting; and prescribed fire.

City of Industry/Tonner Canyon



The Tonner Canyon Project is a 3,200-acre area located south of the City of Diamond Bar. The County of Los Angeles Fire Department and the cities of Industry and Diamond Bar have determined the need of a Vegetation Management Plan to provide a long-term mitigation for the hazardous wildfire problem affecting the City of Diamond Bar, Chino Hills, Brea, La Habra, La Habra Heights, and Industry.

The County and the property owners recognize the potential threat of catastrophic wildfires burning in the Tonner Canyon property and surrounding lands. This plan addresses the potential wildfire problem through the use of current technologies, scientific studies and related fire behavior computer programs. Laws and regulations which could affect fire hazard reduction activities have also been considered. This plan is being developed to improve the fire safety for residents and firefighters without compromising environmental concerns and to manage the fire/flood cycle, which characterizes most urban/wildland interface areas located throughout Southern California.

Fuel reduction zones in open space areas within the Tonner Canyon property will substantially reduce the potential hazard posed by airborne embers. Embers have been documented to cause 40 to 60 percent of structure losses in catastrophic wildfires.

The following treatment methods will be used throughout this project: biological: strategic recycling, grazing; manual: clearing, mowing, thinning, multi-cutting; mechanical: brush crusher and prescribed fire.

Oak Woodland Restoration (No Map)

This project is a parcel dedicated as open space and is located in the City of Santa Clarita and consists of the treatment of 150 acres using biological (goats), manual (crews) and prescribed fire methods. This project provides fire protection to the West Ridge Development and the City of Santa Clarita. Additional goals are the enhancement of native vegetation growth by eliminating non-native vegetation, and the annual training of firefighters on fire control of non-native vegetation facilitating the establishment of native species.

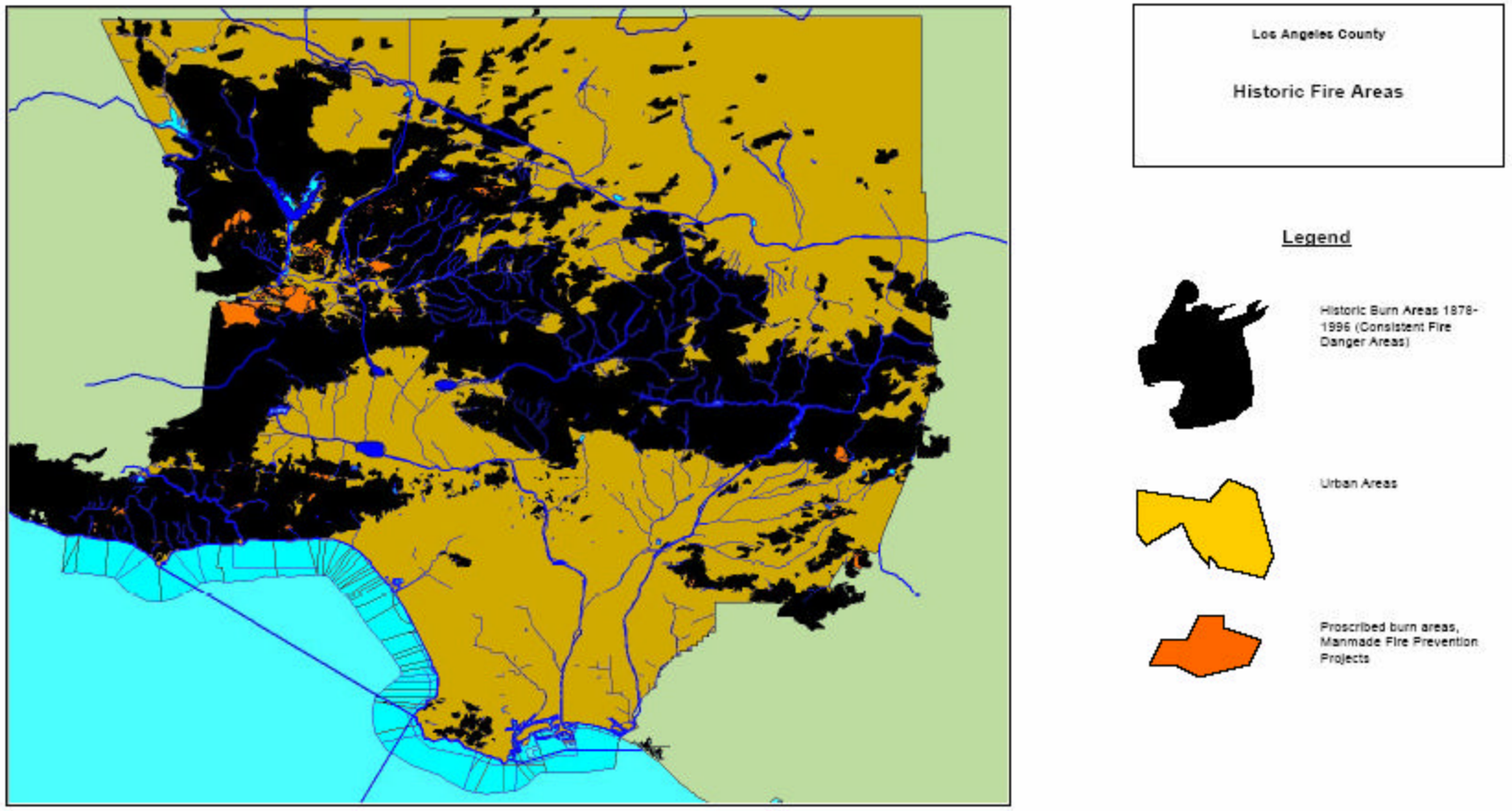
Stevenson Ranch (No Map)

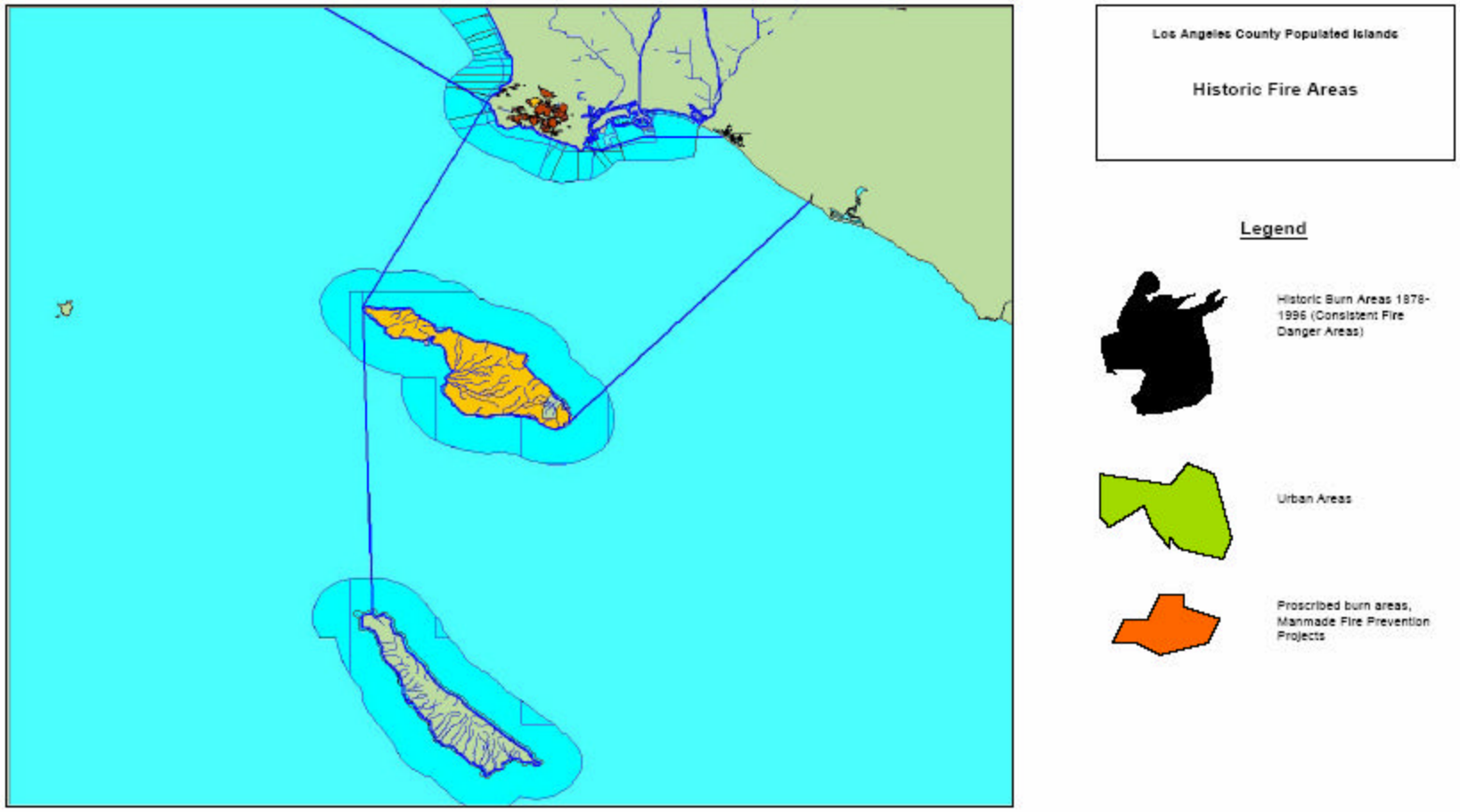
This project is located in the City of Santa Clarita adjacent to the Oak Woodland Restoration Project and consists of the treatment of 1,501 acres using biological: strategic recycling, grazing; manual: clearing, mowing, thinning, multi-cutting; mechanical: brush crusher and prescribed fire methods. This project provides fire protection to the Cities of Santa Clarita and Valencia, and the community of Stevenson Ranch. An added goal to the project is the annual training of firefighters on fire control of non-native vegetation facilitating the establishment of native species.

Placerita Canyon State Park (No Map)

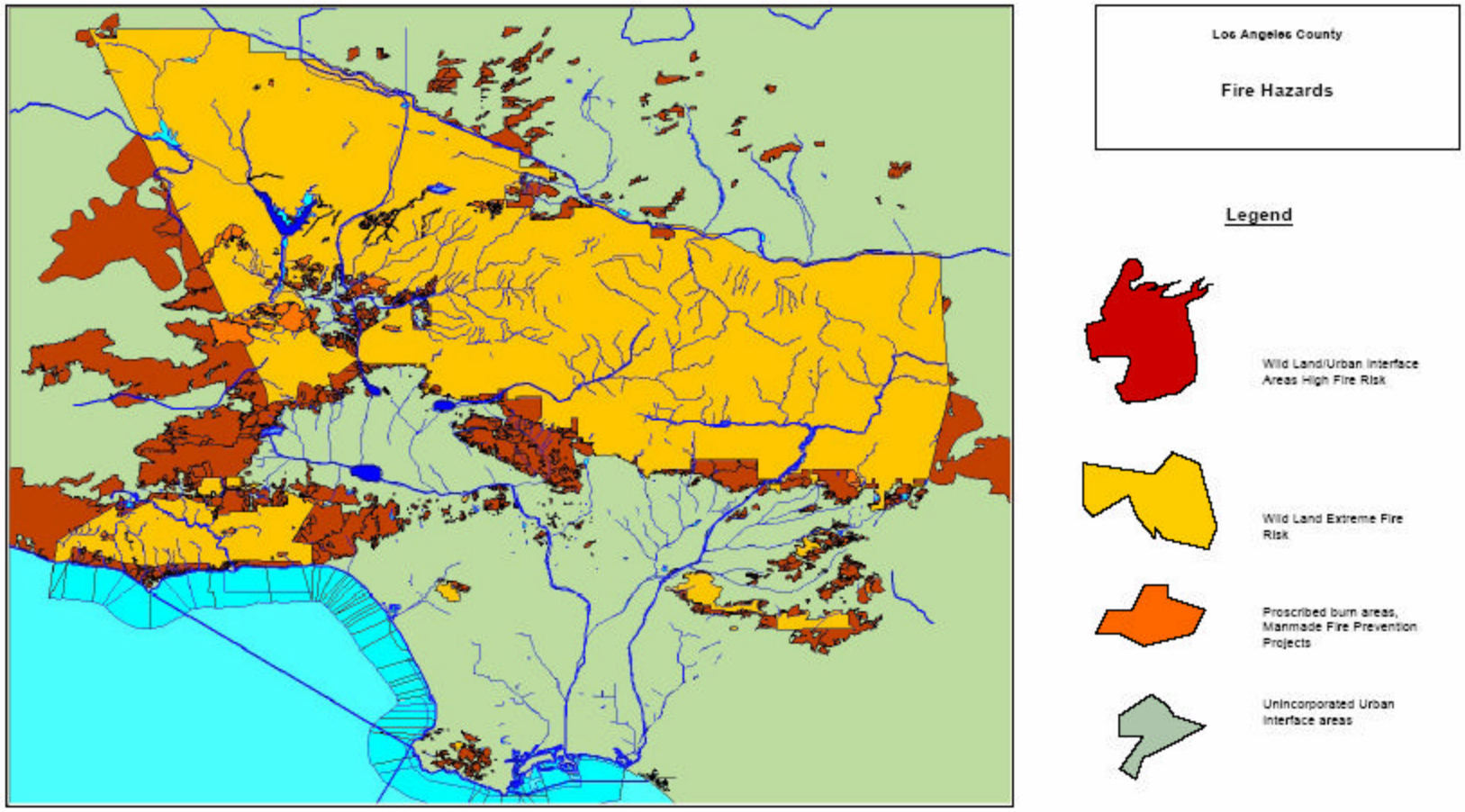
This project is located in the Santa Susana Mountains and consists of the treatment of 200 acres using biological: strategic recycling, grazing; manual: clearing, mowing, thinning, multi-cutting; mechanical: brush crusher and prescribed fire methods. This is a Coordinated Resource Project with the California State Parks. This project provides fire protection to the Placerita Canyon State Park, the City of Santa Clarita and the Angeles National Forest. An additional benefit will be the enhancement of growth native vegetation growth and reduction of non-native vegetation. A secondary benefit to the project is the annual training of firefighters on fire control of brush fires.

Los Angeles County Map of Historic Fire Areas Los Angeles County GIS Data

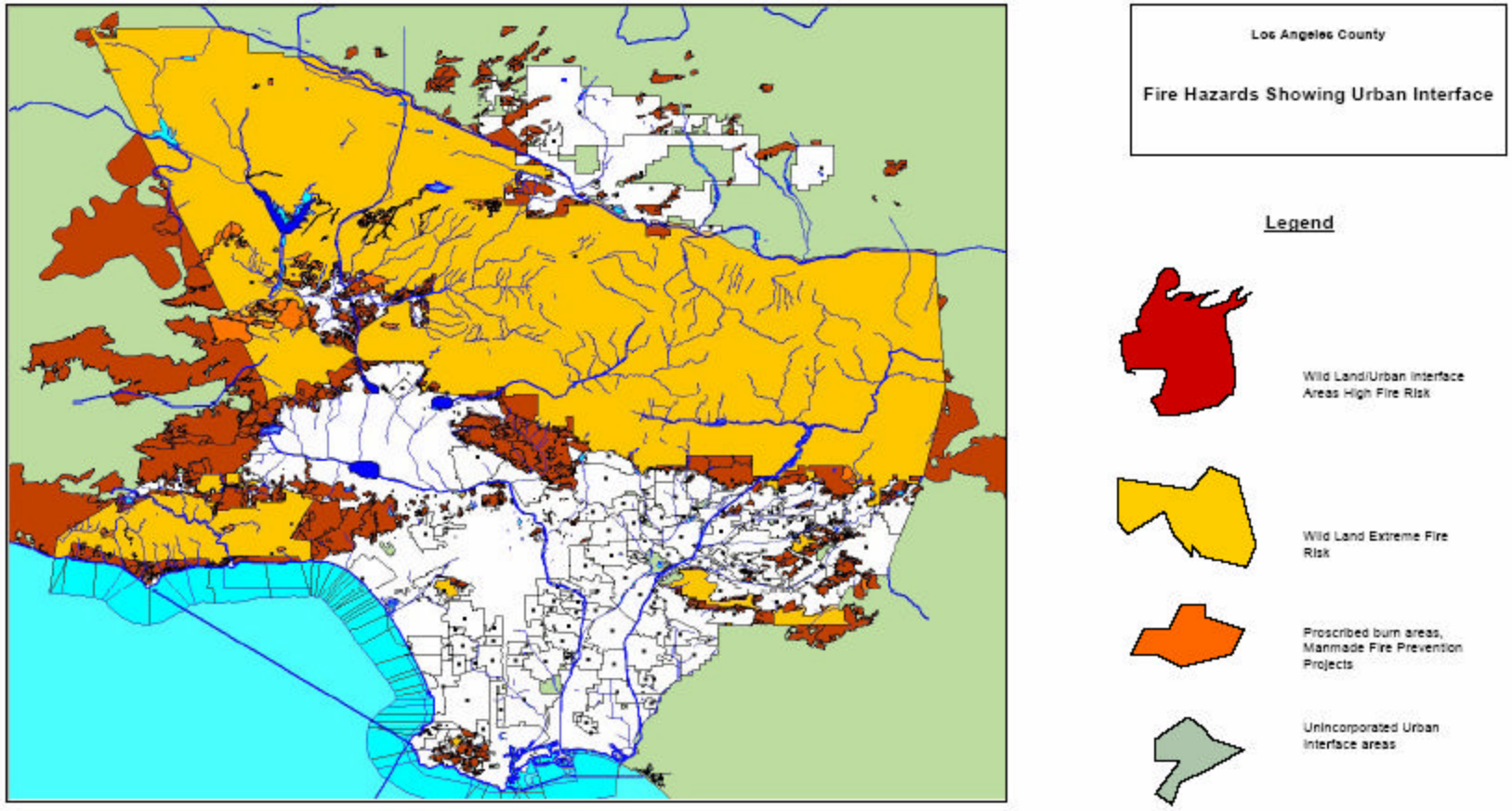



Los Angeles County Populated Islands
Historic Fire Areas
Legend
Historic Burn Areas 1878-1996 (Consistent Fire Danger Areas)
Urban Areas
Proscribed burn areas, Manmade Fire Prevention Projects

Los Angeles County Fire Hazard Areas Los Angeles County GIS Data



Los Angeles County Fire Hazard Areas Depicting Urban Interface Los Angeles County GIS Data



Flood

Flood was rated a HIGH PRIORITY HAZARD in Los Angeles County.

Flood Facts

Historic Flooding in Los Angeles County Records show that since 1811, the Los Angeles River has flooded 30 times, on average once every 6.1 years. But averages are deceiving, for the Los Angeles basin goes through periods of drought and then periods of above average rainfall. Between 1889 and 1891 the river flooded every year, and from 1941 to 1945, the river flooded 5 times. Conversely, from 1896 to 1914, a period of 18 years, and again from 1944 to 1969, a period of 25 years, the river did not have serious floods.

The towering mountains that give the Los Angeles region its spectacular views also wring a great deal of rain out of the storm clouds that pass through. Because the mountains are so steep, the rainwater moves rapidly down the slopes and across the coastal plains on its way to the ocean.

"The Santa Monica, Santa Susana and Verdugo Mountains, which surround three sides of the valley, seldom reach heights above three thousand feet. The western San Gabriel Mountains, in contrast, have elevations of more than seven thousand feet. These higher ridges often trap eastern-moving winter storms. Although downtown Los Angeles averages just fifteen inches of rain a year, some mountain peaks in the San Gabriels receive more than forty inches of precipitation annually.

Naturally, this rainfall moves rapidly down stream, often with severe consequences for anything in its path. In extreme cases, flood-generated debris flows will roar down a canyon at speeds near 40 miles per hour with a wall of mud, debris and water, tens of feet high. Flooding occurs when climate, geology, and hydrology combine to create conditions where water flows outside of its usual course.

Winter Rainfall

Over the last 125 years, the average annual rainfall in Los Angeles is 14.9 inches. But the term "average" means very little as the annual rainfall during this time period has ranged from only 4.35 inches in 2001-2002 to 38.2 inches in 1883-1884. In fact, in only fifteen of the past 125 years, has the annual rainfall been within plus or minus 10% of the 14.9 inch average. And in only 38 years has the annual rainfall been within plus or minus 20% of the 14.9 inch average. This makes the Los Angeles basin a land of extremes in terms of annual precipitation (see Section 3).

Monsoons

Another relatively regular source for heavy rainfall, particularly in the mountains and adjoining cities is from summer tropical storms. Table xxx lists tropical storms that have had significant rainfall in the past century, and the general areas affected by these storms. These tropical storms usually coincide with El Niño years.

Geography and Geology

The greater Los Angeles Basin is the product of rainstorms and erosion for millennia. "Most of the mountains that ring the valleys and coastal plain are deeply fractured faults and, as they (the mountains) grew taller, their brittle slopes were continually eroded. Rivers and streams carried

boulders, rocks, gravel, sand, and silt down these slopes to the valleys and coastal plain....In places these sediments are as much as twenty thousand feet thick.

Much of the coastal plain rests on the ancient rock debris and sediment washed down from the mountains. This sediment can act as a sponge, absorbing vast quantities of rain in those years when heavy rains follow a dry period. But like a sponge that is near saturation, the same soil fills up rapidly when a heavy rain follows a period of relatively wet weather. So even in some years of heavy rain, flooding is minimal because the ground is relatively dry. The same amount of rain following a wet period of time can cause extensive flooding.

The greater Los Angeles basin is for all intents and purposes built out. This leaves precious little open land to absorb rainfall. This lack of open ground forces water to remain on the surface and rapidly accumulate. If it were not for the massive flood control system with its concrete lined river and stream beds, flooding would be a much more common occurrence. And the tendency is towards even less and less open land. In-fill building is becoming a much more common practice in many areas. Developers tear down an older home which typically covers up to 40% of the lot size and replacing it with three or four town homes or apartments which may cover 90-95% of the lot.

Another potential source of flooding is “asphalt creep.” The street space between the curbs of a street is a part of the flood control system. Water leaves property and accumulates in the streets, where it is directed towards the underground portion of the flood control system. The carrying capacity of the street is determined by the width of the street and the height of the curbs along the street. Often, when streets are being resurfaced, a one to two inch layer of asphalt is laid down over the existing asphalt. This added layer of asphalt subtracts from the rated capacity of the street to carry water. Thus the original engineered capacity of the entire storm drain system is marginally reduced over time. Subsequent re-paving of the street will further reduce the engineered capacity even more.

Flood Terminology

Floodplain

A floodplain is a land area adjacent to a river, stream, lake, estuary, or other water body that is subject to flooding. This area, if left undisturbed, acts to store excess flood water. The floodplain is made up of two sections: the floodway and the flood fringe.

100-Year Flood

The 100-year flooding event is the flood having a one percent chance of being equaled or exceeded in magnitude in any given year. Contrary to popular belief, it is not a flood occurring once every 100 years. The 100-year floodplain is the area adjoining a river, stream, or watercourse covered by water in the event of a 100-year flood.

Floodway

The floodway is one of two main sections that make up the floodplain. Floodways are defined for regulatory purposes. Unlike floodplains, floodways do not reflect a recognizable geologic feature. For NFIP purposes, floodways are defined as the channel of a river or stream, and the over-bank areas adjacent to the channel. The floodway carries the bulk of the flood water downstream and is usually the area where water velocities and forces are the greatest. NFIP regulations require that the floodway be kept open and free from development or other structures that would obstruct or divert flood flows onto other properties.

The NFIP floodway definition is "the channel of a river or other watercourse and adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. *Floodways are not mapped for all rivers and streams but are generally mapped in developed areas.*

Flood Fringe

The flood fringe refers to the outer portions of the floodplain, beginning at the edge of the floodway and continuing outward.

Base Flood Elevation (BFE)

The term "Base Flood Elevation" refers to the elevation (normally measured in feet above sea level) that the base flood is expected to reach. Base flood elevations can be set at levels other than the 100-year flood. Some communities choose to use higher frequency flood events as their base flood elevation for certain activities, while using lower frequency events for others. For example, for the purpose of storm water management, a 25-year flood event might serve as the base flood elevation; while the 500-year flood event may serve as base flood elevation for the tie down of mobile homes. The regulations of the NFIP focus on development in the 100-year floodplain.

Development and Flooding

When structures or fill are placed in the floodway or floodplain, water is displaced. Development raises the river levels by forcing the river to compensate for the flow space obstructed by the inserted structures and/or fill. When structures or materials are added to the floodway or floodplain and no fill is removed to compensate, serious problems can arise. Flood waters may be forced away from historic floodplain areas. As a result, other existing floodplain areas may experience flood waters that rise above historic levels. *Local governments must require engineer certification to ensure that proposed developments will not adversely affect the flood carrying capacity of the Special Flood Hazard Area (SFHA).*

Displacement of only a few inches of water can mean the difference between no structural damage occurring in a given flood event, and the inundation of many homes, businesses, and other facilities. Careful attention should be given to development that occurs within the floodway to ensure that structures are prepared to withstand base flood events. In highly urbanized areas, increased paving can lead to an increase in volume and velocity of runoff after a rainfall event, exacerbating the potential flood hazards. Care should be taken in the development and implementation of storm water management systems to ensure that these runoff waters are dealt with effectively.

Flood Prone Area Identification

Flood maps and Flood Insurance Studies (FIS) are often used to identify flood-prone areas. The NFIP was established in 1968 as a means of providing low-cost flood insurance to the nation's flood-prone communities. The NFIP also reduces flood losses through regulations that focus on building codes and sound floodplain management. *In LA County, the NFIP and related building code regulations went into effect on March 1, 1978.* NFIP regulations (44 Code of Federal Regulations (CFR) Chapter 1, Section 60, 3) require that all new construction in floodplains must be elevated at or above base flood level.

Flood Insurance Rate Maps (FIRM) and Flood Insurance Studies (FIS) Floodplain maps are the basis for implementing floodplain regulations and for delineating flood insurance purchase requirements. A Flood Insurance Rate Map (FIRM) is the official map produced by FEMA which delineates SFHA in

communities where NFIP regulations apply. FIRMs are also used by insurance agents and mortgage lenders to determine if flood insurance is required and what insurance rates should apply.

Water surface elevations are combined with topographic data to develop FIRMs. FIRMs illustrate areas that would be inundated during a 100-year flood, floodway areas, and elevations marking the 100-year-flood level. In some cases they also include base flood elevations (BFEs) and areas located within the 500-year floodplain. Flood Insurance Studies and FIRMs produced for the NFIP provide assessments of the probability of flooding at a given location. FEMA conducted many Flood Insurance Studies in the late 1970s and early 1980s. These studies and maps represent flood risk at the point in time when FEMA completed the studies. However, it is important to note that not all 100-year or 500-year floodplains have been mapped by FEMA.

FEMA flood maps are not entirely accurate. These studies and maps represent flood risk at the point in time when FEMA completed the studies, and does not incorporate planning for floodplain changes in the future due to new development. Although FEMA is considering changing that policy, it is optional for local communities. Man-made and natural changes to the environment have changed the dynamics of storm water run-off since then.

Vulnerability

California has a chronic and destructive flood history. Of seventy-two federally declared disasters in the state between 1950 and 2000, half were flood related.

While the "Great Flood" of 1861-62 may be unmatched in scope, the devastating effects of recent floods far exceed the damage of a century ago. Despite the construction of massive and relatively effective flood control projects, California remains vulnerable to flooding. A steady rise in population and accompanying development contribute to increased flood risks throughout the state.

Between 1992 and 2002, every county in California was declared a federal disaster area at least once for a flooding event. The counties of Los Angeles, Orange, and San Bernardino were declared federal flood disaster areas five times, and sixteen other counties were declared disaster areas four times.

The South Coast hydrologic region extends up from the U.S.-Mexico border to the Tehachapi, San Bernardino, San Gabriel, and San Jacinto mountains. Nearly one-third of the area is coastal plain.

Major stream systems in the South Coast region include:

- Calleguas Creek Basin
- Malibu and Santa Monica Bay streams
- Ventura River
- Santa Clara River
- Los Angeles River
- San Gabriel River
- Santa Ana River
- Santa Margarita River
- San Luis Rey River
- San Dieguito River
- San Diego River
- Sweetwater River
- Otay-Tijuana River

This region contains major urban centers, including the counties of Los Angeles, Orange, and San Diego. Much of the flooding is sudden and severe, resulting in massive slides, debris flows, and mudflows. Typical of the flooding that occurs in this area were the 1969 winter storms that killed forty-seven and resulted in $300 million in property damage. During these storms, an alluvial flood and debris flow on Deer Creek in San Bernardino County killed eleven. Normally Deer Creek is dry and is not considered a special flood hazard area on the National FIRMs. However, the region has experienced tremendous population growth since 1969 and the area of the Deer Creek alluvial fan is now home to several public schools and Ontario International Airport.

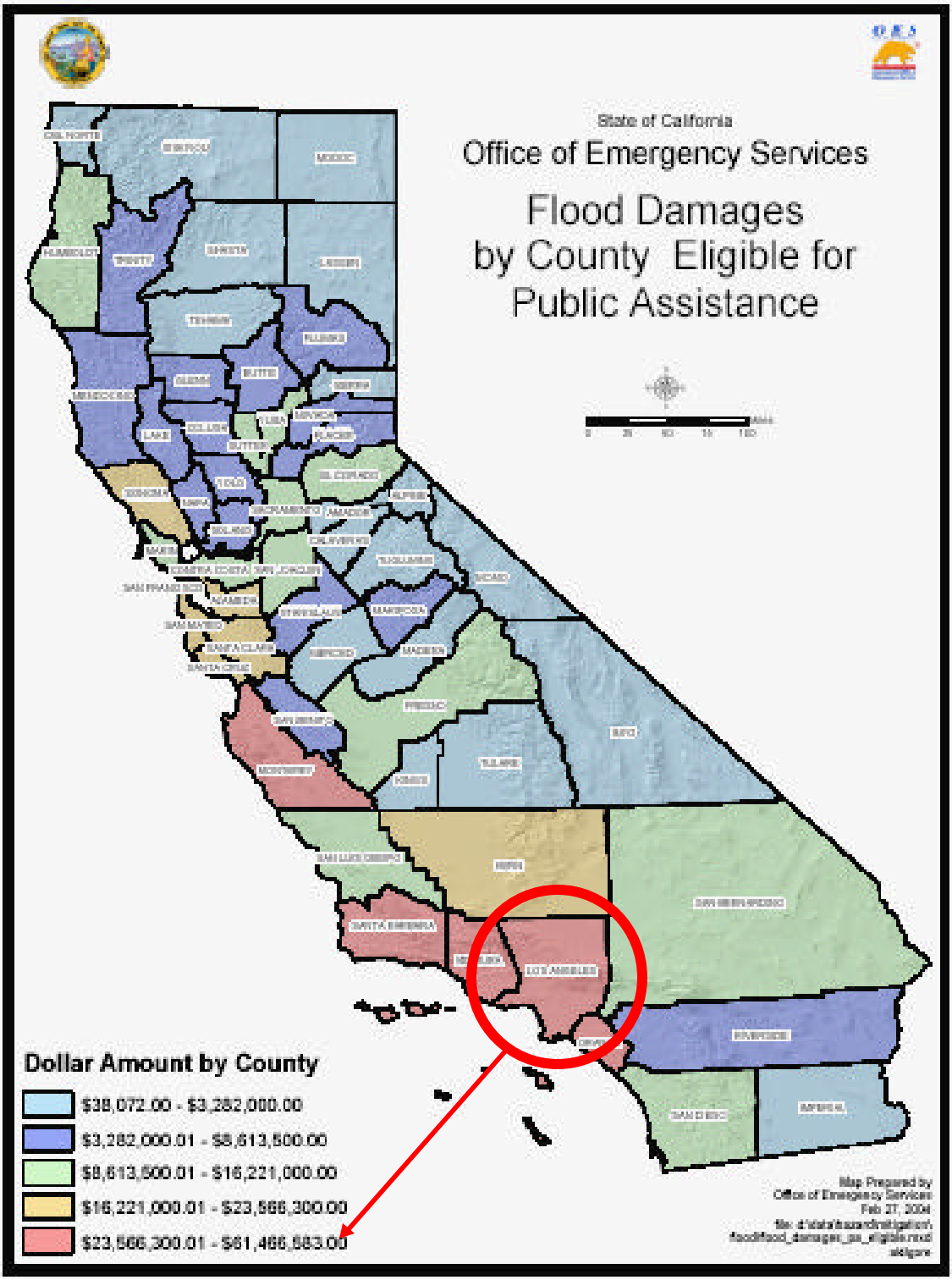
Federal Flood Disaster Declarations (Local County Comparison)

County	Total Pop in FIRM Zone	Pop in Zone A-100YR	Population of County	# PA Applicants	PA Amt Eligible	% PA Amt Eligible	% IA Damage Locations
LOS ANGELES	**390,305**	**98,371**	**9,519,338**	**2,908**	**$61,466,583**	**10.35**	**45.36**
ORANGE	1,384,403	428,779	2,846,289	1,391	$32,167,618	5.42	2.39
RIVERSIDE	295,081	72,628	1,545,387	615	$7,846,555	1.32	1.00
SAN BERNARDINO	196,945	61,247	1,709,434	951	$10,734,165	1.81	1.63
SAN DIEGO	181,757	82,807	2,813,833	798	$11,163,308	1.88	1.54
SANTA BARBARA	54,731	24,772	399,347	1,465	$36,227,678	6.10	1.82
SANTA CLARA	304,511	143,822	1,682,585	712	$23,463,356	3.95	2.80
VENTURA	187,179	56,113	753,197	1,120	$33,556,411	5.65	1.38
STATEWIDE NonSpecific	**5,227,897**	**1,973,712**	**33,871,648**	**30,713**	**$593,611,817**	**100.00%**	**100.00%**

Impact

Nearly 400,000 people could be directly affected by a flood disaster in Los Angeles County. Meteorological conditions, right for flooding, would generally occur to those areas prone to flooding around the county all at once, perhaps in one series of storms, as in 1969. Potential losses are based on the occurrence of this circumstance. Only damage from flooding (not destructive winds or landslides) is figured here:

Potential dollar losses to county-owned facilities	$13.4 Million
Potential dollar losses to Critical Infrastructure or facilities	$3.4 Million
Potential dollar losses to Commercial Buildings	$15.9 Million
Potential dollar losses to Residential or Private Property	$61.5 Million
Potential other dollar losses (Environmental, Historical, Economic, Human)	$32.6 Million
TOTAL POTENTIAL DOLLAR LOSSES FOR THIS HAZARD	**$111.3 MILLION**


State of California
Office of Emergency Services
Flood Damages by County Eligible for Public Assistance
Dollar Amount by County
$38,072.00 - $3,282,000.00
$3,282,000.01 - $8,613,500.00
$8,613,500.01 - $16,221,000.00
$16,221,000.01 - $23,566,300.00
$23,566,300.01 - $61,466,583.00
LOS ANGELES
Map Prepared by
Office of Emergency Services
Feb 27, 2004

Types of Flooding in California

Flood Type	Problems
Alluvial Fan	Alluvial fan flooding occurs in the steep arid or semiarid mountains found throughout the state. Alluvial fans are fan-shaped deposits of eroded rock and soil carried out of mountains and into valley floors by landslides, mudslides, mudflows, and surface runoff (sheetflows and streamflows.) At the beginning of the valley, alluvial fans are steep and narrow with boulders and other course material. The deposited material becomes increasingly fine as the gradient decreases and the material, mainly gravels, sand and mud, spreads. When rain falls, runoff from the canyon walls flows as a high-velocity sheet that channels into rivulets, and then to natural drainage courses. The rapidly moving water often carries large boulders and other material from the watershed depositing them into runoff channels, blocking the flow of water. Floodwater then spills out onto the fan, with each event finding a new channel that soon fills up with deposits and overflows. Flooding in alluvial fans often can cause greater damage than clear-water flooding.
Coastal	Coastal flooding and erosion present some of the most complex and serious high-risk problems. In California, coastal erosion is most often caused by a combination of factors: winter storms, rising sea levels, tidal action, currents and waves, and high winds.
Flash	**Flash floods are quick events, particularly where the topography enhances rainfall from Pacific or Gulf storms and thunderstorms. Flash floods are caused by the rapid buildup of runoff after high-intensity rainfall. The precipitation is often so intense that both perennial streams and dry watercourses are rapidly transformed into torrents, sweeping away whatever lies in their path. Loss of life in such a flooding is common because of the suddenness of high flows. A flash flood can occur in mountainous regions and urban areas. In the mountains, a stream level may rise quickly in a heavy rainstorm. Dry desert washes, especially those near mountains, can reach flood stage within minutes as a result of thunderstorms miles away.** **Urban flash flooding can occur in any terrain. It is particularly aggravated where natural cover has been removed to construct buildings, roads and parking lots. Streets become rivers, inundating vehicles and causing heavy damage to residential and industrial properties situated along stream channels.**
Fluvial	**California rivers generally flow west to the Pacific Ocean and may fall as much as 5,000 feet within the first 20 miles. This relatively steep slope creates a high-velocity flow that carries eroded material. As the slope of the river flattens, the velocity slows and the material is deposited. As a result, the lower reaches of many streams pass through the sandy alluvial plains they have formed. Flood flows can cause these streams to migrate, resulting in a higher and wider floodplain. Developed areas on land originally outside the defined floodplain can later flood.**
Lake	Lake level fluctuations primarily concern shoreline property owners, but impact local, state and federal agencies with regulatory or financial responsibilities for water and related land use associated with lakes. Both natural and human actions cause changing lake levels. Natural factors include direct precipitation, surface runoff, evaporation, ground water inflow, ice formation, aquatic growth, meteorological disturbances, and, in larger lakes, tidal and crustal movement. Human factors include dredging, diversion, consumptive uses and intruding structures.
Levee	Levees are a basic means of providing flood protection along rivers and waterways in regions where development exists, or is planned, and in agricultural areas. Levees confine floodwaters to the main river channel or protect inland areas from high tides. The causes of levee problems are structural failures, foundation failures of underlying soils, and overtopping by flood flows, tides and waves. Contributing factors include poor construction materials, erosion by current and wave action, seepage through or under the levee, burrowing rodents, and improper repairs. Lack of adequate and regular maintenance to correct these problems also contributes to levee failure. Most failures are composites of several of these factors.
Mudslides	Mud floods and mudflows cause several types of flood damage that are not characteristic of clear-water flooding. These include: The force of debris-laden water, which can be tens or hundreds of times greater than that generated by clear water, destroys retaining walls and other protective works; Mud and debris may fill drainage channels, river or stream channels, and sediment basins, causing otherwise normal runoff to suddenly inundate areas outside the floodplains; and Sediment and debris are more damaging to houses and their contents than clear water. Fr ame structures are often total losses, and if they remain intact, sediment and mud must be removed and washed out. Stains, mildew and dry rot often result. Major floods almost always involve heavy intrusions of mud, sediment and debris. Such conditions are caused or worsened by forest and brush fires. Once the hills have been denuded of vegetation, there is more runoff and less infiltration. Even light rainfall can develop into rapid runoff with severe erosion occurring in such areas.
Riverine	Riverine flooding, the most common type of flooding in the state, occurs when a stream channel fills with more water than it can carry. The water rises and flows over the channel banks onto the adjacent floodplain.
Seiche and Tsunami	Tsunamis, or seismic sea waves, are usually created by undersea earthquakes or landslides. Seiches are similar, large waves in lakes. Waves are generated by a crustal disturbance giving a vertical impulse to the sea surface. These are long-period waves that travel long distances at speeds of up to 600 miles per hour with little or no loss of energy. When tsunami waves approach a coastal region in which water depth decreases rapidly, their height is increased by refraction, shoaling, and local bay or harbor conditions, and speed is creased. Tsunamis frequently arrive in a series of spaced intervals.

Floodplain Management Plan for Repetitive Loss Properties

Repetitive Loss Properties (RLPs) are most susceptible to flood damages; therefore, they have been the focus of flood hazard mitigation programs. Unlike a countywide program, the Floodplain Management Plan (FMP) for repetitive loss properties involves highly diversified property profiles, drainage issues, and property owner's interest. It also requires public involvement processes unique to each RLP area. The objective of an FMP is to provide specific potential mitigation measures and activities to best address the problems and needs of communities with repetitive loss properties. A repetitive loss property is one for which two or more claims of $1,000 or more have been paid by the National Flood Insurance Program (NFIP) within any given ten-year period.

National Flood Insurance Program (NFIP) and the Community Ratings System (CRS)

The NFIP provides federally supported flood insurance in communities that regulate development in their floodplains. The Community Ratings System (CRS) was implemented in 1990 as a program for recognizing and encouraging community floodplain management activities that exceed the minimum NFIP standards. The CRS encourages comprehensive planning to address the community's flooding problems and provides credit for preparing, adopting, implementing, evaluating, and updating a comprehensive FMP.

Los Angeles County has been a voluntary participant in the CRS established by Federal Emergency Management Agency (FEMA). This program provides a discount on flood insurance premiums for participating property owners, including those properties located within the designated Special Flood Hazard Areas defined by the Flood Insurance Rate Maps (FIRMs).

On March 31, 1992, the LA County Board of Supervisors adopted the "Repetitive Loss Plan for the National Flood Insurance Program CRS," which was approved by FEMA for CRS Activity. To continue program participation, the County is required to prepare an annual update of activities in the Repetitive Loss Plan that reduce the number of and/or mitigate the risk to properties with multiple flood damage claims.

CRS Application and Certification

Community application for the CRS is voluntary. Communities apply for a CRS classification and are given credit points that reflect the impact of their activities on reducing flood losses, improving the insurance rating, and promoting the awareness of flood insurance. The CRS encourages programs and projects that preserve or restore the natural state of floodplains and protect these functions. The CRS also encourage communities to coordinate their flood loss reduction programs with habitat Conservation Plans and other public and private activities that preserve and protect natural and beneficial floodplain functions.

Depending on the credit points received during CRS certification, a community can fall into one of ten classes: Class 1 requires the most credit points and gives the largest premium reduction, while Class 10 receives no premium reduction. The County's current CRS classification is 8. Preparation of site-specific FMPs will help communities to retain or improve the CRS classification.

FMP Procedure and Process

The FMP planning process involves review, research, investigation, discussion, interview, and consensus building. It includes receiving input from all parties involved and collaborating with existing and future regional programs that relate to flood hazard mitigation such as land use plans, capital improvement plans, neighborhood redevelopment plans, floodplain ordinances, and environmental preservation/ enhancement plans. The FMP for RLPs intends to address the site-specific problems and possible resolutions, under the authority of individual homeowners and/or their homeowner associations.

CRS credit is provided for preparing, adopting, implementing, evaluating, and updating a comprehensive floodplain management plan. Credit is not based on the activities the FMP recommends, but rather on the process that is used to prepare the FMP.

FMP Committee

The development, modification, and revision of the FMP are accomplished through the direction and oversight of an FMP Committee. FEMA places a high priority on the establishment of a committee that consists of residents, businesses, and property owners that are most affected by flood hazards. The County has maximized the involvement of the public throughout the FMP process.

Repetitive Loss Properties (RLPs) in Los Angeles County

Los Angeles County has a total of 28 repetitive loss properties. Nineteen properties are located in the unincorporated areas of Malibu Lake, and nine properties are within the unincorporated areas of Santa Monica Mountains, San Gabriel Mountains and Quartz hills (4 in Santa Monica Mountains, 3 in San Gabriel Mountains, and 2 in Quarts Hill).

Rank	Losses	Properties	Community	Building $	Contents $	Total $	CRS Rating	FEMA Plan
10	142	45	Los Angeles County	1,461,070.07	543,404.07	2,004,474.14	8	Presentation
4	284	120	City of Los Angeles	2,779,104.58	494,007.21	3,273,111.79	9	Yes
2	464	169	City of Malibu	7,228,124.92	1,190,328.89	8,418,453.81		Yes

Through the direction and oversight of FMP Committees, site-specific Floodplain Management Plans for these Repetitive Loss Properties are updated on an annual basis to meet CRS certification and NFIP participation requirements. These plans follow the general requirements of the National Floodplain Insurance Program (NFIP) and the specific procedures outlined in the Community Ratings System (CRS) Coordinator's Manual.

(See: (1) "Floodplain Management Plan for Repetitive Loss Properties: Los Angeles County, Santa Monica Mountains, San Gabriel Mountains, Quartz Hills." September, 2001. (2) "Floodplain Management Plan for Repetitive Loss Properties: Los Angeles County, Malibu Lake Area." September, 2001).

County of Los Angeles Floodplain Management Plan – Present Mitigation

In 2001 the Department of Public Works Watershed Management Division contracted with Tetra Tech, Inc. for development of a comprehensive flood management plan for the repetitive loss flood damage areas, including properties in the Santa Monica Mountains, the San Gabriel Mountains, Quartz Hill, and Malibu Lake.

The objective of the 2000 page plan was to provide specific potential mitigation measures and activities to best address the communities' flood problems and needs associated with repetitive loss properties (RLPs). RLPs are defined as those for which two or more claims of $1,000 or more have been paid by the National Flood Insurance Program within any given ten-year period since 1978. The plan specifically targets plans for a total of 28 RLPs (twenty in Agoura, two in Calabasas, two in Altadena, and one each in Malibu, Canyon Country, Palmdale, and Quartz Hill.) The plan includes site-specific plans, a hydrology analysis, documentation of public comment, and economic assessments.

The plan is over 2000 pages long, and this summary provides sample pages with the following information (where sample pages are included, these are representative of reports that covered all of the RLPs):

1. The plan introduction/summary for two areas: Malibu Lake; and Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill; *(floodMitPlan0.pdf and floodMitPlan1.pdf)*

2. An example of RLP site information; *(floodMitPlan4.pdf)*

3. A sample of a property owner survey; *(floodMitPlan5.pdf)*

4. A sample Economic Assessment; *(floodMitPlan6.pdf)*

5. A sample Hydrology Report *(floodMitPlan3.pdf)*

The full plan is available for review in hard copy. Contact Constance Perett, Administrator of the Los Angeles County Office of Emergency Management, at (323) 980-2261.

1. The plan introduction/summary for two areas: Malibu Lake; and Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill; *(floodMitPlan0.pdf and floodMitPlan1.pdf)*

County of Los Angeles

Floodplain Management Plan

for

Repetitive Loss Properties

Los Angeles County

Santa Monica Mountains

San Gabriel Mountains

Quartz Hill

September 2001

Prepared for
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Floodplain Management Plan for
Repetitive Loss Properties
Santa Monica Mountains, San Gabriel Mountains,
and Quartz Hill

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ACKNOWLEDGEMENTS

Repetitive Loss Properties (RLP) are most susceptible to flood damages; therefore, they have been the focus of flood hazard mitigation. Unlike a countywide program, the floodplain management plan for repetitive loss properties involves highly diversified property profiles, drainage issues, and property owner's interest. It also requires public involvement processes unique to each RLP area. This FMP intends to serve as a living document for future reference to the flooding problems and mitigation potentials, and as implementation guidelines for all mitigation activities. The ultimate goal of this FMP is to protect flood-prone residences, reduce flood hazards, and eliminate future flood insurance claims. Support from the Governor's Office of Emergency Services on the FMP development is highly acknowledged. Preparation of this FMP would not have been possible without contributions from the Los Angeles County Public Works Department (Geoffrey Owu, Frank Williams, and staff in other divisions), sub-consultants (Johannes Yostanto of WRC Consulting Services, Inc., James Ragan and Nancy Art of James Ragan Associates, Peter Carlson and Julie Vandermost of Vandermost Consulting Services, Inc., Michael Gorecki, and Karen Kirkland of Natural Resources Assessment Inc.), and other Tetra Tech, Inc., team members (Jung Suh, Yen-Hsu Chen, and Deanna Rose). Special appreciation is expressed to Mr. David Stroud (Flood Training Coordinator, Insurance Services, Inc.) for his review comments and guidance.

Lan Weber, P.E, Ph.D.

Tetra Tech, Inc.

Vice President/Project Manager

Floodplain Management Plan for
Repetitive Loss Properties
Santa Monica Mountains, San Gabriel Mountains,
and Quartz Hill

1. INTRODUCTION

1.1 Project Objectives

The objective of this Floodplain Management Plan (FMP) is to provide specific potential mitigation measures and activities to best address the community's flood problems and needs associated with repetitive loss properties. A repetitive loss property is one for which two or more claims of $1,000 or more have been paid by the National Flood Insurance Program (NFIP) within any given ten-year period since 1978.

Specifically, this report provides the FMP for nine (9) repetitive loss properties (RLPs) within the unincorporated areas of Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill (4 in Santa Monica Mountains, 3 in San Gabriel Mountains, and 2 in Quartz Hill). Figure 1.1 shows the locations of the areas mentioned above within Los Angeles County. Figures 1.2 through 1.4 show the location of each of 9 RLPs within the three areas of the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill, respectively. Table 1.1 provides a list of the 9 RLPs and a summary of the flood insurance claims filed for each property. The plan was developed following the general requirements of the National Floodplain Insurance Program (NFIP) and specific procedures outlined in the Community Rating System (CRS) Coordinator's Manual (1999). Implementation of this plan will result in lower flood losses and improved protection of natural and beneficial floodplain functions. This plan will assist the community and repetitive property owners in understanding the flood hazards, identifying the problems, and deriving cost-effective and integral solutions for flood protection, stormwater management, and environmental protection.

1.2 Repetitive Loss Property Definition and List

Since October 1990, the County has been a voluntary participant in the CRS established by Federal Emergency Management Agency (FEMA). This program provides a discount on flood insurance premiums for property owners who are participating in the flood insurance program including those properties located within the designated Special Flood Hazard Areas defined by the Flood Insurance Rate Maps (FIRMs).

On March 31, 1992, the Los Angeles County Board of Supervisors adopted the "Repetitive Loss Plan for the National Flood Insurance Program CRS" for Los Angeles County, Community No. 065043. The plan was approved by FEMA for CRS Activity No. 510. The development and implementation of a "Floodplain Management Plan" is one of many recommended activities under the CRS.

To continue program participation, the County is required to prepare an annual update of activities in the Repetitive Loss Plan that reduce the number of and/or mitigate the risk to properties with multiple flood damage claims. The County's current Repetitive Loss Plan expires in October 2001, and it will be replaced by this "Floodplain Management Plan" (FMP).

1.3 Review of NFIP and CRS Community Participation

The NFIP provides federally supported flood insurance in communities that regulate development in their floodplains. The Community Rating System (CRS) was implemented in 1990 as a program for recognizing and encouraging community floodplain management activities that exceed the minimum NFIP standards. The CRS reduces flood insurance premiums in those communities that do more than implement the minimum regulatory requirements.

The CRS encourages comprehensive planning to address the community's flooding problems and provides credit for preparing, adopting, implementing, evaluating, and updating a comprehensive FMP. The CRS does not specify what activities the FMP must recommend, but rather the process used to prepare the FMP.

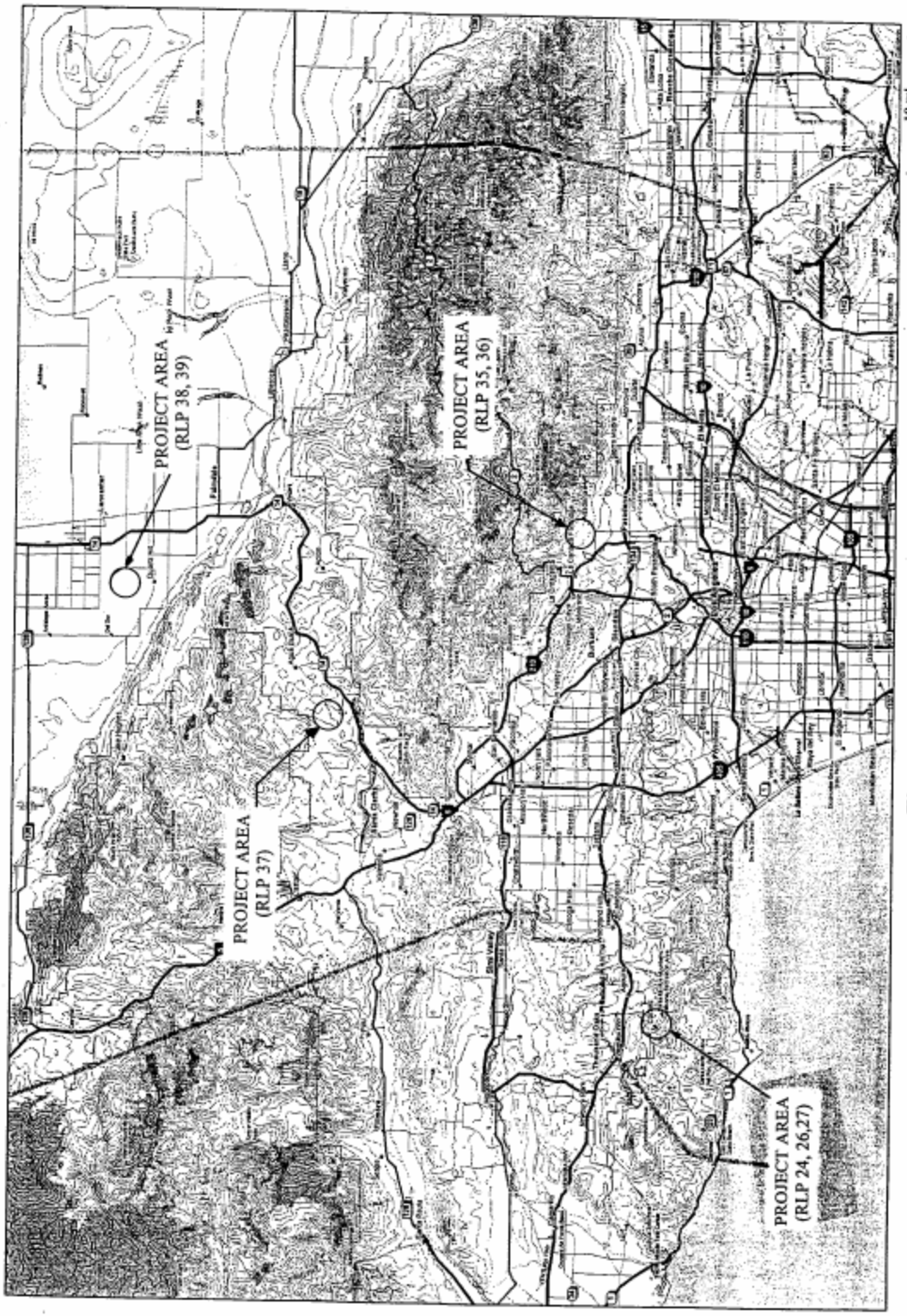


Figure 1.1 – Vicinity Map,
Santa Monica Mountains, San Gabriel Mountains, & Quartz Hill

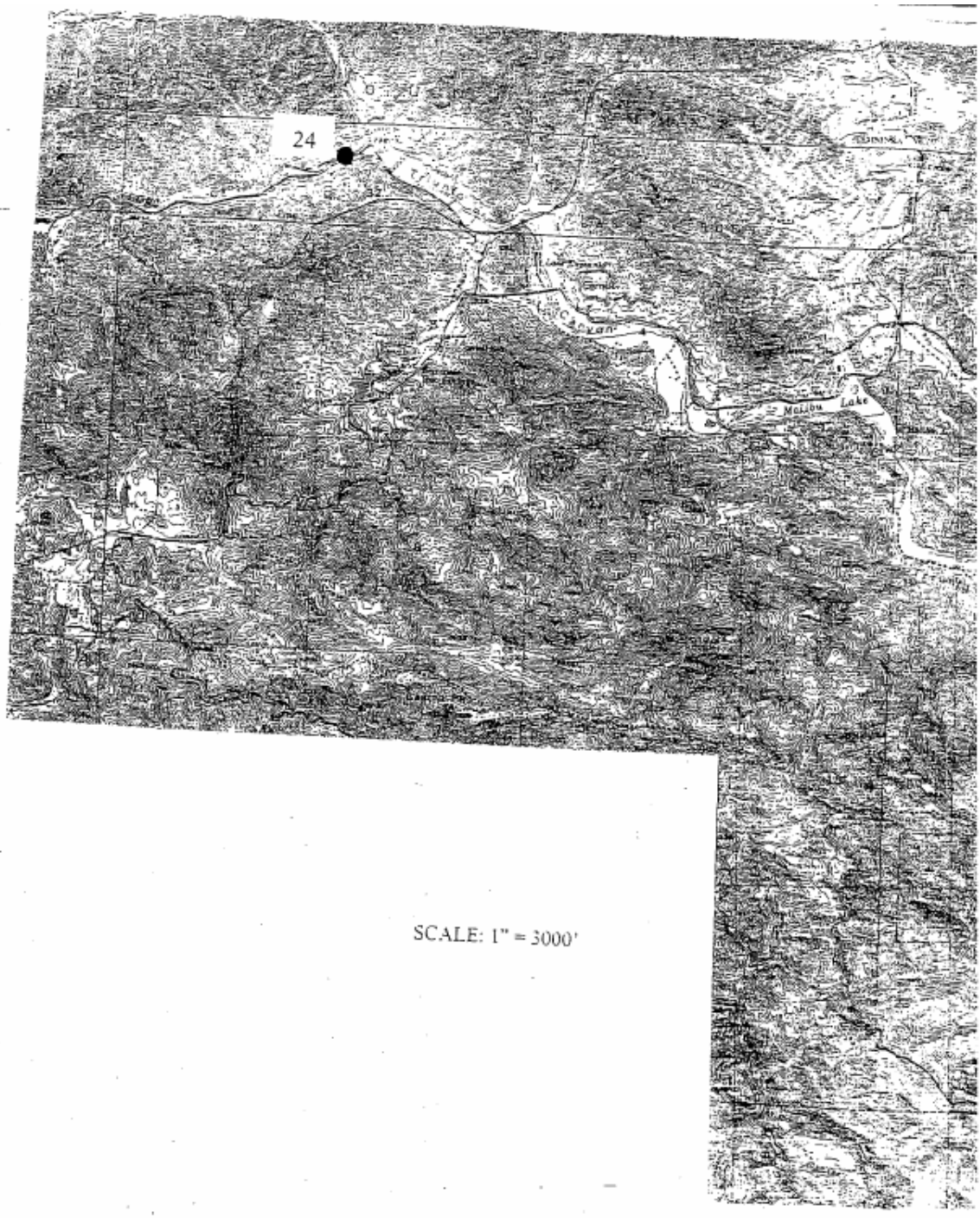
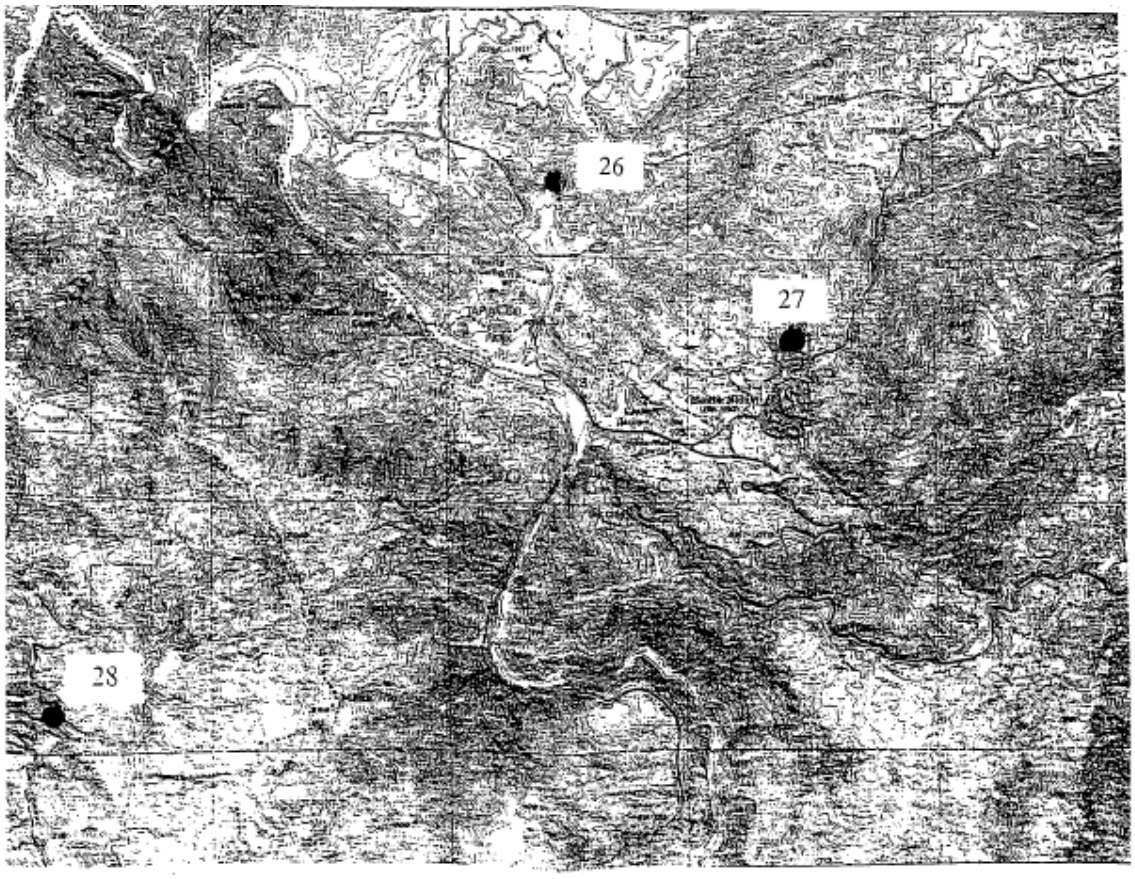


Figure 1.2 - Location of RLPs – San



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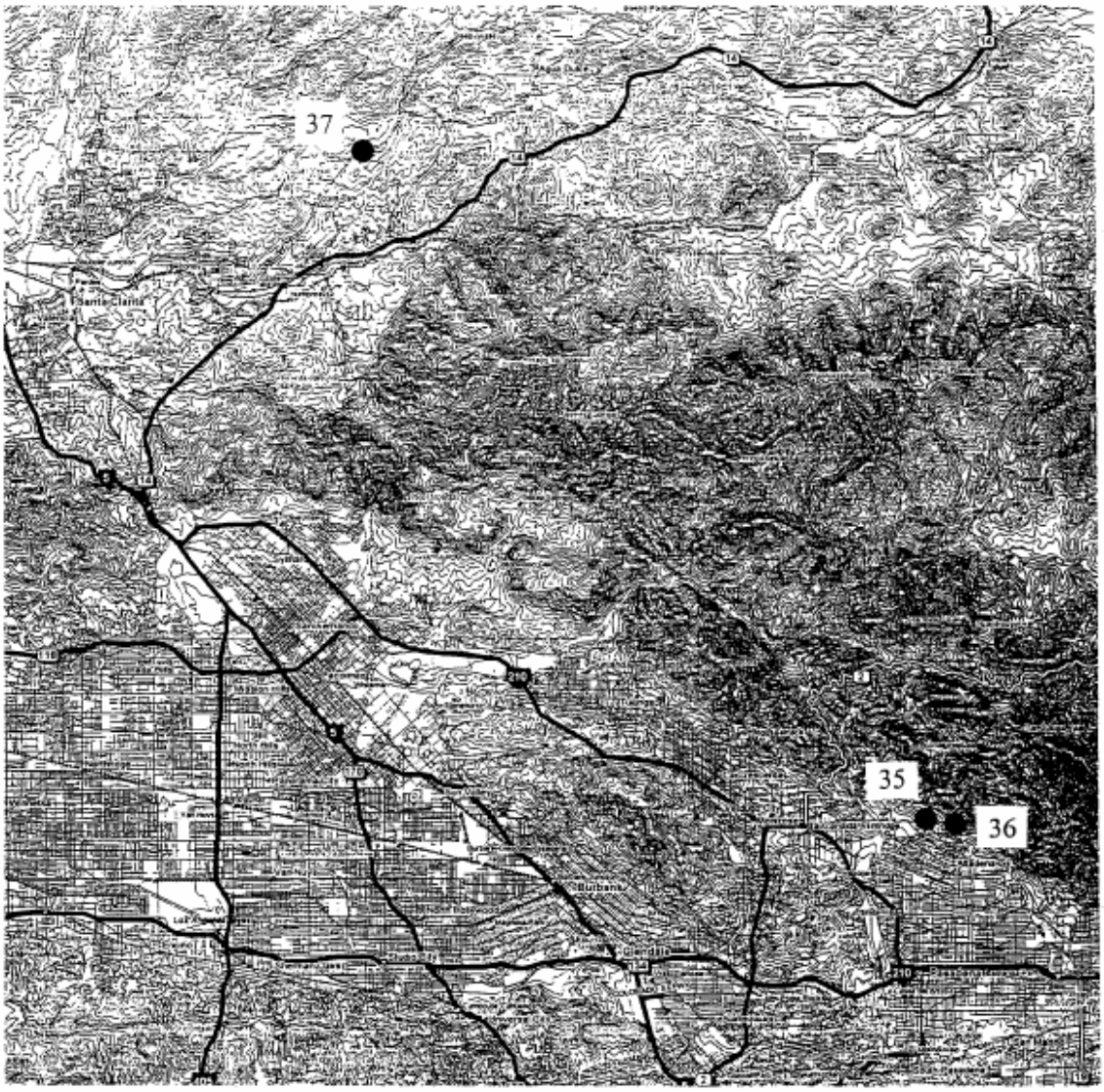

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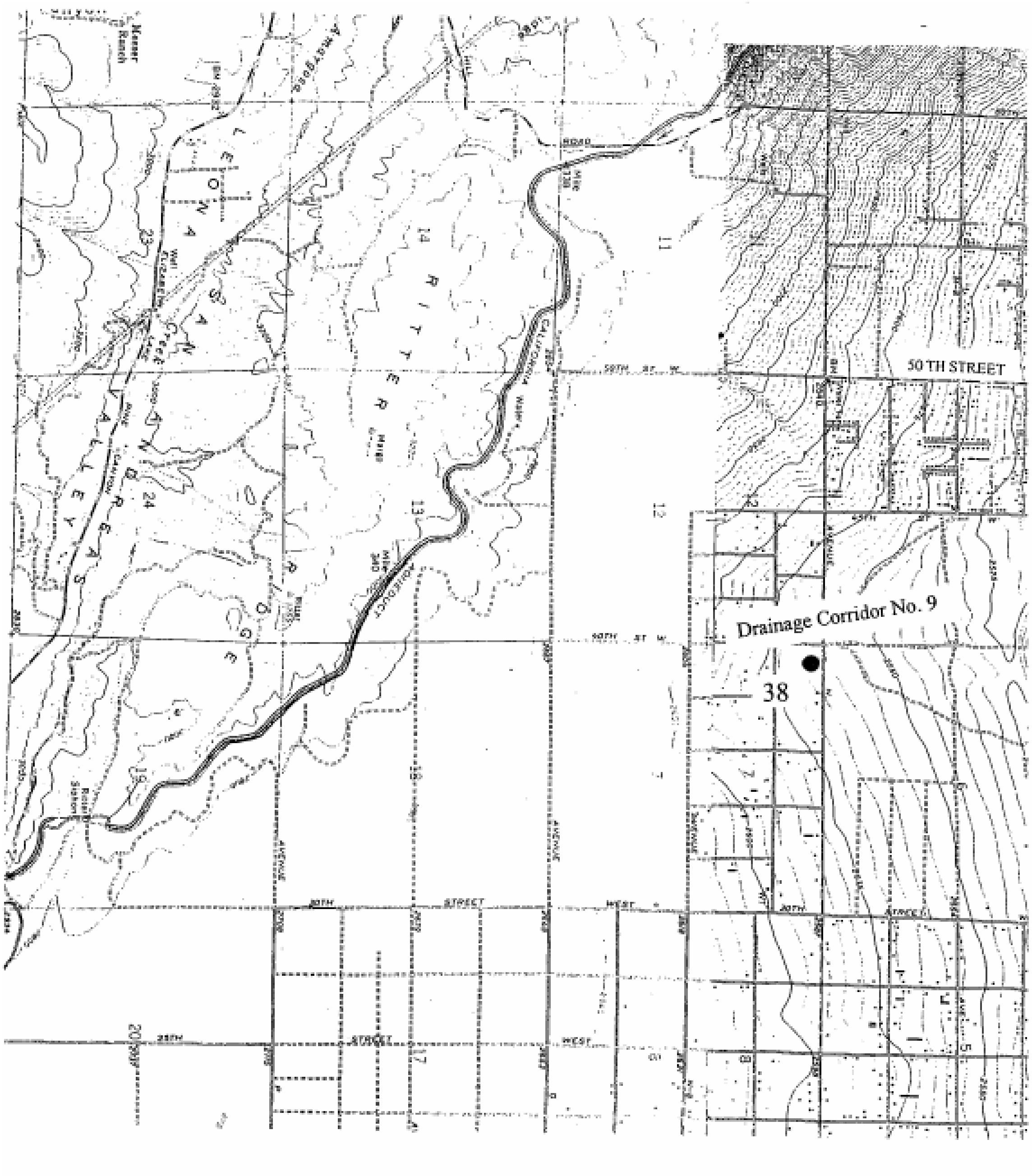
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Drainage Corridor No. 9
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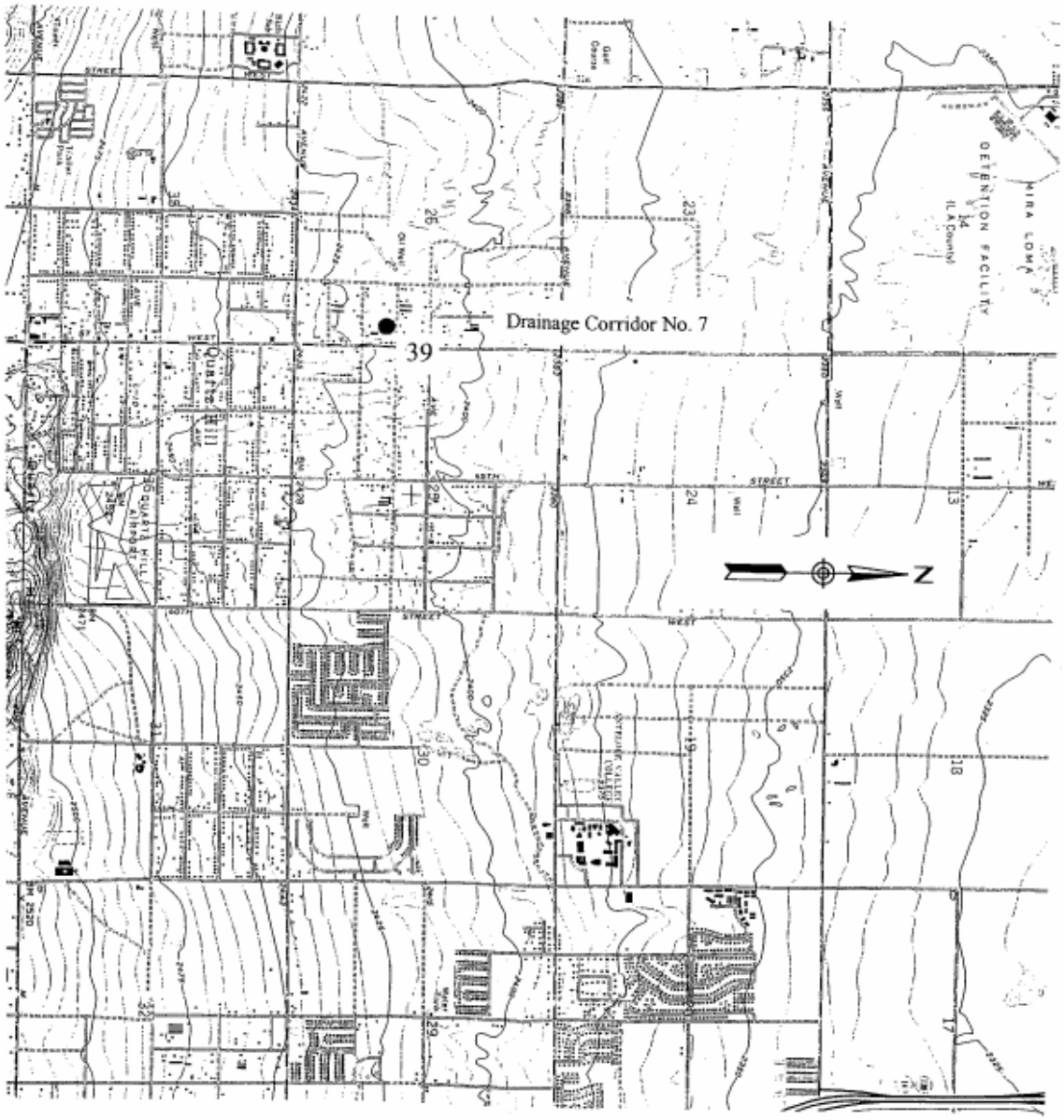

SCALE: 1" = 1/5 MILE

Table 1.1 Repetitive Loss Properties in the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill

Santa Monica Mountains (4)

ID	Street*	City/Area	ZIP	Flood History	Flood Zone**
24		Agoura	91301-3404	***	A4
26		Calabasas	91302-0000	2/92,1/95, 1/95,	C
27		Calabasas	91302-2158	2/92, 1/93	C
28		Malibu	90265-0000	2/92, 1/95	C

San Gabriel Mountains (3)

ID	Street	City	ZIP	Flood History	Flood Zone**
35		Altadena	91001-3807	2/91, 2/92	C
36		Altadena	91001-0000	***	C
37		Canyon Country	91351-0000	***	A

Quartz Hill (2)

ID	Street	City	ZIP	Flood History	Flood Zone**
38		Palmdale	93551	1/92, 1/92, 2/92, 12/92,	C
39		Quartz Hill	93534-0000	***	B

* Addresses are deleted for privacy protection; this information is available from the County NFIP representative for owner reference.

** Flood Zone A4 is the Special Hazard Area inundated by the 100-year flood with base elevations determined and the Flood Hazard Factor (FHF) is determined to be 4, respectively.

** Flood Zones A is the Special Hazard Area inundated by the 100-year flood with no base flood elevation or Flood Hazard Factor (FHF) determined.

** Flood Zone B is a designation for the area between the special Flood Hazard areas and the limits of the 500-year flood.

** Flood Zone C is a designation for the area of minimal flood hazard.

*** Information not available.

Depending on the credit points received during CRS certification, a community can fall into one of ten classes: Class 1 requires the most credit points and gives the largest premium reduction, while Class 10 receives no premium reduction. The County's current CRS classification is 8. For Class 8, the credit points earned are 1,000 to 1,499 and the premium reduction is 10 percent. Preparation of the FMP will help the community to retain or improve the CRS classification to receive greater insurance premium reductions.

Community application for the CRS is voluntary. Communities apply for a CRS classification and are given credit points that reflect the impact of their activities on reducing flood losses, improving the insurance rating, and promoting the awareness of flood insurance. Floodplain management planning is a principal activity of the County's compliance with the CRS. The CRS encourages programs and projects that preserve or restore the natural state of floodplains and protect these functions. The CRS also encourages communities to coordinate their flood loss reduction programs with Habitat Conservation Plans and other public and private activities that preserve and protect natural and beneficial floodplain functions. CRS credit criteria, scoring, and documentation requirements are described in the CRS Coordinator's Manual.

1.4 Overview of the FMP Procedure and Process

The FMP for the RLPs located within the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill areas of unincorporated Los Angeles County was prepared according to the process described in Activity 510 (Floodplain Management Planning) in the CRS Coordinator's Manual. The FMP planning process involves review, research, investigation, discussion, interview, and consensus building. It includes receiving input from all parties involved and collaborating with existing and future regional programs that relate to flood hazard mitigation, such as land use plans, capital improvement plans, neighborhood redevelopment plans, floodplain ordinances, and environmental preservation/enhancement plans. The FMP for RLPs intends to address the site-specific problems and possible resolutions, under the authority of individual homeowners and/or their homeowner associations.

CRS credit is provided for preparing, adopting, implementing, evaluating, and updating a comprehensive floodplain management plan. Credit is not based on the activities the FMP recommends, but rather on the process that is used to prepare the FMP. To ensure compliance with the CRS program for flood reduction and to achieve the flood insurance premium credits, the subject FMP was prepared following the ten-step planning process described in Section 511, Credit Points, of the CRS Coordinator's Manual. The maximum credit points for a full FMP (community-wide and RLP FMPs) are listed below for reference and the implied proportion for the planning efforts was used to guide the development of the FMP for the RLPs within the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill areas. Note that the FMP for RLPs alone will receive only 25% of the maximum credits shown below.

Subsection	Step	Maximum Points
a.	Organize to prepare the plan	10
b.	Involve the public	48
c.	Coordinate with other agencies	18
d.	Assess the hazard	10
e.	Assess the problem	35
f.	Set goals	2
g.	Review possible activities	30
h.	Draft an action plan	65
i.	Adopt the plan	2
j.	Implement, evaluate, and revise	10
	Total points	**230**

1.5 FMP Committee

The development, modification, and revision of the FMP are accomplished through the direction and oversight of an FMP Committee. FEMA places a high priority on the establishment of a committee that consists of residents, businesses, and property owners that are most affected by flood hazards. The County has maximized the involvement of the public throughout the FMP process.

Since this FMP was specifically developed for the Repetitive Loss Properties in the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill areas, the FMP committee was formed from the property owners as the external FMP Committee members and the County staff as the internal FMP Committee members. The internal FMP Committee members are composed of various divisions of the Los Angeles County Department of Public Works including Water Resources, Watershed Management, Land Development, Regional Planning, Building and Safety, and Program Development. Frank Williams, a senior watershed planner of the Los Angeles County Public Works Department, was selected as the "Qualified Planner" to chair the committee. Mr. Williams has more than 30 years of experience in flood-related problems and hazard mitigation for various watershed and drainage basins within unincorporated Los Angeles County including the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill areas. Mr. Geoffrey Owu assumed Mr. Williams's responsibility in the final FMP process. Mr. Owu is currently the NFIP representative of the County.

The planning process and plan preparation were led by Dr. Lan Weber of Tetra Tech, Inc. Dr. Weber provides expertise in watershed analysis, floodplain management, and flood hazard mitigation. She brings more that 20 years of related project experience. The FMP was reviewed by another "Qualified Planner", Peter Carlson of Vandermost Consulting Services, Inc., who has over 20 years of hands-on experience with the community planning issues and watershed management.

2. BACKGROUND

2.1 Watershed and Drainage

The Santa Monica Mountains are located in the western area of Los Angeles County and the southeastern area of Ventura County (Figure 1.2). The Santa Monica Mountains cover 250 square miles, rising out of the Pacific Ocean to a height over 3,000'. The mountain range was driven up from the sea over 10 million years ago. Weathering has created rugged landscapes of canyons up to 2,000' deep with unique rock formations. Numerous watercourses drain the Santa Monica Mountains directly to the Pacific Ocean.

The Santa Monica Mountains offer a unique and scenic wilderness experience at the edge of a large urban area. The Santa Monica Mountains with Mediterranean climate offer a habitat of diversity for plants, mammals and birds.

The San Gabriel Mountains are located on the northern area of Los Angeles (Figure 1.3). This mountain range has several peaks over 9,000 feet, the highest being Mount San Antonio (locally know as Mount Baldy) at 10,064 feet. The San Gabriel Mountains and the surrounding Angeles National Forest encompass nearly 700,000 acres of quite scenic wilderness on the northern edge of the Los Angeles metropolis.

The foothills (starting at just 1,300 feet) are grassy and rather barren; the land becomes rockier and forested with oak, pine and cedar at higher elevations. There are clear mountain streams and reservoirs, small lakes, waterfalls, old mines and steep canyons. At higher levels snow can persist until July, even while daytime temperatures may reach 80°. The Los Angeles River and San Gabriel River are the two major watercourses that drain the San Gabriel Mountains.

Quartz Hill, a 390-square-mile, high desert community, is located in the westernmost part of the Mojave Desert (Figure 1.4) north of the San Gabriel Mountains. It is approximately 80 miles northwest of Palmdale and 55 miles southwest of Lancaster.

2.2 Population and Land Use Cover

The population of Los Angeles County increased almost 270% between 1940 and 1990. According to the 1990 Census, the entire County of Los Angeles has a population of 3.5 million

The land uses in the Santa Monica Mountains and San Gabriel Mountains consist of mostly undeveloped mountain ranges and scattered development along the watercourses. Since the early 1900s, a predominantly rural community has developed into the present population. The Quartz Hill area is one of the fastest growing communities in America. The land uses in the area still consist of huge undeveloped desert areas, which are rapidly being replaced by residential and commercial areas.

3. HAZARD ASSESSMENTS

3.1 Sources of Flooding

Sources of flooding in the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill areas consist of storm runoff in local watershed areas and associated storm drainage facilities. The sources of flooding for the RLPs in theses areas are summarized as follows.

Lobo Canyon: RLP No. 24 is located within the floodplain of Lobo Canyon, approximately 900 feet upstream of its confluence with Triunfo Canyon.

Mint Canyon: RLP No. 37 is located within the floodplain of Mint Canyon, approximately 23,500 feet upstream of its confluence with Santa Clara River.

Local Watersheds: RLP No. 36 is located adjacent to the private channel within the private residential community. The flooding sources for RLP Nos. 26, 27, 28, and 35 are the storm runoffs generated from the hillside areas located behind each property.

Others: The flooding source for RLP No. 38 is the overflow runoff from the detention basin (now relocated) southeast of the property. The RLP No. 38 is also possibly subject to the sheet-flow along the 'Antelope Valley Drainage Corridor No. 9 (see section 4.4). The flooding source for RLP No. 39 is the street runoff that breaks out from 'Antelope Valley Drainage Corridor No. 7" along 50th and 52nd streets.

3.2 Flooding History

There has been a history of flooding in the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill areas. Table 1.1 shows the flooding events (with insurance claims) at most properties since 1991. The data are not available for RLP Nos. 24, 36, 37, and 39. The flood events occurred in 1990/91, 1991/92, 1992/93, and 1994/95 rainy seasons. During this time, three (3) properties suffered flooding damages twice, one (1) property suffered flood damages three times, and one (1) property suffered flood damages four times. RLP No. 38 suffered flood damages a total of four times – the most frequently damaged of the 9 RLPs in these areas.

Flood frequency analysis was conducted using the United States Geological Survey (U.S.G.S) gaging station data. A U.S.G.S. gaging station is located at Topanga Canyon near Topanga Beach (Station No. 11104000) for the Santa Monica Mountains area, but only maintains streamflow records from 1930 to 1979. A U.S.G.S. gaging station is also located at Estates Canyon near Quartz Hill (Station No. 10264555) for Quartz Hill area, but its streamflow records are only from 1989 to 1995. A U.S.G.S. gaging station at Arroyo Seco near Pasadena (Station No. 11098000) for San Gabriel Mountains area was operated from 1914 to 2000. Since this gaging station is the only nearby station in the project vicinity which has long-term and recent flood measurements, the annual peak data of this station was used to identify the return periods of the past flood events shown in Table 1.1. Log Pearson Type III method was applied. The flood frequency analysis is included in Appendix A.

The following shows the flood frequency for the peak discharge of each rainy season and the number of properties that claimed flood damages.

Rainy season	Flooding Frequency	No. of RLPs claimed
1977/78	25-year storm	0
1979/80	10-year storm	0
1982/83	8-year storm	0
1990/91	3-year storm	1 (San Gabriel Mountains)
1991/92*	5-year storm	3 (Santa Monica Mountains) 1 (San Gabriel Mountains) 1 (Quartz Hill)
1992/93	5-year storm	1 (Santa Monica Mountains)

		1 (Quartz Hill)
1994/95*	5-year storm	2 (Santa Monica Mountains)
1997/98**	15-year storm	0
1978/79,80-82, 83-90, 93/94, 95-97	return period under 3-year	0

* Some of RLPs filed multiple claims within the same rainy season. (See Table 1.1)
** There is not enough information on any damage claims during the 1997/98 rainy season.

During 1991/92 season, RLP No. 38 of Quartz Hill area filed three (3) claims within two-month period (see Table 1.1). Note that there was no known flood damage claim information for the 1977/78, 1979/80, and 1998/98 events when major storms occurred.

3.3 Recent Problems

According to the insurance claims filed by the RLP owners, the most recent flood event was in 1995. Table 1.1 shows flooding events experienced by each RLP in the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill areas.

Based on the questionnaires returned by the RLP owners, included in Appendix D, RLP No. 39 still noticed the drainage problem on its property during the recent storm. Also, during the field investigation, it was found that RLP No. 26 experienced flood damages during the latest storm in January 2001. However, recent flood insurance claim information is not available for this study.

4. PROBLEM IDENTIFICATION

4.1 FEMA Floodplains/County Capital Floodplain

Flood studies of Lobo Canyon near RLP No. 24 in the Santa Monica Mountains have shown that this area is a Zone "A-4," a very high risk flood zone on FEMA's Flood Insurance Rate Map (FIRM) No. 065043-0756B (revised December 2, 1980). According to the Flood Insurance Study (FIS), published by FEMA, the Flood Insurance Zone "A-4" is the Special Hazard Area, inundated by the 100-year flood, with base flood elevations (BFE) determined by the detailed study. The Flood Hazard Factor (FHF) of the area was determined to be 4, which is the difference between water surface elevations of the 10-year and 100-year floods, multiplied by 10. A copy of the FIRM is presented as Figure 4.1.

Flood studies of the Santa Monica Mountains show that RLP Nos. 26, 27, and 28 are located within Flood Hazard Zone C, an area of minimal flooding: RLP Nos. 26 and 27 are on FIRM No. 065043-778B and RLP No. 28 is on FIRM No. 065043-776B. Flood Insurance Zone C is a designation for an area of minimal flood hazard. Copies of the FIRMs are attached as Figure 4.2, 4.3, and 4.4.

Flood studies of the San Gabriel Mountains show that RLP Nos. 35 and 36 are located within Flood Hazard Zone C, an area of minimal flooding (see FIRM No. 065043-675B, revised December 15, 1985). This particular FIRM is an index map for unincorporated areas of Los Angeles County, because separate panels of the FIRM for the area were not printed by FEMA. A copy of the FIRM is attached as Figure 4.5.

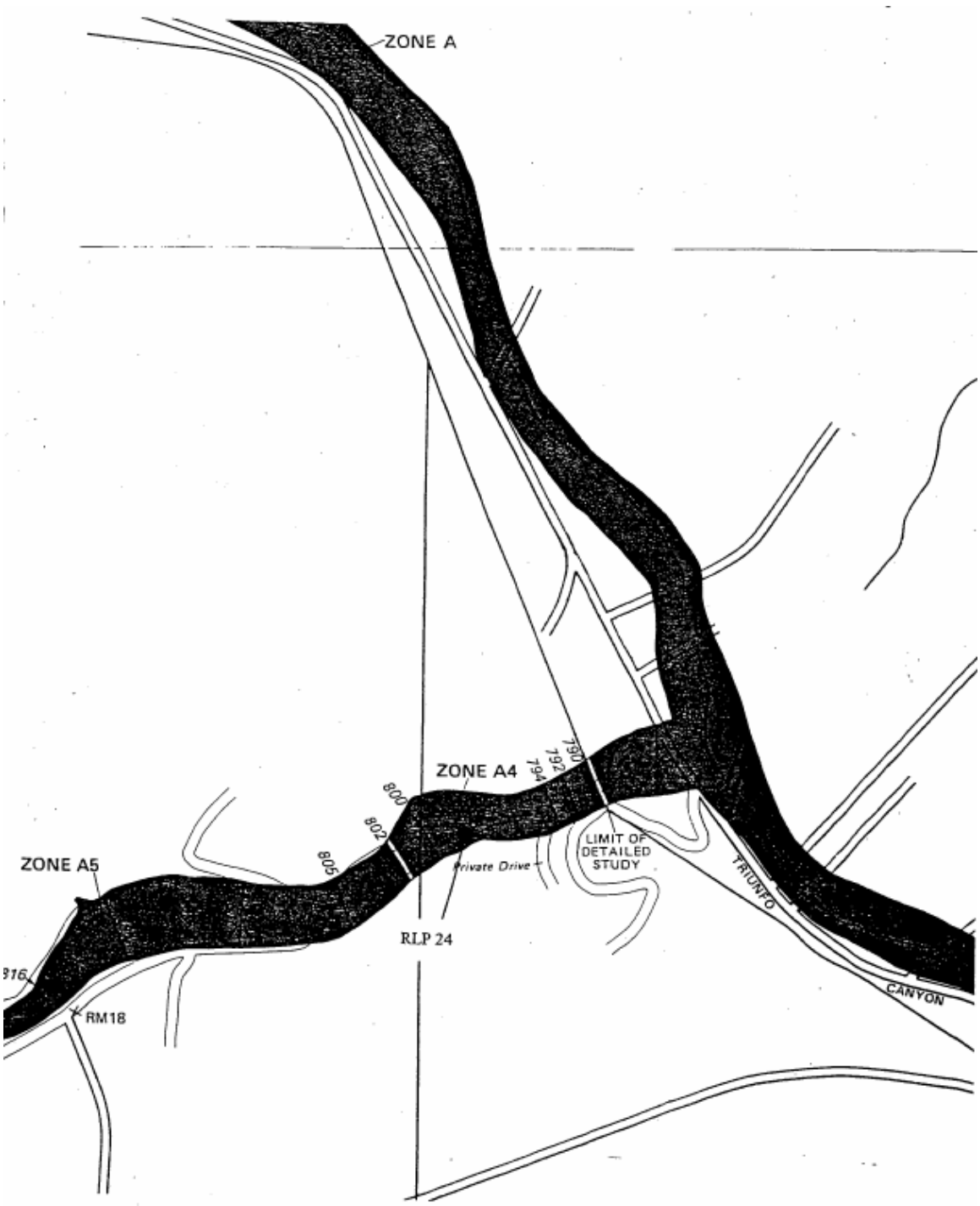

Figure 4.1 FEMA FIRM – RLP No. 24 (Revised December 2, 1980)

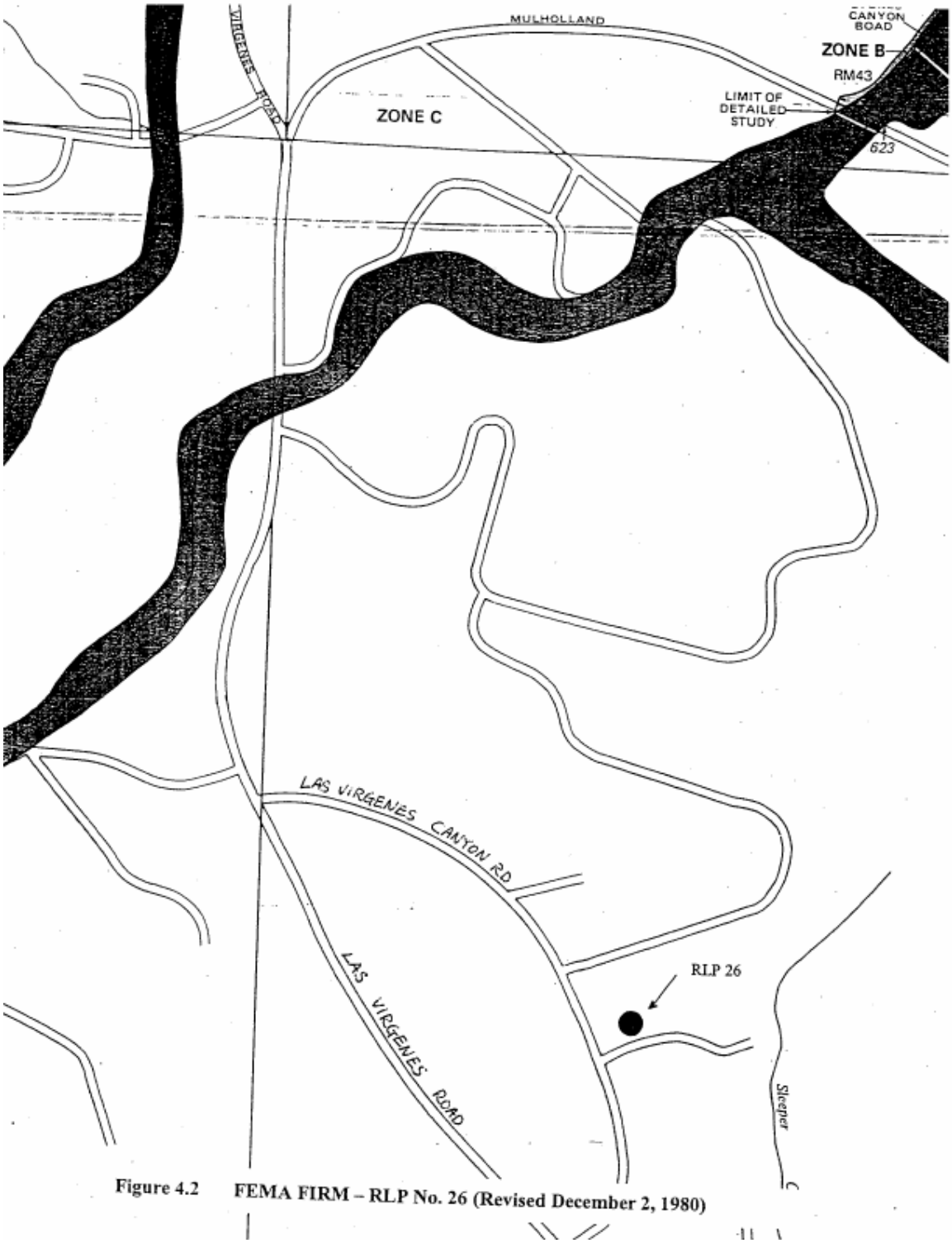

Figure 4.2 FEMA FIRM – RLP No. 26 (Revised December 2, 1980)

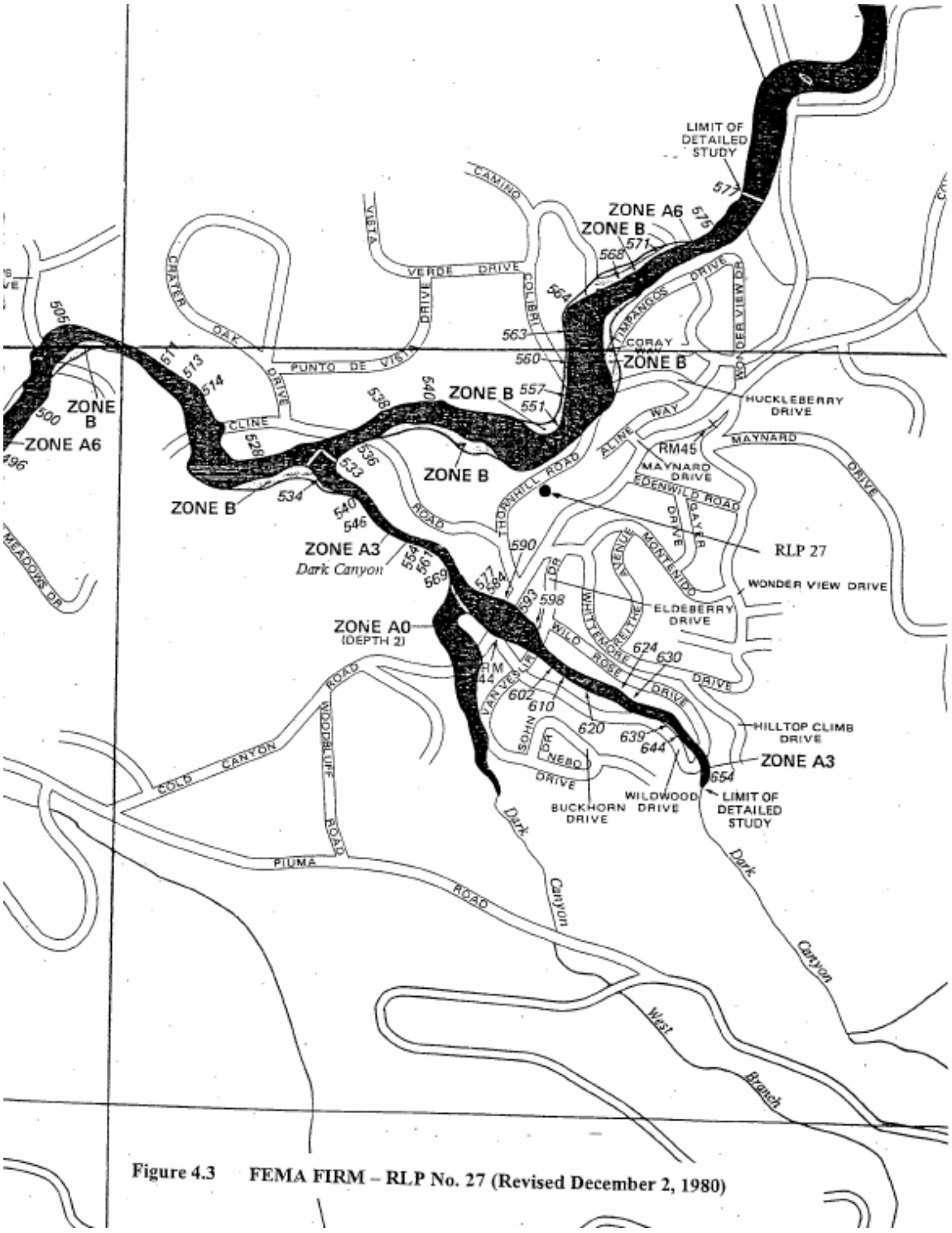

Figure 4.3 **FEMA FIRM – RLP No. 27 (Revised December 2, 1980)**

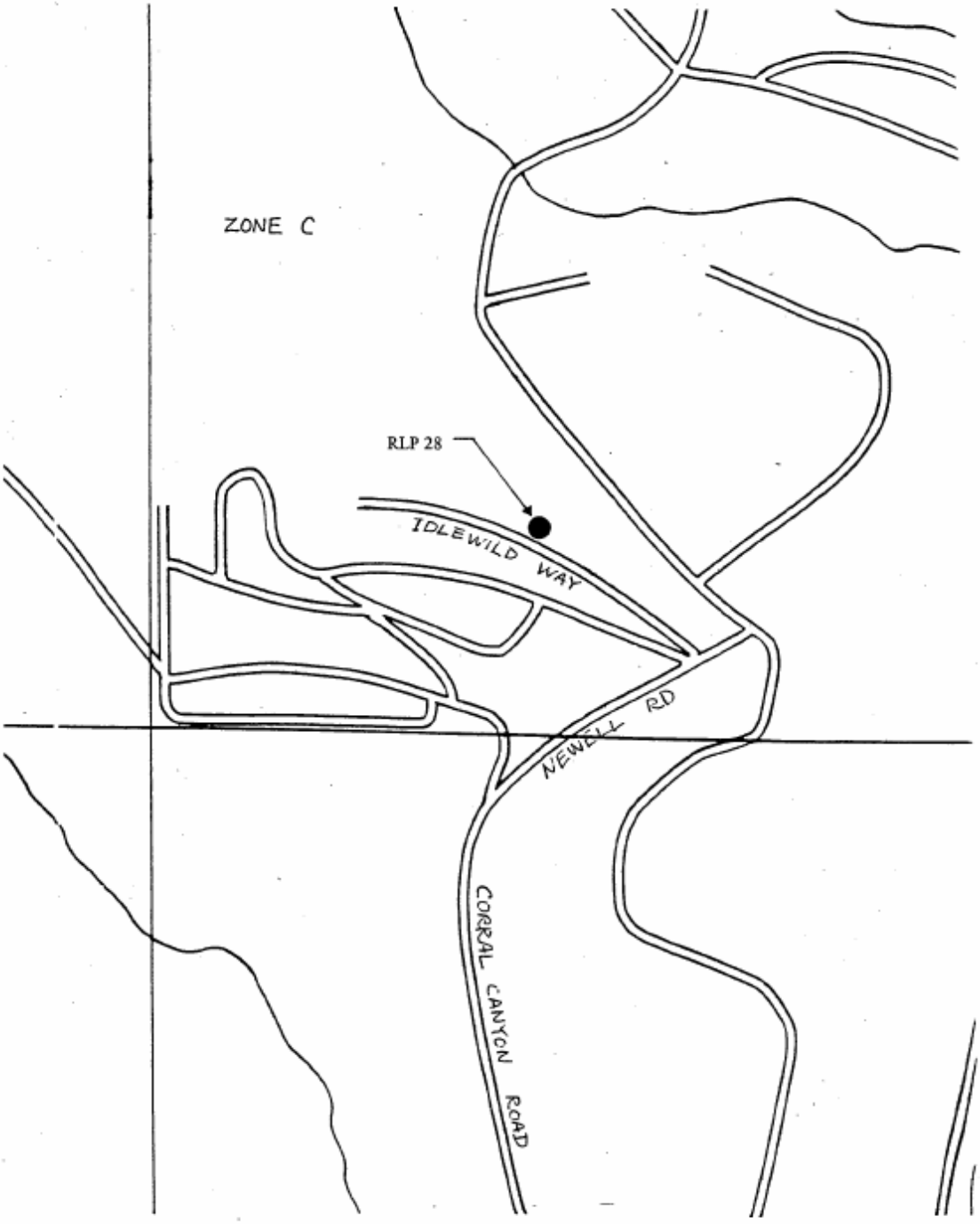

Figure 4.4 **FEMA FIRM – RLP No. 28 (Revised December 2, 1980)**

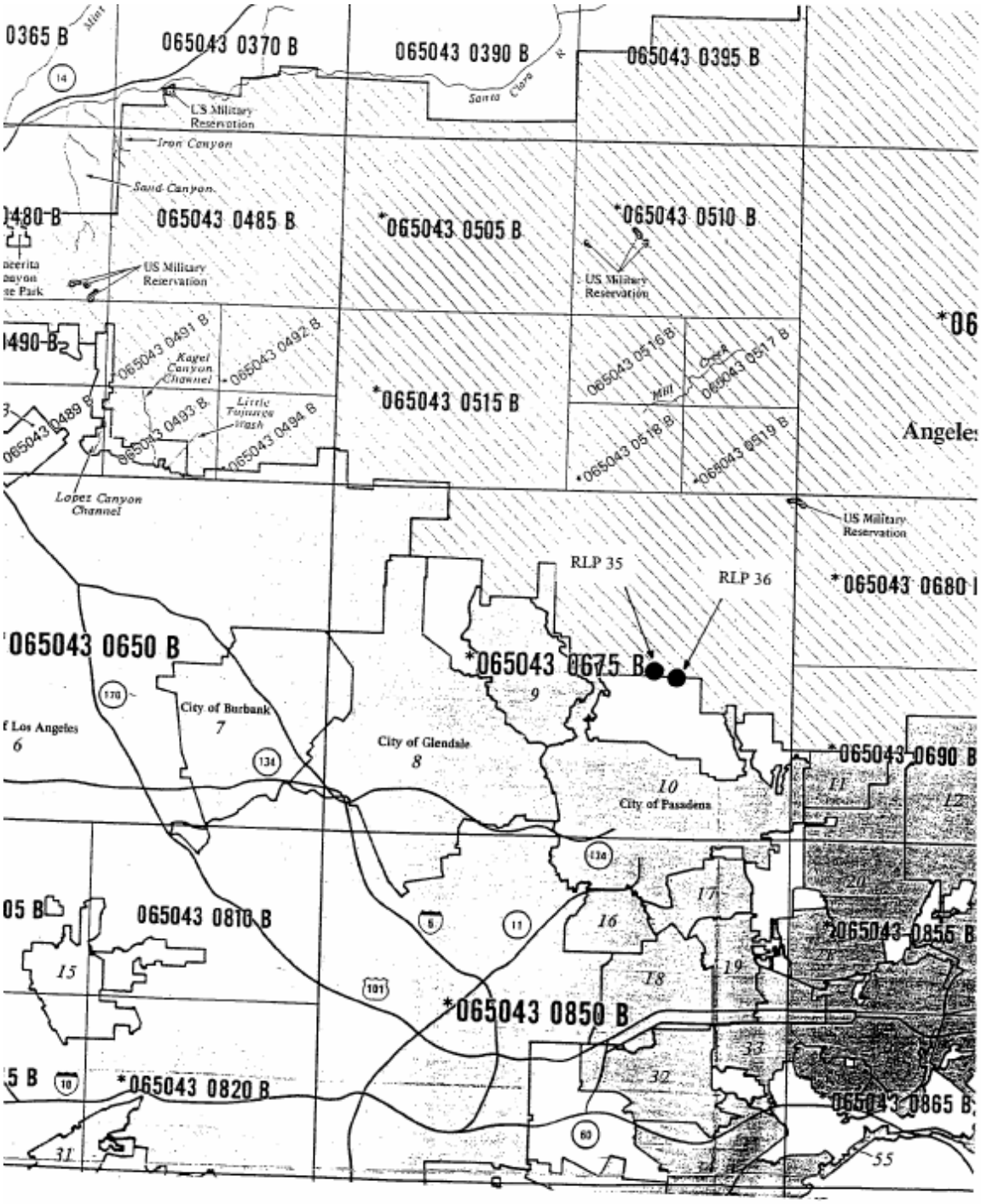

Figure 4.5 **FEMA FIRM – RLP No. 35 and 36 (Revised December 15, 1985)**

Flood studies of Mint Canyon near RLP No. 37 in the San Gabriel Mountains show Flood Hazard Zone A, a high risk flood zone, on FIRM No. 065043-365B (revised December 2, 1980). Flood Insurance Zone A is the Special Hazard Area inundated by the 100-year flood with no BFEs or FHF determined. A copy of the FIRM is attached as Figure 4.6.

Flood studies of the Quartz Hill area show that RLP No. 38 is located within Flood Hazard Zone C, an area of minimal flooding, and RLP No. 39 is located within Flood Hazard Zone B (see FIRM No. 065043-230B, revised December 2, 1980). Flood Insurance Zone B is the area inundated by a 500-year flood, with the 100-year flood depth less than one foot, with drainage area less than one square mile, or protected by a levee from the 100-year flood. RLP No. 38 was flooded by overflow from an upstream retention basin, which has been modified and relocated; the flooding problem has been eliminated. (See Figures 4.7 and 4.8.)

4.2 Field Investigation

There was no previous information regarding the physical conditions and flood problems at each repetitive loss property within the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill watersheds. To identify specific flood problems associated with each RLP, Tetra Tech, Inc., conducted field investigations in late December 2000 through April 2001. Specifically, the following issues were investigated during the field visits: location of each property, contributing drainage area, grading and drainage pattern, problems contributing to previous damages, physical conditions of the structures, and surrounding environments. Appendix B shows field photographs, topographic features, adjacent creeks/channels, and key findings of the field investigation. Residents were interviewed during the visits and the interview results were incorporated to update and supplement the information obtained from field observation.

4.3 Causes of Flood Damages

Causes of flood damages to RLPs in the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill areas were analyzed based on field investigation, data review, interviews with homeowners, and engineering analysis. The contributing watershed area to each RLP is included in Appendix A. The results of findings are summarized in Table 4.1 and described in the following paragraphs.

A. Santa Monica Mountains

Property No. 24 is located within the floodplain of Lobo Canyon, which runs behind the house. The property is in Zone A-4, which has significant risk from a 100-year flood and Capital flood (Capital flood is much more significant than the 100-year flood, see Section 4.4). Many of the small private bridges and culverts in the creek used to be clogged with debris, causing water to overflow onto the street in front of the subject house and to flood the property. The owner has privately constructed retaining walls along the creek.

Property No. 26 is the camping ground owned by the University of Pepperdine and located at the bottom of a hillside area. The steep hill at the west corner, or the highest point of the property, was prone to mudflow from the hill whenever it rains. The flow then runs along the private road across the camping ground between the camp housing facilities to the natural creek located at the east property boundary. Currently, the owner placed sandbags in some locations to temporarily protect the housing facilities near the bottom of the hill. The owner claimed that the sandbags were strategically placed to protect the housing facilities, and if the pattern of hillside runoff changes as it did in 1996 after the brush fire, his property would again be at the risk.

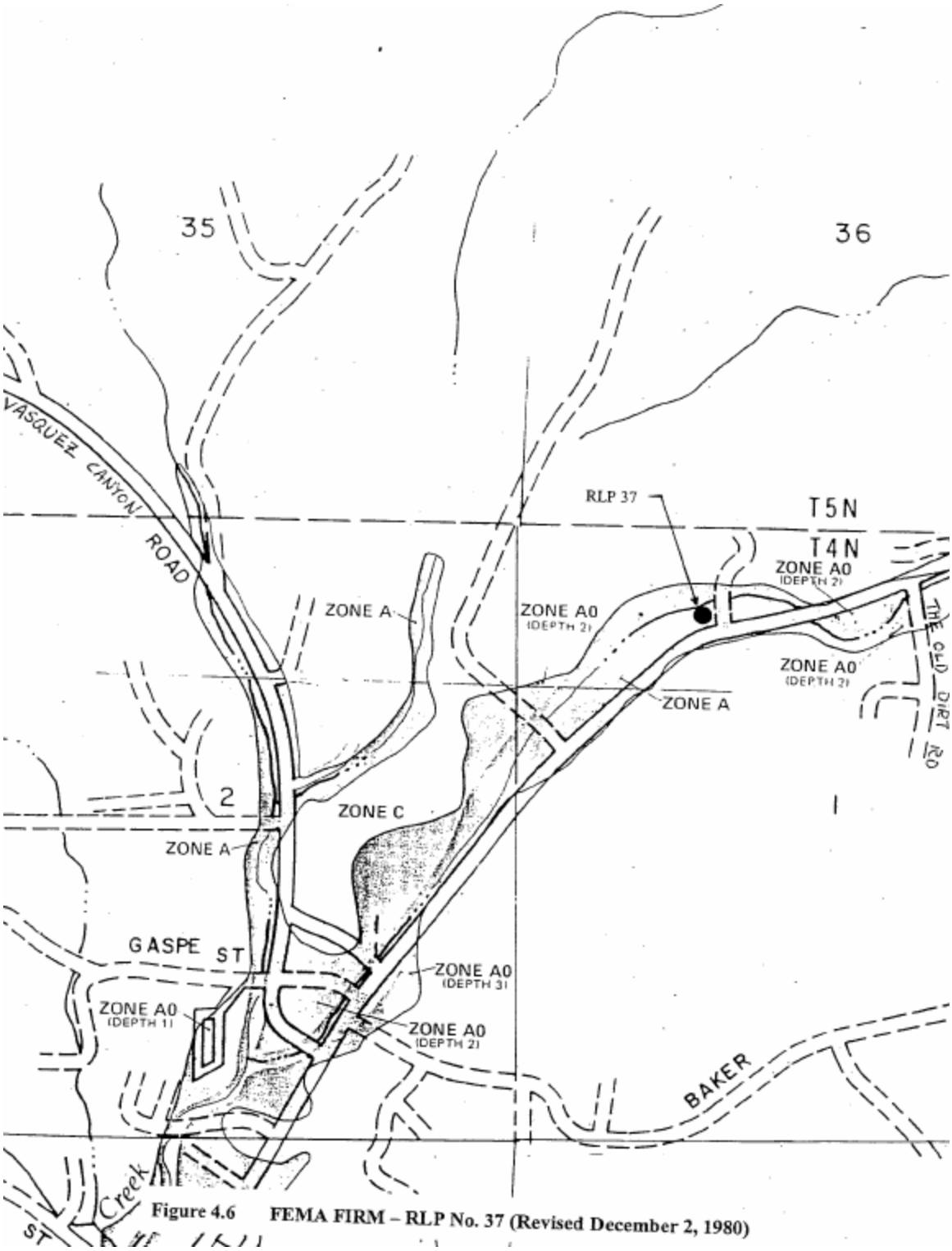

Figure 4.6 FEMA FIRM – RLP No. 37 (Revised December 2, 1980)

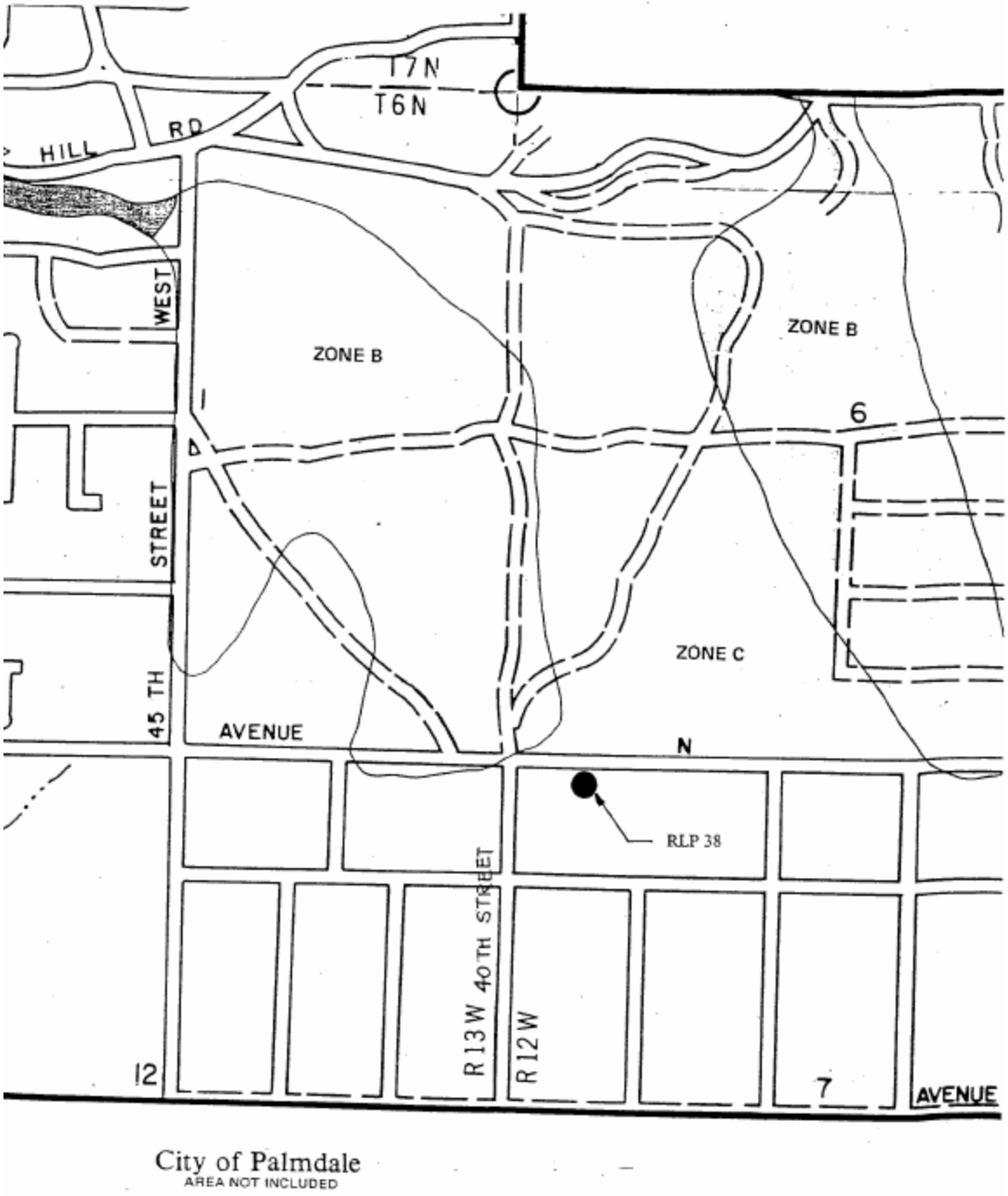

Figure 4.7 FEMA FIRM – RLP No. 38 (Revised December 2, 1980)

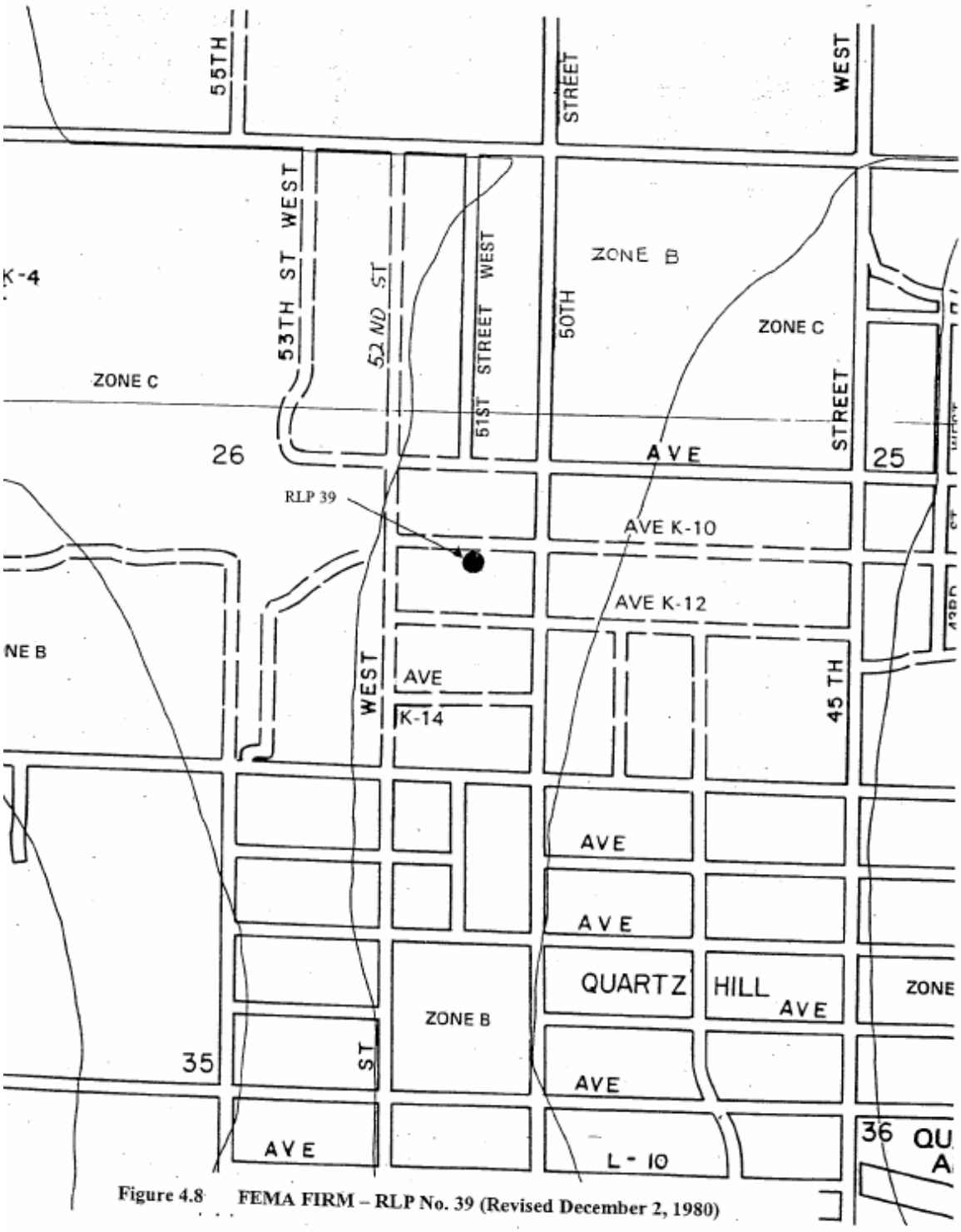

Figure 4.8 FEMA FIRM – RLP No. 39 (Revised December 2, 1980)

Table 4.1 Flooding Causes - Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill

RLP ID		Causes	Problem	No Problem
Santa Monica Mountains (4)				
24		Offsite drainage problem: The property is located in the floodplain and flood zone A4. Small private bridges and culverts in the creek, running behind the house, clogged with debris, and water overflowed to and ran along the Lobo Cyn Rd in front of the subject property.	x	
26		Mudflow from the hillside at east end of the property (U. of Pepperdine camping ground) and along the private road within the property.	x	
27		Hillside drainage problem; the property backyard at the bottom of hill; the house well above the street level.	x	
28		The house is located at the low point of the street.	x	
San Gabriel Mountains (3)				
35		Probably hillside drainage problem	x	
36		(1) Flooding in the channel in front of the property after the brush fire in 1993. The private studio in the front yard near the channel was washed away by flood. The channel banks near the property were eroded. (2) Flooding of the basement due to backyard drainage deficiency (not the hillside; the owner put drain pipe and 6" berm at the backyard since).		x
37		The property is located in Flood Zone A, based on the FEMA study. Water frequently overtopped the culvert at 250' u/s of the creek and street flow came into the house through the front yard. The L.A.CO placed a concrete retaining wall in the direction of the house to contain the water. Flooding at the creek running behind the house, eroding the backyard.	x	
Quartz Hill (2)				
38		Overflow from the detention basin south of the property flowed over the empty field and into his property. The detention basin has been relocated to further downstream due to construction of golf course since, and no flood for last 8 years.		x
39		The property is located in Antelope Drainage Corridor No. 7. Breakout water from the drainage corridor came in from south of the property, flooded the house, and exited north. The owner placed a private ditch, from north to south, and placed sandbags in his property to protect his house.	x	

* Addresses are deleted for privacy protection; this information is available from the County NFIP representative for owner reference.

Property No. 27 is located at the high grounds and flooded by the excessive storm runoffs from surrounding hills. It was also determined from the FEMA FIRM in Figure 4.3 that the property was not in the floodplain of Cold Canyon, adjacent to the property.

Property No. 28 is located at the lowest point of the street. The first floor of the house was built lower than the street level, and street runoff can enter the house through the driveway. The RLP owner built a 6-inch berm in front of the driveway to divert the water. This, however, may not have relieved the flood problem associated with major floods.

B. San Gabriel Mountains

Property No. 35 is located at the bottom of the hill and possibly impacted by the storm runoffs from surrounding hills. There is a two-foot-wide and one-foot-deep dry earthen ditch running west of but outside of the property. The property is located at higher grounds compared to the bank elevations of the ditch.

Property No. 36 is located near the privately constructed channel within the private hillside residential community. According to the RLP owner who resides in the community, the channel has a concrete bottom but is not engineered. After the brush fire in 1993, the hillside storm runoff in the channel destroyed the private studio in the floodplain and eroded the bank protections, which were restored and improved later. In a separate incident, the basement was flooded due to a backyard drainage deficiency, which was improved with a 6-inch berm.

Property No. 37, 15707 Sierra Highway, is located within the floodplain of Mint Canyon. The property is in Zone A, which has significant risk from a 100-year flood and Capital flood (Capital flood is much more significant than the 100-year flood, see Section 4.4). The culvert under Sierra Highway at approximately 250 feet upstream from the RLP is undersized and often clogged with debris. Insufficient culvert capacity resulted in street flooding and inundation at the subject property. In addition to the culvert capacity issue, the property owner claimed the upstream neighbor improperly altered the natural creek and encroached on the floodplain and caused flow breakout from the channel. Mint Canyon borders the RLP, eroding and flooding its backyard. The property owner placed the log retaining walls around the street side property entrance. The County also built a berm on top of the channel bank near the culvert under the Sierra Highway in an effort to contain the water inside the channel. The owner claimed that the property continued to be flooded during recent storm events.

C. Quartz Hill

Property No. 38 is no longer subject to flood damages from the flooding source that the property initially filed the claim for. The property is located within Antelope Valley Drainage Corridor No. 9, which is designated as Flood Zone C on the FEMA FRM (see Figures 1.4 and 4.7 and Section 4.4). According to the owner, the property was flooded when the retention basin, located a couple of blocks to the south, could not hold the storm water, and the gate was forced to open. The overland runoff entered his property across empty lots, causing flooding at the property. The basin has been replaced by a golf course and relocated one half mile to the northwest, further downstream from the property, which eliminated further flooding problems.

Property No. 39 is located in Zone B on the FEMA FIRM (Figure 4.8). The sheet flow from Antelope Valley Drainage Corridor No. 7 flooded the property, displacing retaining walls (see Figure 1.4 and Section 4.4). The property currently has a private earthen ditch and small berms along it to route the water through the property boundaries.

4.4 Hydrology Related to Flood Damaged Properties

The estimated FEMA 100-year flood and County Capital flood discharges, as provided by the County of Los Angeles, are listed in Table 4.2 at different locations in the watershed.

The discharge rates affecting RLP Nos. 26, 27, 28, 35, and 36 were estimated by applying the Rational Method as described in the Hydrology Manual of the Los Angeles County Department of Public Works. The methodology primarily depends on three factors: total drainage area, runoff coefficient of the area, and rainfall intensity. The runoff coefficient and rainfall intensity were determined from the Hydrology Manual, drainage map, and data gathered from field visits. The drainage area was delineated on the U.S.G.S. Topographic Maps in Appendix A, which depends on topographic features of the area and the existing storm drain facilities.

Based on the hydrology information, provided by the County, the RLP No. 39 is affected by breakout water from the Antelope Valley- Drainage Corridor No. 7, which runs from the south along 50th Street all the way to Mira Loma detention Facility, approximately 2 miles north of the RLP. The drainage corridor collects street and hill runoff from south of Quartz Hills and incorporates a huge contributing watershed area including the hillside area, which contributes runoff to Antelope Valley Drainage Corridor No. 9, where RLP No. 38 is located (see Figure 1.4).

The contributing drainage areas and FEMA 100-year and the Los Angeles County Capital Flood rates for RLP Nos. 24 and 37 are summarized in Table 4.2. The estimated discharges for Antelope Valley Drainage Corridor Nos. 9 and 7 near RLP Nos. 38 and 39 by FEMA are also shown in the table.

4.5 Buildings

The buildings are either one- or two-story residential houses on concrete slab, raised foundation, or a combination of the two. Since this is a rural residential area, no critical facilities or buildings are located here.

In addition to RLPs, there are other residential properties that may have been affected by the historical flooding or are subject to future flooding damages. Although these properties did not file claims more than twice within any given 10-year period since 1978 as the RLPs did, they will be included as the "high risk properties" to be monitored by the County of Los Angeles for future flood damage reduction (see Section 10).

In the areas of the San Gabriel Mountains, Santa Monica Mountains, and Quartz Hill, no topographic maps were available from the County. The floodplain boundaries of the FIRM were overlaid on the U.S.G.S. Quad Maps for investigation of other buildings in the vicinity of RLPs. These boundaries are approximate because the contour intervals of the Maps are 25 feet. In the Santa Monica Mountain area, approximately eight (8) "high risk properties" were identified near RLP No. 24 in the same floodplain (see Figure 4.9). In the San Gabriel Mountain area, nearly twenty (20) other properties may be affected by similar flooding problems as RLP No. 37 (see Figure 4.10). In the Quartz Hill area, approximately five (5) "high risk properties" were identified near RLP No. 39 to experience the similar flooding problem (see Figure 4.11).

The summary of the numbers of "high risk properties" in the San Gabriel Mountains, Santa Monica Mountains, and Quartz Hill is shown in Table 4.3.

Table 4.2 100-yr FEMA and County Capital Discharges

RLP ID	Street *	Watershed Area [ac]	Watershed Area [mi^2]	FEMA 100-yr Q	Capital Q	50-yr Q	100-yr Q
Santa Monica Mountains (4)							
24**		2424.0	3.7875	4640	8240		
26***		17.1	0.0267			88	97
27***		7.1	0.0110			36	40
28***		8.5	0.0133			44	49
San Gabriel Mountains (3)							
35***		5.7	0.0089			15	39
36***		55.6	0.0868			148	383
37**				6470	16700		
Quartz Hill (2)							
38**		1,200±		1200	N.A		
39**				2100	N.A		

* Addresses are deleted for privacy protection; this information is available from the County NFIP representative for owner reference.

** FEMA Discharge rates & County's Capital Qs were provided by the County of Los Angeles and prorated based on the drainage areas, if necessary.

*** 50-yr & 100-yr Q for the sites were determined based on the Rational Method of the LA County Department of Public Works Hydrology Manual.

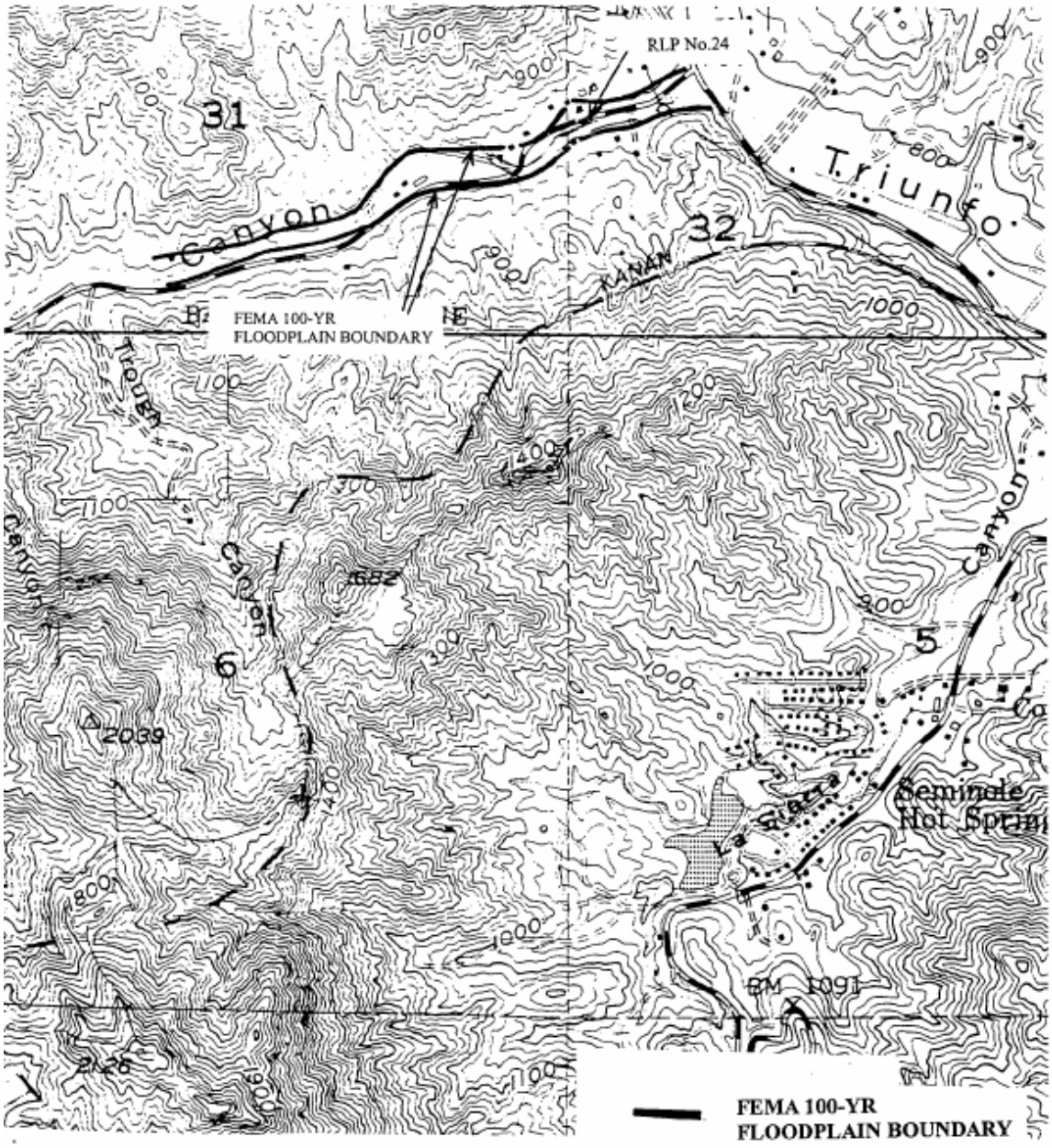

Figure 4.9 - "High Risk Properties" near RLP No. 24

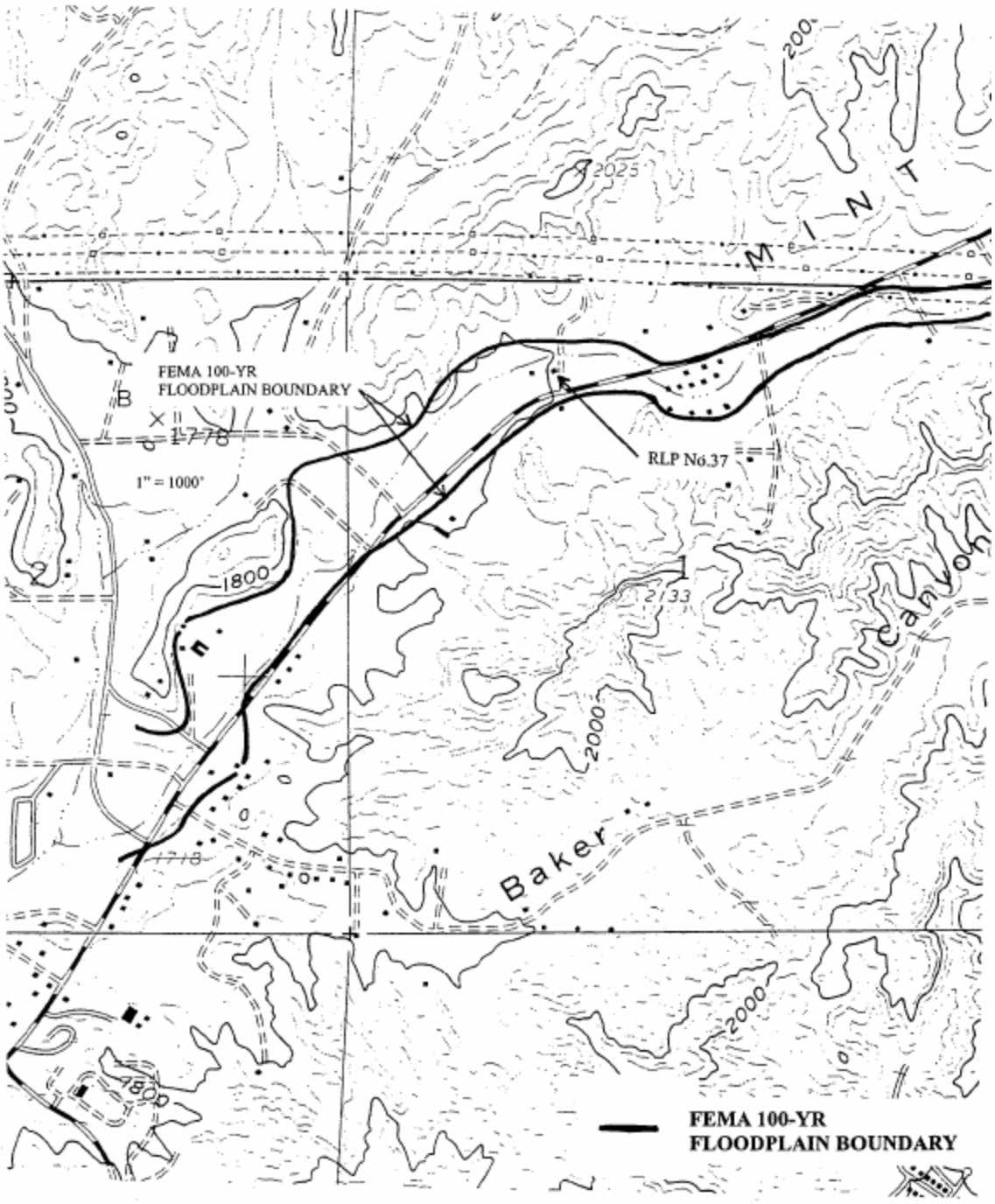

Figure 4.10 - "High Risk Properties" near RLP No. 37

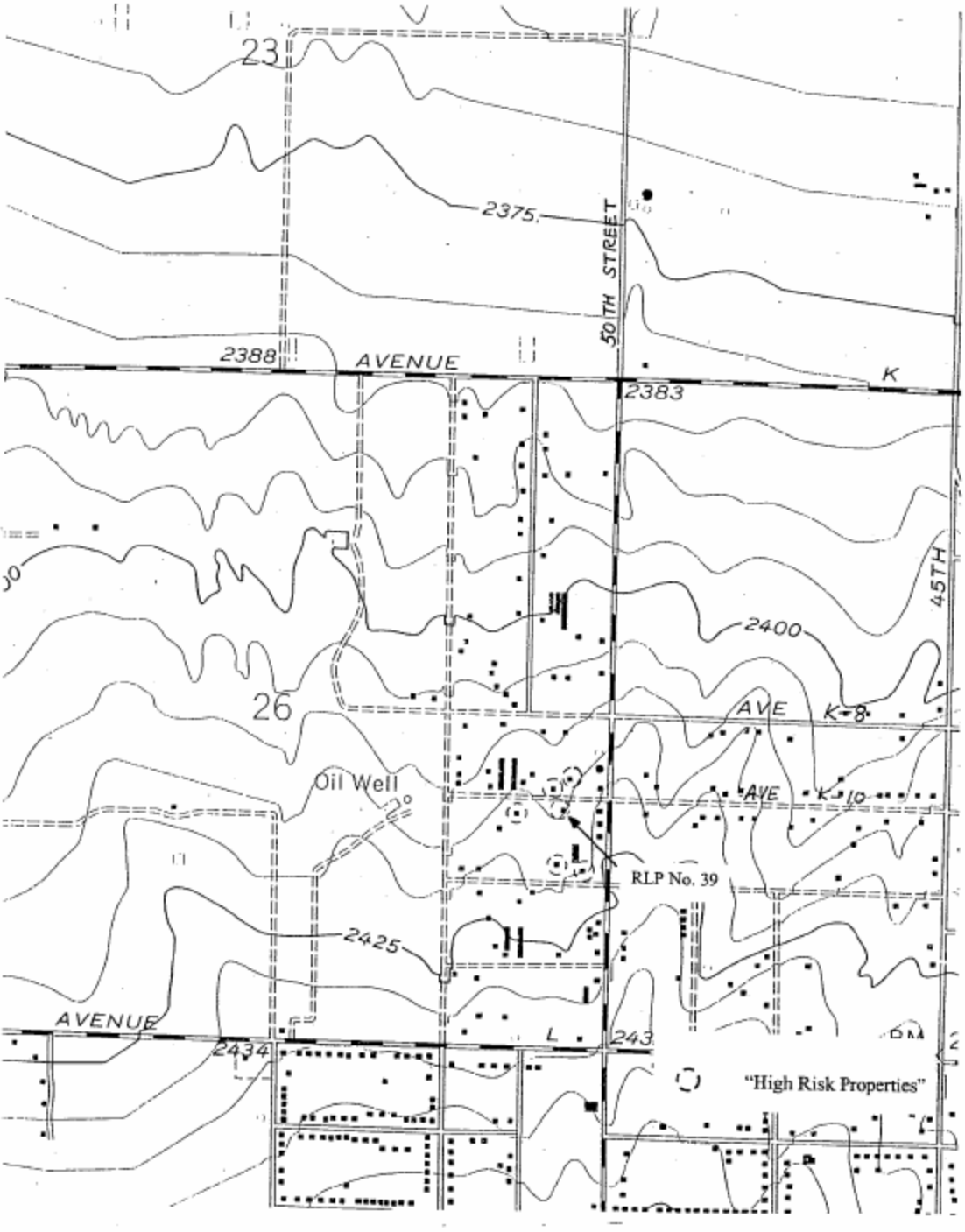

Figure 4.11 "High Risk Properties" near RLP No. 39

Table 4.3 The Numbers of "High Risk Properties" - Santa Monica Mountains, San Gabriel Mountains, and Quartz Hills

RLP ID	RLP Address*	Localized source of problem		Number of other property possibly affected by same problem	Description of Problem (non-localized problem site only)
		Yes	No		
Santa Monica Mountains (4)					
24			x	8	The properties are in the FEMA 100-yr Floodplain boundary, based upon U.S.G.S Quad Map
26		x		0	
27		x		0	
28		x		0	
San Gabriel Mountains (3)					
35		x		0	
36		x		0	
37			x	20	The properties are in the FEMA 100-yr Floodplain boundary, based upon U.S.G.S Quad Map
Quartz Hill (2)					
38		x		0	
39		x		5	Sheet flow problems along Drainage Corridor No. 7, based upon U.S.G.S Quad Map

* Addresses are deleted for privacy protection; this information is available from the County NFIP representative for owner reference.

4.6 Insurance Claims and Disaster Assistance Applications

The flood insurance claim history has been presented and summarized in Table 1.1. There are no known disaster assistance applications filed by the property owners and/or the County of Los Angeles.

4.7 Flood Warning and Emergency Management

Currently there are no flood warning devices or emergency management programs for the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill areas.

4.8 Critical Facilities

There are no critical facilities in the Repetitive Loss Properties areas of the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill.

4.9 Development (Land Use) and Growth Trends

The population of Los Angeles County increased almost 270% between 1940 and 1990. This growth and urbanization has increased stormwater runoff by creating impermeable surfaces. The density and land use patterns have led to a deficiency in the capacity of the flood control system.

4.10 Community and Economic Impact Assessment

The economic impacts associated with the RLPs are limited to individual homeowners. Impacts include sediment/trash removal after the flood, non-usable living spaces, and health problems caused by contaminated floodwater. The overall community economic impacts are considered insignificant

5. ENVIRONMENTAL SETTING AND HABITAT CONSERVATION PLAN

Per the CEQA Guidelines, an initial study was prepared for the RLPs and is attached here for reference. The environmental issues investigated include the following:

- Aesthetics
- Agriculture resources
- Air quality
- Biological resources
- Cultural resources
- Geology and soils
- Hazards and hazardous materials
- Hydrology and water quality
- Land use and planning
- Mineral resources
- Noise
- Population and housing
- Public services
- Recreation
- Transportation/traffic
- Utilities and service systems
- Mandatory findings of significance

The CEQA Guidelines and the summary of findings are presented in Appendix C. The environmental impacts were categorized into four levels of significance: "Potentially significant impact", "Less than significant with

mitigation", "Less than significant", and "No impact". No significant impacts are expected of possible improvements within the RLPs, assuming minor changes to the physical condition of the property. However, temporary construction impacts must be minimized and mitigated. Although improvements to individual RLPs may be exempted, construction permit issuance should ensure compliance with all environmental requirements. The area-wide storm drain/retention system, which may be implemented as a public activity, will require an additional environmental impact evaluation to ensure CEQA compliance.

6. PUBLIC INVOLVEMENT

6.1 Public Involvement Process and Procedure

Unlike other FMP areas in the County of Los Angeles, no community-scale public meetings were held for the nine RLPs in the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill areas. The locations of these RLPs are scattered over the County, with some of the RLPs more than 80 miles apart from each other.

The public involvement process and procedure for this FMP includes informing and involving the public by interviewing RLP owners at the site visits, questionnaire survey, and follow-up site visits. A copy of the questionnaire and meeting summaries are included in Appendix D.

6.2 Questionnaires

Individual "outreach letters" and questionnaires were sent to all RLP homeowners in the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill areas. These questionnaires were sent twice: first, on March 14, 2001, and, second, on June 15, 2001. The outreach letters were a continuation of the County's efforts to provide information to those residents whose homes suffered repetitive flood damages. The letters provide information regarding the FMP process and flood mitigation such as property protection measures, including retrofitting; clearing the on-site drainage devices; and emergency measures. The availability of flood insurance and engineering information for each RLP was publicized.

The County Planner received one response to the first mailing and four responses to the second mailing of questionnaires. These are 11% and 44% response rates, respectively. The copies of the questionnaires from the RLPs are included in Appendix D.

6.3 Individual Meeting Invitation

Along with each questionnaire sent to the RLPs, a letter inviting each owner to an individual meeting at his or her own home and property was also sent. A copy of the invitation letter is included in Appendix D.

6.4 Meeting Attendance

During the initial field visits to the RLPs, five (5) property owners were interviewed on site (RLP Nos.24, 26, 36, 37, and 38). These meetings included a short interview on the nature and extent of flood damages and field investigations by engineers from Tetra Tech.

The individual meetings were intended to allow the homeowners to voice their concerns and the residents to volunteer to participate in the County's floodplain management planning. A total of two (2) individual meetings have been conducted by the Tetra Tech engineers with residents at RLP Nos. 36 and 37 as follow-up to the questionnaires. Geoffrey Owu from the Los Angeles County Department of Public Works also attended the meeting for RLP No. 37. Two (2) owners declined the invitation. Four (4) owners never

responded to the invitations. One visit with RLP No. 35 was scheduled with a Tetra Tech engineer, but no one was present at the time of the visit.

The following is a summary of information on meeting attendance:

RLP No.	Date	Meeting Attendance
No. 24, 26, and 36 - 38	December 2000 through April 2001	Home owners, Tetra Tech engineer
No. 35	July 31, 2001	No property owner was present in the property at the time of visit.
No. 36	July 31, 2001	Home owners, Tetra Tech engineer
No. 37	June 25, 2001	Home owners, Tetra Tech engineer, Geoffrey Owu (L.A.CO DPW)

7. AGENCY COORDINATION

The State of California Department of Water Resources, FEMA, State of California Department of Fish and Game, Los Angeles Regional Water Quality Control Board, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and NFIP Coordinator were also invited to these meetings. Correspondences and telephone logs between the above agencies and Tetra Tech are included in Appendix D.

8. GOAL SETTING

8.1 Floodplain Management Goal Definition

Goals were established to define the floodplain management plan based on the specific needs of the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill RLP owners. The overall goal for this FMP is to create a safe environment for individual owners or lessees by reducing flood hazards without significant environmental impacts. Specifically, the following goals were defined for development of this FMP:

- Understand the flood hazard and past mitigation activities.
- Conduct site inspection and data research to identify drainage problems.
- Identify the environmental settings at problem sites.
- Evaluate the structural integrity and assess the potential for elevating structures.
- Formulate non-structural and structural alternatives.
- Evaluate feasibility of each alternative.
- Evaluate environmental impacts and mitigation requirements.
- Outreach property residents (owners or lessees) to promote flood awareness and assist in hazard mitigation measures.
- Promote working relationship of the County with the local citizens and watershed management group.
- Develop a functional and realistic plan that provides balanced solutions for flood hazard mitigation within the sensitive environmental area.

8.2 Compatibility with Other Community FMP Goals

This FMP is in concurrence with the goals and objectives set forth in the County of Los Angeles Repetitive Loss Plan for Community No. 065043 (March 1992).

9. REVIEW OF POSSIBLE MITIGATION ACTIVITIES

9.1 Floodplain Management Objective Overview

The flood hazard to RLPs in the Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill areas is principally related to property construction within a floodplain. This construction prior to the County's development of a Floodplain Management Program and participation in the NFIP has resulted in clusters of repetitive loss properties within these areas. Nine property sites are covered within these clusters. The specific hazard association between property damage and channel overflow for these areas differs from most other FMPs for RLPs where the hazard-damage relationship is spread amongst many factors. Repetitive Loss Properties manifest a unique separation between public and private hazard mitigation. Recurrent damages to these properties carry public concern and cost; yet the damage forces and solutions are of a private nature and financial responsibility. Thus, the FMP for RLPs is of a dual character, requiring the attention of both public agencies and private RLP owners. The FMP must first identify the problem(s) associated with each RLP, assess solutions that can be provided by RLP owners and public agencies; and, at the same time, communicate with RLP owners the critical information and awareness to encourage the voluntary participation in private solutions. The following discussion centers on the private programs, measures, and activities to address the problems and needs associated with RLPs.

In keeping with the goals of the FMP to ensure that all possible mitigation measures are explored, the review of possible mitigation activities starts with the six activities presented in Section 511-g of the CRS Coordinators Manual and its six categories. These activities are (1) preventive, (2) property protection, (3) natural resource protection, (4) emergency services, (5) structural projects, and (6) public information.

The following sections detail the application of these six activities to the affected RLPs by a division between essentially public versus private activities. Note that the division between private versus public activities is for easy reference only. Implementation responsibility may be shared by both parties as shown in Section 10.1. Property protection activities are discussed under "Private Activities" since most protection measures will be implemented within the private property rights-of-way. Major structural improvements such as elevating the entire house may be costly and may be qualified for governmental funding assistance. Under these circumstances, property protection measures may be participated in by private owners, NFIP administrator (County), and other entities involved in funding application approval and reimbursement. Conversely, natural resources protection activities are primarily through the watershed management efforts of the public agencies and are listed under "Public Activities". However, the private owners are encouraged to apply environmentally friendly materials and to provide environmental protection during design and construction of property protection measures.

9.2 Public Activities

Of the six activities of the CRS Coordinators Manual, five are essentially governmental in nature. These five are preventive, natural resource protection, emergency services, structural projects, and public information. Implementation of any activity contained in these categories is dependent upon the priorities and funding capabilities of the responsible governing agencies.

9.2.1 Preventive Activities

The list below identifies potential preventive activities that have the potential to reduce flood damage potential for RLPs and "high risk properties" and aid in the mitigation of damages to RLPs and in many instances to non-RLP properties.

1.a Designate staff from planning, building/safety, development, and environmental divisions who will be responsible for working with RLPs during the permitting process.

1.b Investigate RLPs and annually notify RLP owners regarding local flood hazards and proper protection activities, provide technical advice regarding flood protection and flood preparedness, and distribute a revised RLP questionnaire to new RLPs.

1.c Maintain the County's Emergency Operations Master Plan and Procedures.

1.d Maintain regular coordination efforts with surrounding cities, State and Federal agencies regarding flood hazard mitigation, and the National Flood Insurance Program.

1.e Participate in organizations such as the Association of State Floodplain Managers and the National Association of Flood and Stormwater Management Agencies to network with other agencies and remain current in the field of floodplain management.

1.f Conduct annual National Flood Insurance Program seminars for County personnel responsible for applying and enforcing floodplain management regulations.

1.g Update operational procedures and training materials for staff that apply and enforce floodplain management regulations and provide annual training.

1.h Post "No Dumping" signs at points of entry to the stormwater system.

1.i Refine the use of the Plan Check and Inspection System (PCIS) to track high-risk properties and ensure that flood safety is adequately addressed through the plan check process.

1.j Incorporate floodplain management information into the Zoning Information and Map Access System (ZIMAS).

1.k The Flood Hazard Mitigation Coordinator shall flag repetitive loss properties in the PCIS database for review and approval of building permit applications.

1.l Identify and maintain a list of high-risk properties that could be acquired for conversion into open space.

1.m Establish standards and/or incentives for the use of structural and non-structural techniques that mitigate flood hazards and manage stormwater pollution.

9.2.2 Natural Resource Protection Activities

The guidance of the CRS Coordinators Manual typically places natural resource protection activities within the scope of a broad watershed, which is well beyond the scope of an individual RLP. Typically, ecosystem restoration activities benefit from stormwater volume reduction through infiltration and flood peak decrease through increased ground cover density and resistance. However, these large-scale restoration activities can be performed through the coordinated efforts of the County and local entities. Limited mitigation measures are also available to the RLP through the use of bioengineering solutions within the RLP right-of-way. The

implementation and financing of these activities is normally the property owner's responsibility. Potential natural resource protection activities identified are as follows.

2.a Continue to require environmental review in the development process to provide for the protection of natural resources.

2.b Encourage the application of biological resource measures for the control stormwater and erosion to the best of their applicable limits with regards to other safety factors such as fire control.

2.c Establish standards and/or incentives for the use of structural and non-structural techniques that mitigate flood-hazards and manage stormwater pollution.

2.d Ensure awareness of RLP owners on environmental sensitivities specific to their area.

2.e Establish standards and procedures for mitigation of temporary construction impacts.

2.f Develop and implement a watershed ecosystem restoration program.

9.2.3 Emergency Services Activities

Emergency services activities are taken during a flood to minimize its impacts. These measures are normally the responsibility of city or county emergency management staff. Under some special circumstances private entities, including homeowner associations, can undertake emergency services activities. A highly organized and committed private entity, like a homeowners association, may be capable of providing limited emergency services activities.

3.a Identify flood-warning systems for properties situated where such systems can benefit.

3.b Implement Emergency Operations and Procedures.

3.c Make sand and sand bags available to flood risk property owners during the wet season, provide notifications of the availability of these materials, and track the distribution of the materials.

9.2.4 Structural Activities

Section 510 of the CRS Coordinators Manual employs this category for large-scale projects providing protection to groups, rather than the more individually based category of Property Protection Activities. Large-scale projects are, by their nature, public facilities and are thus designed and maintained by public works staff. In the examination of RLPs, a limited number of large-scale projects are potentially suited for controlling the hazards of RLPs. These potential structural activities are as follows.

4.a Storm sewer improvements.

4.b Channel modifications.

4.c Street drainage modifications.

4.d Levee or floodwall construction to contain channel overflow.

4.e Add new retention basin or enlarge existing basins.

9.2.5 Public Information Activities

Information transfers to RLP owners, potential property owners, and visitors about the hazards and ways to protect people and property from the hazards are effective activities that can lead to the mitigation of the hazards. The following public information activities have been identified for RLPs.

- 5.a Identify possible sources of funding including Cost of Compliance funds and mitigation grant funds among others and provide this information to RLP owners.
- 5.b Continue to investigate RLPs as they are identified by FEMA, annually notify RLP owners regarding local flood hazards and proper protection activities, provide technical advice regarding flood protection and flood preparedness, and distribute a revised RLP questionnaire to new RLPs.
- 5.c Develop and distribute flood protection information and materials to property owners and developers in high-risk areas.
- 5.f Provide public education about maintaining the stormwater system free of debris.
- 5.g Maintain the County's web page to provide emergency preparedness information to the general public and media.
- 5.h Distribute information regarding flood prevention and flood insurance at emergency operations and emergency preparedness events.
- 5.i Continue implementing the County's Annual Emergency Preparedness Fair.

9.3 Private Property Protection Activities

Property protection activities for RLP are generally in the nature of small-scale measures undertaken by property owners on a structure-by-structure or parcel basis. As these measures are usually carried out by the property owner, implementation and financing of these measures are normally at the discretion of the property owner.

- 6.a Construct or modify retaining walls
- 6.i Add sump pump to drainage with proper drainage and trash capacity.
- 6.b Construct berms to divert water flows.
- 6.c Install debris fences or traps.
- 6.d Install yard inlets to drain water flows to the street.
- 6.e Construct/modify diversion channels.
- 6.f Improve headwalls for water conveyance.
- 6.g Floodproof structures and retaining walls.
- 6.h Floodproof entrances.
- 6.i Add sump pump to drainage systems and drain to nearest storm drain.
- 6.j Construct terrace drain and plant slope to reduce erosion.
- 6.k Plant slopes to reduce erosion and water flows.

6.l Improve on-site grading and add french-drain.

6.m Convert flood-prone living space and replace with new story.

6.n Lift entire house including floor slab and build a new foundation to elevate the house.

6.o Waterproof lower levels.

6.p Extend the walls of the house upward and raise the lowest floor.

10. ACTION PLAN

Section 9 concluded with the identification of alternatives that have the potential to mitigate the flood hazards experienced by the RLPs. In this section, where the goal is to identify actions to be taken by RLPs, the alternatives were examined for their technical appropriateness, affordability, ability to be implemented, and their regulatory compliance by local, state, and federal regulations at the RLP level.

10.1 Final Alternative Activity Plans

The set of alternatives carried forward from Section 9 can be divided into two: (1) activities requiring action at the "public" level; i.e., they require a governmental action and (2) actions that can be pursued by the individual property owner. Table 10.1 identifies theses divisions with the possible exceptions being noted. As noted earlier, main focus of the FMP for RLPs is the identification of hazard mitigation activities that the property owner may undertake. Given this focus, the activity categories that are basically governmental are left to the appropriate governmental entities to be implemented, with the noted exceptions of Table 10.1 being applied to RLPs where applicable.

Table 10.1 Mitigation Activity Basic Responsibility

Category	Basic Responsibility
Preventive Activities	Public
Natural Resource Protection Activities	Public (primary) and Private (secondary)
Emergency Services Activities	Public
Structural Activities	Public
Public Information Activities	Public
Property Protection Activities	Private (primary) and Public (funding assistance)

10.2 Selection Factors for RLPs

The selection factors to be carried out by the RLP owners are focused on alternatives that are economically, environmentally, and engineeringly feasible for the RLP owners. Specifically, this selection factor directs the focus of activities to those actions that can be carried out by the individual property owner.

10.3 RLP Action Plan for Property Protection Activities

The initial survey of the RLPs indicated that 9 properties meet the criteria of an RLP. Further field examination of these properties indicated two properties (RLP Nos. 36 and 38) no longer required flood protection attention. The remaining 7 RLPs have potential solutions based on preliminary hydrologic and

hydraulic data and engineering analysis as shown in Table 10.2. Depictions of some of the primary solutions are shown in Figures 10.1 through 10.3.

As shown in Table 10.2 and 10.3, RLP Nos. 24 and 37 may require governmental participation in action for funding assistance. RLP Nos. 26 and 39 require public activities to modify channels and/or retention basins.

Environmental Considerations

The implementation of the potential primary solution at a given RLP has been analyzed according to the County of Los Angeles CEQA Guidelines.

No significant impacts are expected of possible improvements within the RLPs, assuming minor changes to the physical condition of the property. However, temporary construction impacts must be minimized and mitigated. Although improvements to individual RLPs may be exempted, construction permit issuance should ensure compliance with all environmental requirements. The storm drain/retention system, which may be implemented as a public activity, will require an additional environmental impact evaluation to ensure CEQA compliance.

However, the permitting process and construction oversight should ensure compliance with all applicable environmental regulations.

Financial Viability

The recommended solutions have been analyzed for their technical appropriateness, ability to be implemented, and their regulatory compliance.

Economic analysis was conducted to assess the annual damages. Damages are governed by the guidelines and regulations for Federal water resources projects as expressed in the U.S. Army Corps of Engineers' Planning Guidance Manual (Engineering Regulation [ER] 1105-2-100). The underlying purpose of the analytical procedures outlined in ER 1105-2-100 is to convert the random nature of flood related damages to an expression of equivalent annual damage for comparison to the amortized cost of flood mitigation. The fundamental factors behind determinations of structural related damages under the Federal guidance are (1) depreciated structure replacement value, (2) content-to-structure value relationships, (3) inundation levels, (4) inundation depth-to-damage functions, (5) emergency costs relationships to structure inundation, and (6) cleanup cost relationship to the amount of inundated surface. The results of the analysis of these factors are ultimately incorporated into the USACOE Hydrologic Engineering Center's (HEC) Flood Damage Analysis Package, HEC-FDA, for the determination of equivalent annual damages.

The final factor for their possible implementation is their affordability. Every recommended solution was economically analyzed on a Benefit-to-Cost (B/C) basis (see Table 10.4) and on an investment recovery period method to check if implementation made financial sense (complete details are presented in Appendix E). Implementation costs range from $6,000 to $40,000 for the recommended solutions. B/C rations for the RLPs varied from approximately 0.5 to 11.8 with five properties being justified on a B/C ratio basis.

10.4 RLP Action Plan Related to Public Activities

Table 10.5 displays the Action Plan and its activities that are or will be implemented in order to meet the Goals, Objectives, and Policies outlined in Chapter 9. The primary responsible agencies and schedule describe each activity listed in Table 10.5.

Floodplain Management Plan for
Repetitive Loss Properties
Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill

Table 10.2 Los Angeles County Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill Areas RLPs

RLP ID	Causes *	Problem	No Problem	Primary Potential Solution	Alternate Solution
Santa Monica Mountains (4)					
24	The property is located in the floodplain and flood zone A4. Small private bridges and culverts in the creek, running behind the house, clogged with debris	X		Lift the entire house with the floor slab attached; Build retaining wall higher along the creek and better maintenance of the private bridge openings.	Improve creek capacity
26	Mudflow from the hillside at east end of the property and along the private road within the property.	X		Construct a debris basin at the bottom of the hill and a ditch along the private road	Street grading and drainage improvement
27	Hillside drainage problem; the property backyard at the bottom of hill; the house well above the street level.	X		Grading/drainage and retaining wall and ditch at the toe	Const. Terrace drain and plant slope to reduce erosion
28	The house is located at the low point of the street.	X		Construct a berm in front of driveway to divert the water	Street grading and drainage improvement
San Gabriel Mountains (3)					
35	hillside drainage problem	X		Hillside problem, possibly with grading/drainage and retaining wall at the toe	Const. Terrace drain and plant slope to reduce erosion
36	(1) Flooding in the channel in front of the property after the brush fire in 1993. (2) Flooding of the basement due to backyard drainage deficiency (the owner put drain pipe and 6" berm at the backyard since).		X		
37	The property is located within the floodplain.	X		Lift the entire house with the floor slab attached	Property Acquisition
Quartz Hill (2)					
38	overflow from detention basin, which has been relocated since		X		
39	The property is located in Antelope Drainage corridor.	X		(1) Improve private ditch (2) Construct an area-wide stormdrain and flood retention system	
	Shaded items involve public activities.				

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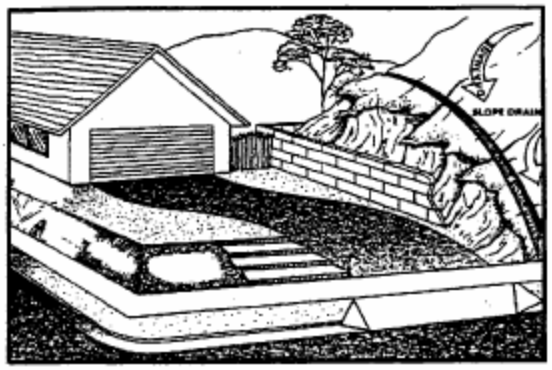
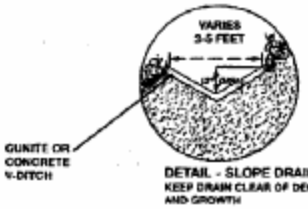


A retaining wall at the bottom of slope to prevent slope failure



A small ditch close to the upper edge of the property to drain into a natural water course or onto street pavement or to a well-vegetated area

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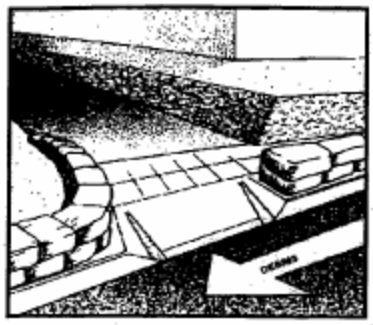
Infrastructure Southwest Group

ON–SITE GRADING/DRAINAGE PROBLEM
NFIP REPETITIVE LOSS CORRECTION WORKSHEET
6a. Construct/Modify Retaining Wall and V-Ditch to Drain

Figure 10.1 Retaining Wall and Drainage Layout



Construct berm at driveway

Divert surface water away

SUBMERSIBLE SUMP PUMPS

In cases where water has flooded a basement, garage, or any low-lying area, a submersible sump pump is recommended. If flooding is a recurring problem, a permanent pump should be installed in a sump with a floatation device for automatic on/off operation (see Fig.13).

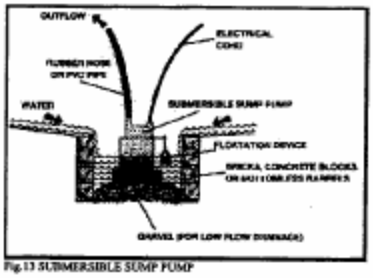


Fig.13 SUBMERSIBLE SUMP PUMP

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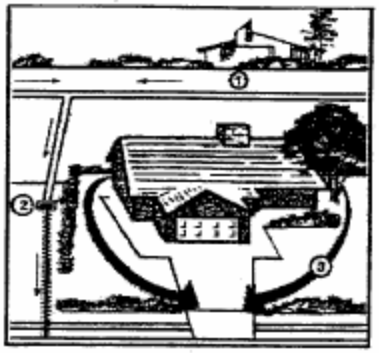
Infrastructure Southwest Group

PROPERTY LOWER THAN STREET OR SURROUNDING

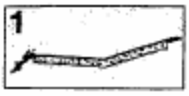
NFIP REPETITIVE LOSS CORRECTION WORKSHEET

6b. Construct Berm at Driveway and Sump Pump at Low Point

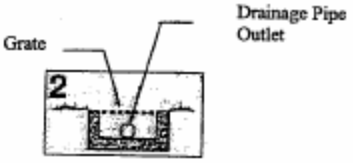
Figure 10.2 Berm and Sump Layout

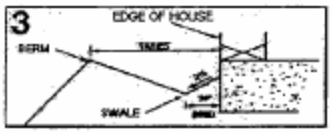


General property drainage flow direction



Paved Terrace Drain





Side Swale Directing Water around the House

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BACKYARD – HILLSIDE PROBLEM
NFIP REPETITIVE LOSS CORRECTION WORKSHEET
6d. Install Inlets/French Drain and Drain to Street

Figure 10.3 Inlet/French Drain and Drainage Layout

Table 10.3 Summary of Recommended Solutions for RLPs

Property Protection Activities	Recommended Solution	RLPs
6.a	Construct or modify retaining walls with proper drainage and trash capacity.	27, 35
6.b & 6.d	Construct berms to divert water flows. Install yard inlets to drain water flows to the street.	28
6.e	Construct/modify diversion channels within RLP.	26 and 39
6.n	Lift entire house including floor slab and build a new foundation to elevate the house.	24 and 37
6.e and 4.b to 4.e	Improve private ditch. Construct an area-wide stormdrain and flood retention system.	39

Table 10.4 Financial Viability of Recommended Primary Solutions

RLP #	100-Year Event Damage			Equivalent Annual Damage	Mitigation Cost	B/C Ratio
	Structure	Content	Cleanup			
24	$23,130	$15,388	$5,840	$2,050	$40,000	0.68
26	$87,357	$60,715	$52,721	$25,514	$30,000	11.25
27	$33,605	$23,356	$12,060	$8,898	$10,000	11.77
28	$16,691	$11,600	$5,990	$4,573	$10,000	6.05
35	$11,717	$8,144	$4,205	$3,229	$6,000	7.52
36	-	-	-	-	-	-
37	$17,896	$11,246	$4,015	$1,549	$40,000	0.51
38	-	-	-	-	-	-
39	$28,479	$14,903	$10,220	$2,462	$10,000	3.26

Cost shown in for private ditch improvement only.

Floodplain Management Plan for
Repetitive Loss Properties
Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill

Table 10.5 Action Plan of the FMP for RLPs

Activity	Responsible Department													Schedule
		Public Works Department												
	County Emergency Operations Center	County Regional Planning Department	County Parks and Recreation	Watershed Management Division	Building & Safety Division	Design Division	Program Development Division	Flood Maintenance Division	Disaster Assistance Group	Water Resources Division	Land development Division	Local Groups		
Maintain Emergency Operations Master Plan and Procedures	X			X					X					Ongoing
Designate staff responsible for working with RLPs during the permitting process from planning, building/safety, development, and environmental divisions				X	X									TBD
Ensure awareness of RLP owners on environmental sensitivities specific to their area		X		X								X		TBD
Establish standards and procedures for mitigation of temporary construction impacts		X		X	X									TBD
Develop and implement a joint watershed ecosystem restoration program		X		X										TBD
Identify flood-warning systems for properties situated where such systems can be beneficially employed	X	X		X					X			X		TBD
Conduct a stormwater facilities condition assessment program to identify the physical and hydraulic condition of the system and to support infrastructure management needs				X				X		X				June 2001

COUNTY OF LOS ANGELES TETRA TECH, INC.

Floodplain Management Plan for
Repetitive Loss Properties
Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill

Table 10.5 Action Plan of the FMP for RLPs

Activity	Responsible Department												Schedule
		Public Works Department											
	County Emergency Operations Center	County Regional Planning Department	County Parks and Recreation	Watershed Management Division	Building & Safety Division	Design Division	Program Development Division	Flood Maintenance Division	Disaster Assistance Group	Water Resources Division	Land development Division	Local Groups	
Develop and maintain a list of priority maintenance-related flood problem sites				X									Ongoing
Conduct annual maintenance at priority maintenance-related flood problem sites prior to the wet season				X									Ongoing
Refine the use of the Plan Check and Inspection System (PCIS) to track high-risk properties and ensure that drainage is adequately addressed through the plan check process				X	X						X		TBD
The Flood Hazard Mitigation Coordinator shall flag repetitive Loss Properties in the PCIS database for review and approval of building permit applications				X									Ongoing
Investigate RLPs and annually notify RLP owners regarding local flood hazards and proper protection activities, provide technical advice regarding flood protection and flood preparedness, and distribute a revised RLP questionnaire to new RLPs				X	X								Ongoing
Identify and maintain a list of high-risk properties that could be acquired for conversion into open space		X	X	X									July 2001

COUNTY OF LOS ANGELES TETRA TECH, INC.

Table 10.5 Action Plan of the FMP for RLPs

Activity	Responsible Department													Schedule
		Public Works Department												
	County Emergency Operations Center	County Regional Planning Department	County Parks and Recreation	Watershed Management Division	Building & Safety Division	Design Division	Program Development Division	Flood Maintenance Division	Disaster Assistance Group	Water Resources Division	Land development Division	Local Groups		
Establish standards and/or incentives for the use of structural and non-structural techniques that mitigate flood-hazards and manage stormwater pollution				X										Ongoing
Continue to require environmental review in the development process to provide for the protection of natural resources		X		X			X							Ongoing
Encourage the application of biological resource measures for the control stormwater and erosion to the best of their applicable limits with regards to other safety factors such as fire control		X		X			X							TBD
Make sand bags available to flood risk property owners during the wet season, provide notifications of the availability of these materials, and track the distribution of the materials	X			X										Ongoing
Storm drain, open channel, and flood retention basin improvements				X		X	X	X		X		X		July 2001
Identify possible sources of funding and provide this information to RLP owners			X	X								X		Ongoing

Floodplain Management Plan for
Repetitive Loss Properties
Santa Monica Mountains, San Gabriel Mountains, and Quartz Hill

Table 10.5 Action Plan of the FMP for RLPs

Activity	Responsible Department														Schedule
		Public Works Department													
	County Emergency Operations Center	County Regional Planning Department	County Parks and Recreation	Watershed Management Division	Building & Safety Division	Design Division	Program Development Division	Flood Maintenance Division	Disaster Assistance Group	Water Resources Division	Land development Division	Local Groups			
Continue to investigate RLPs, as they are identified by FEMA, annually notify RLP owners regarding local flood hazards and proper protection activities, provide technical advice regarding flood protection and flood preparedness, and distribute a revised RLP questionnaire to new RLPs				X	X										Ongoing
Develop and distribute flood protection information and materials to property owners and developers in high-risk area				X								X			TBD
Provide public education about maintaining the stormwater system free of debris				X								X			Ongoing
Distribute information regarding flood prevention and flood insurance at emergency operations and emergency preparedness events	X			X								X			Ongoing
Continue implementing the County's Annual Emergency Preparedness Fair	X			X								X			Annual

COUNTY OF LOS ANGELES TETRA TECH, INC.

2. An example of RLP site information; *(floodMitPlan4.pdf)*

County of Los Angeles

Floodplain Management Plan
for
Repetitive Loss Properties
Los Angeles County
Malibu Lake Area

September 2001

Prepared for
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ACKNOWLEDGEMENTS

Repetitive Loss Properties (RLP) are most susceptible to flood damages; therefore, they have been the focus of flood hazard mitigation. Unlike a countywide program, the floodplain management plan for repetitive loss properties involves highly diversified property profiles, drainage issues, and property owner's interest. It also requires public involvement processes unique to each RLP area. This FMP intends to serve as a living document for future reference to the flooding problems and mitigation potentials, and as implementation guidelines for all mitigation activities. The ultimate goal of this FMP is to protect flood-prone residences, reduce flood hazards, and eliminate future flood insurance claims. Support from the Governor's Office of Emergency Services and Susan Nissman of the Board of Supervisors Third District office on the FMP development and funding application is highly acknowledged. Preparation of this FMP would not have been possible without contributions from the Los Angeles County Public Works Department (Geoffrey Owu, Frank Williams, Mark Pestrella, and several staff in the Calabasas office and other divisions), Mountain Club (Linda Wall, Carl Day, and Charles Kundert), sub-consultants (Johannes Yostanto of WRC Consulting Services, Inc., James Ragan and Nancy Art of James Ragan Associates, Peter Carlson and Julie Vandermost of Vandermost Consulting Services, Inc., Michael Gorecki, and Karen Kirkland of Natural Resources Assessment Inc.), and other Tetra Tech, Inc., team members (Jung Suh, Yen-Hsu Chen, and Deanna Rose). Special appreciation is expressed to Mr. David Stroud (Flood Training Coordinator, Insurance Services, Inc.) for his review comments and guidance. Ms. Pat Russell, one of the RLP owners, who volunteered to coordinate with all RLP owners for field investigation and public meeting notice, has made our public outreach efforts successful.

Lan Weber, P.E, Ph.D.
Tetra Tech, Inc.
Vice President/Project Manager

1. INTRODUCTION

1.1 Project Objectives

The objective of this Floodplain Management Plan (FMP) is to provide specific mitigation measures and activities to best address the community's flood problems and needs associated with repetitive loss properties. A repetitive loss property is one for which two or more claims of $1,000 or more have been paid by the National Flood Insurance Program (NFIP) within any given ten-year period since 1978.

Specifically, this report provides an FMP for 19 repetitive loss properties (RLPs) within the unincorporated area of Malibu Lake. Figure 1.1 shows the location of Malibu Lake within Los Angeles County. Figure 1.2 shows the location of the 19 RLPs in relation to Malibu Lake. Table 1.1 provides a list of the 19 RLPs and a summary of the flood insurance claims filed for each property. The FMP is also applicable to other "high risk properties" adjacent to the RLPs, which are subject to similar flood hazards

The FMP was developed following the general requirements of the National Floodplain Insurance Program (NFIP) and specific procedures outlined in the Community Rating System (CRS) Coordinator's Manual (1999). Implementation of this plan will result in lower flood losses and improved protection of natural and beneficial floodplain functions. This plan will assist the community and repetitive loss property owners in understanding the flood hazards, identifying the problems, and deriving cost-effective and integral solutions for flood protection, stormwater management, and environmental protection.

1.2 Previous Repetitive Loss Property Plan

Since October 1990, the County has been a voluntary participant in the CRS established by the Federal Emergency Management Agency (FEMA). This program provides a discount on flood insurance premiums for property owners who are participating in the flood insurance program including those properties located within the designated Special Flood Hazard Areas defined by the Flood Insurance Rate Maps (FIRMs).

On March 31, 1992, the Los Angeles County Board of Supervisors adopted the "Repetitive Loss Plan for the National Flood Insurance Program CRS" for Los Angeles County, Community No. 065043. The plan was approved by FEMA for CRS Activity No. 510. The development and implementation of a "Floodplain Management Plan" is one of many recommended activities under the CRS.

To continue program participation, the County is required to prepare an annual update of activities in the Repetitive Loss Plan that reduce the number of and/or mitigate the risk to properties with multiple flood damage claims. The County's current Repetitive Loss Plan expires in October 2001, and it will be replaced by this "Floodplain Management Plan (FMP).

1.3 Review of NFIP and CRS Community Participation

The NFIP provides federally supported flood insurance in communities that regulate developments in their floodplains. The Community Rating System (CRS) was implemented in 1990 as a program for recognizing and encouraging community floodplain management activities that exceed the minimum NFIP standards. The CRS reduces flood insurance premiums in those communities that do more than implement the minimum regulatory requirements.

The CRS encourages comprehensive planning to address the community's flooding problems and provides credit for preparing, adopting, implementing, evaluating, and updating a comprehensive FMP. The CRS does not specify what activities the FMP must recommend, but rather the process used to prepare the FMP.

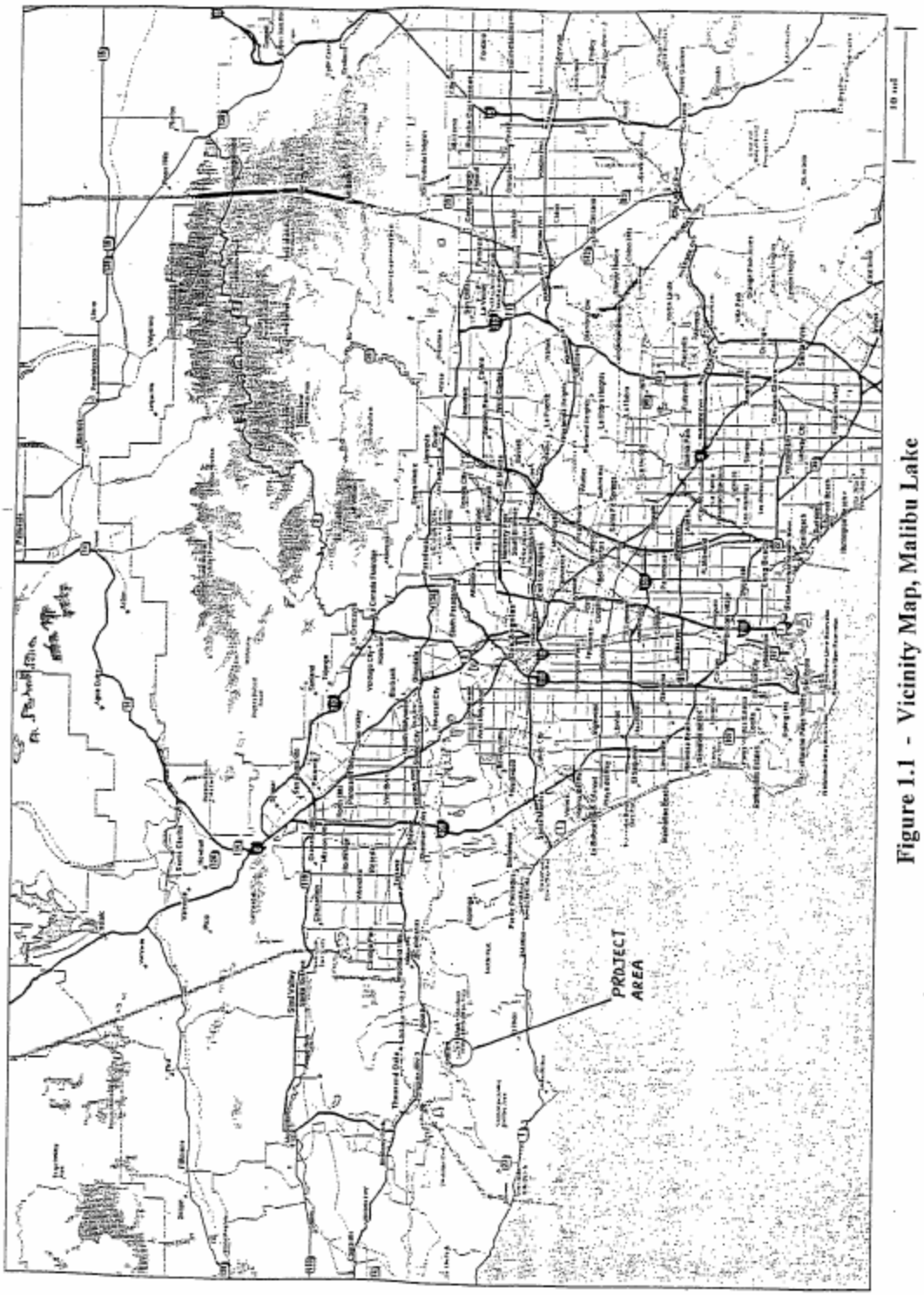
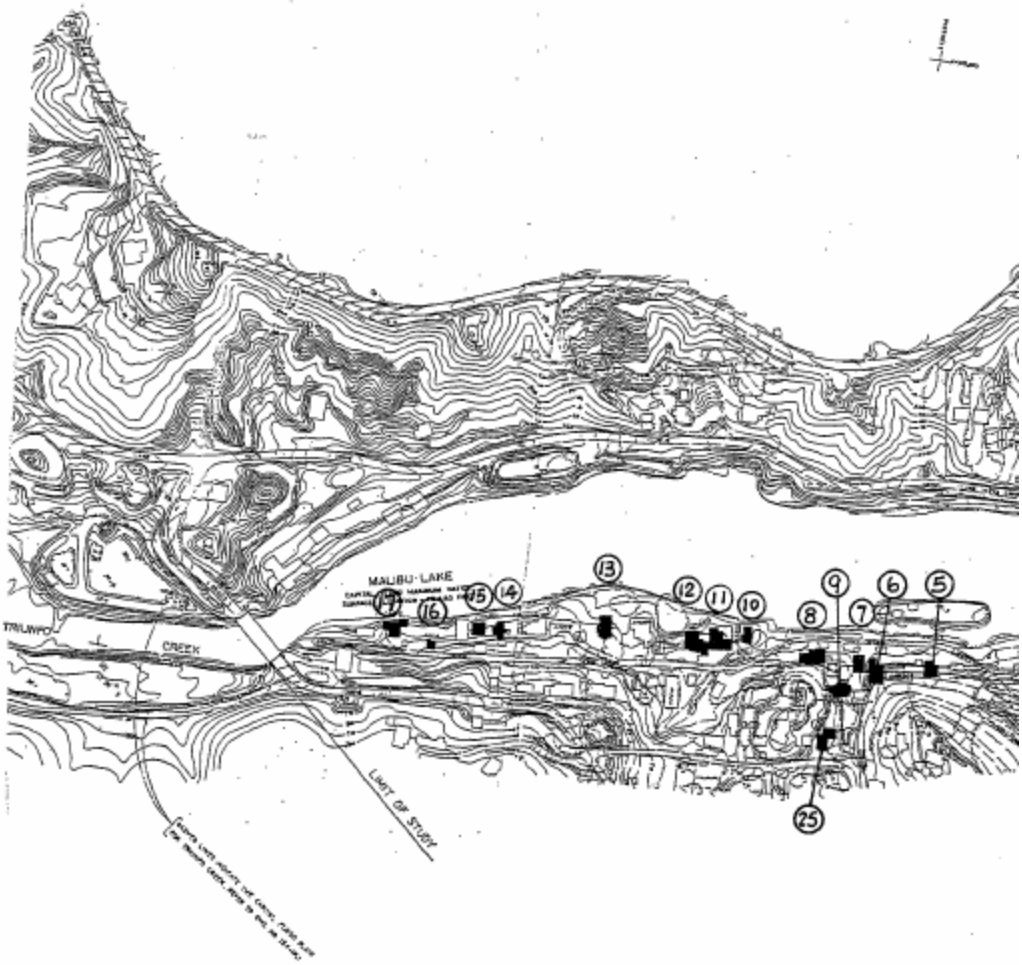
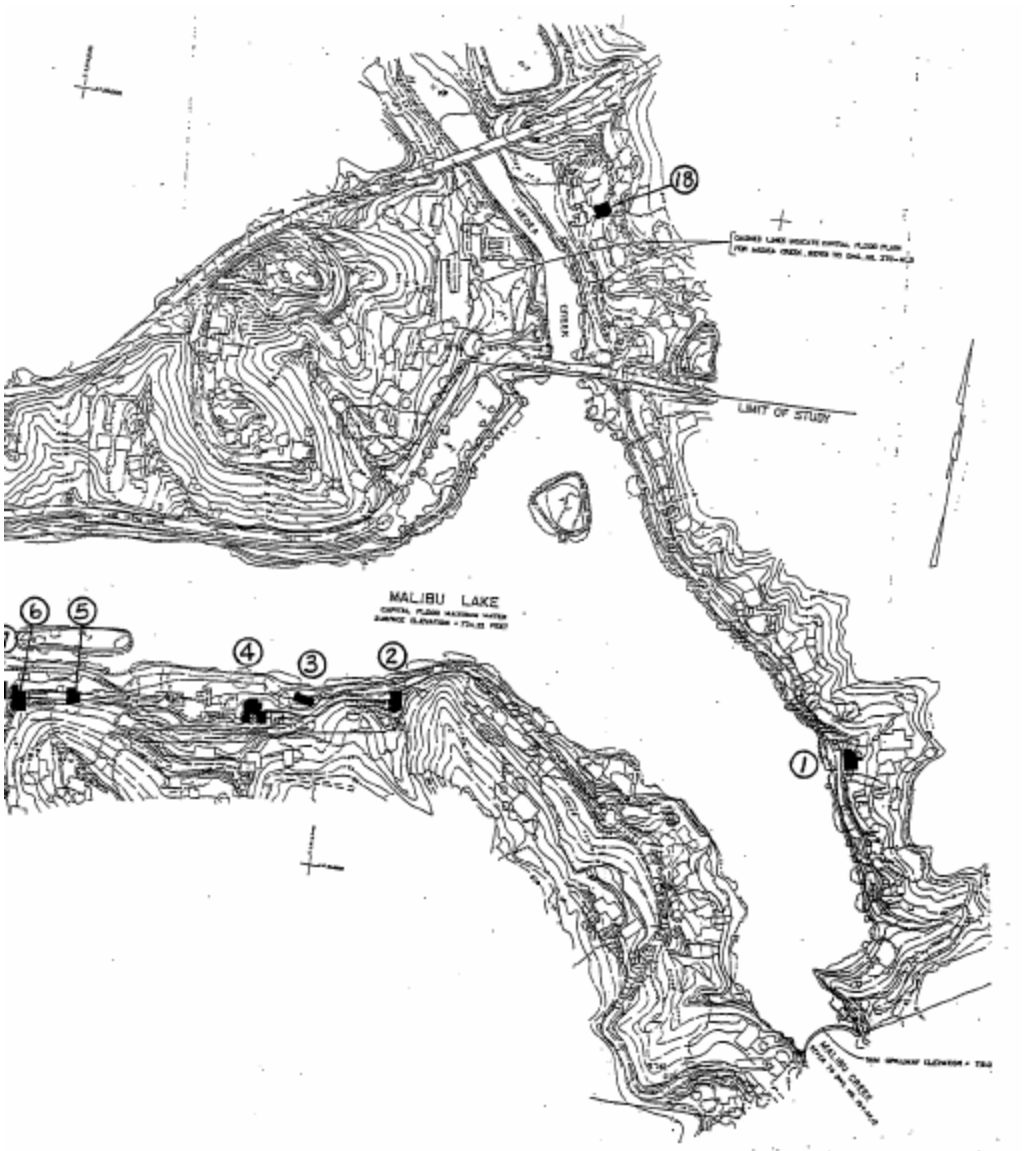


Figure 1.1 - Vicinity Map, Malibu Lake



– **Figure 1.2 - Location of RLPs, Mal**



of RLPs, Malibu Lake

Table 1.1 Repetitive Loss Properties in Malibu Lake Area

Malibu Lake (19)

ID	Street*	City	ZIP	Flood History	Flood Zone**
1		Agoura	91301-2844	1/95, 2/93, 2/92, 3/83, 2/80	A11
2		Agoura	91301-2870	2/92, 3/83, 2/80	A11
3		Agoura	91301-2870	3/95, 1/95, 3/93, 2/92,	A11
4		Agoura	91301-2800	2/92, 2/80	A11
5		Agoura	91301-2872	2/80, 3/78	A11
6		Agoura	91301-2872	3/83, 2/80	A11
7		Agoura	91301-2872	1/95, 2/93, 2/92	A11
8		Agoura	91301-2872	1/95, 2/92, 3/83	A11
9		Agoura	91301-2872	***	A11
10		Agoura	91301-2873	3/83, 1/83, 2/80, 3/78	A11
11		Agoura	91301-2843	3/95, 1/95, 2/92,	A11
12		Agoura	91301-2843	***	A11
13		Agoura	91301-2843	1/95, 2/93	A11
14		Agoura	91301-2808	1/95, 2/92	A11
15		Agoura	91301-2808	1/95, 2/92, 3/83, 1/83, 2/80	A11
16		Agoura	91301-2808	3/95, 1/95, 2/92, 3/83, 1/83, 2/80,	A11
17		Agoura	91301-2808	***	A11
18		Agoura	91301-2803	2/92, 3/83	A11
25		Agoura	91301-0000	***	A11

* Addresses are deleted for privacy protection; this information is available from the County NFIP representative for owner reference.

** Flood Zone A11 is the Special Hazard Area inundated by the 100-year flood with base flood elevations determined and the Flood Hazard Factor (FHF) is determined to be 11.

*** Information not available

Depending on the credit points received during CRS certification, a community can fall into one of ten classes: Class 1 requires the most credit points and gives the largest premium reduction, while Class 10 receives no premium reduction. The County's current CRS classification is 8. For Class 8, the credit points earned are 1,000 to 1,499 and the premium reduction is 10 percent. Preparation of the FMP will help the community to retain or improve the CRS classification.

Community application for the CRS is voluntary. Communities apply for a CRS classification and are given credit points that reflect the impact of their activities on reducing flood losses, improving the insurance rating, and promoting the awareness of flood insurance. Floodplain management planning is a principal activity of the County's compliance with the CRS. The CRS encourages programs and projects that preserve or restore the natural state of floodplains and protect these functions. The CRS also encourages communities to coordinate their flood loss reduction programs with Habitat Conservation Plans and other public and private activities that preserve and protect natural and beneficial floodplain functions. CRS credit criteria, scoring, and documentation requirements are described in the CRS Coordinator's Manual.

1.4 Overview of the FMP Procedure and Process

The FMP for the RLPs located within the Malibu Lake area of unincorporated Los Angeles County was prepared according to the process described in Activity 510 (Floodplain Management Planning) in the CRS Coordinator's Manual. The FMP planning process involves review, research, investigation, discussion, interview, and consensus building. It includes receiving input from all parties involved and collaborating with existing and future regional programs that relate to flood hazard mitigation, such as land use plans, capital improvement plans, neighborhood redevelopment plans, floodplain ordinances, and environmental preservation/enhancement plans. The FMP for RLPs intends to address the site-specific problems and possible resolutions, under the authority of individual homeowners and/or their homeowner associations.

CRS credit is provided for preparing, adopting, implementing, evaluating, and updating a comprehensive floodplain management plan. Credit is not based on the activities the FMP recommends, but rather on the process that is used to prepare the FMP. To ensure compliance with the CRS program for flood reduction and to achieve the flood insurance premium credits, the subject FMP was prepared following the ten-step planning process described in Section 511, Credit Points, of the CRS Coordinator's Manual. The maximum credit points for a full FMP (community-wide and RLP FMPs) are listed below for reference. Note that the FMP for RLPs only will receive 25% of the maximum credits shown below.

Subsection	Step	Maximum Points
a.	Organize to prepare the plan	10
b.	Involve the public	48
c.	Coordinate with other agencies	18
d.	Assess the hazard	10
e.	Assess the problem	35
f.	Set goals	2
g.	Review possible activities	30
h.	Draft an action plan	65
i.	Adopt the plan	2
j.	Implement, evaluate, and revise	10
	Total points	**230**

1.5 FMP Committee

The development, modification, and revision of the FMP are accomplished through the direction and oversight of an FMP Committee. FEMA places a high priority on the establishment of a committee that consists of residents, businesses, and property owners that are most affected by flood hazards. The County has maximized the involvement of the public throughout the FMP process.

Since this FMP was specifically developed for the Repetitive Loss Properties in the Malibu Lake area, the FMP committee was formed to include property owners and Malibou Lake Mountain Club as external FMP Committee members and the County staff as internal FMP Committee members. The internal FMP Committee members are composed of various divisions of the Los Angeles County Department of Public Works including Water Resources, Watershed Management, Land Development, Regional Planning, Building and Safety, and Program Development. Frank Williams, a senior watershed planner of the Los Angeles County Public Works Department, was selected as the "Qualified Planner" to chair the committee. Mr. William has more than 30 years of experience in flood-related problems and hazard mitigation for various watershed and drainage basins within unincorporated Los Angeles County including the Malibu Lake area. Mr. Geoffrey Owu assumed Mr. Williams' responsibility in the final FMP process. Mr. Owu is currently the NFIP representative of the County.

The planning process and plan preparation were led by Dr. Lan Weber of Tetra Tech, Inc. Dr. Weber provides expertise in watershed analysis, floodplain management, and flood hazard mitigation. She has more that 20 years of related project experience. The FMP was reviewed by another "Qualified Planner", Peter Carlson of Vandermost Consulting Services, Inc., who has over 20 years of hands-on experience with the community planning issues and watershed management.

2. BACKGROUND

2.1 Watershed and Drainage

Malibu Lake is located in the western area of Los Angeles County near the Ventura County/Los Angeles County line (Figure 1.1). The contributing watershed starts in Hidden Valley in Ventura County, approximately 10 miles northwest of Malibu Lake as shown in Figure 1.3. Storm runoff enters the ungated Lake Sherwood and flows through Potrero Valley Creek, Westlake Lake, Triunfo Canyon Creek, and empties into Malibu Lake. Westlake Lake is located approximately 4.7 miles northwest of Malibu Lake and is in both Ventura County and Los Angeles County. Malibu Lake also receives runoff from Medea Creek, a major tributary located to the north of the lake. The total drainage area at the spillway of Malibu Lake is approximately 64 square miles. The lake has a surface area of approximately 20 acres at spillway elevation. The contributing watershed covers portions of Los Angeles County and Ventura County and crosses three city boundaries – Thousand Oaks, Agoura Hills, and Westlake Village. The watershed basin map and drainage studies conducted by the County of Los Angeles are included in appendix A.

2.2 Population and Land Use

The community of Malibu Lake lies within the western portion of Los Angeles County in the Agoura Hills area. There are 19 residences (Figure 1.2 and Table 1.1) that have records of repetitive flood insurance loss claims. Except for Property Nos. 25 and 18, all properties are located along Lakeshore Drive, which encircles the lake. Malibu Lake is a private lake owned by the "Malibou Lake Mountain Club", a California corporation, hereinafter referred to as the "Mountain Club". The Mountain Club licenses building lots to individual license holders, who can then construct homes, which they can own, but they cannot hold title to the land. All RLPs are on Mountain Club property except for property No. 25, which belongs to the Malibou Lakeside Club.

The land use in this area consists of undeveloped mountain ranges and developed urban areas near the lake. According to estimates by the Mountain Club, this area has a population of 9,000.

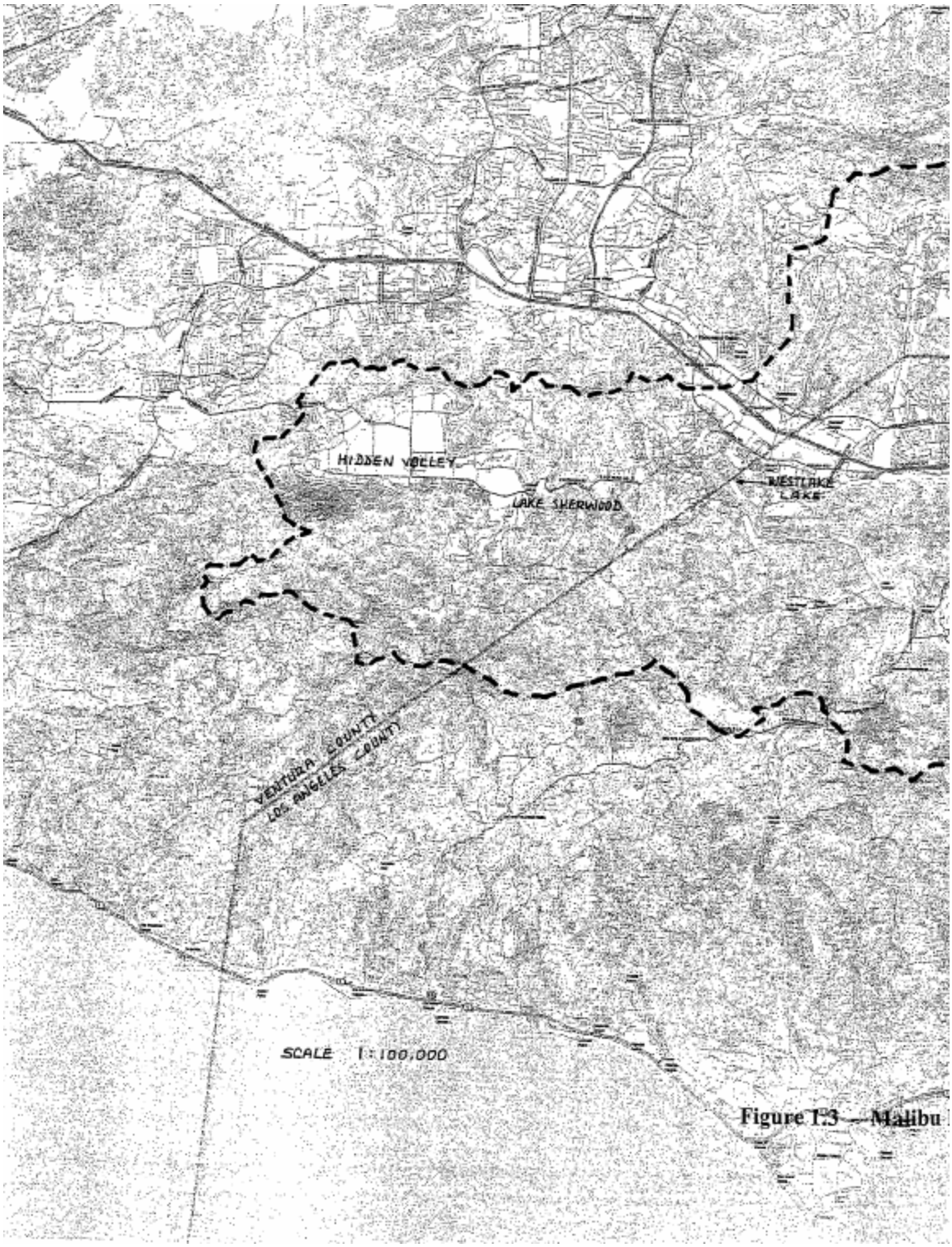
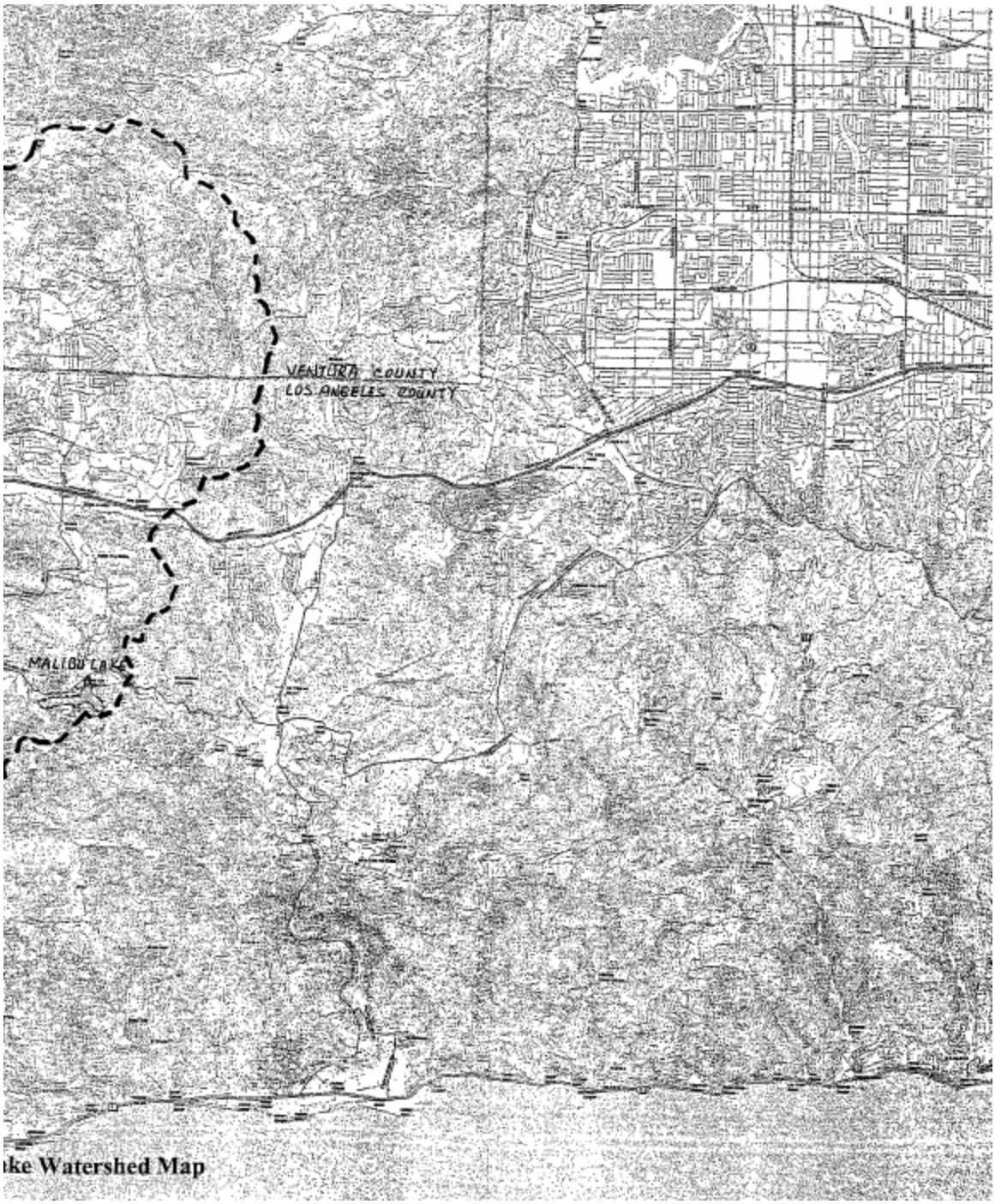


Figure T.3 — Malibu



ke Watershed Map

3. HAZARD ASSESSMENT

3.1 Sources of Flooding

Triunfo Canyon Creek and Medea Creek are major sources of Malibu Lake flooding. There are 16 Repetitive Loss Properties (RLP ID Nos. 1 and 3-17) located within the low-lying areas surrounding the lake. The lake elevation could rise to 734 feet for a 100-year flood according to both FEMA and the County of Los Angeles, which is up to 10 feet higher than the base floor elevations of these properties. The lake elevation was estimated at 736.19 feet by the County considering debris blocking due to fire burn in the watershed.

RLP No. 2 is located by the lake but is at higher elevations than the 100-year flood level. This property is subject to local runoff flooding from the hillside in the back of the house. RLP No. 18 is located along Medea Creek, and the flooding sources could be the backwater from Malibu Lake and/or floodwater overflow from Medea Creek. The flooding source for RLP No. 25 is the storm runoff generated from the hillside areas south and east of the residence. This runoff is collected by an undersized storm drain ditch and pipe culvert under the street, which can cause overflow to the property immediately adjacent to the drain.

3.2 Flooding History

There has been a history of flooding in the Malibu Canyon area. Table 1.1 shows the flooding events (with insurance claims) since 1978. The data are not available for RLP Nos. 9, 12, 17, and 25. Flood events occurred in 1977/78, 1979/80, 1982/83, 1991/92, 1992/93, and 1994/95. During this time period, six (6) properties suffered flooding damages two times, four (4) properties suffered flood damages three times, two (2) properties suffered flood damages four times, two (2) properties suffered flood damages five times, and one (1) property suffered flood damages six times. RLP No. 16 suffered flood damages a total of six times – the most frequently damaged of the 19 RLPs in this area.

Flooding frequency analysis was conducted using United States Geological Survey (U.S.G.S) gaging station data. A U.S.G.S. gaging station is located at Malibu Canyon at Crater Camp near Calabasas area (Station No.11105500), but only maintains streamflow records from 1931 to 1979. A U.S.G.S. gaging station at Arroyo Seco near Pasadena (Station No.11098000) has been in operation since 1914. Since this gaging station is the only nearby station in the project vicinity which has long-term and recent flood measurements, the annual peak data of this station was used to identify the return periods of the past flood events shown in Table 1.1. Log Pearson Type III method was applied. The flood frequency analysis is included in Appendix A.

A summary follows of the flood frequency for the peak discharge during the relevant flooding incidents and the number of properties that claimed flood damages.

Rainy season	Flooding Frequency	No. of RLPs claimed
1977/78	25-year storm	2
1979/80	10-year storm	8
1982/83 *	8-year storm	8
1991/92	5-year storm	11
1992/93	5-year storm	4
1994/95*	5-year storm	9
1997/98**	15-year storm	0
1978/79, 80-82, 83-91, 93/94, 95-97	return period below 3 year	0

* Three RLPs filed multiple claims within the same rainy season.

** There is not enough information on any damage claims during the 1997/98 rainy season.

Note that the number of claims did not correspond to the magnitude of the flood. Only two (2) claims were reported by the RLPs during the season of 1977/78, when a storm with a 25-year event occurred in the Los Angeles area. Conversely, there are more claims filed during the 1991/92 and 94/95 rainy seasons when only a 5-year flood occurred.

The residents of Malibu Lake have gathered runoff data and charted the amount of runoff versus overtopping of the spillway during past flood events. The highest observed water surface elevation is close to the 100-year flood level estimated by FEMA.

3.3 Recent Problems

According to the insurance claims filed by the RLP owners, the most recent flood event was in 1995. Table 1.1 shows flooding events experienced by each RLP in the Malibu Lake area. There are three additional properties in the Malibu Lake Community that reported flood damages in recent storms but were not included by FEMA as RLPs. These properties were not inspected or analyzed and are listed as ID No. 26, 27, and 28 in the RLP address file maintained by the County for future reference.

4. PROBLEM IDENTIFICATION

4.1 FEMA Floodplains/County Capital Floodplain

Most RLPs are located within the Special Flood Hazard Zone "A-11" as shown on FEMA's Flood Insurance Rate Maps Nos. 065043-0757B and 065043–0759B (Revised December 2, 1980). The 100-year water surface at the lake is shown at elevation 734 feet. Reproduction of the FEMA map is presented as Figure 4.1. Specific locations of the 19 RLPs relative to the Capital Flood boundaries can be found in Figure 1.2.

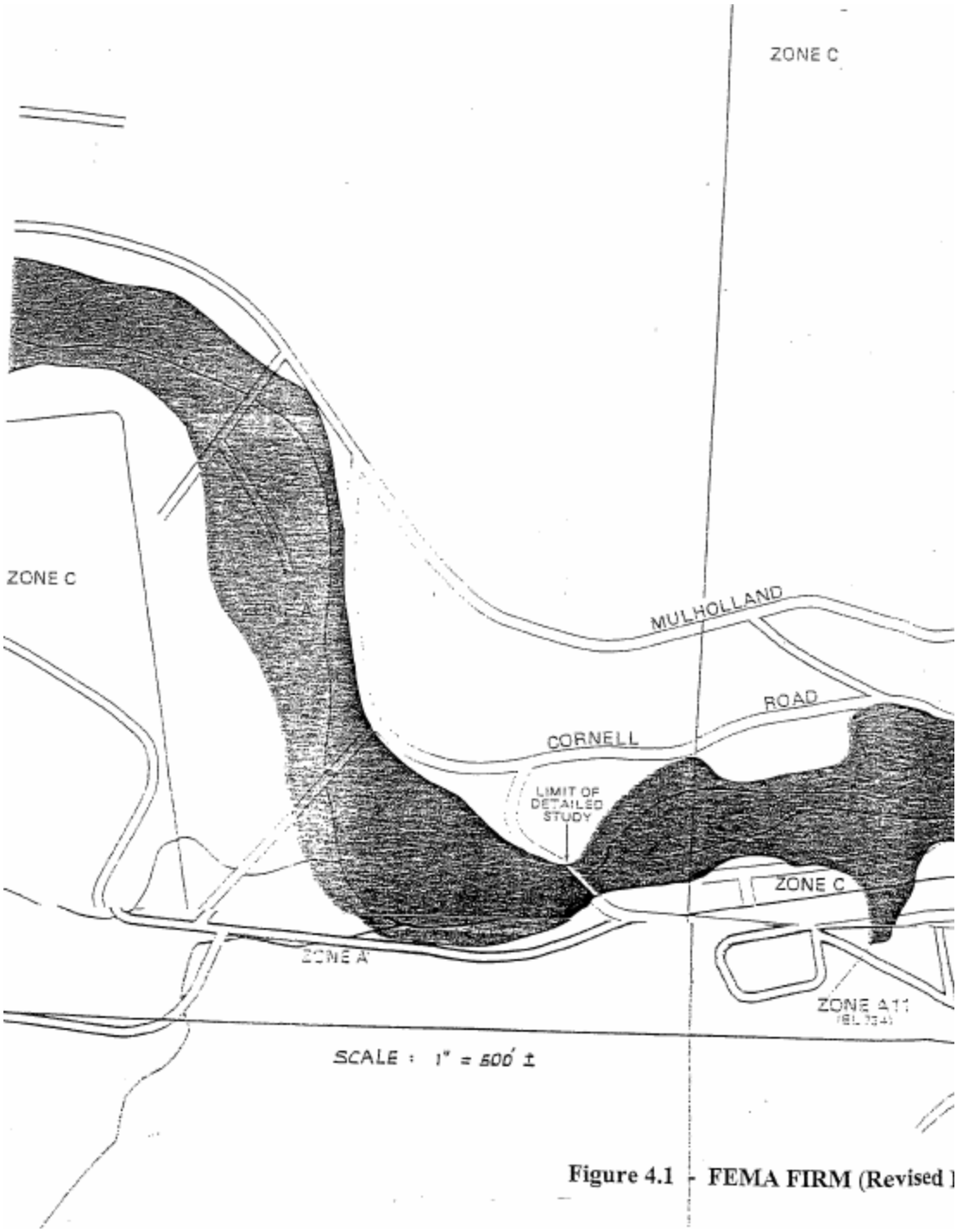


Figure 4.1 - FEMA FIRM (Revised

ecember 2, 1980), Malibu Lake

According to the Flood Insurance Study (FIS), published by FEMA, the Flood Insurance Zone "A-11" is the Special Hazard Area, inundated by the 100-year flood, with base flood elevations determined by the detailed study. The Flood Hazard Factor (FHF) of the area is determined to be 11, which is the difference between water surface elevations of the 10-year and 100-year floods, multiplied by 10.

The County of Los Angeles conducted two separate hydrology studies on the Malibu watershed. The April 2000 study assumed a clear (unburned) inflow hydrograph to the lake. The June 2001 study assumed a 'burned' watershed condition with 'bulked' flow downstream of Lake Sherwood (upstream hydrology model study performed by Ventura County assumed clear water flow). Both studies and a complete watershed map for Malibu Lake are included in Appendix A. The resulting hydrology data are described in Section 4.4.

As part of the hydrology study, the County of Los Angeles conducted a reservoir routing analysis in April 2000 to determine water surface elevations under the 100-year and Capital Flood conditions. The estimated water surface for the FEMA 100-year flood and Capital Flood are 733.83 feet and 734.93 feet, respectively. The estimated 100-year flood elevation of 733.83 feet is approximately the same as the 734 feet determined by FEMA. Reservoir routing was performed based on the top of Malibu Lake dam spillway elevation of 722.18 feet (based on NGVD 1929 Datum). Copies of the reservoir routing conducted by Los Angeles County and its survey datum description are included in Appendix A. The flooding boundaries under the Capital Flood conditions, as determined by the County of Los Angeles, are presented in Figure 1.2.

In June 2001, the County revised reservoir routing using the 'burned' and 'bulked' inflow hydrograph (see Section 4.4), which resulted in increased water surface elevation for the Capital Flood to 736.19.

4.2 Field Investigation

To identify specific flood problems associated with each RLP, Tetra Tech, Inc., conducted field investigations in late December 2000 through April 2001. Appendix B shows field photographs, topographic features, and key findings of the field investigation, as well as property information provided by the County of Los Angeles for each RLP. RLP No. 18, located along Medea Creek, and Property No. 1 were unreachable, and their information was provided by the Mountain Club. The April 2001 field meetings with several homeowners were to assess the grading, drainage, and structure conditions as well as the feasibility of raising the structures. In July, several RLP owners obtained elevation certificates as shown in Appendix B.2, which are the first habitable floor elevations from a survey conducted in June 2001.

During the field visits, it was found that most of the RLPs on South Lakeshore Drive were built on the low-lying lakefront, which is very vulnerable to floodwater from the lake during rainstorms. There are a few pipe culverts that discharge stormwater toward existing properties, but the problems are limited, and the Mountain Club has committed to fixing these local problems. Property Nos. 2 and 25 are much higher than the lakefront properties, and their flooding problems are not associated with lake flooding. Property No. 11 has been elevated and the flood damage risk has been significantly reduced. The elevation certificates for this property (Appendix B.2) shows the first habitable floor has been elevated above 736.19 feet msl, the Capital Flood elevation. Flood problems are considered "fixed" and no further notification is required.

Since most of the houses were built prior to the 1960s, the buildings have been modified several times. Most houses visited have different parts of the house on concrete slabs at various elevations. Several houses have shown significant deterioration in the structural component. Elevating structures above the base flood elevation, as typically suggested by FEMA for retrofitting the flood-damaged properties, may be difficult.

4.3 Causes of Flood Damages

Causes of flood damages to the Malibu Lake area RLPs were analyzed based on field investigation, data review, interviews with homeowners and the Mountain Club, and engineering analysis. The results of the findings are presented in Table 4.1 and described in the following paragraphs.

Most of the RLPs in this area are damaged by rising water of Malibu Lake during floods. Malibu Lake lies at the confluence of Triunfo Canyon and Medea Creek. The terrain in this area is steep and rocky, causing rainwater to concentrate at the lake quickly. In addition, upstream urbanization has caused a higher discharge at the lake for a given rainstorm event due to the increase in impervious areas. The existing lake has an estimated surface area of 20 acres and a total storage volume of 250 acre-feet at the current spillway elevation (722.184 feet NGVD 1929 datum). The storage area below the spillway is ineffective for flood peak attenuation during normal times since the water level is maintained at the spillway elevation at all times. During flood events, the lake is partially filled with sediments, reducing its recreational functions. No formal hydrology and hydraulic reports were found regarding the lake effect on the flood level. It was reported by the Mountain Club that the lake storage volume is simply too small to provide flood attenuation compared to the estimated runoff volume entering the lake.

The original spillway was 120 feet wide with significant embankment at 722 feet mean sea level. In 1969, the Mountain Club widened the spillway to 155 feet to increase the spillway outflow capacity. The spillway was again widened to 188.2 feet in 1997. In addition, a 31-foot wide auxiliary spillway was constructed in 1997 to release floodwater in excess of 8 feet over the main spillway. These modifications helped to lower the water surface; however, the improvement is not sufficient to reduce the flood inundation risk for the RLPs.

Property No. 2 was damaged by floodwater from Medea Creek. The high water along Medea Creek could be a result of backwater at Malibu Lake. Property No. 18 is on high ground and was flooded by the storm runoff from the surrounding hills. Property No. 25 was flooded by overflows from a deficient storm drain ditch east of the house. The storm runoff from the ditch could not pass the undersized pipe culvert located under the street immediately southeast of the house. The overflow from the storm drain ditch could enter the property and damage the house.

4.4 Hydrology Related to Flood Damaged Properties

Peak discharge rates for the RLPs is shown in Table 4.2. The 100-year flood peak discharge was once estimated by the state as 20,900 cfs (State of California Department of Public Works, Division of Water Resources, 1930, see Appendix A). This discharge value has been significantly increased to 34,000 cfs as estimated by FEMA. The County of Los Angeles estimated the Capital Flood discharges in 2000 as 37,400 cfs for clean water conditions and 42,800 cfs for the "burned" watershed conditions (see Appendix A and Section 4.1).

In order to assess the magnitude of flows at properties which are not related to the Malibu Lake flood level, Tetra Tech, Inc., estimated the 100-year peak discharges for RLP No. 2 and RLP No. 25 as shown in Appendix A. The estimated 100-year local runoff for RLP No. 2 is 8.6 cfs, which appears to cause drainage problems at the property site. The estimated 100-year peak discharge for the storm drain near RLP No. 25 is 96 cfs, which exceeds the hydraulic capacity of the existing pipe culvert/ditch, thus causing significant overflow.

Table 4.1 Causes of Flooding – Malibu Lake

RLP ID	Street*	Causes	Problem	No Problem
1		Inundated by a rising water of Malibu lake during the storm	x	
2		Hillside backyard drainage	x	
3		Inundated by a rising water of Malibu lake during the storm	x	
4		Inundated by a rising water of Malibu lake during the storm	x	
5		Inundated by a rising water of Malibu lake during the storm	x	
6		Inundated by a rising water of Malibu lake during the storm	x	
7		Inundated by a rising water of Malibu lake during the storm	x	
8		Inundated by a rising water of Malibu lake during the storm	x	
9		Inundated by a rising water of Malibu lake during the storm	x	
10		Inundated by a rising water of Malibu lake during the storm	x	
11		Inundated by a rising water of Malibu Lake; The house has been elevated above 736.19 ft msl (Capital Flood).	x	x
12		Inundated by a rising water of Malibu lake during the storm	x	
13		Inundated by a rising water of Malibu lake during the storm	x	
14		Inundated by a rising water of Malibu lake during the storm	x	
15		Inundated by a rising water of Malibu lake during the storm	x	
16		Inundated by a rising water of Malibu lake during the storm	x	
17		Inundated by a rising water of Malibu lake during the storm	x	
18		Floodwater from Medea Creek	x	
25		Capacity of storm drain culvert located near the property is undersized and causes overflow to the street and property	x	

* Addresses are deleted for privacy protection; this information is available from the County NFIP representative for owner reference.

Floodplain Management Plan for
Repetitive Loss Properties
Malibu Lake Area

Table 4.2 100-yr FEMA and County Capital Discharges – Malibu Lake

	Street*	Watershed Area		FEMA**		Capital ***		50-yr Q	100-yr Q
		[ac]	[mi^2]	100-yr	500-yr	April 2000 study	June 2001 study	[cfs]	[cfs]
1				34043	53712	37400	42800		
2		1.5	0.0024					7.8	8.6
3				34043	53712	37400	42800		
4				34043	53712	37400	42800		
5				34043	53712	37400	42800		
6				34043	53712	37400	42800		
7				34043	53712	37400	42800		
8				34043	53712	37400	42800		
9				34043	53712	37400	42800		
10				34043	53712	37400	42800		
11				34043	53712	37400	42800		
12				34043	53712	37400	42800		
13				34043	53712	37400	42800		
14				34043	53712	37400	42800		
15				34043	53712	37400	42800		
16				34043	53712	37400	42800		
17				34043	53712	37400	42800		
18				34043	53712	37400	42800		
25		17.1	0.03					88	96.4

* Addresses are deleted for privacy protection; this information is available from the County NFIP representative for owner reference.

** FEMA Discharge rates & County's Capital Qs were provided by the County of Los Angeles.

*** For County Capital discharges, the April 2000 study assumes 'clean' inflow, while the June 2001 study assumes 'burned' watershed and 'bulked' inflow.

**** 50-yr & 100-yr Q for RLPs # 2 & 25 were determined by Tetra Tech, Inc., based on the LA County Department of Public Works Hydrology Manual Rational Method (see Appendix B).

COUNTY OF LOS ANGELES TETRA TECH, INC.

4.5 Buildings

Of the two main roads that encircle Malibu Lake, South Lakeshore Drive has been impacted the most from the lake overflow. During storms, homes on the shore side of South Lakeshore Drive are most vulnerable to flooding. The buildings are either one- or two-story residential houses on concrete slab, raised foundation, or a combination of the two. Since this is a rural area, no critical facilities or buildings are located here.

In addition to RLPs, there are other residential properties that may have been affected by past floods or are subject to future flooding. Although these properties did not file claims more than twice within any given 10-year period since 1978 as the RLPs did, the potential for flood damage should be noted. These will be included as "high risk properties" to be monitored by the County of Los Angeles for future flood damage reduction (see Section 10).

There are 16 RLPs that have been damaged by Malibu Lake flooding. Figure 4.2 shows these RLPs and other "high risk properties" within the 100-year and Capital Floodplain boundaries of Malibu Lake. Approximately thirty-one (31) "high risk properties" could be partially affected by the inundation of Malibu Lake in addition to the current RLPs.

The "high risk properties" near the Malibu Lake area were determined by analyzing the topographic map of the Lake, provided by the County of Los Angeles, which shows the locations of building structures and the Capital Flood floodplain boundaries. FEMA's FIRM shows the 100-year flood elevation of the lake to be 734 feet, compared to 734.93 feet of the County's Capital Flood elevation from its initial hydrology study at Malibu Lake. The County's 2001 study concluded the water surface at even higher elevation at 736.19 feet for a "burned" watershed condition. Floodplain boundaries and "high risk properties" are similar for all these elevations.

Figure 4.2 also includes the information on the locations of building structures and the Capital Flood floodplain boundaries for Medea Creek, a tributary to the lake. This figure shows three (3) more properties in addition to RLP No. 18 could be affected by flooding in Medea Creek.

One other property in the vicinity of RLP No. 25 near Paiute Drive may have been affected by the same flooding source from the hillside. RLP No. 2 was previously damaged by backyard hillside erosion. The source of the problem was specific to this RLP, and no other "high risk properties" were identified nearby, based on the current information available.

Three properties, which are not on the current FEMA's list of RLPs, suffered damages from the most recent flood event in 1995 (see Section 3.3). Two of those properties (ID Nos. 26 and 28) were identified to be among the "high risk properties".

The summary of the numbers of "high risk properties" in the Malibu Lake area, including Medea Creek area, which may have been affected by the same problem sources as the current RLPs, is shown in Table 4.3.

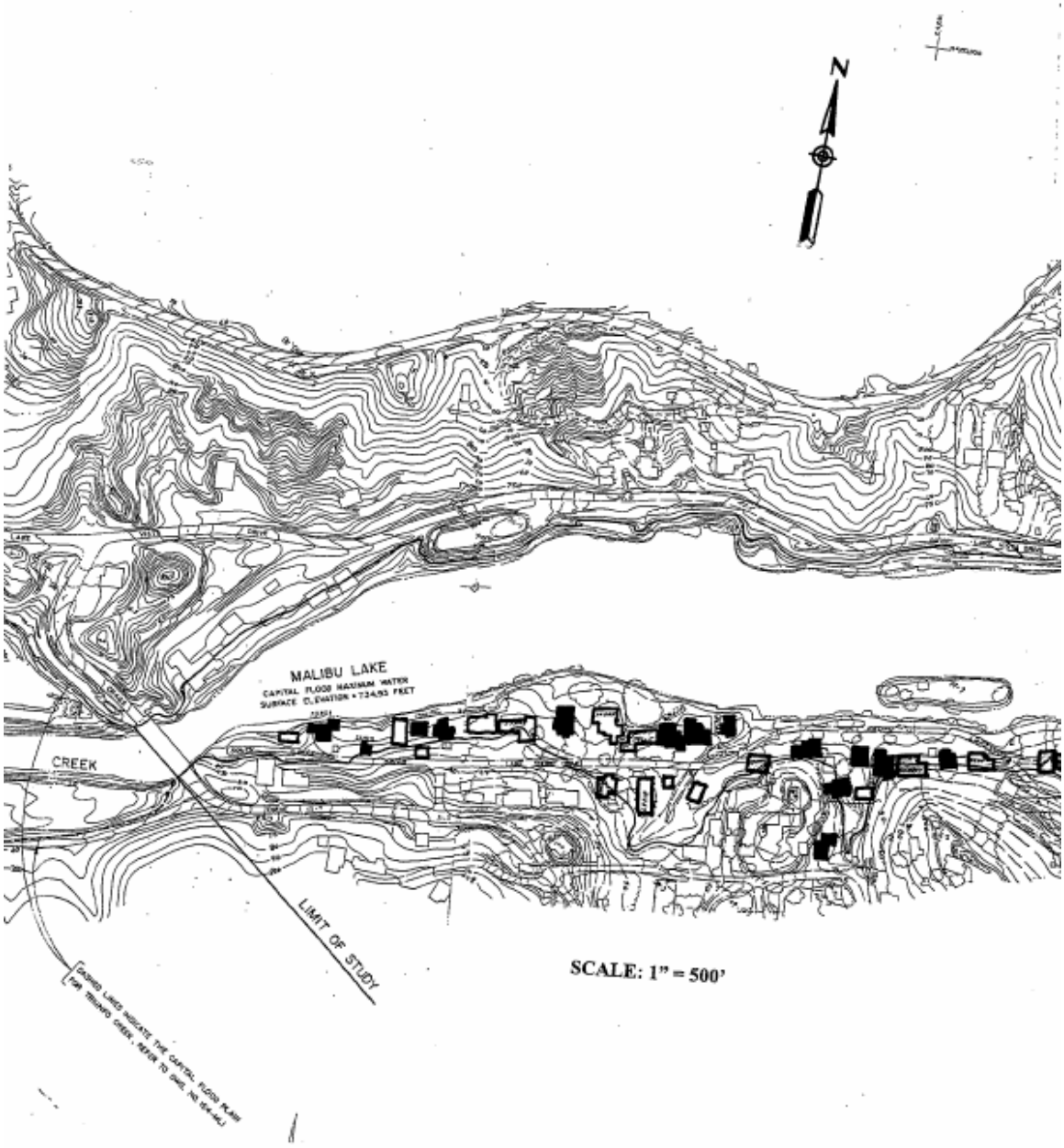
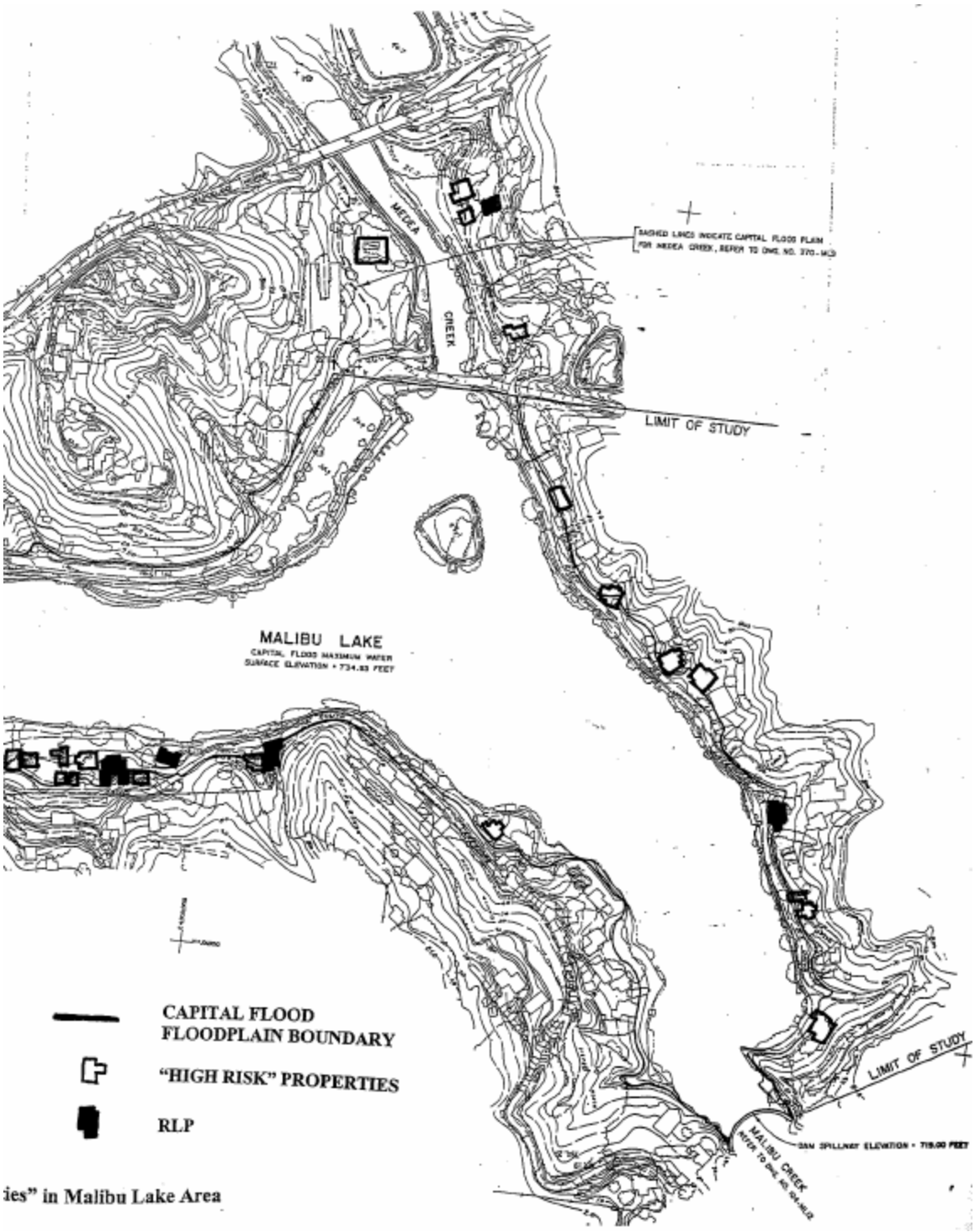


Figure 4.2 – "High Risk Properties



ies" in Malibu Lake Area

Table 4.3 Numbers of "High Risk Properties" – Malibu Lake

RLP ID	Street *	Individual flooding problems		Number of other property possibly affected by same problem
		Yes	No	
1 and 3 - 17			x	31 properties in the County's Capital Flood boundaries of Malibu Lake Malibu, based upon topo map provided by the County
2		x		0
18			x	3 properties in the County's Capital Flood boundaries of Medea Creek, based upon topo map
25			x	1, based upon topo map from the County

* Addresses are deleted for privacy protection; this information is available from the County NFIP representative for owner reference.

4.6 Insurance Claims and Disaster Assistance Applications

The flood insurance claim history has been presented and summarized in Table 1.1. The County has submitted an application to the Office of Emergency Services to obtain federal funding under the category of Hazard Mitigation Grant Program (HMGP). The County of Los Angeles requires the construction of a new sewer system before the modification and raising of the RLPs along the low-lying area. Existing septic tanks must be abandoned and a new sewer system must be constructed prior to any structural retrofit or new construction for these RLPs in the low-lying areas. The Mountain Club has committed to funding the sewer construction and is obtaining the County's approval for construction.

4.7 Flood Warning and Emergency Management

Neither the County nor Mountain Club has any current device or program for flood warning and emergency management.

4.8 Critical Facilities

There are no critical facilities in the Repetitive Loss Area of Malibu Lake.

4.9 Development (Land Use) and Growth Trends

As stated above, upstream development has increased significantly in past decades. Developments are expected to continue in the metropolitan areas of Agoura Hills, Thousand Oaks, and Westlake. Within the County jurisdiction, there has been very limited current or proposed land development upstream of or near Malibu Lake. The County has been enforcing environmental policy, which requires the upstream developments to identify potential impacts such as the runoff increase to the downstream properties.

No new lakefront lots have been developed since 1980. Any new developments are away from the shoreline and are all single-family residences. Since 1980, the County has required that the finished floor elevation of any new homes in Malibu Lake be specified to be a minimum of one foot above the Capital Flood Elevation. The minimum first habitable floor elevation was 736 feet msl based on the April 2000 hydrology study,

which is equal to 2 feet above the 100-year base flood elevation). Considering the new "bulked" flow Capital Flood elevation at 736.19 feet based on the 2001 hydrology study (see Section 4.1), the County has decided to waive the one-foot freeboard criteria above the Capital Flood and maintain the new Capital Flood elevation for building control.

4.10 Community and Economic Impact Assessment

The economic impacts associated with the RLPs are to individual homeowners and the Mountain Club. The impacts to individual owners include sediment/trash removal after the flood, non-useable living spaces, and health problems caused by sediment-laden and contaminated floodwater. The impact to the Mountain Club is the need to remove sediments from the lake after each major flood event. The overall community economic impacts are considered significant due to the excessive flooding conditions with many homes, high costs, and technical difficulties involving flood mitigation, and the subsequent effect of real estate value reduction typically expected in a flood problem area.

5. ENVIRONMENTAL SETTING AND HABITAT CONSERVATION PLAN

Per the CEQA Guidelines, an initial study was prepared for the RLP area and is attached here for reference. The environmental issues investigated for modifications to RLP properties are listed below. Note that this FMP is not a construction document and specific architectural, engineering, and construction plans for RLPs are not available for CEQA review. This section only provides an overview of the environmental conditions and identifies the check list items which deserve attention for CEQA compliance prior to actual construction of flood mitigation measures within the individual RLP properties. Related to flood hazard mitigation, permits have been acquired for sediment dredging from the lake by the Mountain Club. Environmental clearance for sewer and stormdrain improvement projects will be obtained by the Mountain Club. As part of the Hazard Mitigation Grant Program for RLPs, FEMA will prepare a NEPA document prior to funding release.

- Aesthetics
- Agriculture resources
- Air quality
- Biological resources
- Cultural resources
- Geology and soils
- Hazards and hazardous materials
- Hydrology and water quality
- Land use and planning
- Mineral resources
- Noise
- Population and housing
- Public services
- Recreation

- Transportation/traffic
- Utilities and service systems
- Mandatory findings of significance

The CEQA Guidelines and the summary of findings are presented in Appendix C. The environmental impacts were categorized into four levels of significance: "Potentially significant impact", "Less than significant with mitigation" (Symbol B shown on Table in Appendix C), "Less than significant", and "No impact" (Symbol D shown on the table in Appendix C). Surrounding land uses are residential development and open space. The general setting is a low-density residential development centered on Malibu Lake. Although construction within each RLP may be exempted, the cumulative impacts that may be caused by flood mitigation measures within RLPs include:

- Aesthetics - The proposed improvements require raising the houses. This may affect the visual character and quality of the various home sites and the neighborhood in general.
- Cultural - The proposed improvements could result in the alteration of potentially historical homes or archaeological resources.

Evaluation of the actual impacts will require site-specific environmental baseline data and detailed architectural and engineering design. For example, historical values of some RLPs need to be confirmed in order to evaluate the potential impacts. Since the Malibu Lake RLPs are awaiting federal funding through the Flood Hazard Grand Programs, the protection activities will have to comply with NEPA. In addition, modification to RLPs will need to comply with CEQA prior to the County's issuance of building and occupancy permits.

6. PUBLIC INVOLVEMENT

6.1 Public Involvement Process and Procedure

The public involvement process and procedure for this FMP included informing and involving the public by inviting all homeowners in the area to the public meetings. Meeting summaries and copies of the meeting attendance list are included in Appendix D.

6.2 Public Meeting Invitation

A total of five meetings were held to involve the interested public in the plan development process. Public meeting invitations were sent to the RLP owners of the area. A copy of the public meeting announcement is included in Appendix D.

6.3 Meeting Attendance

A total of five public meetings have been held with RLP owners. These meetings were intended to allow the homeowners to voice their concerns and the residents to volunteer to participate in the County's floodplain management planning. These five meetings were conducted to address the following five issues:

- Assess flood hazard
- Identify problems
- Set goals
- Review activities

- Draft an action plan

These meetings received attendance and attention by many residents. The meetings were attended by both RLP owners and other interested and/or concerned homeowners in the vicinity. Meeting notices, agendas, and meeting minutes for the scheduled five meetings are included in Appendix D.

In addition to the five scheduled meetings, Lan Weber, Tetra Tech, Inc., Project Manager, and Geoffrey Owu, Los Angeles County Project Manager, attended one follow-up meeting at Malibu Lake on September 12, 2001. The meeting included a site inspection to evaluate the dam and to the lake and communication with the Mountain Club and RLP owners regarding future action plans for flood hazard reduction and the status of the funding application.

On September 20, 2001, a meeting was conducted on behalf of the Malibu Lake RLPs. The participants in the meeting were Susan Nissman of the County Board of Supervisors District 3, and representatives from the Governor's Office of Emergency Services (OES), Mountain Club, County Public Works, and Tetra Tech, Inc. The meeting was intended to draw conclusions on the funding issues. The meeting was very informative and the OES is currently reviewing the mitigation cost data provided in this report (see Table 10.4 and Appendix E).

A summary of attendance at the meetings is shown below.

Date	Location	No. of Attendees	No. of RLPs Attended
February 27, 2001	Mountain Club	6	5 (RLP Nos. 2, 8, 12, 14, and 17)
April 25, 2001	Mountain Club	16	13 (RLP Nos. 1, 2, 3, 5, 6, 7, 8, 10, 11, 12, 14, 15 & 17)
May 17, 2001	Mountain Club	13	10 (RLP Nos. 1, 3, 4, 5, 6, 8, 12, 14, 15 & 17)
June 12, 2001	Mountain Club	10	8 (RLP Nos. 2, 3, 5, 7, 8, 12, 14, & 17)
July 25, 2001	Mountain Club	11	8 (RLP Nos. 2, 3, 8, 9, 10, 11, 14, & 15)
September 12, 2001	Mountain Club	9	
September 20, 2001	County Supervisors Office	9	

6.4 Public Input and Comments

Most RLP owners expressed the following concerns:

- Control of upstream development was not properly managed, which increased the flow rates at Malibu Lake significantly.
- Limited budget expected from the FEMA Hazard Mitigation Grant Program may not be sufficient for removing the properties out of the floodplain.
- Significant health problems associated with the water damage.
- Inhabitable homes prevent the enjoyment of ownership.
- Direction in the modification criteria in term of eligibility to qualify for federal funding and meet the County permit requirements is unclear.

7. AGENCY COORDINATION

Several meetings were held with interested homeowners and the County. The State of California Department of Water Resources, FEMA, State of California Department of Fish and Game, Los Angeles Regional Water Quality Control Board, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and NFIP Coordinator were also invited to attend; however, no representatives attended the meetings. Since this FMP does not involve actual implementation or construction, no permit coordination was performed during plan preparation. Correspondences and telephone logs between the above agencies and Tetra Tech, inc. are included in Appendix D.

When the FMP is complete, copies will be sent to these agencies and to each resident of the Malibu Lake area. The recipients will be asked to submit their comments, either in writing or at the public meetings discussed above.

8. GOAL SETTING

8.1 Floodplain Management Goal Definition

Goals were established to define the floodplain management plan based on the specific needs of Malibu Lake communities. The overall goal for this FMP is to create a safe environment for individual owners or lessees by reducing flood hazards without significantly impacting the environment. Based on information presented above, the Malibu Lake Communities include the lakeside properties which are subject to floodwater from the lake and non-lake side properties which are not affected by the flooding level of the lake. The goal setting considered both lakeside and non-lakeside properties. Specifically, the following goals were defined for development of this FMP:

- Review past mitigation efforts and flood damage concerns.
- Conduct site investigation to evaluate the physical conditions of each lakeside RLP in relationship with the flood risk and potential of elevating the structures.
- Conduct site investigation and data research to identify drainage problems for each non-lakeside RLPs.
- Identify the environmental settings for the lakeside residents and other RLPs.
- Formulate structural and non-structural alternatives.
- Evaluate feasibility of each alternative.
- Evaluate environmental impacts and mitigation requirements.
- Outreach property residents to increase flood awareness and assist in flood hazard mitigation measures.
- Continue funding efforts initiated by the County of Los Angeles Public Works and Malibou Lake Mountain Club.
- Promote coordination among the RLPs to find effective ways to address common concerns and achieve common interests for flood hazard reduction.

8.2 Compatibility with Other Community FMP Goals

a. This FMP is in concurrence with the goals and objectives set forth in the County of Los Angeles Repetitive Loss Plan for Community No. 065043 (March 1992).

b. This FMP is compatible with the current Hazard Mitigation Grant Program application efforts.

9. REVIEW OF POSSIBLE MITIGATION ACTIVITIES

9.1 Floodplain Management Objective Overview

The flood hazard to the Malibu Lake area RLPs is principally related to the rising of lake levels during large storm events. This very specific hazard association between damage and lake level for the area as a whole differs from most other FMPs for RLPs where the hazard-damage relationship varies with RLPs. Repetitive Loss Properties manifest a unique separation between public and private hazard mitigation. Recurrent damages to these properties carry public concern and cost; yet the damage forces and solutions are of a private nature and financial responsibility. Thus, the FMP for RLPs is of a dual character, requiring the attention of both public agencies and private RLP owners. It must first identify the problem(s) associated with each RLP, assess solutions that can be provided by RLP owners and public agencies, and, at the same time, communicate to RLP owners the critical information and awareness to encourage the voluntary participation in private solutions. The following discussion centers on the private programs, measures, and activities to address the problems and needs associated with RLPs.

In keeping with the goals of the FMP to ensure that all possible mitigation measures are explored, the review of possible mitigation activities starts with the six activities presented in Section 511-g of the CRS Coordinators Manual and its six categories. These activities are (1) preventive, (2) property protection, (3) natural resource protection, (4) emergency services, (5) structural projects, and (6) public information.

The following sections detail the application of these six activities to the affected RLPs by a division between essentially public versus private activities. Note that the division between private versus public activities is for easy reference only. Implementation responsibility may be shared by both parties as shown in Section 10.1. Property protection activities are discussed under "Private Activities" since most protection measures will be implemented within the private property rights-of-way. Major structural improvements such as elevating the entire house may be costly and may be qualified for governmental funding assistance. Under these circumstances, property protection measures may be participated in by private owners, NFIP administrator (County), and other entities involved in funding application approval and reimbursement. Conversely, natural resources protection activities are primarily through the watershed management efforts of the public agencies and are listed under "Public Activities". However, the private owners are encouraged to apply environmentally friendly materials and to provide environmental protection during design and construction of property protection measures.

9.2 Public Activities

Of the six activities of the CRS Coordinators Manual, five are essentially governmental in nature. These five are preventive, natural resource protection, emergency services, structural projects, and public information. Implementation of any activity contained in these categories is dependent upon the priorities and funding capabilities of the responsible governing agencies.

9.2.1 Preventive Activities

The list below identifies potential preventive activities that have the potential to reduce flood damage potential for RLPs and "high risk properties" and aid in the mitigation of damages to RLPs and in many instances to non-RLP properties.

1.a Designate staff from planning, building/safety, development, and environmental divisions who will be responsible for working with RLPs during the permitting process.

1.b Update the RLP list and annually notify RLP owners regarding local flood hazards and proper protection activities, provide technical advice regarding flood protection and flood preparedness, and distribute a revised RLP questionnaire to new RLPs.

1.c Maintain the County's Emergency Operations Master Plan and Procedures.

1.d Maintain regular coordination efforts with surrounding cities, the Los Angeles County Department of Public Works, State and Federal agencies regarding flood hazard mitigation, and the National Flood Insurance Program.

1.e Participate in organizations such as the Association of State Floodplain Managers and the National Association of Flood and Stormwater Management Agencies to network with other agencies and remain current in the field of floodplain management.

1.f Conduct annual National Flood Insurance Program seminars for County personnel responsible for applying and enforcing floodplain management regulations.

1.g Update operational procedures and training materials for staff that apply and enforce floodplain management regulations and provide annual training.

1.h Post "No Dumping" signs at points of entry to the stormwater system.

1.i Refine the use of the Plan Check and Inspection System (PCIS) to track "high risk properties" and ensure that flood safety is adequately addressed through the plan check process.

1.j Incorporate floodplain management information into the Zoning Information and Map Access System (ZIMAS).

1.k The Flood Hazard Mitigation Coordinator shall flag repetitive loss properties in the PCIS database for review and approval of building permit applications.

1.l Identify and maintain a list of "high risk properties" that could be acquired for conversion into open space.

1.m Establish standards and/or incentives for the use of structural and non-structural techniques that mitigate flood hazards and manage stormwater pollution.

9.2.2 Natural Resource Protection Activities

The guidance of the CRS Coordinators Manual typically places natural resource protection activities within the scope of a broad watershed, which is well beyond the scope of an individual RLP. Typically, ecosystem restoration activities benefit from stormwater volume reduction through infiltration and flood peak decrease through increased ground cover density and resistance. However, these large-scale restoration activities can be performed through the coordinated efforts of the County with Ventura County and the cities of Thousand Oaks, Agoura Hills, and Westlake Village, all of which contribute to the runoff that enters Malibu Lake. Limited mitigation measures are also available to the RLP through the use of bioengineering solutions within

the RLP right-of-way. The implementation and financing of these measures within the private properties are normally the property owner's responsibility. Potential natural resource protection activities identified are as follows.

2.a Continue to require environmental review in the development process to provide for the protection of natural resources.

2.b Encourage the application of biological resource measures for the control stormwater and erosion to the best of their applicable limits with regards to other safety factors such as fire control.

2.c Establish standards and/or incentives for the use of structural and non-structural techniques that mitigate flood-hazards and manage stormwater pollution. Identify applicable existing NPDES programs that must be complied with.

2.d Ensure awareness of RLP owners on environmental sensitivities specific to their area.

2.e Establish standards and procedures for mitigation of temporary construction impacts.

2.f Develop and implement a joint watershed ecosystem restoration program.

2.g Develop a joint land use agreement to control future increases in runoff and sediment to Malibu Lake.

9.2.3 Emergency Services Activities

Emergency services activities are taken during a flood to minimize its impacts. These measures are normally the responsibility of city or county emergency management staff. Under some special circumstances, private entities, including homeowner associations, can undertake emergency services activities. A highly organized and committed private entity, like a homeowners association, may be capable of providing limited emergency services activities.

3.a Identify flood-warning systems for properties situated where such systems can benefit.

3.b Routinely check and evaluate the safety and readiness of Emergency Operations and Procedures.

3.c Make sand and sand bags available to flood risk property owners during the wet season, provide notifications of the availability of these materials, and track the distribution of the materials.

9.2.4 Structural Activities

Section 511 of the CRS Coordinators Manual employs this category for large-scale projects providing protection to groups, rather than the more individually based category of Property Protection Activities. Large-scale projects are, by their nature, public facilities and are thus designed and maintained by public works staff. In the examination of RLPs, a limited number of large-scale projects are potentially suited for controlling the hazards of RLPs. These potential structural activities are as follows.

4.a Storm sewer improvements.

4.b Channel modifications.

4.c Street drainage modifications.

4.d Levee or floodwall construction to divert lake runoff.

4.e Dam removal with lake modifications.

9.2.5 Public Information Activities

Information transfers to RLP owners, potential property owners, and visitors about the hazards and ways to protect people and property from the hazards are effective activities that can lead to the mitigation of the hazards. The following public information activities have been identified for RLPs.

5.a Identify possible sources of funding including Cost of Compliance funds and mitigation grant funds among others and provide this information to RLP owners.

5.b Continue to investigate RLPs as they are identified by FEMA and update the RLP and high-risk property list. Annually notify RLP owners regarding local flood hazards and proper protection activities, provide technical advice regarding flood protection and flood preparedness, and distribute a revised RLP questionnaire to new RLPs.

5.c Develop and distribute flood protection information and materials to property owners and developers in high-risk areas.

5.f Provide public education about maintaining the stormwater system free of debris.

5.g Maintain the County's web page to provide emergency preparedness information to the general public and media.

5.h Distribute information regarding flood prevention and flood insurance at emergency operations and emergency preparedness events.

5.i Continue implementing the County's Annual Emergency Preparedness Fair.

9.3 Private Property Protection Activities

Property protection activities for RLP are generally in the nature of small-scale measures undertaken by property owners on a structure-by-structure or parcel basis. As these measures are usually carried out by the property owner, implementation and financing of these measures are normally at the discretion of the property owner.

6.a Construct or modify retaining walls with proper drainage and trash capacity.

6.b Construct berms to divert water flows.

6.c Install debris fences or traps.

6.d Install yard inlets to drain water flows to the street.

6.e Construct on-site detention basins.

6.f Improve headwalls for water conveyance.

6.g Floodproof structures and retaining walls.

6.h Floodproof entrances.

6.i Add sump pump to drainage systems and drain to nearest storm drain.

6.j Construct terrace drain and plant slope to reduce erosion.

6.k Plant slopes to reduce erosion and water flows.

6.l Improve on-site grading and add french-drain.

6.m Convert flood-prone living space and replace with new story.

6.n Lift entire house including floor slab and build a new foundation to elevate the house.

6.o Waterproof lower level.

6.p Extend the walls of the house upward and raise the lowest floor.

10. ACTION PLAN

Section 9 concluded with the identification of alternatives that have the potential to mitigate the flood hazards experienced by the RLPs of the Malibu Lake Communities. In this section, where the goal is to identify actions to be taken by RLPs, the alternatives were examined for their technical appropriateness, affordability, ability to be implemented, and their regulatory compliance by local, state, and federal regulations at the RLP level.

10.1 Final Alternative Activity Plans

The alternatives carried forward from Section 9 can be divided into two: (1) activities requiring action at the "public" level; i.e., they require a governmental action and (2) actions that can be pursued by the individual property owner. The basic responsibility for each activity is presented in Table 10.1, with the possible exceptions being noted. As noted earlier, the main focus of the FMP for RLPs is the identification of hazard mitigation activities that the property owner can undertake. Given this focus, the activity categories that are basically governmental are left to the appropriate governmental entities to be implemented, with the noted exceptions of Table 10.1 being applied to RLPs where applicable.

Table 10.1 Mitigation Activity Basic Responsibility

Category	Basic Responsibility
Preventive Activities	Public
Natural Resource Protection Activities	Public (primary) and Private (secondary)
Emergency Services Activities	Public
Structural Activities	Public
Public Information Activities	Public
Property Protection Activities	Private (primary) and Public (funding assistance)

10.2 Selection Factors for RLPs

The selection factors to be carried out by the RLP owners are focused on alternatives that are economically, environmentally, and engineeringly feasible for the RLP owners. Specifically, this selection factor directs the focus of activities to those actions that can be carried out by the individual property owner.

10.3 RLP Action Plan for Property Protection Activities

The initial survey of the RLPs of the Malibu Lake Communities indicated that 19 properties meet the criteria of an RLP. Further field examination of these properties indicated one property had elevated the house to reduce flood hazards. The remaining 18 RLPs have potential solutions based on preliminary hydrologic and

hydraulic data and engineering analysis as shown in Table 10.2. In general, the primary solution for any one of these RLPs falls into one of four property protection activities as outlined in Section 9.3.

Sixteen of the RLPs have a hazard potential related to a rising lake elevation during a flood. A uniform public activity in the form of a dike or levee would not be a viable solution on many grounds including environmental, aesthetics, and economic. The highly active homeowners association in the area does offer the potential to institute a flood warning system, but a flood warning system is greatly constrained in limiting the damages from a flood. For these RLPs, property protection activities are restricted to a single general option of the relocation of active living space from the flood zone. This general option of relocating living space has three specific options as shown in Figures 10.1 to 10.3.

As shown in Tables 10.2 and 10.3, one property (RLP 25) requires governmental action to fully mitigate flood hazards. All other RLPs will require private voluntary actions to mitigate the flood hazard.

Environmental Considerations

The implementation of the potential primary solution at a given RLP has been analyzed according to CEQA Guidelines. Implementation of the primary solution has been found to potentially have the following less-than-significant-with-mitigation impacts as indicated in Appendix C.

- Substantially degrade the existing visual character or quality of the site and its surroundings.
- Cause a substantial adverse change in the significance of a historic resource as defined in §15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.

However, evaluation of the actual impacts will require site-specific environmental baseline data and detailed architectural and engineering design. For example, historical values of some RLPs need to be confirmed in order to evaluate the potential impacts. Since the Malibu Lake RLPs are awaiting federal funding through the Flood Hazard Grand Programs, the protection activities will have to comply with NEPA. In addition, modification to RLPs will need to comply with CEQA prior to the county's issuance of building and occupancy permits.

Financial Viability

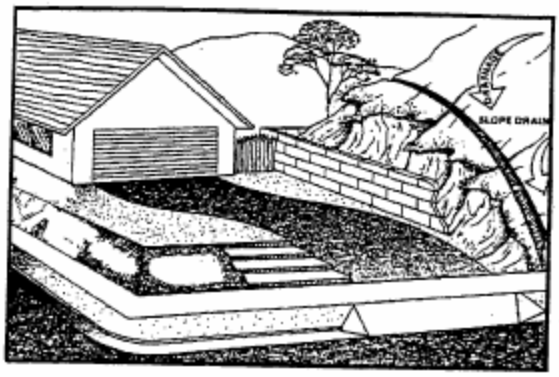
The recommended solutions have been analyzed for their technical appropriateness, ability to be implemented, and their regulatory compliance.

Economic analysis was conducted to assess the annual damages. Damages are governed by the guidelines and regulations for Federal water resources projects as expressed in the U.S. Army Corps of Engineers' Planning Guidance Manual (Engineering Regulation [ER] 1105-2-100). The underlying purpose of the analytical procedures outlined in ER 1105-2-100 is to convert the random nature of flood related damages to an expression of equivalent annual damage for comparison to the amortized cost of flood mitigation. The fundamental factors behind determinations of structural related damages under the Federal guidance are (1) depreciated structure replacement value, (2) content-to-structure value relationships, (3) inundation levels, (4) inundation depth-to-damage functions, (5) emergency costs relationships to structure inundation, and (6) cleanup cost relationship to the amount of inundated surface. The results of the analysis of these factors are ultimately incorporated into the USACOE Hydrologic Engineering Center's (HEC) Flood Damage Analysis Package, HEC-FDA, for the determination of equivalent annual damages.

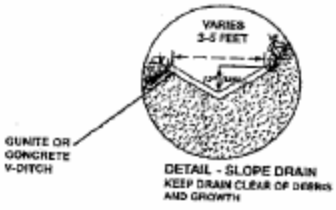
Table 10.2 Property Protection Alternatives

RLP ID	Causes	Problem	No Problem	Primary Potential Solution	Alternate Solution
1	Inundated by a rising water of Malibu lake during the storm	X		Convert flood prone living space and replace with new story (6m)	Property Acquisition
2	Hillside backyard drainage	X		Hillside problem, possibly with grading/drainage and retaining wall at the toe (6a)	Property Acquisition
3		X		Convert flood prone living space and replace with new story (6m)	Property Acquisition
4		X		Convert flood prone living space and replace with new story (6m)	Property Acquisition
5		X		Previous owner already raised the house; however, the current first habitable floor elevation relative to BFE remains unknown	Extend the walls of the house upward and raise the lowest floor
6		X		Convert flood prone living space and replace with new story (6m)	Property Acquisition
7		X		Lift the entire house with the floor slab attached and build a new foundation to elevate the house (6n)	Property Acquisition
8		X		Convert flood prone living space and replace with new story (6m)	Property Acquisition
9		X		Convert flood prone living space and replace with new story (6m)	Property Acquisition
10	Inundated by a rising water of Malibu Lake during the storm	X		Convert flood prone living space and replace with new story (6m)	Lift the entire house with the floor slab attached and build a new foundation to elevate the house
11			X	Has been elevated to above 736.19 feet msl (Capital Flood elevation)	
12		X		Convert flood prone living space and replace with new story (6m)	Property Acquisition
13		X		Convert flood prone living space and replace with new story (6m)	Property Acquisition
14		X		Convert flood prone living space and replace with new story (6m)	Property Acquisition
15		X		Convert flood prone living space and replace with new story (6m)	Property Acquisition
16		X		Convert flood prone living space and replace with new story (6m)	Property Acquisition
17		X		Convert flood prone living space and replace with new story (6m)	Property Acquisition
18	Floodwater from Medea Creek	X		Convert flood prone living space and replace with new story (6m)	Property Acquisition
25	Capacity of storm drain culvert located near the property is undersized and causes overflow to the street and property	X		Confine upstream inflow. Upsize the pipe opening. Improve stormdrain. Add a truss-rack at the inlet (4a)	Property Acquisition
	Shaded items require public agency participation.				

COUNTY OF LOS ANGELES TETRA TECH, INC.



A retaining wall at the bottom of slope to prevent slope failure

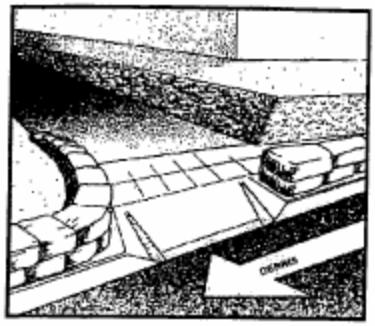


A small ditch close to the upper edge of the property to drain into a natural water course or onto street pavement or to a well-vegetated area

TETRA TECH
Infrastructure Southwest Group

ON–SITE GRADING/DRAINAGE PROBLEM
NFIP REPETITIVE LOSS CORRECTION WORKSHEET
6a. Construct/Modify Retaining Wall and V-Ditch to Drain

Figure 10.1 Retaining Wall and Drainage Layout – Malibu Lake



Construct berm at driveway

Divert surface water away

SUBMERSIBLE SUMP PUMPS

In cases where water has flooded a basement, garage, or any low-lying area, a submersible sump pump is recommended. If flooding is a recurring problem, a permanent pump should be installed in a sump with a floatation device for automatic on/off operation (see Fig.13).

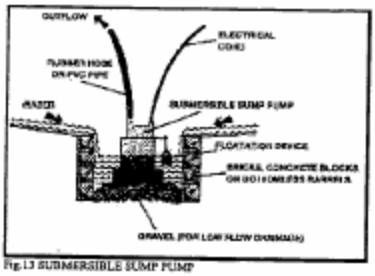


Fig.13 SUBMERSIBLE SUMP PUMP

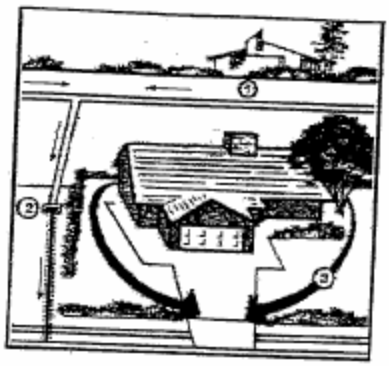
TETRA TECH
Infrastructure Southwest Group

PROPERTY LOWER THAN STREET OR SURROUNDING

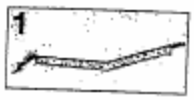
NFIP REPETITIVE LOSS CORRECTION WORKSHEET

6b. Construct Berm at Driveway and Sump Pump at Low Point

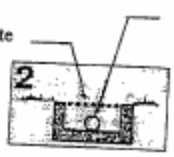
Figure 10.2 Berm and Sump Layout – Malibu Lake

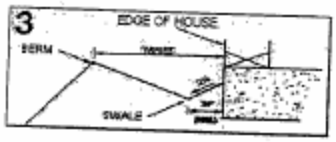


General property drainage flow direction



Paved Terrace Drain





Side Swale Directing Water around the House

TETRA TECH
Infrastructure Southwest Group

BACKYARD – HILLSIDE PROBLEM
NFIP REPETITIVE LOSS CORRECTION WORKSHEET
6d. Install Inlets/French Drain and Drain to Street

Figure 10.3 Inlet/French Drain and Drainage Layout - Malibu Lake

Table 10.3 Summary of Recommended Solutions for RLPs

Activities	Recommended Solution	RLPs
6.a	Hillside problem, possibly with grading/drainage and retaining wall at the toe	2
6.m	Convert flood prone living space and replace with new story	1, 3, 4, 5, 6, 8, 9, 10, 12, 13, 14, 15, 16, 17, and 18
6.n	Lift the entire house with the floor slab attached and build a new foundation to elevate the house	7
4.a	Stormdrain system improvements	25

The final factor for their possible implementation is their affordability. Every recommended solution was economically analyzed on a Benefit-to-Cost (B/C) basis (see Table 10.4) and on an investment recovery period method to check if implementation made financial sense (complete details are presented in Appendix E). Implementation costs ranged from $10,000 to $180,000 for the recommended solutions. B/C ratios for the RLPs varied from approximately 0.3 to 4.4, with nine of the eighteen proposed solutions being justified on a B/C ratio basis. These data shown in Table 10.4 and Appendix E were provided based on the best information available to Tetra Tech regarding flood problems, structure types and conditions, and local construction statistics. These should be updated as property-specific information becomes available.

Public Participation in Funding Assistance

The County has been working with the OES to assist the Mountain Club and RLPs in obtaining funding under the Hazard Mitigation Grant Program. The Mountain Club will implement a new sewer system in preparation for raising the RLPs' structures. A maximum funding of $1.2 million is allocated for RLP structure modifications and public stormdrain improvements, pending review of additional cost data

10.4 RLP Action Plan Related to Public Activities

Table 10.5 displays the Action Plan and its activities that are or will be implemented in order to meet the Goals, Objectives, and Policies outlined in Chapter 9. The primary responsible agencies and schedule for each activity are listed in Table 10.5.

Table 10.4 Financial Viability of Recommended Primary Solutions

RLP #	100-Year Event Damage			Equivalent Annual Damage	Mitigation Cost	B/C Ratio
	Structure	Content	Cleanup			
1	$55,684	$43,289	$9,610	$11,645	$100,000	1.54
2	$16,158	$10,586	$3,199	$2,867	$10,000	3.79
3	$42,720	$32,623	$8,103	$10,715	$100,000	1.42
4	$32,700	$27,055	$4,052	$3,323	$150,000	0.29
5	$25,709	$21,679	$3,062	$3,378	$65,000	0.69
6	$60,423	$50,952	$4,413	$7,623	$180,000	0.56
7	$24,711	$20,500	$1,843	$4,428	$100,000	0.59
8	$41,387	$32,175	$7,143	$8,696	$100,000	1.15
9	$42,365	$35,146	$4,380	$7,602	$50,000	2.01
10	$33,533	$27,164	$3,252	$5,968	$40,000	1.97
11	-	-	-	-	-	-
12	$22,877	$19,124	$2,936	$3,729	$100,000	0.49
13	$37,418	$31,042	$4,486	$6,787	$100,000	0.90
14	$25,019	$19,834	$4,570	$3,311	$90,000	0.46
15	$21,576	$17,105	$4,570	$4,735	$70,000	0.89
16	$39,843	$31,587	$8,439	$8,607	$100,000	1.14
17	$33,872	$27,438	$3,285	$6,027	$75,000	1.06
18	$18,732	$14,851	$3,968	$4,132	$65,000	0.84
25	$21,553	$13,634	$7,446	$4,024	$12,000	4.44

Floodplain Management Plan for Repetitive Loss Properties Malibu Lake Area

Table 10.5 Action Plan of the FMP for RLPs

Activity	Responsible Department														Schedule
			Public Works Department												
	County Emergency Operations Center	County Regional Planning Department	County Parks and Recreation	Watershed Management Division	Building & Safety Division	Design Division	Program Development Division	Flood Maintenance Division	Disaster Assistance Group	Water Resources Division	Land development Division	Homeowners Association	
Secure appropriate FEMA Hazard Mitigation Funds	X			X			X		X			X	TBD
Maintain Emergency Operations Master Plan and Procedures	X			X					X				Ongoing
Designate staff responsible for working with RLPs during the permitting process from planning, building/safety, development, and environmental divisions				X	X								TBD
Ensure awareness of RLP owners on environmental sensitivities specific to their area		X		X								X	TBD
Establish standards and procedures for mitigation of temporary construction impacts		X		X	X								TBD
Develop and implement a joint watershed ecosystem restoration program		X		X									TBD
Develop a joint land use agreement to control future increases in runoff and sediment to Malibu Lake		X		X									TBD
Identify flood-warning systems for properties situated where such systems can be beneficially employed	X	X		X					X			X	TBD
Conduct a stormwater facilities condition assessment program to identify the physical and hydraulic condition of the system and to support infrastructure management needs				X				X		X		X	June 2001
Develop and maintain a list of priority maintenance-related flood problem sites				X								X	Ongoing
Conduct annual maintenance at priority maintenance-related flood problem sites prior to the wet season				X									Ongoing

COUNTYY OF LOS ANGELES **TETRA TECH, INC.**

Floodplain Management Plan for
Repetitive Loss Properties
Malibu Lake Area

Table 10.5 Action Plan of the FMP for RLPs

Activity	Responsible Department													Schedule
		Public Works Department												
	County Emergency Operations Center	County Regional Planning Department	County Parks and Recreation	Watershed Management Division	Building & Safety Division	Design Division	Program Development Division	Flood Maintenance Division	Disaster Assistance Group	Water Resources Division	Land development Division	Homeowners Association		
Refine the use of the Plan Check and Inspection System (PCIS) to track "high risk properties" and ensure that drainage is adequately addressed through the plan check process				X	X						X			TBD
The Flood Hazard Mitigation Coordinator shall flag repetitive Loss Properties in the PCIS database for review and approval of building permit applications				X										Ongoing
Investigate RLPs and annually notify RLP owners regarding local flood hazards and proper protection activities, provide technical advice regarding flood protection and flood preparedness, and distribute a revised RLP questionnaire to new RLPs				X	X									Ongoing
Identify and maintain a list of "high risk properties" that could be acquired for conversion into open space		X	X	X										July 2001
Establish standards and/or incentives for the use of structural and non-structural techniques that mitigate flood-hazards and manage stormwater pollution				X										Ongoing
Continue to require environmental review in the development process to provide for the protection of natural resources		X		X			X							Ongoing
Encourage the application of biological resource measures for the control stormwater and erosion to the best of their applicable limits with regards to other safety factors such as fire control		X		X			X						X	TBD

Floodplain Management Plan for
Repetitive Loss Properties
Malibu Lake Area

Table 10.5 Action Plan of the FMP for RLPs

Activity	Responsible Department													Schedule
				Public Works Department										
	County Emergency Operations Center	County Regional Planning Department	County Parks and Recreation	Watershed Management Division	Building & Safety Division	Design Division	Program Development Division	Flood Maintenance Division	Disaster Assistance Group	Water Resources Division	Land development Division	Homeowners Association		
Make sand bags available to flood risk property owners during the wet season, provide notifications of the availability of these materials, and track the distribution of the materials	X			X										Ongoing
Storm drain and open channel improvements				X		X	X	X		X		X		July 2001
Identify possible sources of funding and provide this information to RLP owners			X	X								X		Ongoing
Continue to investigate RLPs, as they are identified by FEMA, annually notify RLP owners regarding local flood hazards and proper protection activities, provide technical advice regarding flood protection and flood preparedness, and distribute a revised RLP questionnaire to new RLPs				X	X							X		Ongoing
Develop and distribute flood protection information and materials to property owners and developers in high-risk area				X								X		TBD
Provide public education about maintaining the stormwater system free of debris				X								X		Ongoing
Distribute information regarding flood prevention and flood insurance at emergency operations and emergency preparedness events	X			X								X		Ongoing
Continue implementing the County's Annual Emergency Preparedness Fair	X			X								X		Annual

COUNTYY OF LOS ANGELES TETRA TECH, INC.

3. A sample of a property owner survey; *(floodMitPlan5.pdf)*

APPENDIX A

HYDROLOGY

COUNTY OF LOS ANGELES

SANTA MONICA MOUNTAINS, SAN GABRIEL MOUNTAINS, AND QUARTZ HILL

REPETITIVE LOSS PROPERTIES

APPENDIX A.1	SANTA MONICA MOUNTAINS AREA HYDROLOGY INFORMATION FROM COUNTY FOR RLP NO.24
APPENDIX A.2	SANTA MONICA MOUNTAINS AREA, WATERSHED AREA BOUNDARIES FOR RLP NOS. 26, 27, AND 28
APPENDIX A.3	SAN GABRIEL MOUNTAINS AREA, WATERSHED AREA BOUNDARIES FOR RLP NOS. 35 AND 36
APPENDIX A.4	SAN GABRIEL MOUNTAINS AREA HYDROLOGY INFORMATION FROM COUNTY FOR RLP NO.37
APPENDIX A.5	QUARTZ HILL AREA HYDROLOGY INFORMATION FROM COUNTY FOR RLP NO.37
APPENDIX A.6	GAGING STATION ANALYSIS USING ARROYO SECO. STATION, PASADENA (STATION NO. 11098000)

APPENDIX A.1

SANTA MONICA MOUNTAINS, SAN GABRIEL MOUNTAINS, AND QUARTZ HILL

SANTA MONICA MOUNTAINS AREA

HYDROLOGY INFORMATION FROM COUNTY

FOR RLP NO. 24

April 20, 2000

RECD FEB 05 2001

TO: Dave Yamahara
Planning Division

Attention Allen Ma

FROM: Reza Izadi
Water Resources Division

NATIONAL FLOOD INSURANCE PROGRAM (NFIP)
COMMUNITY RATING SYSTEM (CRS)
FLOODPLAIN MANAGEMENT PLAN (FMP)

As requested in your January 31, 2000 memorandum, we have provided the Federal Emergency Management Agency (FEMA) 100-year flow rates and the County Capital Flood flow rates for the attached listed locations (see Attachment A). We have also provided Malibu Lake reservoir inundation elevations for both the FEMA 100-year and County Capital flow rates taking into consideration the 1997 spillway expansions for the reservoir.

The maximum water surface elevation of Malibu Lake based on the FEMA 100-year inflow hydrograph is 733.83 feet. The maximum water surface elevation based on the County Capital Flood inflow hydrograph is 734.93 feet. Copies of the reservoir routing analyses are attached (see Attachment B).

We understand that this information will be used to facilitate the development of the FMP.

If you have any questions regarding this information, please contact Martin Araiza at 458-6152.

MA:jac
P:\Hyddev\Users\Martin\memos\CRS Memo.wpd

Attach.

cc: H/WC (2) (Nasseri, Files)

ATTACHMENT A

LP ID No. 24

	STREAM/FACILITY	LOCATION	FEMA 100-YR Q (cfs)	CAPITAL Q (cfs)
1.	Malibu Lake	overflow over dam	34,000	37,400 [1]
2.	Lower Topanga-Rodeo Grounds	at PCH bridge	15,200	25,200 [2]
3.	Lobo Canyon	at Triunfo Canyon Road	4,640	8,240 [1]
4.	Old Topanga Canyon	at Bonnell Drive Bridge	1,600	3,050
5.	Old Topanga Canyon	downstream of Red Rock Canyon confluence	3,200	5,830 [2]
6.	Garapito Creek	upstream of Topanga Canyon Blvd bridge	3,020	7,220 [2]
7.	Red Rock Canyon	adjacent to intersection of Red Rock Canyon Road and Rose Lane	810	1,910 [2]
8.	Topanga Canyon	upstream of confluence with Old Topanga Canyon Road	8,300	15,000 [2]
9.	Mint Canyon	at the Old Dirt Road	6,470	16,700 [2]
10.	Antelope Valley-Drainage Corridor No. 9, Map # 373-ML15	northward along 40th St. West, at Ave N	1,200	not available
11.	Antelope Valley-Drainage Corridor No. 7, Map # 373-ML15	northerly across Ave K-10, west of 50th St. West	2,100	not available

1. *Clear*
2. *Burned and Bulked*

APPENDIX A.2

SANTA MONICA MOUNTAINS, SAN GABRIEL MOUNTAINS, AND QUARTZ HILL

SANTA MONICA MOUNTAINS AREA

WATERSHED AREA BOUNDARIES

FOR RLP NOS. 26, 27, & 28


RLP ID.# 26
RLP ID.# 27
TAPIA CO
PARK
Monte Nido
Crater Camp
Malibu Res
Mesa Pk
BM 514
Canyon


RLP ID.# 28
Malibu Bowl
Mesa Pk
Malibu Hills
El Nido
SOLSTICE CANYON
COUNTY PARK
DAN BLOCKER STATE BEACH
PUERCO BEACH
T O P A N G A
SANTA

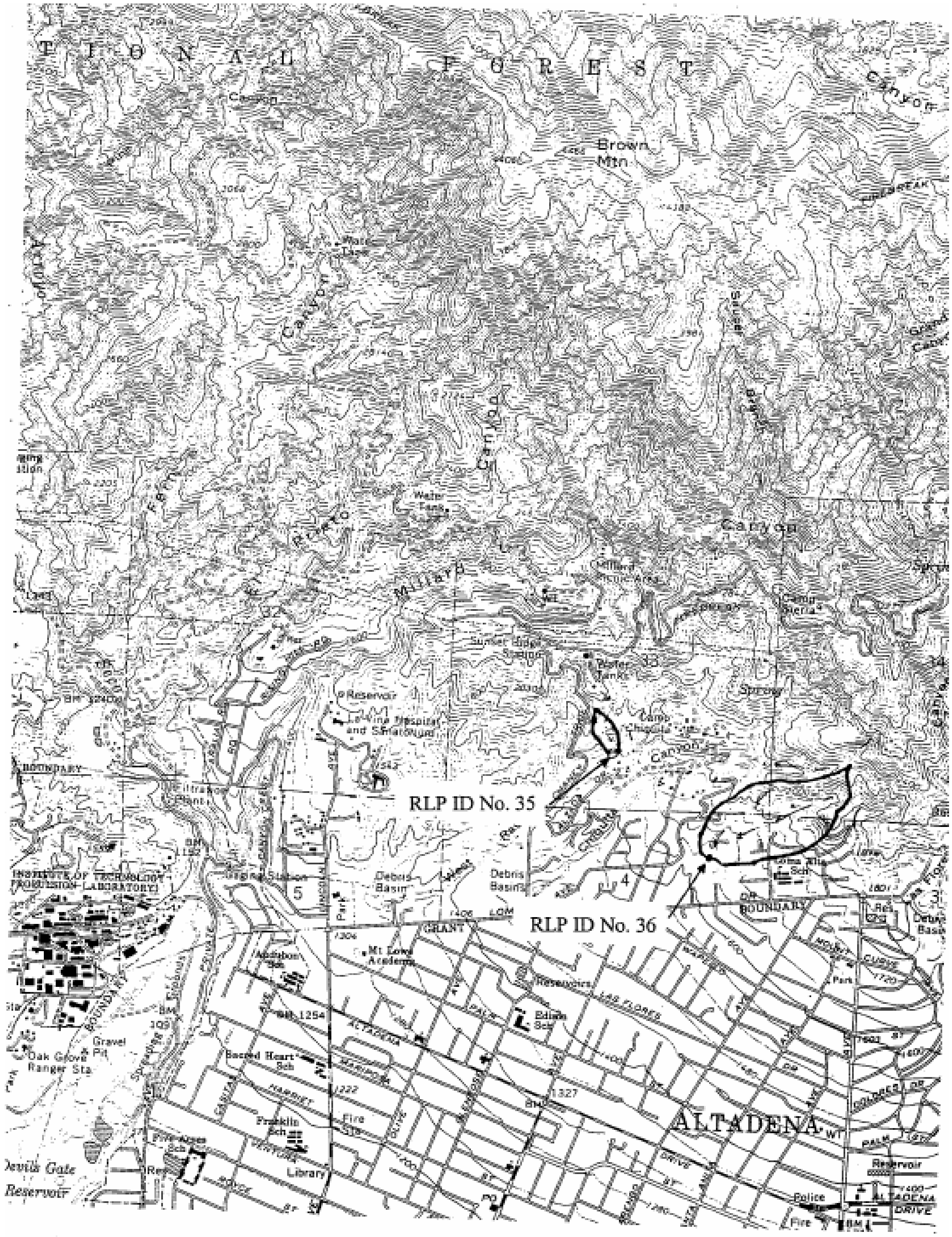
APPENDIX A.3

SANTA MONICA MOUNTAINS, SAN GABRIEL MOUNTAINS, AND QUARTZ HILL

SAN GABRIEL MOUNTAINS AREA

WATERSHED AREA BOUNDARIES

FOR RLP NOS. 35 & 36


RLP ID No. 35
RLP ID No. 36
ALTADENA
Brown Mtn
Millard Picnic Area
Camp Sierra
Debris Basin
Mt Lowe Academy
Franklin Sch
Library
Devils Gate Reservoir

APPENDIX A.4

SANTA MONICA MOUNTAINS, SAN GABRIEL MOUNTAINS, AND QUARTZ HILL

SAN GABRIEL MOUNTAINS AREA

HYDROLOGY INFORMATION FROM COUNTY

FOR RLP NO. 37

ATTACHMENT A

	STREAM/FACILITY	LOCATION	FEMA 100-YR Q (cfs)	CAPITAL Q (cfs)
1.	Malibu Lake	overflow over dam	34,000	37,400 [1]
2.	Lower Topanga-Rodeo Grounds	at PCH bridge	15,200	25,200 [2]
3.	Lobo Canyon	at Triunfo Canyon Road	4,640	8,240 [2]
4.	Old Topanga Canyon	at Bonnell Drive Bridge	1,600	3,050 [2]
5.	Old Topanga Canyon	downstream of Red Rock Canyon confluence	3,200	5,830 [2]
6.	Garapito Creek	upstream of Topanga Canyon Blvd bridge	3,020	7,220 [2]
7.	Red Rock Canyon	adjacent to intersection of Red Rock Canyon Road and Rose Lane	810	1,910 [2]
8.	Topanga Canyon	upstream of confluence with Old Topanga Canyon Road	8,300	15,000 [2]
LP ID No. 37 9.	Mint Canyon	at the Old Dirt Road	6,470	16,700 [1]
10.	Antelope Valley-Drainage Corridor No. 9, Map # 373-ML15	northward along 40th St. West, at Ave N	1,200	not available
11.	Antelope Valley-Drainage Corridor No. 7, Map # 373-ML15	northerly across Ave K-10, west of 50th St. West	2,100	not available

1. *Clear*
2. *Burned and Bulked*

APPENDIX A.5

SANTA MONICA MOUNTAINS, SAN GABRIEL MOUNTAINS, AND QUARTZ HILL

QUARTZ HILL

HYDROLOGY INFORMATION FROM COUNTY

FOR RLP NO. 38 & 39

ATTACHMENT A

	STREAM/FACILITY	LOCATION	FEMA 100-YR Q (cfs)	CAPITAL Q (cfs)
1.	Malibu Lake	overflow over dam	34,000	37,400 [1]
2.	Lower Topanga-Rodeo Grounds	at PCH bridge	15,200	25,200 [2]
3.	Lobo Canyon	at Triunfo Canyon Road	4,640	8,240 [2]
4.	Old Topanga Canyon	at Bonnell Drive Bridge	1,600	3,050 [2]
5.	Old Topanga Canyon	downstream of Red Rock Canyon confluence	3,200	5,830 [2]
6.	Garapito Creek	upstream of Topanga Canyon Blvd bridge	3,020	7,220 [2]
7.	Red Rock Canyon	adjacent to intersection of Red Rock Canyon Road and Rose Lane	810	1,910 [2]
8.	Topanga Canyon	upstream of confluence with Old Topanga Canyon Road	8,300	15,000 [2]
9.	Mint Canyon	at the Old Dirt Road	6,470	16,700 [2]
10.	Antelope Valley-Drainage Corridor No. 9, Map # 373-ML15	northward along 40th St. West, at Ave N	1,200	not available
11.	Antelope Valley-Drainage Corridor No. 7, Map # 373-ML15	northerly across Ave K-10, west of 50th St. West	2,100	not available

LP ID No. 38

LP ID No. 39

1. *Clear*
2. *Burned and Bulked*

APPENDIX A.6

SANTA MONICA MOUNTAINS, SAN GABRIEL MOUNTAINS, AND QUARTZ HILL

GAGING STATION ANALYSIS FOR STORM FREQUENCY DETERMINATION

(USING U.S.G.S GAGING STATION AT ARROYO SECO, PASADENA, CA
–STATION NO.11098000-)

Peak Streamflow for California

USGS 11098000 ARROYO SECO NR PASADENA CA

Available data for this site: Station home page GO

Los Angeles County, California
Hydrologic Unit Code 18070105
Latitude 34°13'20", Longitude 118°10'36" NAD27
Drainage area 16.00 square miles
Gage datum 1,397.88 feet above sea level NGVD29

Output formats

- Table
- Graph
- Tab-separated file
- WATSTORE formatted file
- Reselect output format

Water Year	Date	Gage Height (feet)	Stream-flow (cfs)
1914	Feb. 20, 1914	12.50	5,800
1915	Feb. 3, 1915	5.60	634
1916	Jan. 17, 1916	9.30	3,150
1917	Dec. 24, 1916	4.79	760
1918	Mar. 10, 1918	4.10	570
1919	Feb. 11, 1919	2.72	92.0
1920	Mar. 2, 1920	3.74	450
1921	Mar. 13, 1921	4.30	650
1922	Dec. 19, 1921	7.75	2,800
1923	Dec. 13, 1922	3.50	370
1924	Mar. 26, 1924	2.35	81.0
1925	Apr. 4, 1925	2.95	210
1926	Apr. 7, 1926	5.95	1,450
1927	Feb. 16, 1927	5.90	1,400
1928	Feb. 4, 1928	3.45	298
1929	Apr. 4, 1929	2.78	155
1930	May 3, 1930	2.65	143
1931	Feb. 3, 1931	2.70	151
1932	Dec. 28, 1931	4.80	480
1933	Jan. 19, 1933	4.85	
1934	Jan. 1, 1934	6.38	950
1935	Oct. 17, 1934	8.60	2,000
1957	Feb. 23, 1957	2.84	158
1958	Apr. 3, 1958	4.23	715
1959	Feb. 16, 1959	3.54	351
1960	Jan. 12, 1960	2.88	170
1961	Nov. 6, 1960	4.30	769
1962	Feb. 11, 1962	5.06	1,500
1963	Feb. 9, 1963	3.75	464
1964	Jan. 21, 1964	2.94	182
1965	Apr. 9, 1965	3.00	194
1966	Nov. 22, 1965	6.33	3,160
1967	Dec. 6, 1966	4.80	1,530
1968	Nov. 19, 1967	4.99	1,720
1969	Jan. 25, 1969	9.37	8,540
1970	Feb. 28, 1970	3.78	668
1971	Nov. 29, 1970	4.60	1,330
1972	Dec. 24, 1971	2.84	222
1973	Feb. 11, 1973	6.43	3,740
1974	Mar. 8, 1974	3.22	390
1975	Mar. 6, 1975	3.58	535
1976	Feb. 9, 1976	3.64	590
1977	May 9, 1977	2.88	230
1978	Mar. 4, 1978	7.57	5,360

1936	Feb. 12, 1936	5.20	706
1937	Feb. 6, 1937	4.20	640
1938	Mar. 2, 1938		8,620
1939	Dec. 18, 1938	7.70	375
1940	Jan. 8, 1940	7.92	452
1941	Feb. 20, 1941	8.57	1,340
1942	Dec. 10, 1941	6.57	146
1943	Jan. 23, 1943	11.86	5,660
1944	Feb. 22, 1944	9.00	1,800
1945	Nov. 11, 1944	8.38	1,210
1946	Mar. 30, 1946	4.17	680
1947	Dec. 25, 1946	4.05	600
1948	Apr. 29, 1948	1.84	45.0
1949	Jan. 20, 1949	1.60	35.0
1950	Nov. 10, 1949	2.76	150
1951	Apr. 29, 1951	1.70	12.0
1952	Jan. 16, 1952	4.75	1,090
1953	Dec. 2, 1952	1.80	49.0
1954	Jan. 24, 1954	4.00	571
1955	Apr. 30, 1955	2.39	107
1956	Jan. 26, 1956	4.30	815
1979	Feb. 21, 1979	2.82	193
1980	Feb. 16, 1980	6.06	3,080
1981	Jan. 29, 1981	3.76	627
1982	Mar. 17, 1982	3.74	615
1983	Mar. 2, 1983	6.09	2,640
1984	Dec. 25, 1983	3.06	217
1985	Dec. 16, 1984	2.79	139
1986	Jan. 30, 1986	3.05	213
1987	Jan. 5, 1987	1.58	13.0
1988	Feb. 29, 1988	3.57	457[D]
1989	Dec. 16, 1988	2.83	155
1990	Feb. 17, 1990	2.86	163
1991	Mar. 1, 1991	4.30	921
1992	Feb. 11, 1992	5.25	1,710
1993	Jan. 17, 1993	5.25	1,710
1994	Feb. 7, 1994	2.69	129
1995	Jan. 10, 1995	5.27	1,730
1996	Feb. 21, 1996	3.83	584
1997	Dec. 22, 1996	3.81	569
1998	Feb. 23, 1998	7.34	4,380
1999	Feb. 9, 1999	2.34	62
2000	Feb. 20, 2000	3.66	509

Peak Streamflow Qualification Codes.

- D -- Base Discharge changed during this year

MON	DAY	YEAR	CFS
2	20	1914	5800.
2	3	1915	634.
1	17	1916	3150.
12	24	1916	760.
3	10	1918	570.
2	11	1919	92.
3	2	1920	450.
3	13	1921	650.
12	19	1921	2800.
12	13	1922	370.
3	26	1924	81.
4	4	1925	210.
4	7	1926	1450.
2	16	1927	1400.
2	4	1928	298.
4	4	1929	155.
5	3	1930	143.
2	3	1931	151.
12	28	1931	480.
1	1	1934	950.
10	17	1934	2000.
2	12	1936	706.
2	6	1937	640.
3	2	1938	8620.
12	18	1938	375.
1	8	1940	452.
2	20	1941	1340.
12	10	1941	146.
1	23	1943	5660.
2	22	1944	1800.
11	11	1944	1210.
3	30	1946	680.
12	25	1946	600.
4	29	1948	45.
1	20	1949	35.
11	10	1949	150.
4	29	1951	12.
1	16	1952	1090.
12	2	1952	49.
1	24	1954	571.
4	30	1955	107.
1	26	1956	815.
2	23	1957	158.
4	3	1958	715.
2	16	1959	351.
1	12	1960	170.
11	6	1960	769.
2	11	1962	1500.
2	9	1963	464.
1	21	1964	182.
4	9	1965	194.
11	22	1965	3160.
12	6	1966	1530.
11	19	1967	1720.
1	25	1969	8540.
2	28	1970	668.
11	29	1970	1330.
12	24	1971	222.

RANK	YEAR	CFS	PLOT POS
1	1938	8620.	.81
2	1969	8540.	1.97
3	1914	5800.	3.13
4	1943	5660.	4.28
5	1978	5360.	5.44
6	1998	4380.	6.60
7	1973	3740.	7.75
8	1966	3160.	8.91
9	1916	3150.	10.07
10	1980	3080.	11.23
11	1922	2800.	12.38
12	1983	2640.	13.54
13	1935	2000.	14.70
14	1944	1800.	15.86
15	1995	1730.	17.01
16	1968	1720.	18.17
17	1992	1710.	19.33
18	1993	1710.	20.49
19	1967	1530.	21.64
20	1962	1500.	22.80
21	1926	1450.	23.96
22	1927	1400.	25.12
23	1941	1340.	26.27
24	1971	1330.	27.43
25	1945	1210.	28.59
26	1952	1090.	29.75
27	1934	950.	30.90
28	1991	921.	32.06
29	1956	815.	33.22
30	1961	769.	34.38
31	1917	760.	35.53
32	1958	715.	36.69
33	1936	706.	37.85
34	1946	680.	39.00
35	1970	668.	40.16
36	1921	650.	41.32
37	1937	640.	42.48
38	1915	634.	43.63
39	1981	627.	44.79
40	1982	615.	45.95
41	1947	600.	47.11
42	1976	590.	48.26
43	1996	584.	49.42
44	1954	571.	50.58
45	1918	570.	51.74
46	1997	569.	52.89
47	1975	535.	54.05
48	2000	509.	55.21
49	1932	480.	56.37
50	1963	464.	57.52
51	1988	457.	58.68
52	1940	452.	59.84
53	1920	450.	61.00
54	1974	390.	62.15
55	1939	375.	63.31
56	1923	370.	64.47
57	1959	351.	65.63
58	1928	298.	66.78

2	11	1973	3740.	59	1977	230.	67.94
3	8	1974	390.	60	1972	222.	69.10
3	6	1975	535.	61	1984	217.	70.25
2	9	1976	590.	62	1986	213.	71.41
5	9	1977	230.	63	1925	210.	72.57
3	4	1978	5360.	64	1965	194.	73.73
2	21	1979	193.	65	1979	193.	74.88
2	16	1980	3080.	66	1964	182.	76.04
1	29	1981	627.	67	1960	170.	77.20
3	17	1982	615.	68	1990	163.	78.36
3	2	1983	2640.	69	1957	158.	79.51
12	25	1983	217.	70	1989	155.	80.67
12	16	1984	139.	71	1929	155.	81.83
1	30	1986	213.	72	1931	151.	82.99
1	5	1987	13.	73	1950	150.	84.14
2	29	1988	457.	74	1942	146.	85.30
12	16	1988	155.	75	1930	143.	86.46
2	17	1990	163.	76	1985	139.	87.62
3	1	1991	921.	77	1994	129.	88.77
2	11	1992	1710.	78	1955	107.	89.93
1	17	1993	1710.	79	1919	92.	91.09
2	7	1994	129.	80	1924	81.	92.25
1	10	1995	1730.	81	1999	62.	93.40
2	21	1996	584.	82	1953	49.	94.56
12	22	1996	569.	83	1948	45.	95.72
2	23	1998	4380.	84	1949	35.	96.88
2	9	1999	62.	85	1987	13.	98.03
2	20	2000	509.	86	1951	12.	99.19

-OUTLIER TESTS -

LOW OUTLIER TEST

BASED ON 86 EVENTS, 10 PERCENT OUTLIER TEST VALUE K(N) = 2.966

0 LOW OUTLIER(S) IDENTIFIED BELOW TEST VALUE OF 9.0

HIGH OUTLIER TEST

BASED ON 86 EVENTS, 10 PERCENT OUTLIER TEST VALUE K(N) = 2.966

0 HIGH OUTLIER(S) IDENTIFIED ABOVE TEST VALUE OF 30121.

SKEW WEIGHTING -

BASED ON 86 EVENTS, MEAN-SQUARE ERROR OF STATION SKEW = .075
DEFAULT OR INPUT MEAN-SQUARE ERROR OF GENERALIZED SKEW = .302

FINAL RESULTS

-FREQUENCY CURVE-

COMPUTED CURVE FLOW IN CFS	EXPECTED PROBABILITY	PERCENT CHANCE EXCEEDANCE	CONFIDENCE LIMITS .05 FLOW IN CFS	.95
19200.	21400.	.2	34300.	12100.
13700.	14800.	.5	23400.	8860.
10200.	11000.	1.0	16900.	6830.
7450.	7840.	2.0	11800.	5110.
4560.	4710.	5.0	6840.	3260.
2910.	2970.	10.0	4160.	2150.
1660.	1680.	20.0	2260.	1270.
544.	544.	50.0	695.	426.
167.	164.	80.0	218.	123.
88.	85.	90.0	119.	61.
51.	49.	95.0	72.	33.
18.	16.	99.0	27.	10.

SYSTEMATIC STATISTICS

LOG TRANSFORM: FLOW, CFS		NUMBER OF EVENTS	
MEAN	2.7156	HISTORIC EVENTS	0
STANDARD DEV	.5945	HIGH OUTLIERS	0
COMPUTED SKEW	-.2661	LOW OUTLIERS	0
REGIONAL SKEW	.0000	ZERO OR MISSING	0
ADOPTED SKEW	-.2000	SYSTEMATIC EVENTS	86

HP PLOT WRITTEN TO THE FILE: PLOT

```
++++++++++++++++++++++++++
+ END OF RUN             +
+ NORMAL STOP IN FFA     +
++++++++++++++++++++++++++
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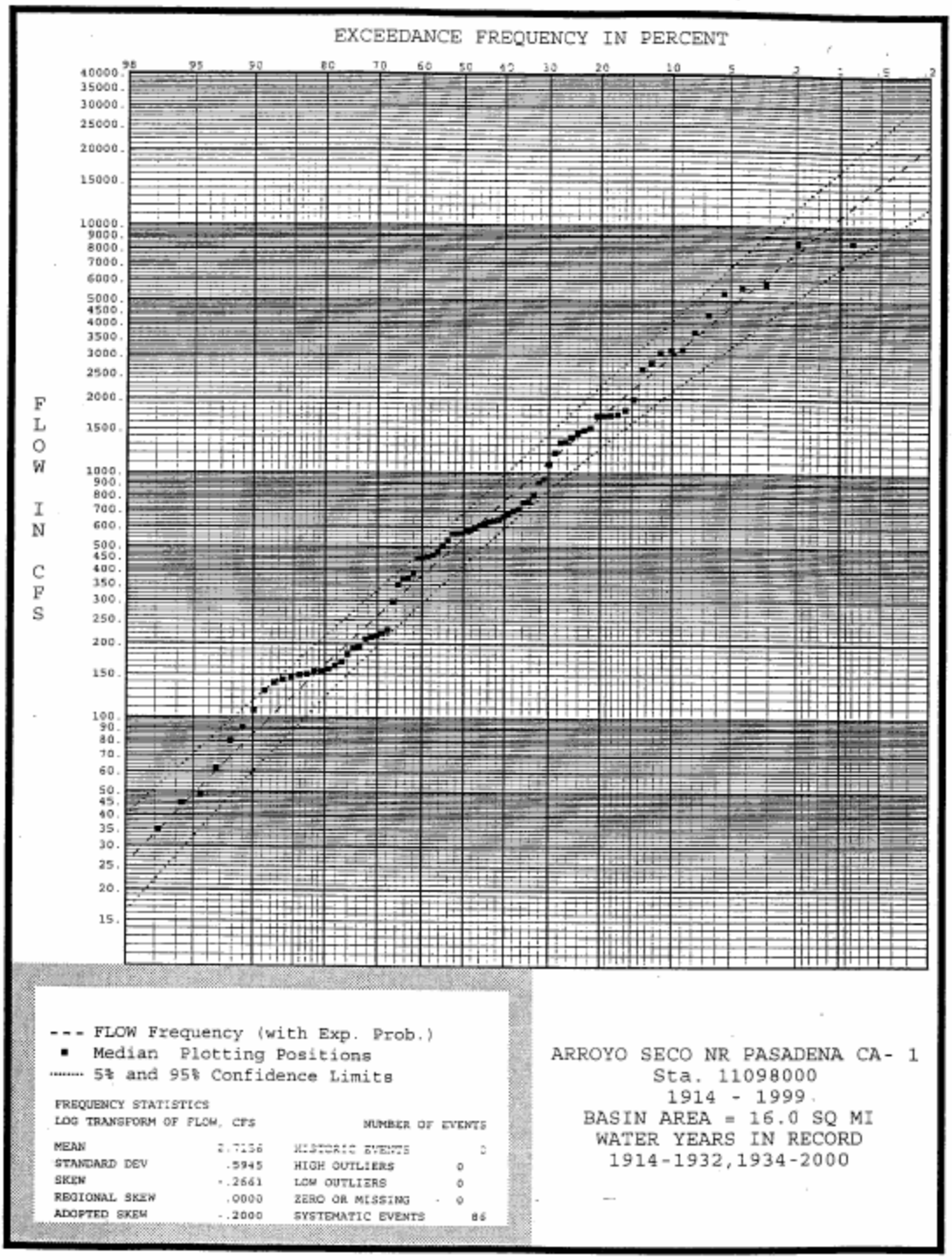

EXCEEDANCE FREQUENCY IN PERCENT
FLOW IN CFS
--- FLOW Frequency (with Exp. Prob.)
▪ Median Plotting Positions
····· 5% and 95% Confidence Limits
FREQUENCY STATISTICS
LOG TRANSFORM OF FLOW, CFS
MEAN 3.7136
STANDARD DEV .5945
SKEW -.2661
REGIONAL SKEW .0000
ADOPTED SKEW -.2000
NUMBER OF EVENTS
HISTORIC EVENTS 0
HIGH OUTLIERS 0
LOW OUTLIERS 0
ZERO OR MISSING 0
SYSTEMATIC EVENTS 86
ARROYO SECO NR PASADENA CA- 1
Sta. 11098000
1914 - 1999
BASIN AREA = 16.0 SQ MI
WATER YEARS IN RECORD
1914-1932,1934-2000

TABLE OF CONTENTS

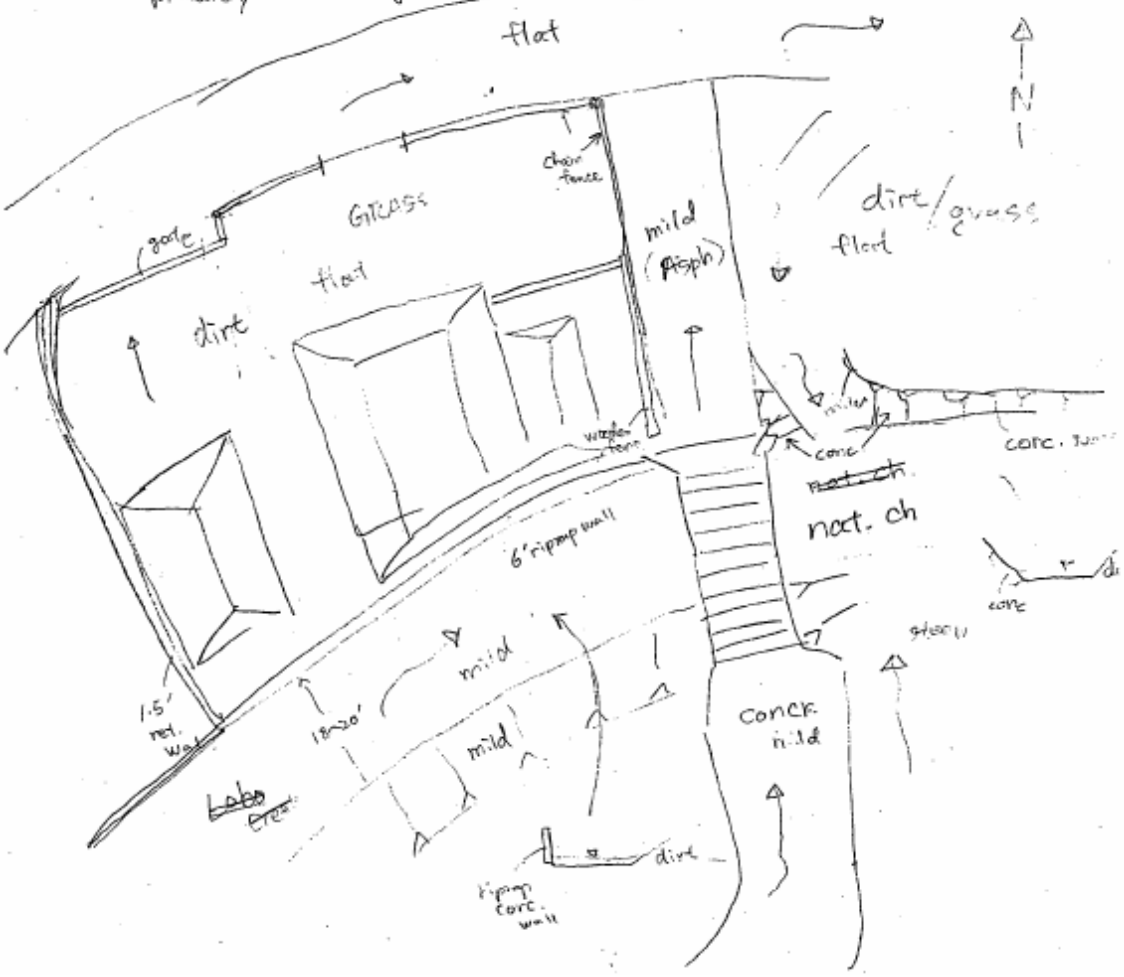
(FOR EACH REPETITIVE LOSS PROPERTY)

- FIELD NOTES AND SKETCHES OF PROPERTY
- PROBLEM ASSESSMENT
- FIELD PHOTOS
- VICINITY MAP
- A BENEFIT-COST ANALYSIS, CONDUCTED BY COUNTY OF LOS ANGELES (ONLY FOR RLP NOS. 26, 27, 28, 35, AND 38)
- A NFIP REPETITIVE LOSS PROPERTY CORRECTION WORKSHEET (ONLY FOR RLP NOS. 26, 27, 28, 35, AND 38)
- HYDROLOGY INFORMATION

FIELD NOTE

Owner has no floodinsurence for last 3 yrs because of no flood problem. Before plywood or branches accumulated in the creek U/s of the property & diverted the overflow to the street. There are a lot of small private bridges & culvert crossing the creek & prone to clogging by flowing objects during storm. Now they keep the creek pretty clean & count dugged up (according to owner) the creek's confluence w/ Malibu Creek a few feet lower. a few miles away

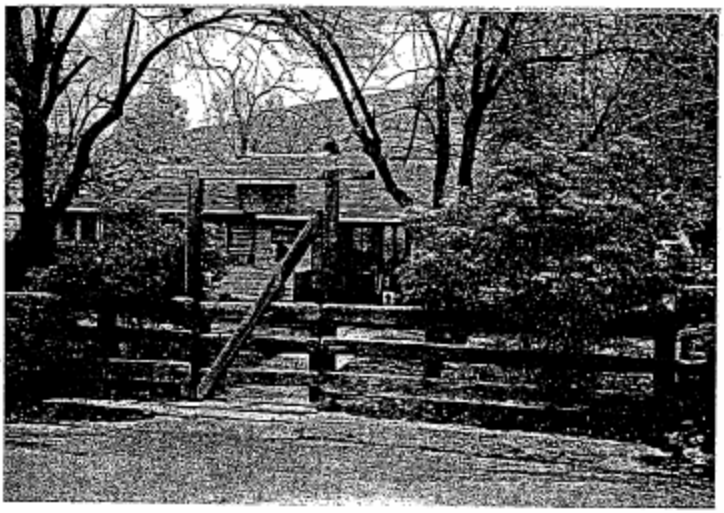
The wall along the Channel were there before 1950. But the owner has been constructing the walls higher privately

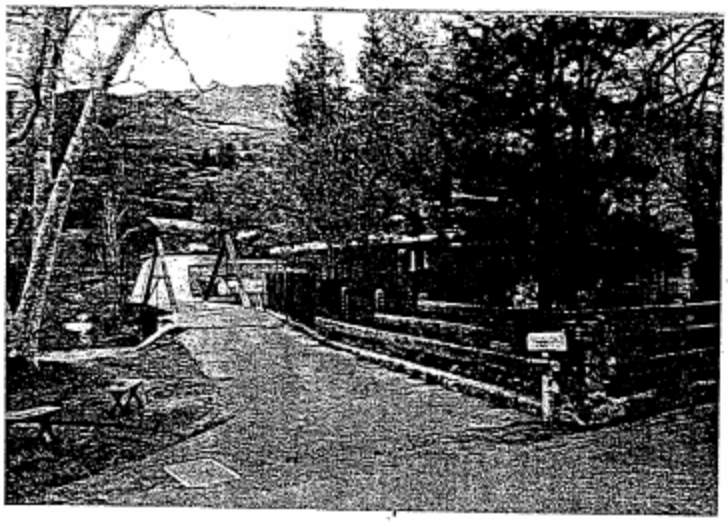


Problem Assessment for the L.A. County RLP

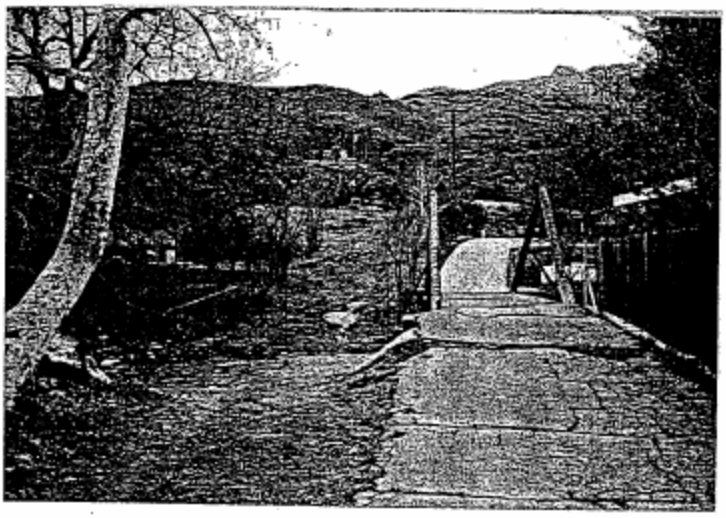
ID	RLP Street	Causes	Problem	No Problem
Santa Monica Mountains (4)				
24	31028 Lobo Canyon Road	small private bridges and culverts in the creek, running behind the house, clogged with debris, and water overflowed to and ran along the Lobo Cyn Rd in front of the subject property.	x	
26	1666 Las Virgenes Cyn. Rd.	Mudflow from the hillside at east end of the property (U. of Pepperdine camping ground) and along the private road within the property.	x	
27	708 Thornhill Road	well above the street level. property backyard at the bottom of hill	x	
28	26135 Idlewild Way	The house is located at the low point of the street.	x	

Site 24 – 31028 Lobo Canyon Road, Agoura, CA 91301

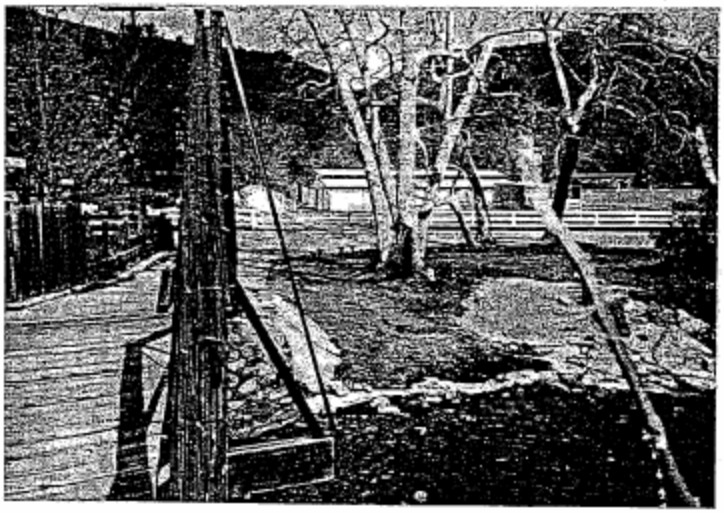




Private driveway & bridge just east of the subject property, leading to the neighbor's house



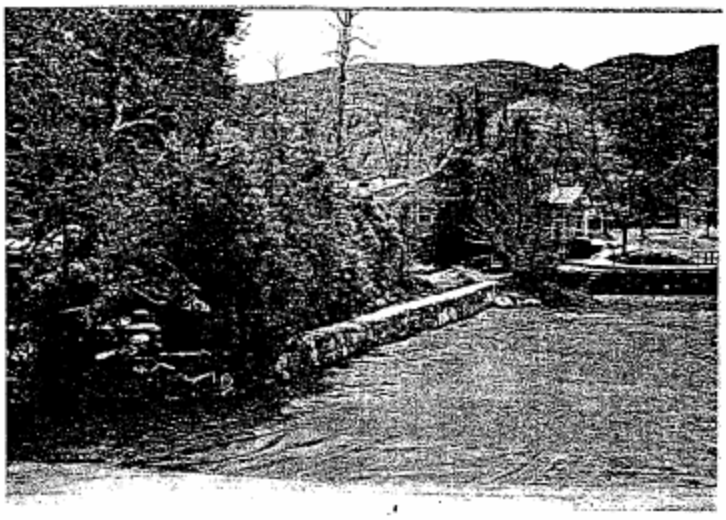
Looking northwest at the back of the subject property from the bridge



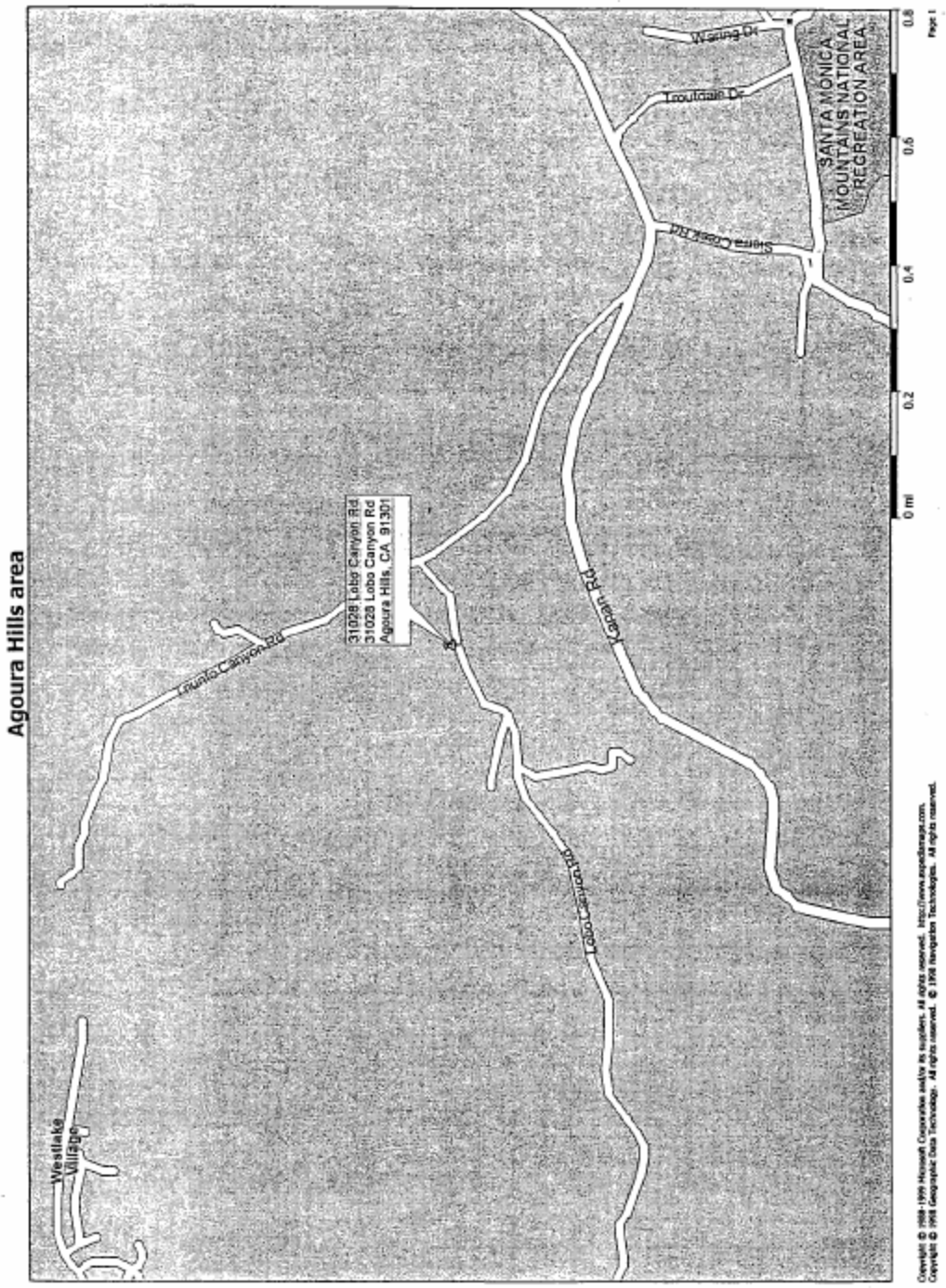
Looking north at the downhill grade to the creek, from the bridge

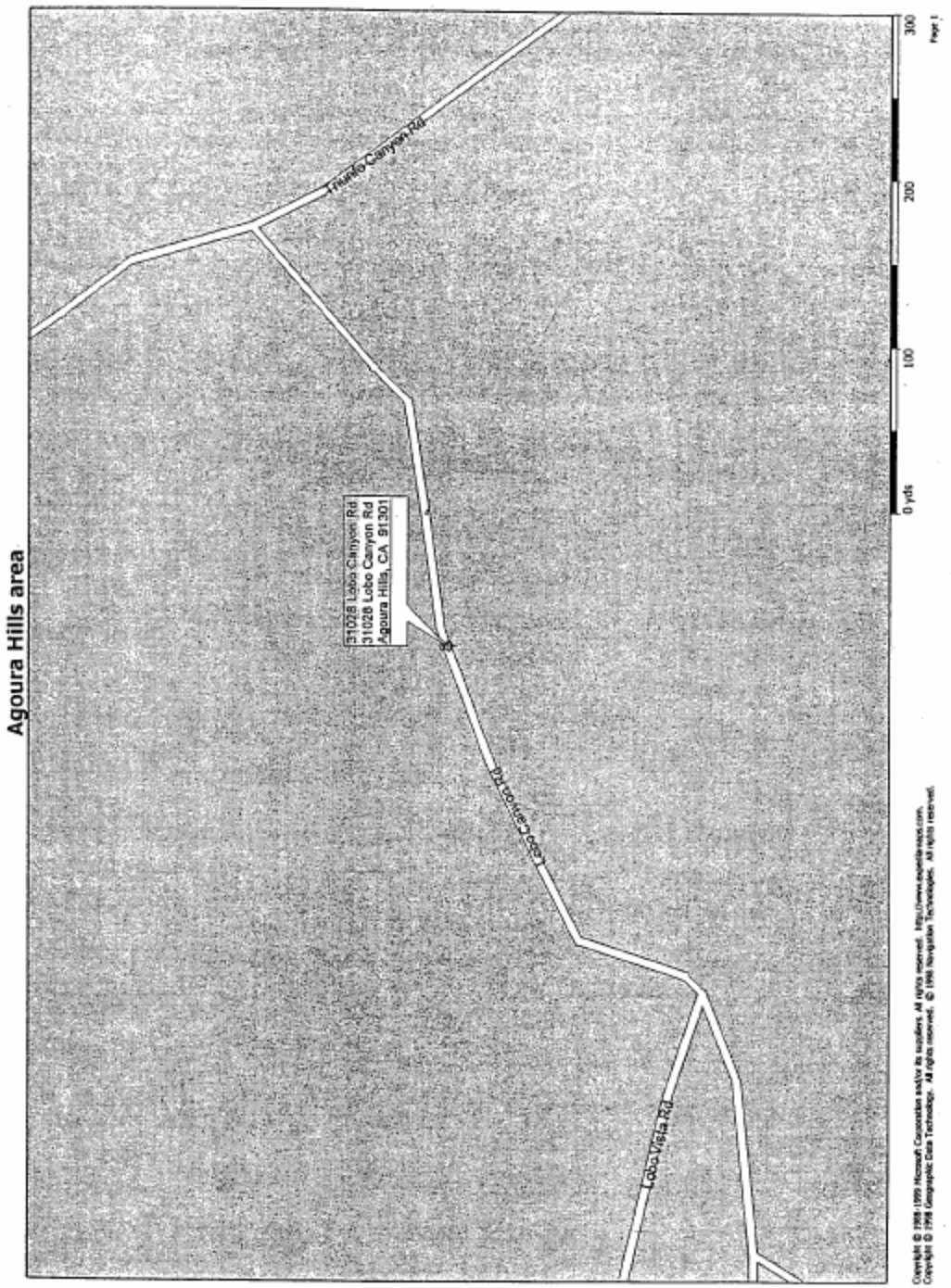
Looking D/s (east) from the bridge

Looking U/S (west) from the bridge



Looking south at the westerly property boundary (retaining wall) of the subject property


Agoura Hills area
31028 Lobo Canyon Rd
31028 Lobo Canyon Rd
Agoura Hills, CA 91301
Lindero Canyon Rd
Kanan Rd
Lobo Canyon Rd
Westlake Village
Waring Dr
Loudoun Dr
Sierra Creek Rd
SANTA MONICA MOUNTAINS NATIONAL RECREATION AREA
0 mi
0.2
0.4
0.6
0.8

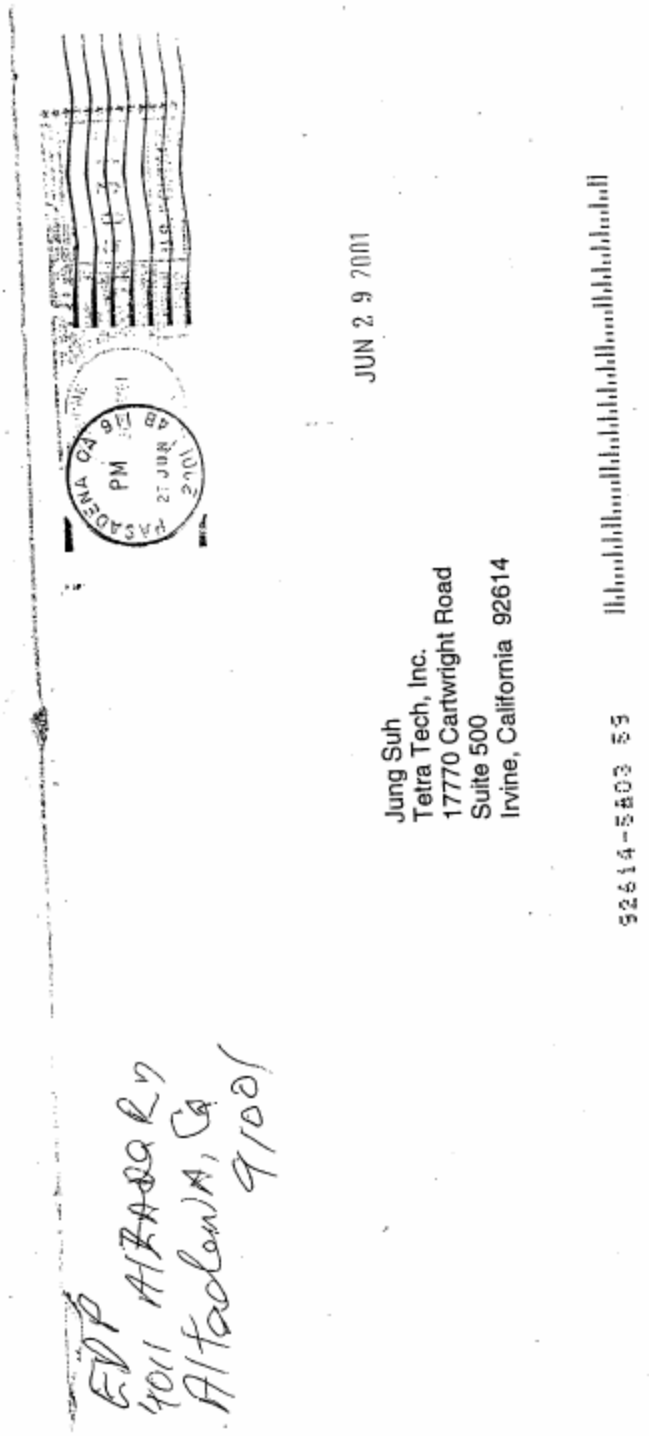

Agoura Hills area
Triunfo Canyon Rd
31028 Lobo Canyon Rd
31028 Lobo Canyon Rd
Agoura Hills, CA 91301
Lobo Canyon Rd
Lobo Vista Rd
300
200
100
0 yds

Hydrologic Informations for L.A.CO RLP

Santa Monica Mountains (4)		Watershed Area [ac]	Watershed Area [mi^2]	FEMA 100-yr Q	Capital Q
24	31028 Lobo Canyon Road	2424.0	3.7875	4640	8240
26	1666 Las Virgenes Cyn. Rd.	17.1	0.0267	33	58
27	708 Thornhill Road	7.1	0.0110	14	24
28	26135 Idlewild Way	8.5	0.0133	16	29

* FEMA Discharge rates & County's Capital Qs were provided the County of Los Angeles and prorated based on the drainage areas.

4. A sample Economic Assessment; *(floodMitPlan6.pdf)*



REPETITIVE LOSS PROPERTY QUESTIONNAIRE
2001

ID Number: 35

ADDRESS: 4011 Alzada Drive
Altadena, CA 91001-3807

Please, circle yes or no and fill-in the blank spaces where appropriates. Please, return the completed questionnaire using the self-address stamped envelope, ***no later than June 22, 2001.***

1. Is this an owner occupied building? (Yes) No
2. Name of current resident Ellen Petrich/Stephen Shafer
3. Contact number 626-930-5980
4. Do you have flood insurance? Yes (No)
5. Did you notice any drainage problems in or around your residence/property during the recent storms? (Yes) No
6. If you did notice any drainage problems, please describe below (be as specific as you can). Please, also specify whether the problem is within private or public property.
   Rain run-off running in to the house under the wood attached to the floor slab.
7. Have there been any fires in the area surrounding your residence/property? Yes (No)
8. Have there been any improvements made to the site drainage? Yes (No)
   If yes, please explain. Are these improvements adequate?
9. Please, describe the nature of the damage for each of the NFIP damage claims filed before and specify the date of the damage occurrence (i.e. month/year). If you were not involved in these claims, please indicate so. Yes (No)
   Not involved

10. Is there a natural watercourse nearby? (Yes) No
11. Is there any drainage easement? (Yes) No

12. Is there any drainage structure nearby, such as storm drain channel, etc? If so, please be specific. (e.g. type of structure, size, slope, location, etc.)

Yes, the natural RAVINE/watercourse RUNS DOWN to the CHANEY TRAIL Flood CONTROL.

13. Is there any other obvious problem? Yes (No)

5. A sample Hydrology Report *(floodMitPlan3.pdf)*

APPENDIX E

COUNTY OF LOS ANGELES

SANTA MONICA MOUNTAINS
SAN GABRIEL MOUNTAINS
QUARTZ HILL

REPETITIVE LOSS PROPERTIES

ECONOMIC ASSESSMENT OF DAMAGES AND MITIGATION MEASURES

COUNTY OF LOS ANGELES

SANTA MONICA MOUNTAINS
SAN GABRIEL MOUNTAINS
QUARTZ HILL
REPETITIVE LOSS PROPERTIES

ECONOMIC ASSESSMENT OF DAMAGES AND MITIGATION MEASURES

INTRODUCTION

The economic assessments of damages and the cost-effectiveness of potential measures for the Repetitive Loss Properties (RLPs) of the Topanga Canyon area are constructed to closely follow the analysis procedures employed in examining Federal water resources projects by the U.S. Army Corps of Engineers (USACOE). The underlying purpose of the USACOE analytical procedures is to convert the random nature of flood related damages to an expression of equivalent annual damage for comparison to the amortized cost of mitigation. The fundamental factors behind USACOE's determinations of structural related damages are (1) depreciated structure replacement value, (2) content-to-structure value relationships, (3) inundation levels, (4) inundation depth-to-damage percentages, and (5) cleanup cost relationship to the amount of inundated surface. The results of the analysis of these factors are ultimately incorporated into the USACOE Hydrologic Engineering Center's (HEC) Flood Damage Analysis Package, HEC-FDA, for the determination of equivalent annual damages. The following paragraphs will discuss the how the above factors are determined and analyzed for this assessment in greater detail.

DEPRECIATED STRUCTURE REPLACEMENT VALUE

The basic premise behind the use of depreciated structure replacement value in damage assessments is that damage should be measured by the worth of the existing structure, noting its age and condition, and not by the current cost of the replacement of damage to avoid the creation of a betterment for the property owner and the overestimation of damage. To calculate depreciated structure replacement value many USACOE Districts, including the Los Angeles District, employ the Marshall & Swift's valuation service. This service categorizes structures through a vast array of building types and construction classifications. Combining these construction costs with the service's localized cost factor adjustments yields thousands of cost combinations to virtually estimate any type of structure. In this assessment the Marshall Valuation Service is utilized for the determination of depreciated structure replacement value.

CONTENT-TO-STRUCTURE VALUE RELATIONSHIP

In keeping with the procedures utilized with Federal water resources projects and in accordance with USACOE Engineering Regulation (ER) 1105-2-100, dated 28 Dec 90, the content-to-structure ratio for residential structures is set at 50 percent of depreciated replacement value. Non-residential content-to-structure ratios are determined in relationship to the work conducted by CH2M Hill, Inc. for the New Orleans District, Planning Division, Economic and Social Analysis Branch as shown in the output data for the Lake Pontchartrain Hurricane Protection Plan.

INUNDATION LEVELS

The determination of inundation levels for the RLPs of this analysis is based on hydraulic estimation of the potential concentration of water flow to the subject property from its source. The estimation of the frequency of flow is based on the historical record for the Arroyo Seco, USGS site 11098000, near Pasadena for its proximity and near unregulated flow. The non-

damaging event is based on the reported instances for a RLP and the estimated frequencies given by the frequency analysis of the Arroyo Seco.

Inundation Depth-to-Damage Percentages

This economic assessment employs the Federal Emergency Management Agency's (FEMA) Depth Percent Damage data from its Flood Insurance Rate Review – 1997. These depth/damage percentages are shown in Appendix A.

Cleanup Costs and Other Costs

Flooding not only causes damage to structures and contents but floodwaters present a significant cost in their aftermath clean up. Floodwaters leave debris, sediment and the dangers of diseases and mycotoxins throughout flooded structures. The cleaning of these structures is a necessary post-flood activity. Clean-up cost estimates are based on studies of the USACOE's Los Angeles and Seattle Districts. Clean-up costs for the extraction of floodwaters, dry-out, and decontamination range from $1 to $4.75 per square foot. Mean cleanup cost is estimated at $3.65 per square foot, with heavily sediment-laden waters increasing costs by 75 percent.

The principal cost represented by other costs is FEMA's Temporary Relocation Assistance (TRA) to damaged properties. Flood studies by Stanislaus County, California and the USACOE Districts of Seattle and St. Paul indicate FEMA expends $1,537 per damaged property on average. In this analysis TRA costs are set at $1,537 for each damaged property.

Damage Mitigation Measures - Economic Assessment Methodology

The cost effectiveness of a potential mitigation measure is assessed on two levels for this study. The first level is the common benefit-to-cost (B/C) ratio method and the second being an investment recovery approach. The two approaches are necessary in that employing the B/C ratio method an assumption regarding the interest rate and amortization period must be made for the participants, which may or may not apply to all. In the B/C ratio method, the current Federal water resources projects rate of 6⅞ percent and a 30-year amortization schedule is utilized. The investment recovery approach examines the length of time required to recover the cost of the mitigation measure given the equivalent annual damage reduction for various interest rates.

Summary of the Economic Assessment of RLPs

Table 1 presents the economic findings of this assessment. Following Table 1 are the individual property assessments for each RLP structure in the study area.

Table 1 - Economic Assessment Summary of Results

RLP #	Address	100-Year Event Damage			Equivalent Annual Damage	Mitigation Cost	B/C Ratio
		Structure	Content	Cleanup			
24	31028 Lobo Canyon Road	$23,130	$15,388	$5,840	$2,050	$40,000	0.68
26	1666 Las Virgenes Cyn. Rd.	$87,357	$60,715	$52,721	$25,514	$30,000	11.25
27	708 Thornhill Road	$33,605	$23,356	$12,060	$8,898	$10,000	11.77
28	26135 Idlewild Way	$16,691	$11,600	$5,990	$4,573	$10,000	6.05
35	4011 Alzada Drive	$11,717	$8,144	$4,205	$3,229	$6,000	7.52
36	3557 Hollyslope Road	-	-	-	-	-	-
37	15707 Sierra Highway	$17,896	$11,246	$4,015	$1,549	$40,000	0.51
38	3920 W. Avenue N,	-	-	-	-	-	-
39	5056 W. Avenue K	$28,479	$14,903	$10,220	$2,462	$10,000	3.26

Area:	Santa Monica Mountains

RLP ID:	24
Address:	31028 Lobo Canyon Road

Structure Size	Condition	M&S Class	Depreciated Replacement Cost ($/Sq.Ft)	Depreciated Structure Value	Content Value
1600	A	D	58.86	$94,176	$47,088

Non-damaging Frequency (in years): 15
100-Year Inundation Level (in feet): 2

Baseline Equivalent Annual Damages and Costs:

Structure	Content	Cleanup	Other	Total
$1,033	$687	$261	$69	$2,050

Alternative: Raise first flood above 100 yr level

Implementation Cost: $40,000
Amortized Cost: $3,024
Annual Damage Reduction: $2,050
B/C Ratio: 0.68

Capital Recovery Time of Implementation Cost for Annual Damage Reduction

Interest Rate	0%	3%	6.375%	8%	10%
Years	19.51	29.78	#NUM!	#NUM!	#NUM!

Area:	Santa Monica Mountains

RiPeID:	26
Address:	0866 Las Virgenes Cyn. Rd.

Structure Size	Condition	M&S Class	Depreciated Replacement Cost ($/Sq.Ft)	Depreciated Structure Value	Content Value
14,414	A	Manu	35.00	$504,490	$252,245

Non-damaging Frequency (in years): 5
100-Year Inundation Level (in feet): 1

Baseline Equivalent Annual Damages and Costs:

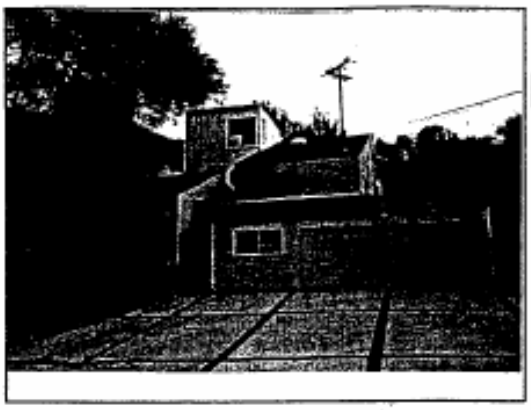
Structure	Content	Cleanup	Other	Total
$11,016	$7,656	$6,648	$194	$25,514

Alternative: Construct diversion channel and debris basin

Implementation Cost: $30,000
Amortized Cost: $2,268
Annual Damage Reduction: $25,514
B/C Ratio: 11.25

Capital Recovery Time of Implementation Cost for Annual Damage Reduction

Interest Rate	0%	3%	6.375%	8%	10%
Years	1.18	1.21	1.26	1.28	1.31



Area:	Santa Monica Mountains
Parcel #:	27
Address:	708 Thornhill Road

Structure Size	Condition	M&S Class	Depreciated Replacement Cost ($/Sq.Ft)	Depreciated Structure Value	Content Value
3304	A	D	58.86	$194,473	$97,237

Non-damaging Frequency (in years): 5
100-Year Inundation Level (in feet): 1

Baseline Equivalent Annual Damages and Costs:

Structure	Content	Cleanup	Other	Total
$4,238	$2,945	$1,521	$194	$8,898

Alternative: Install retaining wall and v-ditch

Implementation Cost: $10,000
Amortized Cost: $756
Annual Damage Reduction: $8,898
B/C Ratio: 11.77

Capital Recovery Time of Implementation Cost for Annual Damage Reduction

Interest Rate	0%	3%	6.375%	8%	10%
Years	1.12	1.16	1.20	1.22	1.25

RLP ID:	28
Address:	26135 Idlewild Way
Area:	Santa Monica Mountains
Parcel #:	
EAD ID:	O4

Structure Size	Condition	M&S Class	Depreciated Replacement Cost ($/Sq.Ft)	Depreciated Structure Value	Content Value
1641	A	D	58.86	$96,589	$48,295

Non-damaging Frequency (in years): 5
100-Year Inundation Level (in feet): 1

Baseline Equivalent Annual Damages and Costs:

Structure	Content	Cleanup	Other	Total
$2,105	$1,519	$755	$194	$4,573

Alternative: Construct berm and drain

Implementation Cost: $10,000
Amortized Cost: $756
Annual Damage Reduction: $4,573
B/C Ratio: 6.05

Capital Recovery Time of Implementation Cost for Annual Damage Reduction

Interest Rate	0%	3%	6.375%	8%	10%
Years	2.19	2.30	2.43	2.50	2.59

Area:	San Gabriel Mountains
[illegible]:	35
[illegible]:	[illegible]1 Alzada Drive

Structure Size	Condition	M&S Class	Depreciated Replacement Cost ($/Sq.Ft)	Depreciated Structure Value	Content Value
1152	Average	D	58.86	$67,807	$33,903

Non-damaging Frequency (in years):	5
100-Year Inundation Level (in feet):	1

Baseline Equivalent Annual Damages and Costs:

Structure	Content	Cleanup	Other	Total
$1,478	$1,207	$530	$194	$3,409

Alternative: Install diversion ditch and drain

Implementation Cost:	$6,000
Amortized Cost:	$454
Annual Damage Reduction:	$3,409
B/C Ratio:	7.52

Capital Recovery Time of Implementation Cost for Annual Damage Reduction

Interest Rate	0%	3%	6.375%	8%	10%
Years	1.76	1.84	1.93	1.97	2.03

Area:	San Gabriel Mountains

[illegible]:	36
[illegible]:	[illegible]57 Hollyslope Road

Structure Size	Condition	M&S Class	Depreciated Replacement Cost ($/Sq.Ft)	Depreciated Structure Value	Content Value
				$0	$0

Non-damaging Frequency (in years):
100-Year Inundation Level (in feet):

Baseline Equivalent Annual Damages and Costs:

Structure	Content	Cleanup	Other	Total
				$0

Alternative: Problem Solved

Implementation Cost:
Amortized Cost: $0
Annual Damage Reduction: $0
B/C Ratio: #DIV/0!

Capital Recovery Time of Implementation Cost for Annual Damage Reduction

Interest Rate	0%	3%	6.375%	8%	10%
Years	#DIV/0!	#NUM!	#NUM!	#NUM!	#NUM!

RLP ID:	37
Address:	15707 Sierra Highway
Area:	San Gabriel Mountains
Parcel #:	
EAD ID:	O7

Structure Size	Condition	M&S Class	Depreciated Replacement Cost ($/Sq.Ft)	Depreciated Structure Value	Content Value
1100	Average	D	58.86	$64,746	$32,373

Non-damaging Frequency (in years): 15
100-Year Inundation Level (in feet): 3

Baseline Equivalent Annual Damages and Costs:

Structure	Content	Cleanup	Other	Total
$799	$502	$179	$69	$1,549

Alternative: Elevate first floor above 100-yr level

Implementation Cost: $40,000
Amortized Cost: $3,024
Annual Damage Reduction: $1,549
B/C Ratio: 0.51

Capital Recovery Time of Implementation Cost for Annual Damage Reduction

Interest Rate	0%	3%	6.375%	8%	10%
Years	25.82	50.42	#NUM!	#NUM!	#NUM!

Area:	Quartz Hill

[illegible]:	38
[illegible]:	6820 W. Avenue N

Structure Size	Condition	M&S Class	Depreciated Replacement Cost ($/Sq.Ft)	Depreciated Structure Value	Content Value

Non-damaging Frequency (in years):
100-Year Inundation Level (in feet):

Baseline Equivalent Annual Damages and Costs:

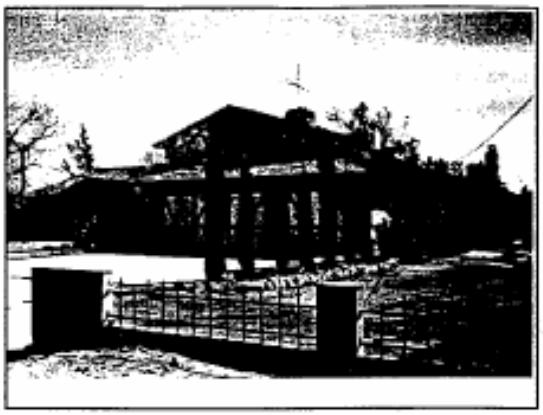
Structure	Content	Cleanup	Other	Total

Alternative: Problem Solved

Implementation Cost:
Amortized Cost: $0
Annual Damage Reduction: $0
B/C Ratio: #DIV/0!

Capital Recovery Time of Implementation Cost for Annual Damage Reduction

Interest Rate	0%	3%	6.375%	8%	10%
Years	#DIV/0!	#NUM!	#NUM!	#NUM!	#NUM!



RLP ID:	39
Address:	5056 W. Avenue
Area:	Quartz Hill
Parcel #:	
EAD ID:	O9

Structure Size	Condition	M&S Class	Depreciated Replacement Cost ($/Sq.Ft)	Depreciated Structure Value	Content Value
2800	A	D	58.86	$164,808	$82,404

Non-damaging Frequency (in years): 15
100-Year Inundation Level (in feet): 0.5

Baseline Equivalent Annual Damages and Costs:

Structure	Content	Cleanup	Other	Total
$1,272	$665	$456	$69	$2,462

Alternative: Enlarge drainage ditch

Implementation Cost: $10,000
Amortized Cost: $756
Annual Damage Reduction: $2,462
B/C Ratio: 3.26

Capital Recovery Time of Implementation Cost for Annual Damage Reduction

Interest Rate	0%	3%	6.375%	8%	10%
Years	4.06	4.40	4.85	5.11	5.47

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RUNDATE: MAR 20 1997
RUNTIME: 14.21.06

NATIONAL FLOOD INSURANCE PROGRAM
ACTUARIAL INFORMATION SYSTEM

FLOOD INSURANCE RATE REVIEW - 1997
DEPTH PERCENT DAMAGE - NON-VELOCITY ZONES

BUILDING COVERAGE - CONSOLIDATED
ONE FLOOR - NO BASEMENT

WATER DEPTH	DAMAGE RATIO BASED ON 1973 STUDY	ACTUAL CLAIMS DATA 1978-1996 PERCENT	NO. OF CLAIMS	CLAIMS NEEDED FOR FULL CREDIBILITY	CALCULATED I% / 95% CREDIBILITY	PERCENT
-4		15.28	285	45710	.63	
-3		14.94	321	51932	.62	
-2		14.37	606	46476	1.50	
-1		9.91	3040	54218	5.61	
0	7	17.28	80931	43875	100.00	17.28
1	10	16.33	72992	32172	100.00	16.33
2	14	24.56	35586	20155	100.00	24.56
3	26	28.23	13089	17791	73.57	27.64
4	36	31.36	7716	17872	43.67	29.47
5	29	36.21	2858	16389	23.93	30.73
6	41	33.32	2957	19849	15.05	39.84
7	43	39.90	1303	14932	8.73	42.73
8	44	27.81	1780	17376	10.24	43.35
9	45	40.00	649	15330	4.28	44.79
10	46	42.81	1043	15730	6.63	45.79
11	47	45.35	338	10907	3.15	46.88
12	48	38.37	1065	20124	5.29	47.38
13	49	41.45	154	13678	1.13	48.91
14	50	35.39	382	17700	2.05	49.70
15	50	45.88	216	14718	1.48	49.94
16	50	33.47	248	20317	1.22	49.80
17	50	32.08	90	19776	.48	49.92
18	50	33.05	3226	16270	17.66	47.01

RUNDATE: MAR 20 1997
RUNTIME: 18.22.17

NATIONAL FLOOD INSURANCE PROGRAM
ACTUARIAL INFORMATION SYSTEM

FLOOD INSURANCE RATE REVIEW - 1997
DEPTH PERCENT DAMAGE - NON-VELOCITY ZONES

CONTENTS COVERAGE - CONSOLIDATED
RESIDENTIAL - FIRST FLOOR ONLY

WATER DEPTH	DAMAGE RATIO BASED ON 1973 STUDY	ACTUAL CLAIMS DATA 1978-1996 PERCENT	ACTUAL CLAIMS DATA 1978-1996 NO. OF CLAIMS	CLAIMS NEEDED FOR FULL CREDIBILITY	CALCULATED 1% / 99% CREDIBILITY	CALCULATED 1% / 99% PERCENT
-4		28.87	61	26814	.23	
-3		25.84	59	34227	.17	
-2		32.80	112	37596	.30	
-1		15.77	581	37294	1.56	
0	10	20.41	7684	37004	20.66	12.15
1	17	24.20	24805	25448	97.47	24.02
2	23	36.15	11176	15196	72.55	32.68
3	29	42.20	5702	13607	42.50	34.74
4	35	43.17	3124	13146	23.77	36.94
5	40	46.17	1421	12335	11.61	40.72
6	45	42.65	846	14974	5.65	44.88
7	50	46.04	437	13686	3.44	45.88
8	55	47.15	513	13153	3.90	54.69
9	60	49.19	173	11583	1.49	59.84
10	60	50.51	306	11537	2.56	58.76
11		57.44	63	7303	.87	
12		58.90	197	11699	1.68	
13		55.13	43	9050	.48	
14		48.35	46	14257	.32	
15		53.87	61	9685	.63	
16		46.32	27	14803	.18	
17		38.40	7	18130	.04	
18		33.16	340	6853	2.71	

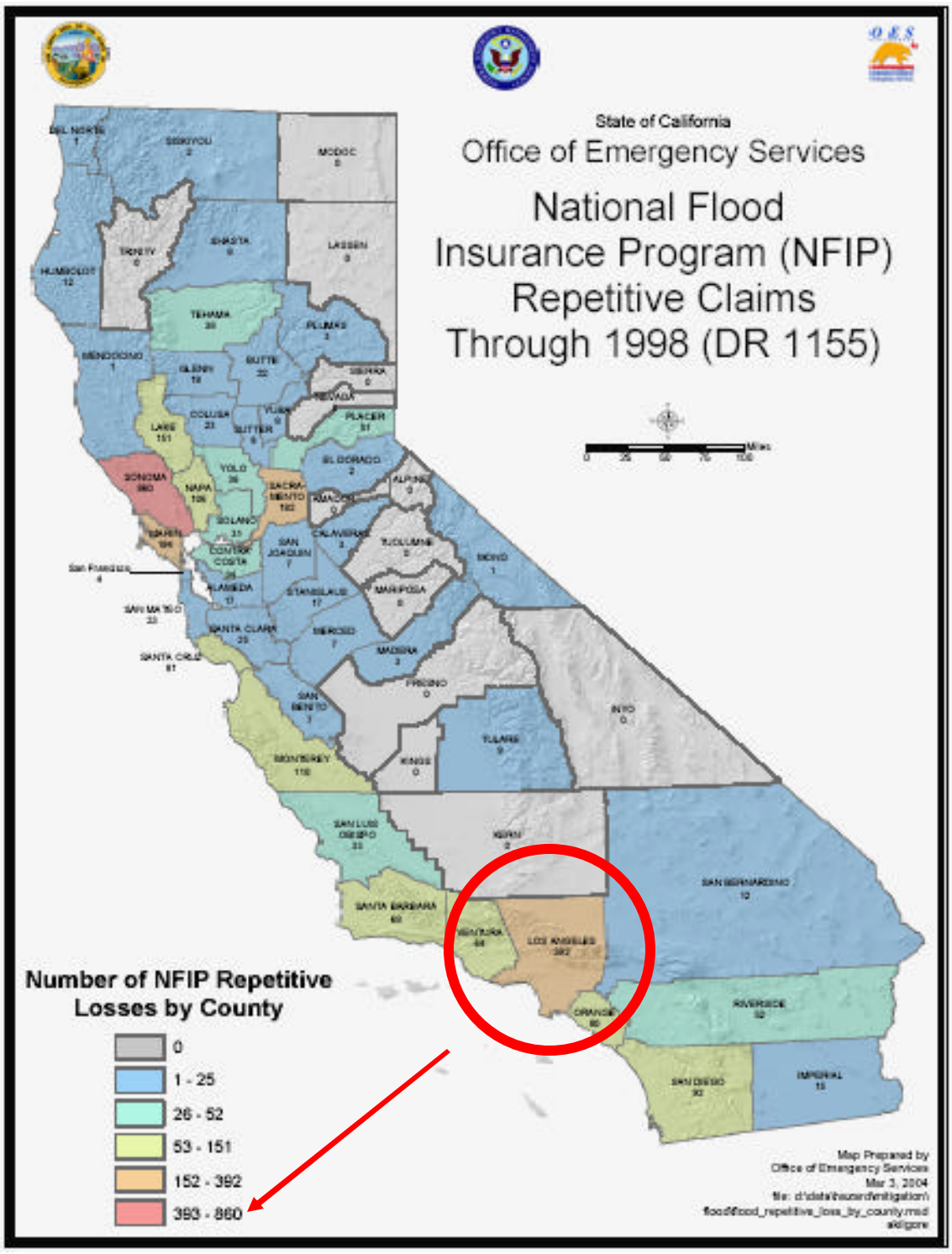
RUNDATE: MAR 20 1997
RUNTIME: 10.23.17

FEDERAL EMERGENCY MANAGEMENT AGENCY
NATIONAL FLOOD INSURANCE PROGRAM
ACTUARIAL INFORMATION SYSTEM

FLOOD INSURANCE RATE REVIEW - 1987
DEPTH PERCENT DAMAGE - NON-VELOCITY ZONES

CONTENTS COVERAGE - CONSOLIDATED
COMMERCIAL - FIRST FLOOR ONLY

WATER DEPTH	DAMAGE RATIO BASED ON 1973 STUDY	ACTUAL CLAIMS DATA 1978-1986 PERCENT	NO. OF CLAIMS	CLAIMS NEEDED FOR FULL CREDIBILITY	CALCULATED 95 / 99% CREDIBILITY	PERCENT
-4		25.36	30	27665	.07	
-3		24.88	14	49052	.03	
-2		33.59	17	18991	.11	
-1		17.52	93	41795	.22	
0	10	22.44	1557	42035	3.70	10.46
1	17	21.31	4857	33944	12.43	17.58
2	22	29.44	2328	21792	10.69	33.69
3	29	35.71	1330	18094	7.35	29.48
4	35	38.40	972	15369	6.33	35.28
5	40	40.48	474	15621	3.03	40.01
6	45	45.67	251	12131	2.13	45.02
7	50	46.51	137	11362	1.21	49.96
8	55	53.68	146	8808	1.66	54.38
9	60	57.60	70	8374	.84	58.98
10	60	56.35	102	7899	1.32	59.35
11		47.17	18	13424	.13	
12		54.86	66	8795	.78	
13		64.56	5	4711	.11	
14		56.59	18	8630	.19	
15		44.33	11	12582	.03	
16		31.30	10	17048	.06	
17		79.38	1			
18		48.73	81	60172	.80	


State of California
Office of Emergency Services
National Flood Insurance Program (NFIP) Repetitive Claims Through 1998 (DR 1155)
Number of NFIP Repetitive Losses by County
0
1 - 25
26 - 52
53 - 151
152 - 392
393 - 860
Map Prepared by
Office of Emergency Services
Mar 3, 2004

LA County Flood Hazard Area Map

Current Mitigation

Catch Basins

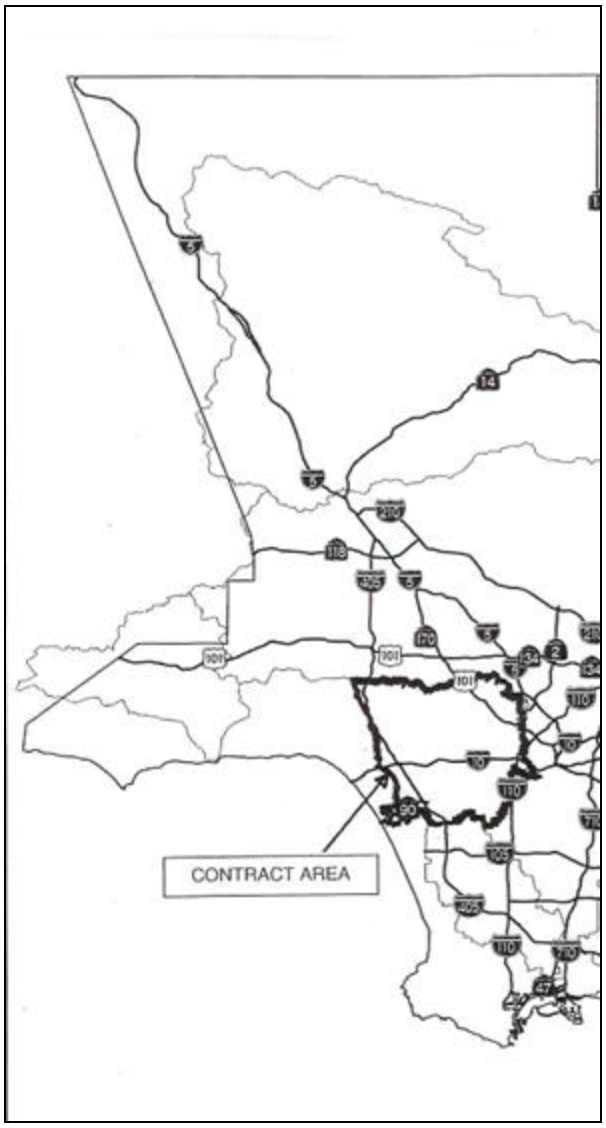
Catch basins are meant to relieve the natural flow of flood waters into safe areas that minimize the risk of those flood waters entering urban areas. Los Angeles County designates areas of the County as Catch Basin Clean Out Areas. Detailed maps and specifications are available from Los Angeles County Department of Public Works. The following descriptions and maps are the designated Catch Basin Clean Outs:

CATCH BASIN CLEANOUT 2004

BALLONA CREEK WATERSHED, ET AL.

PROJECT ID NO. FMD003062

APPROXIMATELY 7,981 PARTICIPATING CATCH BASINS

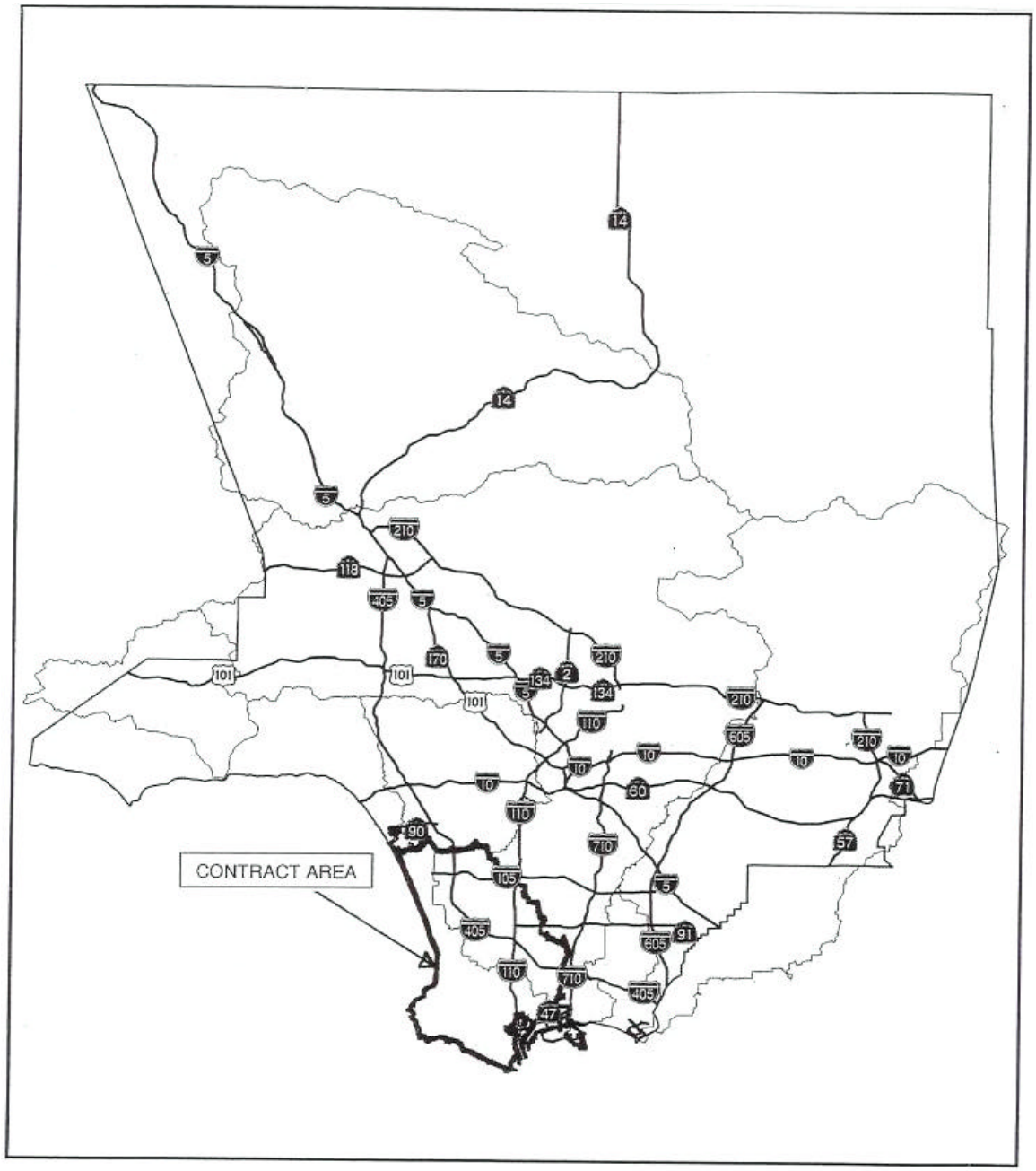


CATCH BASIN CLEANOUT 2004

DOMINGUEZ CHANNEL WATERSHED, ET AL.

PROJECT ID NO. FMD003063

APPROXIMATELY 10,147 PARTICIPATING CATCH BASINS


CONTRACT AREA
14
5
210
118
405
170
101
134
2
110
605
10
60
71
90
710
57
105
91
47

CATCH BASIN CLEANOUT 2004

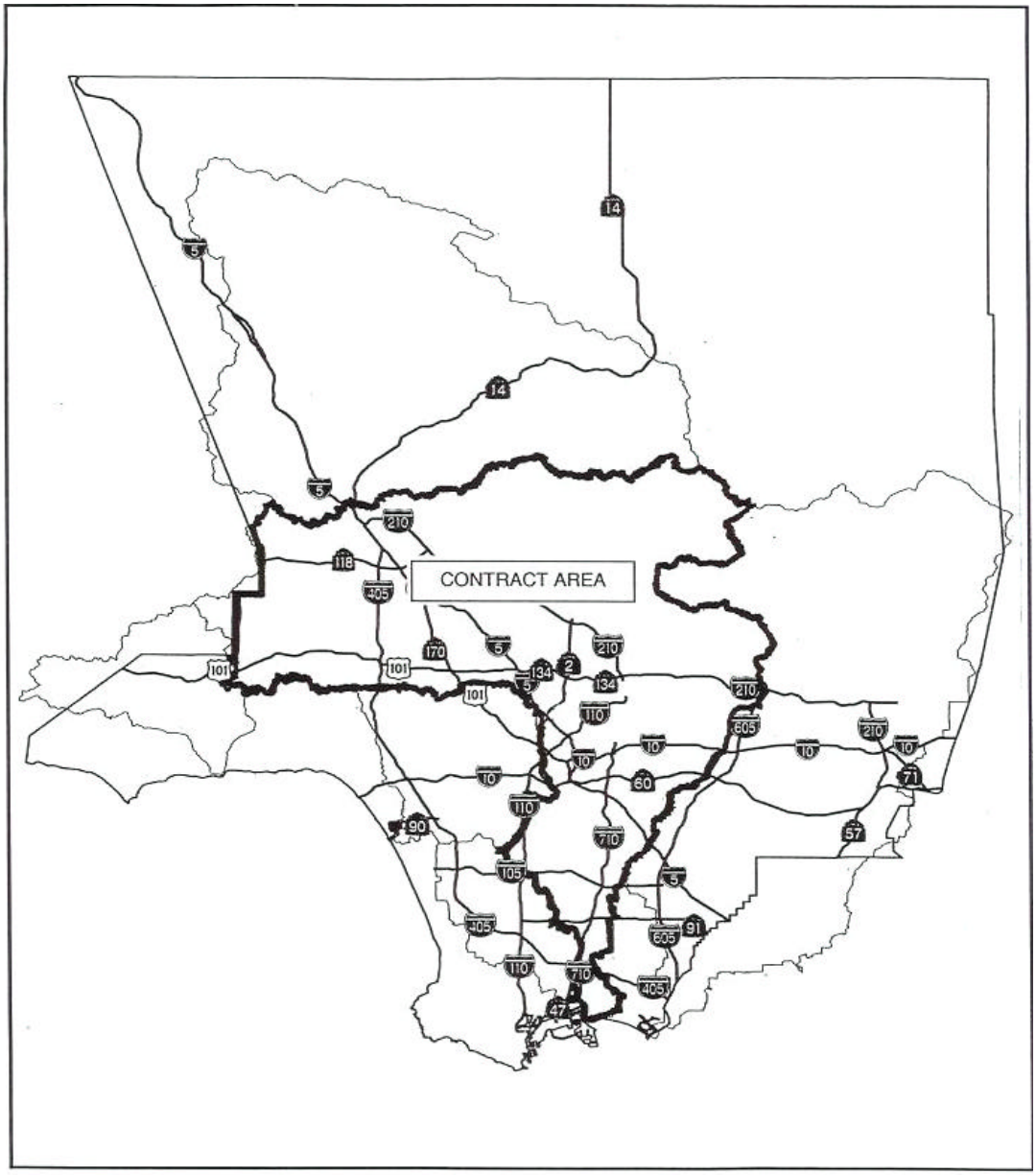
LOS ANGELES RIVER WATERSHED, ET AL.

PROJECT ID NO. FMD003060

APPROXIMATELY 37,189 PARTICIPATING CATCH BASINS

VOLUME I

(revised 5/10/04)



CATCH BASIN CLEANOUT 2004

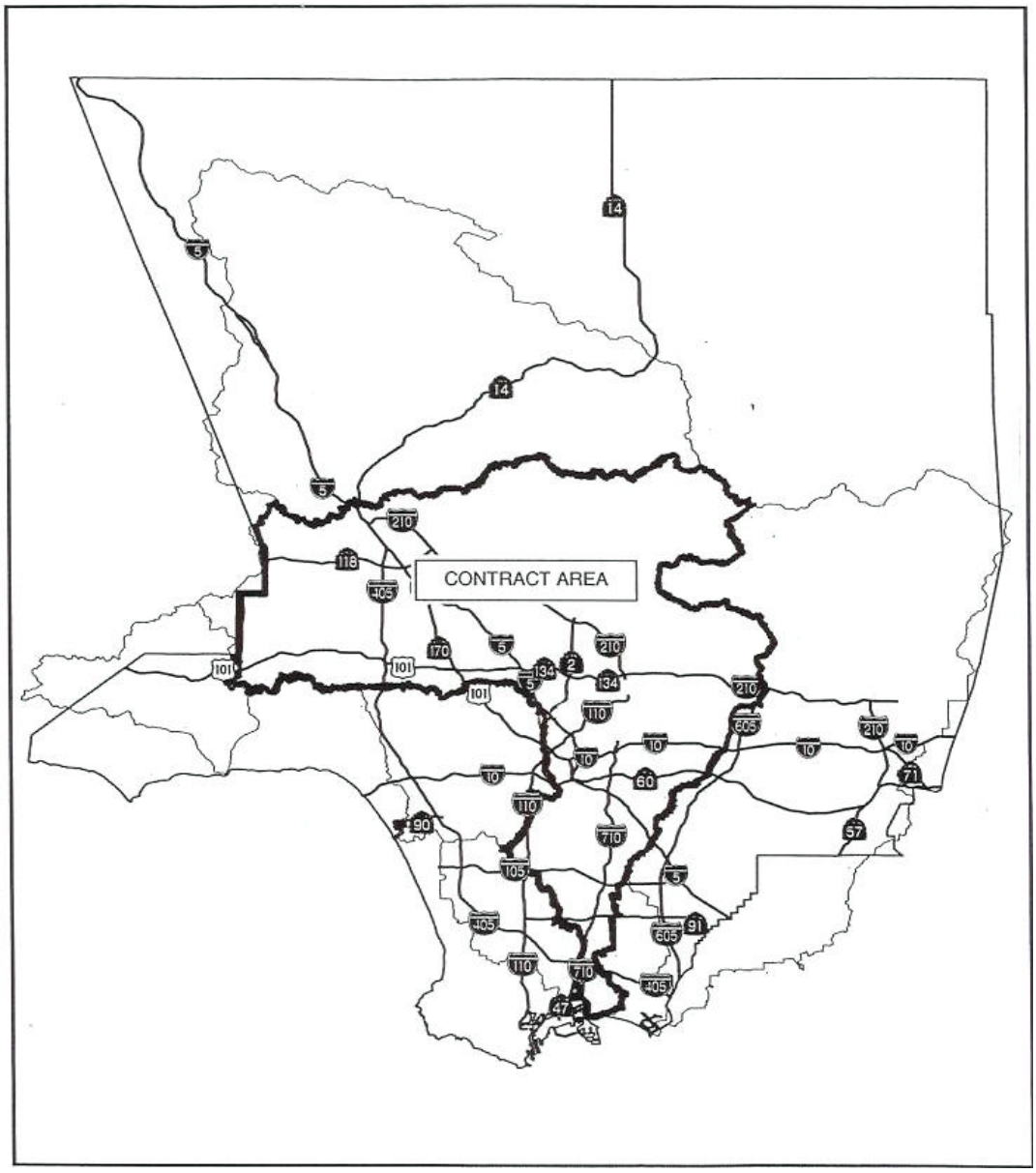
LOS ANGELES RIVER WATERSHED, ET AL.

PROJECT ID NO. FMD003060

APPROXIMATELY 37,189 PARTICIPATING CATCH BASINS

VOLUME II

(revised 5/10/04)



CATCH BASIN CLEANOUT 2004

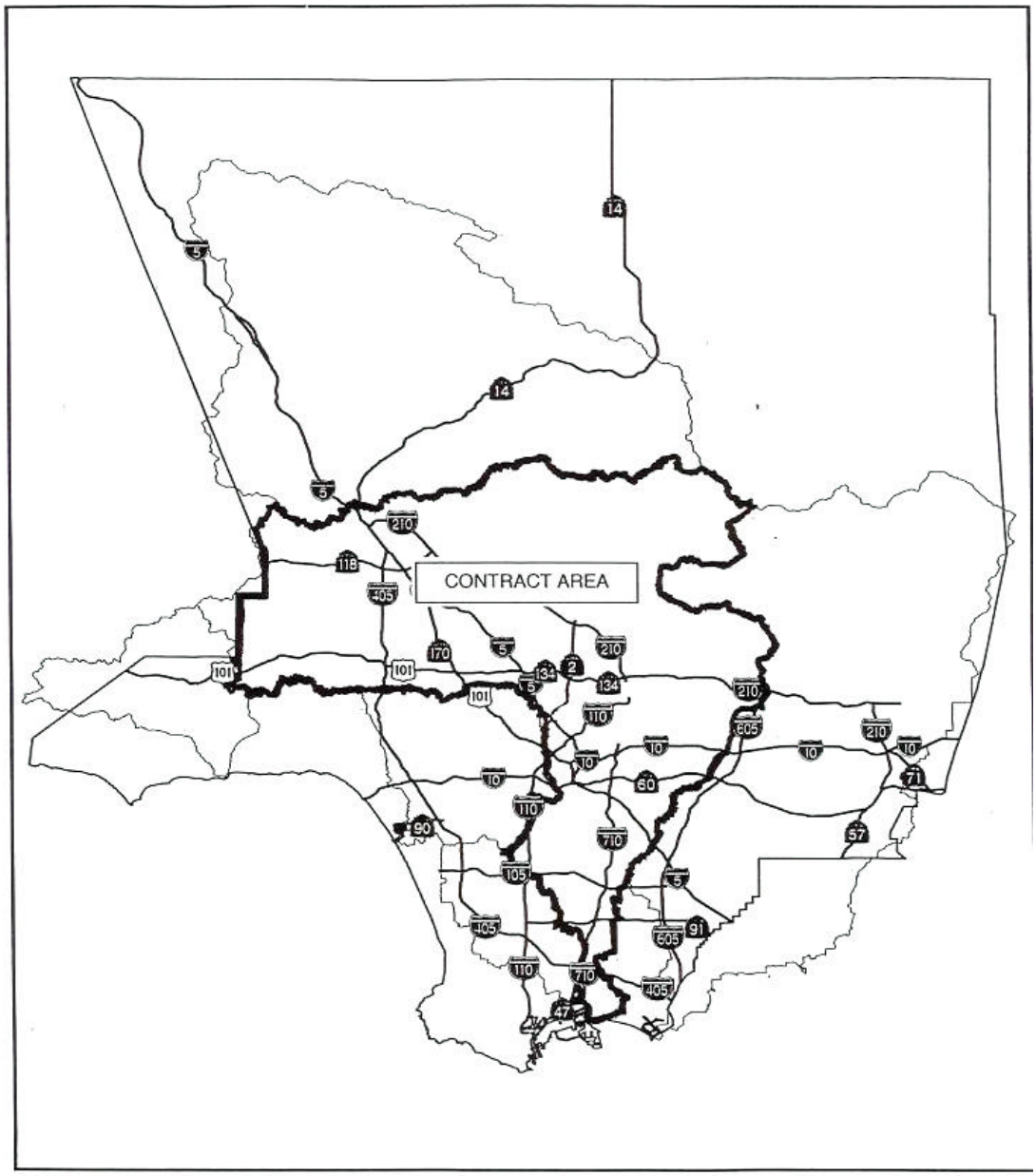
LOS ANGELES RIVER WATERSHED, ET AL.

PROJECT ID NO. FMD003060

APPROXIMATELY 37,189 PARTICIPATING CATCH BASINS

VOLUME III

(revised 5/10/04)



CATCH BASIN CLEANOUT 2004

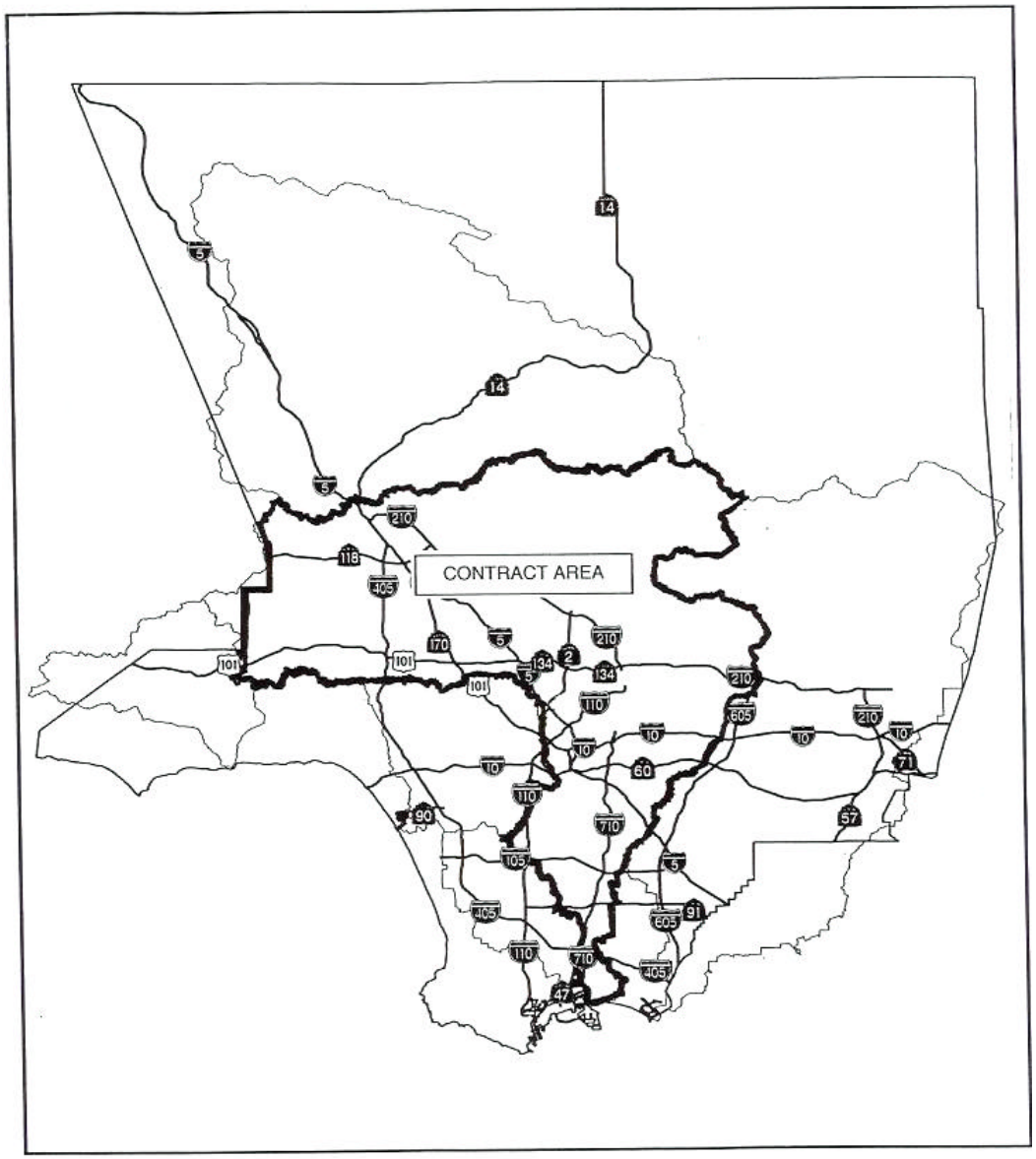
LOS ANGELES RIVER WATERSHED, ET AL.

PROJECT ID NO. FMD003060

APPROXIMATELY 37,189 PARTICIPATING CATCH BASINS

VOLUME III

(revised 5/10/04)

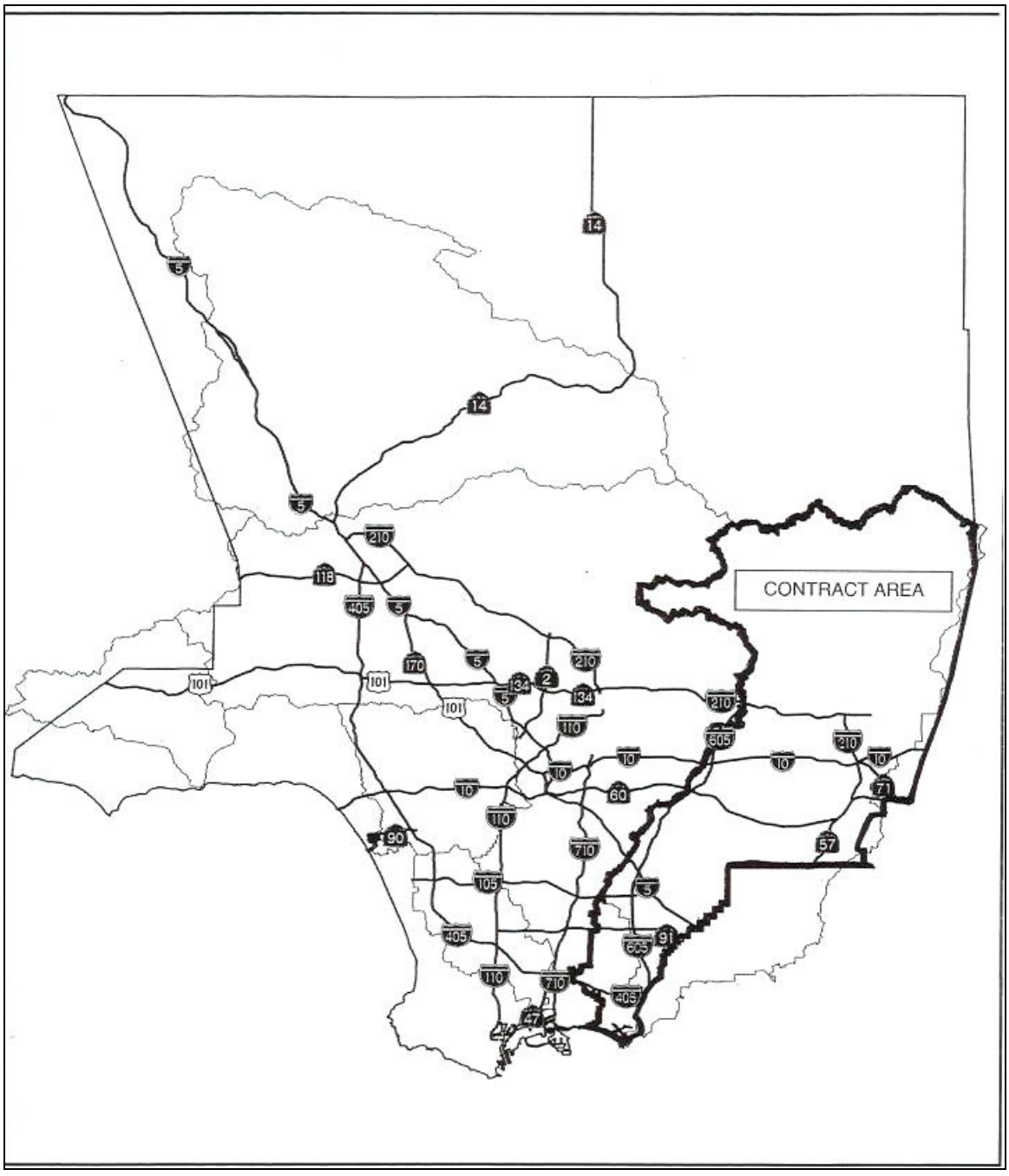


CATCH BASIN CLEANOUT 2004

SAN GABRIEL RIVER WATERSHED, ET AL.

PROJECT ID NO. FMD003061

APPROXIMATELY 22,053 PARTICIPATING CATCH BASINS

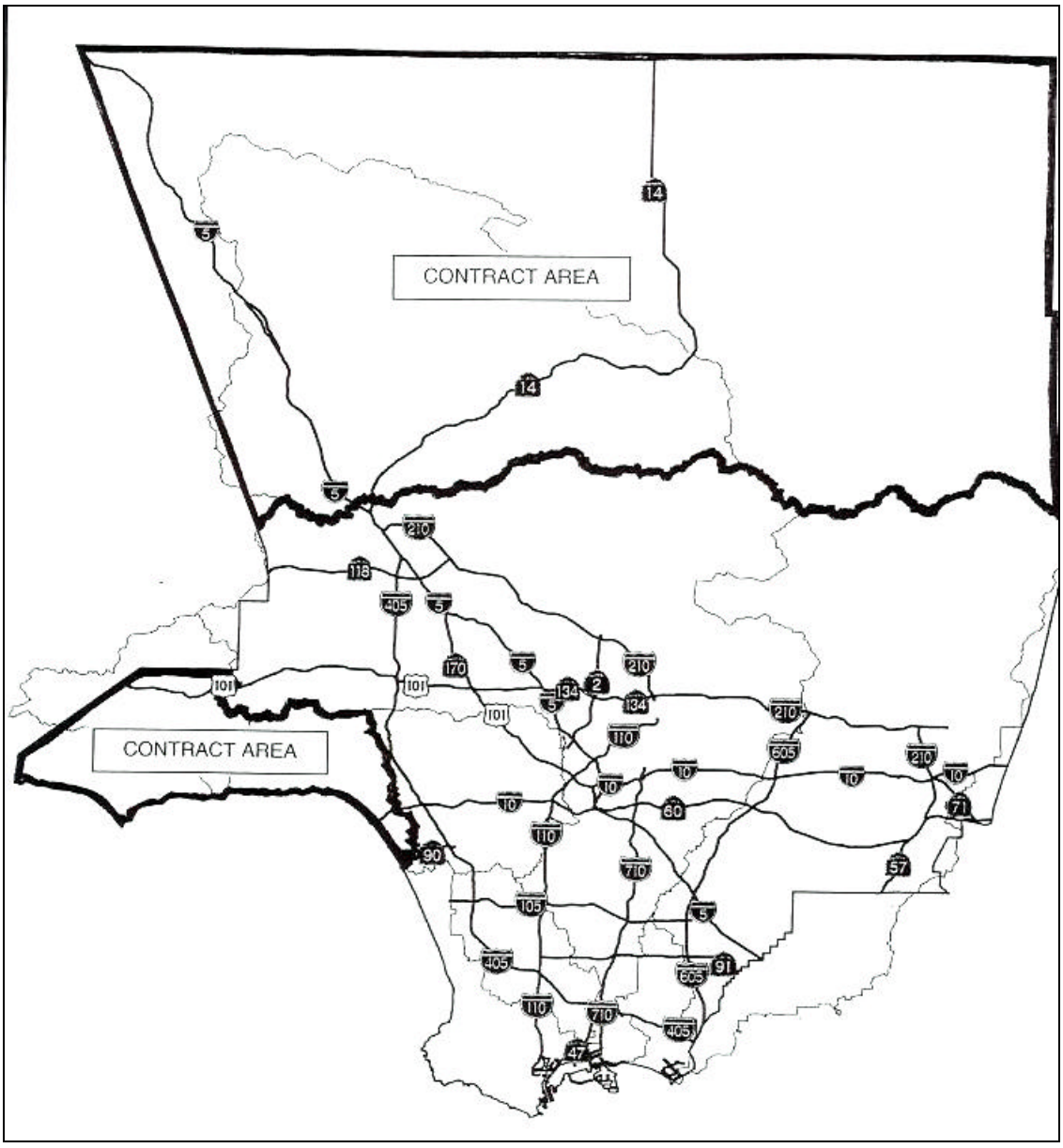


CATCH BASIN CLEANOUT 2004

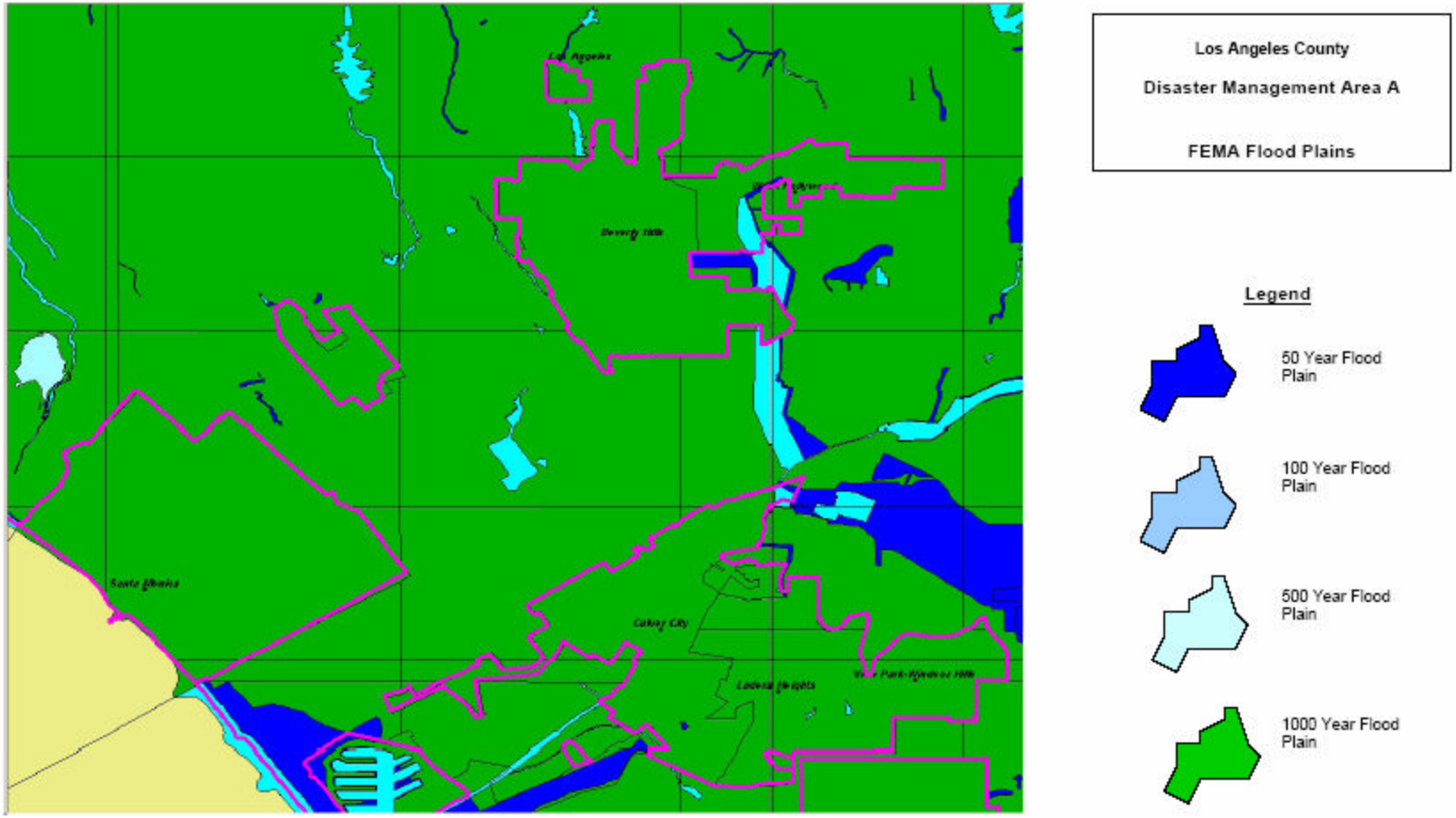
SANTA CLARA RIVER WATERSHED, ET AL.

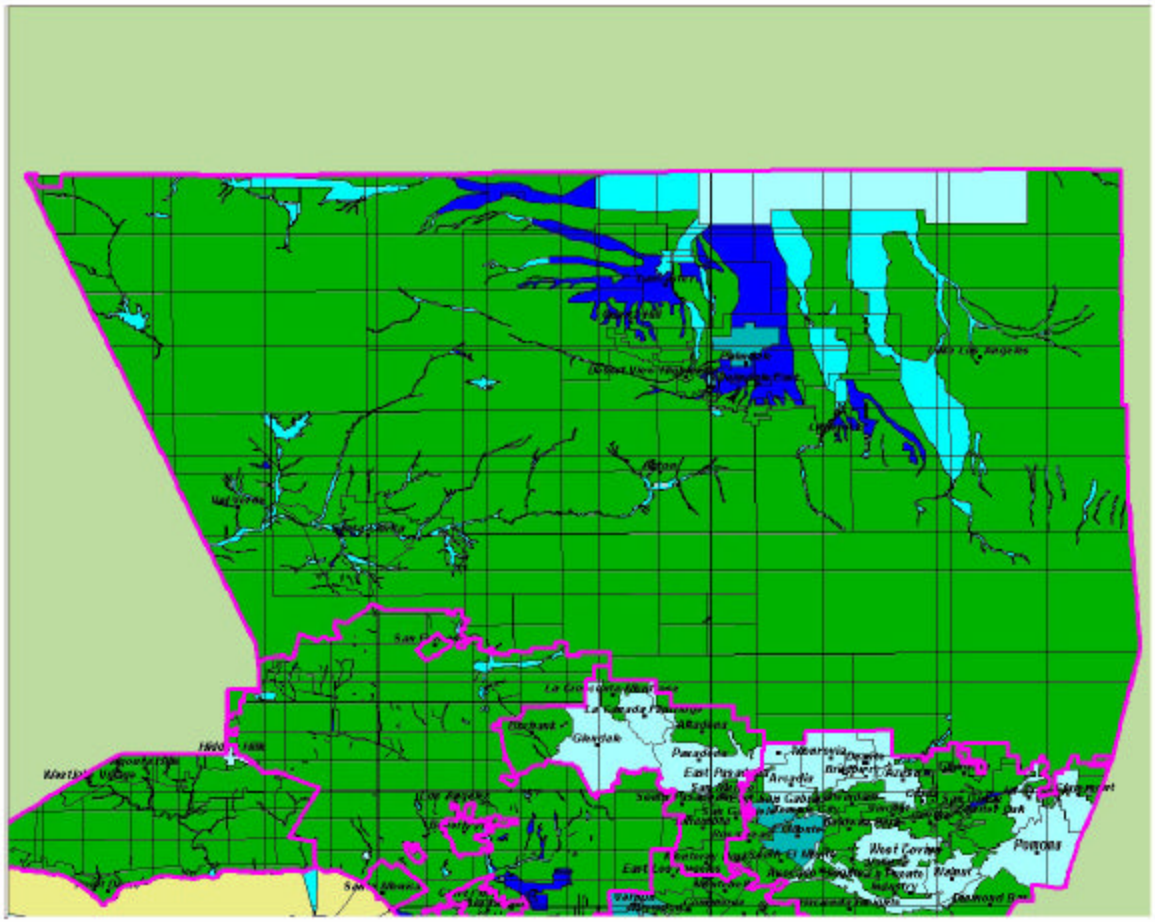
PROJECT ID NO. FMD001035

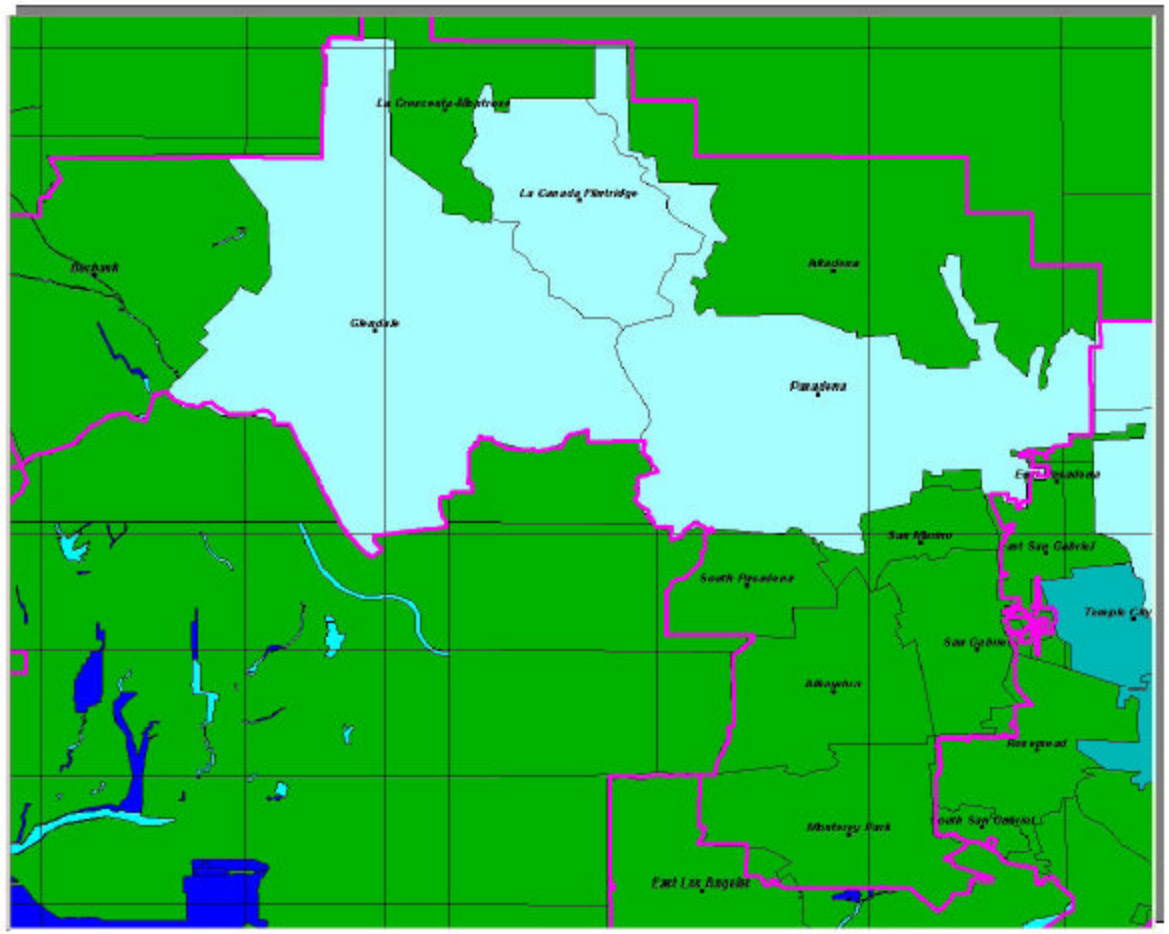
APPROXIMATELY 8,611 PARTICIPATING CATCH BASINS



FIRM Maps of Los Angeles County by Disaster Management Area (see Section 3) Los Angeles County GIS Data




Los Angeles County
Disaster Management Area B
FEMA Flood Plains
Legend
50 Year Flood Plain
100 Year Flood Plain
500 Year Flood Plain
1000 Year Flood Plain



Los Angeles County

Disaster Management Area C

FEMA Flood Plains

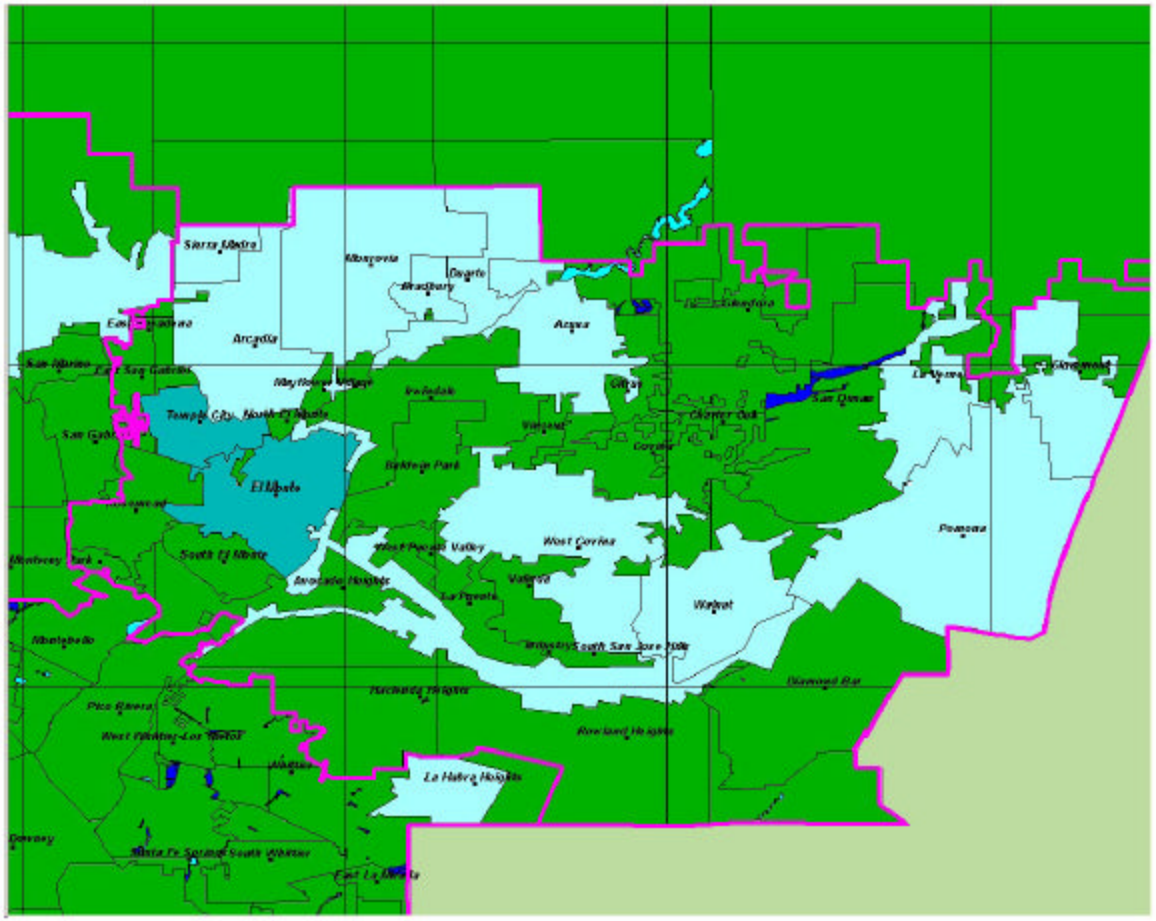
Legend

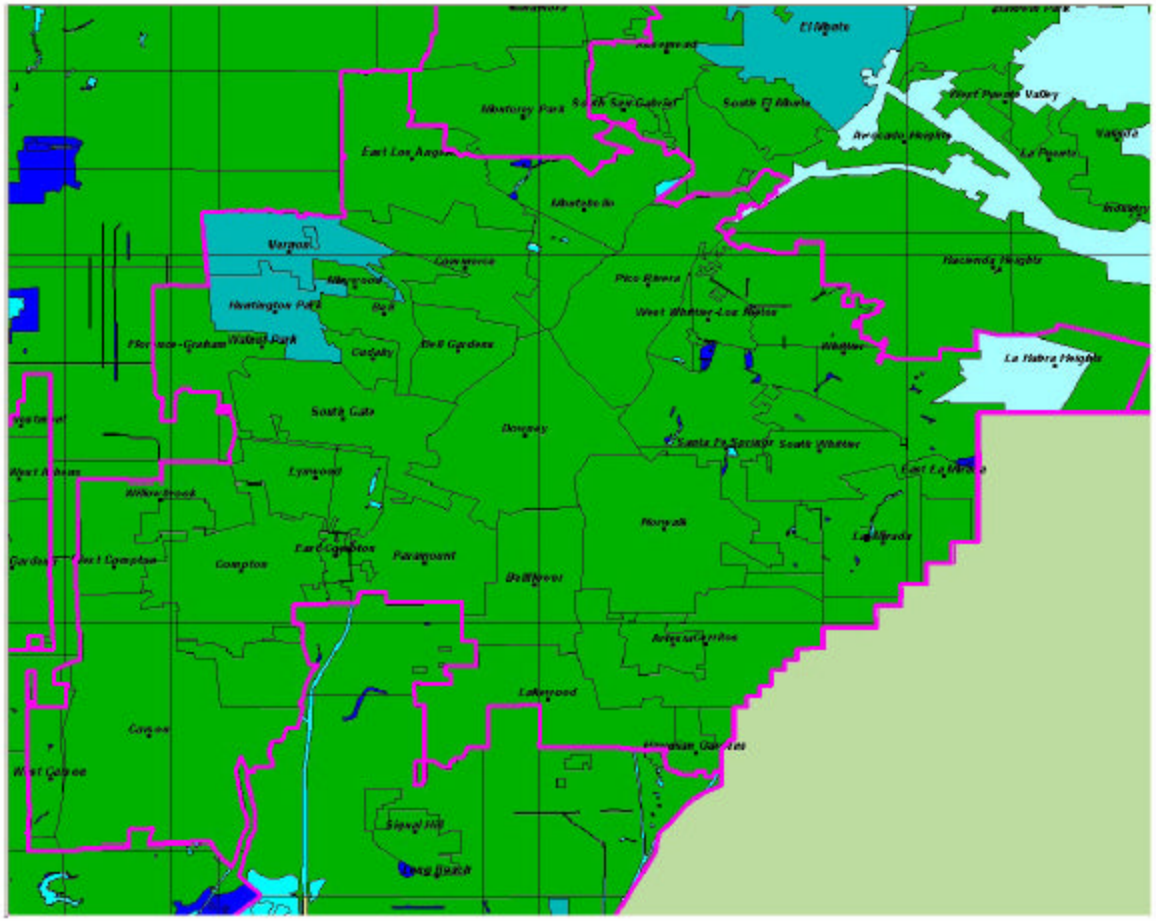
50 Year Flood Plain

100 Year Flood Plain

500 Year Flood Plain

1000 Year Flood Plain


Los Angeles County
Disaster Management Area D
FEMA Flood Plains
Legend
50 Year Flood Plain
100 Year Flood Plain
500 Year Flood Plain
1000 Year Flood Plain



Los Angeles County

Disaster Management Area E

FEMA Flood Plains

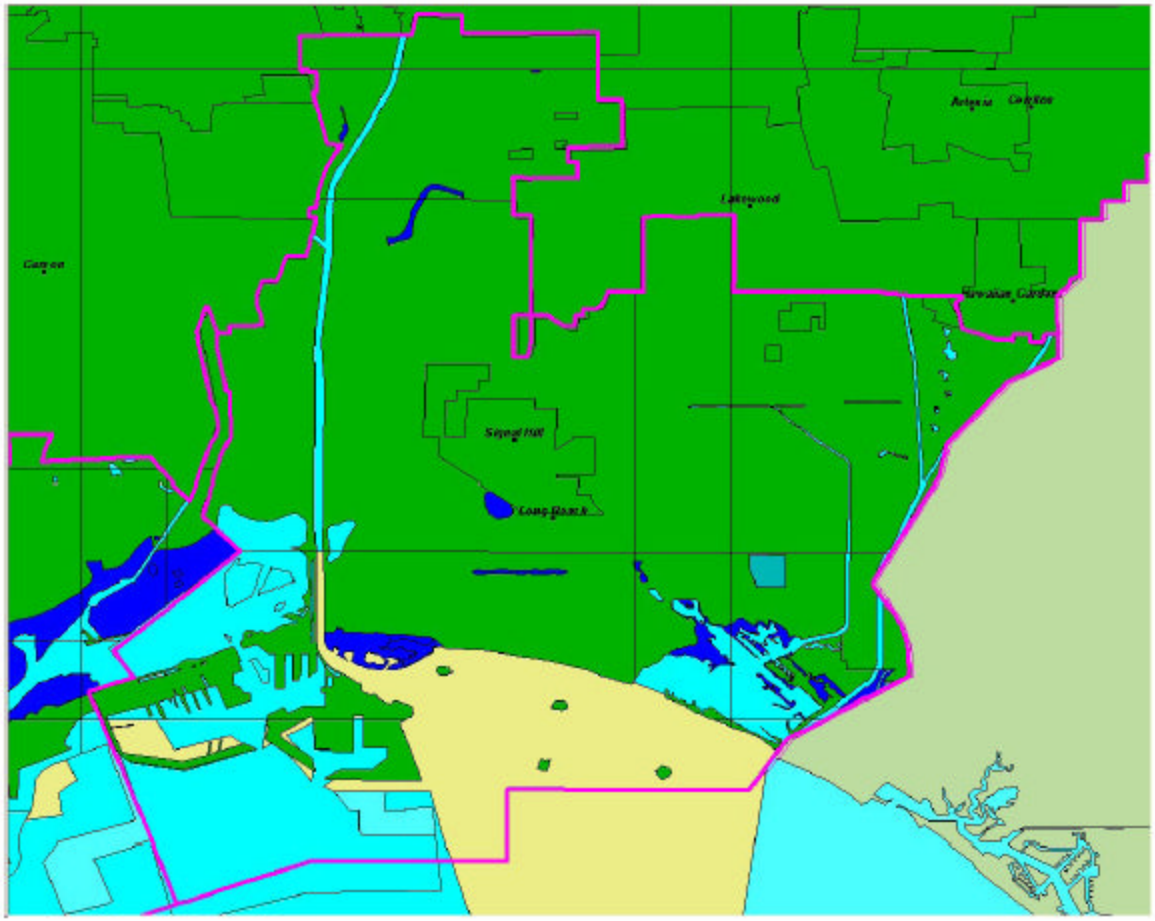
Legend

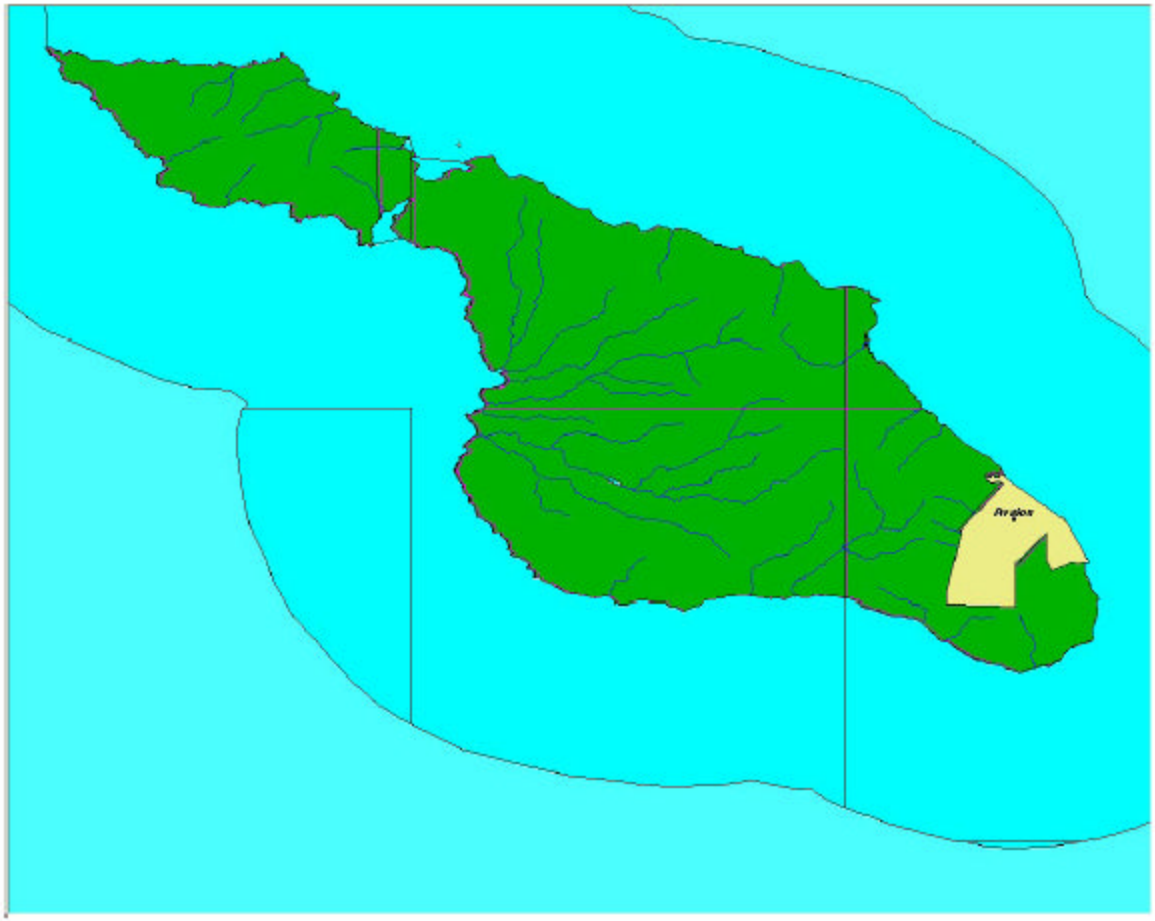
50 Year Flood Plain

100 Year Flood Plain

500 Year Flood Plain

1000 Year Flood Plain


Los Angeles County
Disaster Management Area F
FEMA Flood Plains
Legend
50 Year Flood Plain
100 Year Flood Plain
500 Year Flood Plain
1000 Year Flood Plain



Los Angeles County

Disaster Management Area F
Catalina Island

FEMA Flood Plains

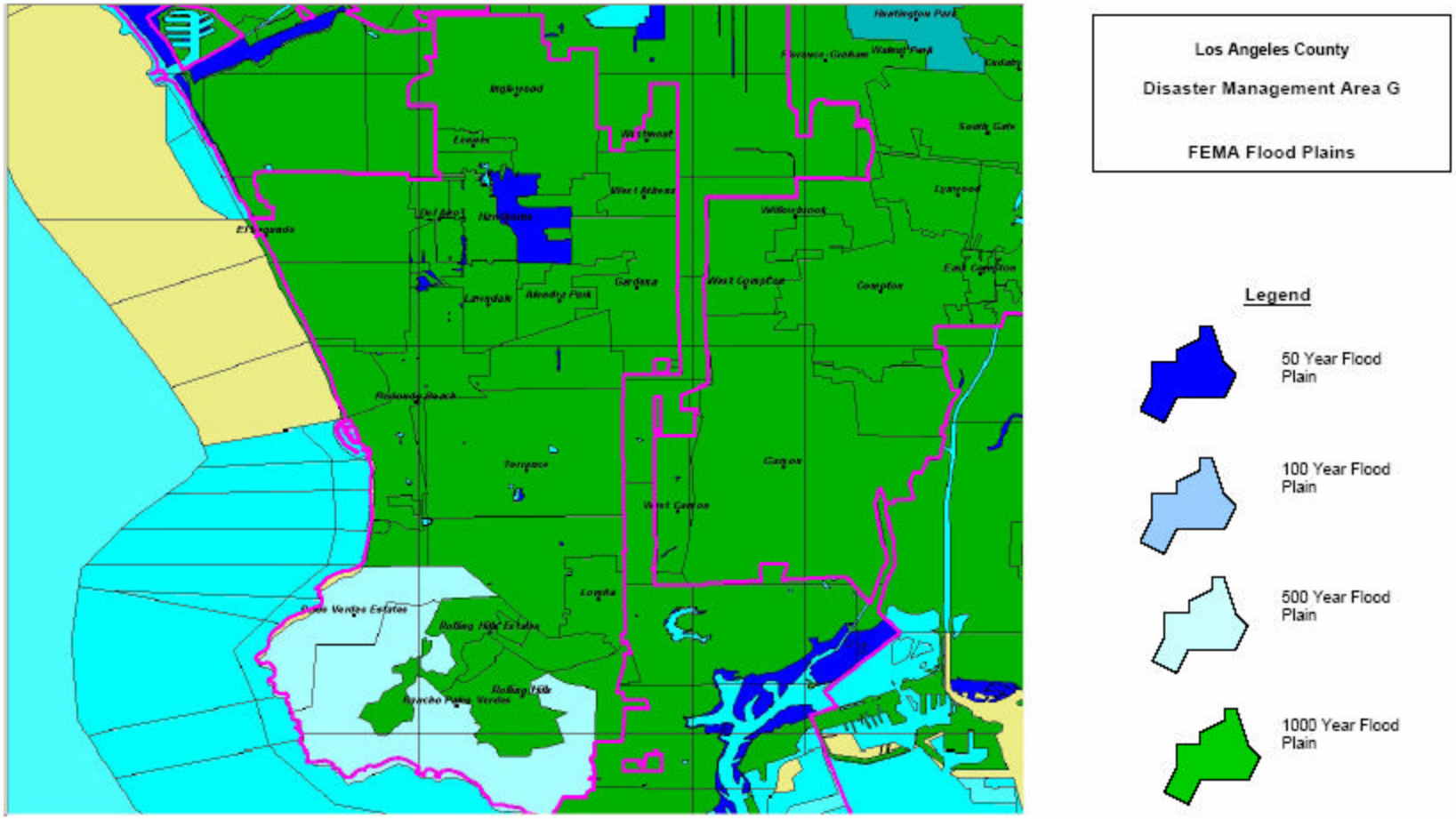
Legend

50 Year Flood Plain

100 Year Flood Plain

500 Year Flood Plain

1000 Year Flood Plain


Los Angeles County
Disaster Management Area G
FEMA Flood Plains
Legend
50 Year Flood Plain
100 Year Flood Plain
500 Year Flood Plain
1000 Year Flood Plain

Drought

Drought was rated a HIGH PRIORITY HAZARD in Los Angeles County.

Unlike weather forecasting, Climatologists deal with years. One 6 inch rainstorm out of nowhere could make these predictions for any year look foolish in your area. Therefore you will have drought forecasts tempered with, "indications are" "likely" and "overdue".

Definition of Drought

There are four different ways that drought can be defined: Meteorological - a measure of departure of precipitation from normal. Due to climatic differences what is considered a drought in one location may not be a drought in another location. Agricultural - refers to a situation when the amount of moisture in the soil no longer meets the needs of a particular crop. Hydrological - occurs when surface and subsurface water supplies are below normal. Socioeconomic - refers to the situation that occurs when physical water shortage begins to affect people.

Agricultural Definition of Drought

Drought is a protracted period of deficient precipitation resulting in extensive damage to crops, resulting in loss of yield.

Lack of rainfall for an extended period of time can bring farmers and major metropolitan areas to their knees. It does not take very long; a few rain-free weeks spreads panic and shrivels crops. We are told to stop washing our cars, cease watering the grass and take other weather conservation steps. Continued sunshine without sufficient rain can turn a rain forest into a desert; so maybe sunny weather is not always the best weather.

The Dust Bowl days of the 1930's affected 50,000,000 acres of land, rendering the farmers helpless. In the 1950's the Great Plains suffered a severe water shortage when seven years went by with rainfall well below normal. Crop yields failed, the water supply fell.

Deficient Topsoil Moisture

A good definition of agricultural drought should be able to account for the variable susceptibility of crops during different stages of crop development, from emergence to maturity. deficient topsoil moisture at planting may hinder germination, leading to low plant populations per hectare and a reduction of final yield. However, if topsoil moisture is sufficient for early growth requirements, deficiencies in subsoil moisture at this early stage may not affect final yield if subsoil moisture is replenished as the growing season progresses or if rainfall meets plant water needs.

Concept of Drought

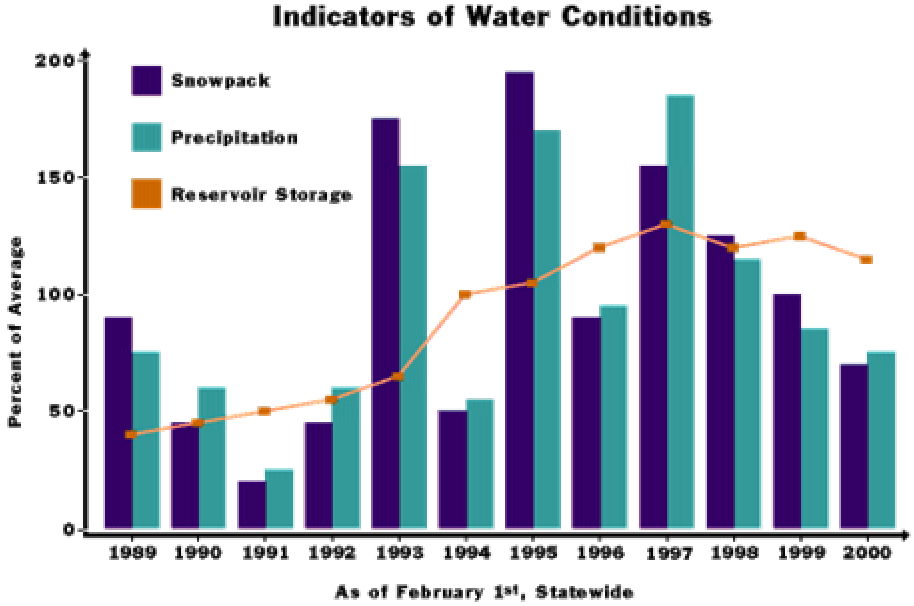
Drought is an insidious hazard of nature. Although it has scores of definitions, it originates from a deficiency of precipitation over an extended period of time, usually a season or more. This deficiency results in a water shortage for some activity, group, or environmental sector. Drought should be considered relative to some long-term average condition of balance between precipitation and evapo-transpiration (i.e., evaporation + transpiration) in a particular area, a condition often perceived as

"normal". It is also related to the timing (i.e., principal season of occurrence, delays in the start of the rainy season, occurrence of rains in relation to principal crop growth stages) and the effectiveness of the rains (i.e., rainfall intensity, number of rainfall events). Other climatic factors such as thigh temperature, high wind, and low relative humidity are often associated with it in many regions of the world and can significantly aggravate its severity. Drought should not be viewed as merely a physical phenomenon or natural event. Its impacts on society result from the interplay between a natural event (less precipitation than expected resulting from natural climatic variability) and the demand people place on water supply. Human beings often exacerbate the impact of drought. Recent droughts in both developing and developed countries and the resulting economic and environmental impacts and personal hardships have underscored the vulnerability of all societies to this "natural" hazard.

A five-year drought has parched soils, lowered reservoirs and weakened forests. And if the past is any guide, the dry spell could go on for decades.

One dry year does not normally constitute a drought in California, but serves as a reminder of the need to plan for droughts. California's extensive system of water supply infrastructure -- its reservoirs, groundwater basins, and inter-regional conveyance facilities -- mitigates the effect of short-term dry periods for most water users. Defining when a drought begins is a function of drought impacts to water users. Hydrologic conditions constituting a drought for water users in one location may not constitute a drought for water users elsewhere, or for water users having a different water supply. Individual water suppliers may use criteria such as rainfall/runoff, amount of water in storage, or expected supply from a water wholesaler to define their water supply conditions.

The graphic below illustrates several indicators commonly used to evaluate California water conditions. The percent of average values are determined for measurement sites and reservoirs in each of the State's ten major hydrologic regions. Snow pack is an important indicator of runoff from Sierra Nevada watersheds, the source of much of California's developed water supply.



Drought is a gradual phenomenon. Although droughts are sometimes characterized as emergencies, they differ from typical emergency events. Most natural disasters, such as floods or forest fires, occur relatively rapidly and afford little time for preparing for disaster response. Droughts occur slowly, over a multiyear period. There is no universal definition of when a drought begins or ends. Impacts of drought

are typically felt first by those most reliant on annual rainfall -- ranchers engaged in dry land grazing, rural residents relying on wells in low-yield rock formations, or small water systems lacking a reliable source. Criteria used to identify statewide drought conditions do not address these localized impacts. Drought impacts increase with the length of a drought, as carry-over supplies in reservoirs are depleted and water levels in groundwater basins decline.

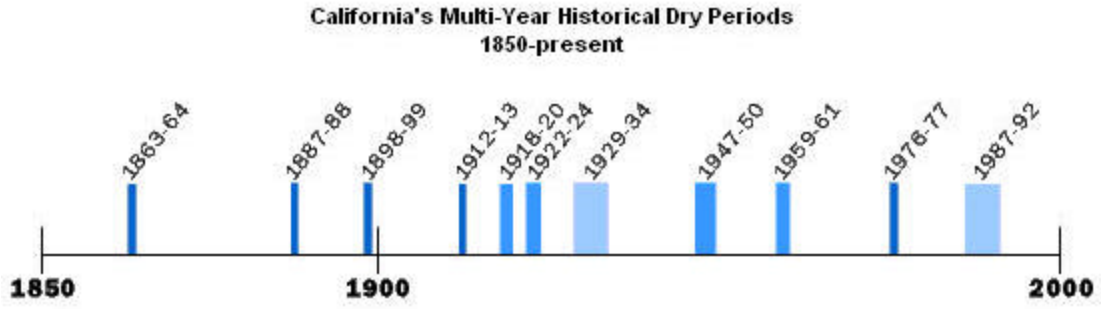
Past California Droughts

Droughts exceeding three years are relatively rare in Northern California, the source of much of the State's developed water supply. The 1929-34 drought established the criteria commonly used in designing storage capacity and yield of large Northern California reservoirs. The table below compares the 1929-34 drought in the Sacramento and San Joaquin Valleys to the 1976-77 and 1987-92 droughts. The driest single year of California's measured hydrologic record was 1977. California's most recent multi-year drought was 1987-92.

Severity of Extreme Droughts in the Sacramento and San Joaquin Valleys

Drought Period	Sacramento Valley Runoff (maf/yr)	Sacramento Valley Runoff (% Average 1901-96)	San Joaquin Valley Runoff (maf/yr)	San Joaquin Valley Runoff (% Average 1906-96)
1929-34	9.8	55	3.3	57
1976-77	6.6	37	1.5	26
1987-92	10.0	56	2.8	47

Measured hydrologic data for droughts prior to 1900 are minimal. Multi-year dry periods in the second half of the 19th century can be qualitatively identified from the limited records available combined with historical accounts, as illustrated in the figure below, but the severity of the dry periods cannot be directly quantified.



1. Dry periods prior to 1900 estimated from limited data.
2. Covers dry periods of statewide or major regional extent.

One approach to supplementing California's limited period of measured data is to statistically reconstruct data through the study of tree rings (called dendrochronology). Information on the thickness of annual growth rings can be used to infer the wetness of the season. Site-specific approaches to supplementing the historical record can include age-dating dryland plant remains now submerged in place by rising water levels, or sediment and pollen studies. For example, a 1994 study of relict tree

stumps rooted in present-day lakes, rivers, and marshes suggested that California sustained two epic drought periods, extending over more than three centuries. The first epic drought lasted more than two centuries before the year 1112; the second drought lasted more than 140 years before 1350. In this study, the researcher used drowned tree stumps rooted in Mono Lake, Tenaya Lake, West Walker River, and Osgood Swamp in the central Sierra Nevada. These investigations indicate that California has been subject to droughts more severe and more prolonged than those witnessed in the brief historical record.

The Long-term Climatic Viewpoint

The historical record of California hydrology is brief in comparison to geologically modern climatic conditions. The following sampling of changes in climatic conditions over time helps put California's twentieth century droughts into perspective. Most of the dates shown below are necessarily approximations. Not only must the climatic conditions be inferred from indirect evidence, but the onset or extent of changed conditions may vary with geographic location. Readers interested in the subject of paleo-climatology are encouraged to seek out the extensive body of popular and scientific literature on this subject.

Past California Droughts

The historical record of California hydrology is brief in comparison to the time period of geologically modern climatic conditions. The following samplings of changes in climatic and hydrologic conditions help put California's twentieth century droughts into perspective, by illustrating the variability of possible conditions. Most of the dates shown below are necessarily approximations, since the dates must be inferred from indirect sources.

11,000 years before present

Beginning of Holocene Epoch- Recent time, the time since the end of the last major glacial epoch

6,000 years before present

Approximate time when trees were growing in areas now submerged by Lake Tahoe. Lake levels were lower then, suggesting a drier climate.

900-1300 A.D.(approximate)

The Medieval Warm Period, a time of warmer global average temperatures. The Arctic ice pack receded, allowing Norse settlement of Greenland and Iceland. The Anasazi civilization in the Southwest flourished, its irrigation systems supported by monsoonal rains.

1300-1800 A.D. (approximate)

The Little Ice Age, a time of colder average temperatures. Norse colonies in Greenland failed near the start of the time period, as conditions became too cold to support agriculture and livestock grazing. The Anasazi culture began to decline about 1300 and had vanished by 1600, attributed in part to drought conditions that made agriculture infeasible.

Mid - 1500s A.D.

Severe, sustained drought throughout much of the continental U.S., according to dendro-chronology. Drought suggested as a contributing factor in the failure of European colonies at Parris Island, South Carolina and Roanoke Island, North Carolina.

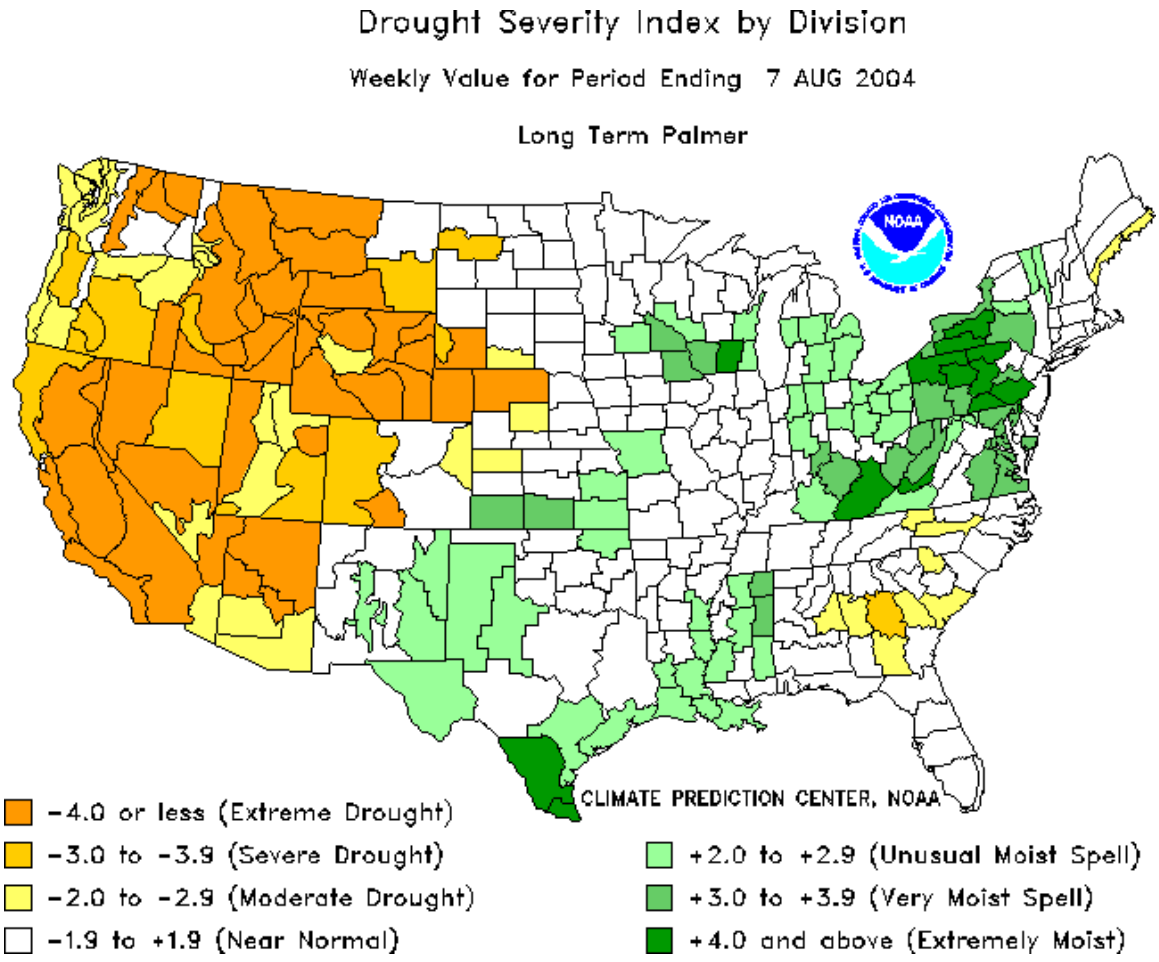
1850s A.D.

Sporadic measurements of California precipitation began.

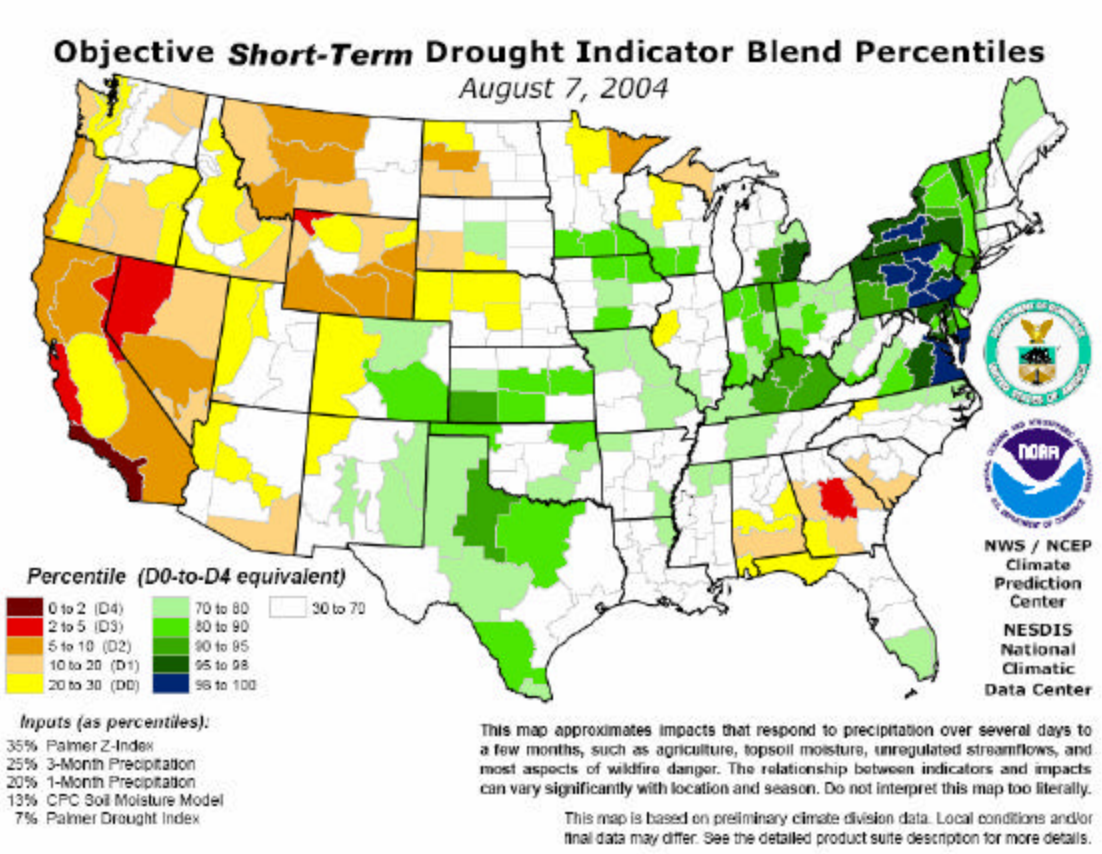
1890s A.D.

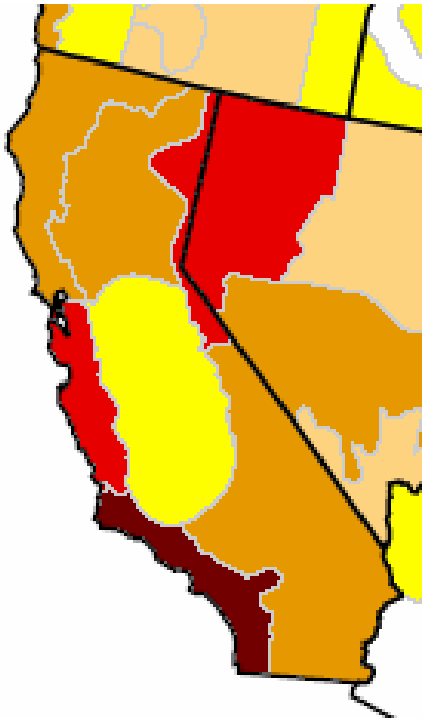
Long-term stream flow measurements began at a few California locations.

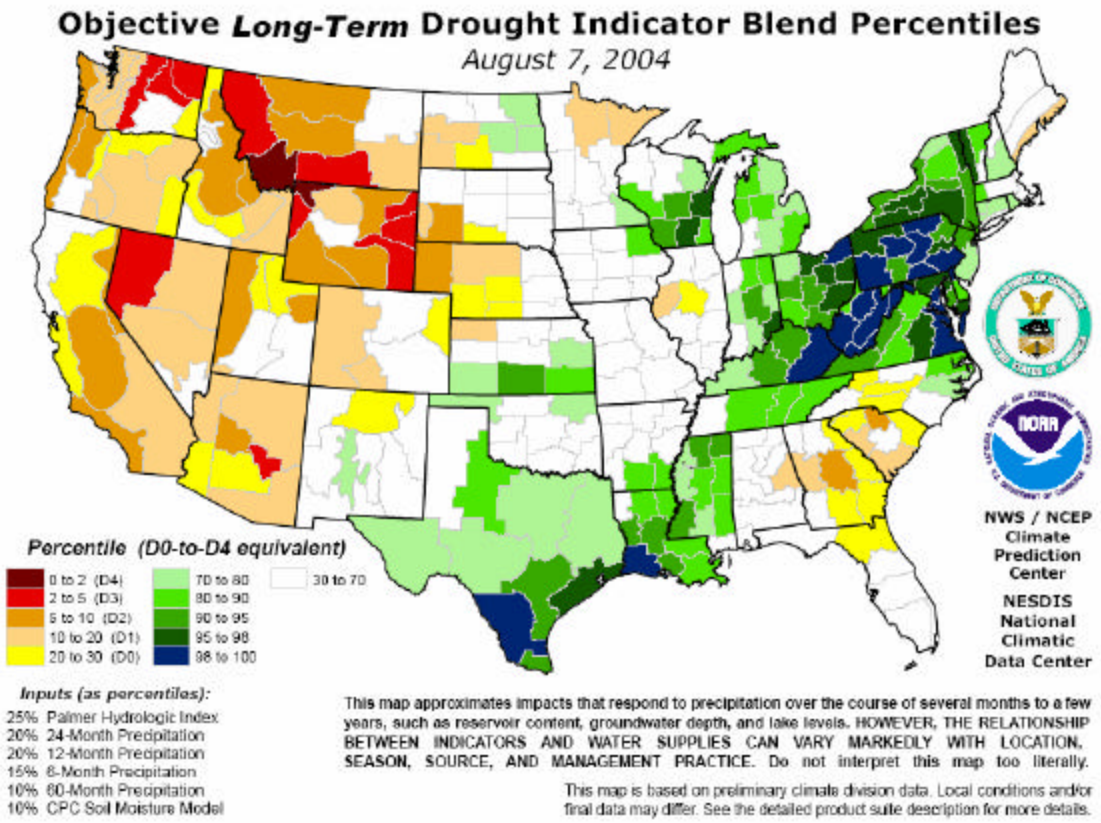
The image below is a the most current snapshot of drought conditions across the U.S. It is provided by NOAA's Climate Prediction Center.

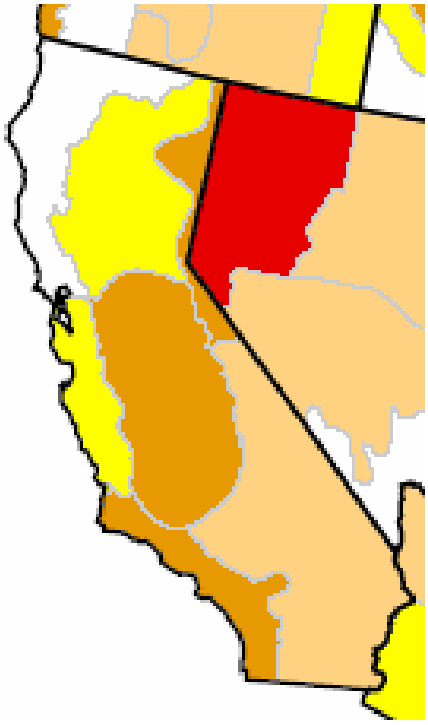


Drought Monitor






Objective Long-Term Drought Indicator Blend Percentiles
August 7, 2004
Percentile (D0-to-D4 equivalent)
0 to 2 (D4)
2 to 5 (D3)
5 to 10 (D2)
10 to 20 (D1)
20 to 30 (D0)
70 to 80
80 to 90
90 to 95
95 to 98
98 to 100
30 to 70
Inputs (as percentiles):
25% Palmer Hydrologic Index
20% 24-Month Precipitation
20% 12-Month Precipitation
15% 6-Month Precipitation
10% 60-Month Precipitation
10% CPC Soil Moisture Model
NWS / NCEP Climate Prediction Center
NESDIS National Climatic Data Center
This map approximates impacts that respond to precipitation over the course of several months to a few years, such as reservoir content, groundwater depth, and lake levels. HOWEVER, THE RELATIONSHIP BETWEEN INDICATORS AND WATER SUPPLIES CAN VARY MARKEDLY WITH LOCATION, SEASON, SOURCE, AND MANAGEMENT PRACTICE. Do not interpret this map too literally.
This map is based on preliminary climate division data. Local conditions and/or final data may differ. See the detailed product suite description for more details.



The Drought Monitor was introduced as an operational weekly product in 1999 to provide an overview of conditions averaged across a broad array of time scales and impact indicators, leaning toward those that seem most relevant to observed impacts. This approach has led to an unprecedented degree of cooperation and coordination among a variety of disparate Federal, state, and local government agencies, in addition to many interested members of the academic and private research communities. The result has boiled the complex issues of drought and drought-related impact assessment down to a single, simple, visually-intuitive summary of conditions which has replaced the uncoordinated, disparate, and often contradictory assortment of opinions and data that formerly characterized responses to requests for drought information.

While this approach has been successful and well-received overall, there are situations where it can be substantially misleading. Drought and its related impacts operate on a variety of time scales, and the Drought Monitor depiction (which usually portrays some semblance of an "average" condition across all time scales and impact types) cannot accurately confer information when conditions and impacts dependent on one time scale differ dramatically from those related to a much longer (or shorter) time scale. Hypothetically, a region which has received consistently and substantially inadequate precipitation over the course of several years might experience a day, or a few days, or even a few weeks of heavy rain. What is the overall drought status after this occurs? The Drought Monitor would likely depict a substantial improvement in conditions (in deference to major short-term relief) but maintain some indication of continuing drought (in deference to the multi-year dryness which likely changed only slightly in response to the heavy rains). This is all that a single-image depiction could possibly do. In reality, however, the degree to which drought-related impacts would continue to be a concern would depend on what time scale a given class of impacts responds to. Obviously, in this situation, wildfire danger would decline sharply, at least for the immediate future. Also, unregulated stream flows would swell from runoff and topsoil moisture would be substantially recharged if the precipitation lasted long enough, thereby providing at least a temporary respite for non-irrigated agriculture. On the other hand, reservoir stores might increase only slightly, having been depleted by a few years of precipitation failing to keep up with demand, and ground water levels and/or well water

depth, if they were low, might be barely (or at best belatedly) affected by the heavy short-term rains, since much of the water was likely dispersed by swollen streams or absorbed by parched topsoil.

To confer information about drought status on different time scales to those users that need such information, two new experimental products are being made public which will serve as timescale-specific supplements to the Drought Monitor at a basic level. Both assess conditions based on a blend of several drought indicators, and are depicted relative to the local historic record.

The ***Short-Term Blend*** approximates drought-related impacts that respond to precipitation (and secondarily other factors) on time scales ranging from a few days to a few months, such as wildfire danger, non-irrigated agriculture, topsoil moisture, range and pasture conditions, and unregulated stream flows.

The ***Long-Term Blend*** approximates drought-related impacts that respond to precipitation on time scales ranging from several months to a few years, such as reservoir stores, irrigated agriculture, groundwater levels, and well water depth.

It should be noted that the relationship between indicators and impacts varies, sometimes markedly, with location and season. This is particularly true of water supplies, which are additionally dependent on the source (or sources) tapped, management practices, and legal mandates. Exercise caution when attempting to relate these maps to specific impact implications for a particular location and time of year. The blend-to-impact correlation is not always direct, and will vary spatially and temporally.

The following bullets describe the composition of these experimental blends:

- These products are generated using the Climate Prediction Center's real-time daily & weekly climate division data, and the National Climatic Data Center's monthly climate division data archive, back to 1932.

- The indices used in the blends and their weights are as follows:

    - ***SHORT-TERM:*** 35% Palmer Z-Index; 25% 3-Month Precipitation; 20% 1-Month Precipitation; 13% Climate Prediction Center Soil Moisture Model; and 7% Palmer (Modified) Drought Index.

    - ***LONG-TERM:*** 25% Palmer Hydrologic Drought Index; 20% 12-Month Precipitation; 20% 24-Month Precipitation; 15% 6-Month Precipitation; 10% 60-Month Precipitation; 10% Climate Prediction Center Soil Moisture Model.

- All parameters are first rendered as percentiles with respect to 1932-2000 data using a percent rank method. Most parameters are ranked relative to the National Climatic Data Center's historic climate division data for the current month, except for the Z-Index which is rendered relative to all months on record (this introduces evaporative seasonality into the short-term blend).

- For each blend, the averages of the percentile inputs are calculated, with each input weighted as described above. This yields a "weighted raw average" of the individual component percentiles for each blend. Then, each raw average is compared to its historic (1932 - 2000) distribution (these have been retrospectively generated from the climate division data archive). The real-time data are compared to ALL retrospective months, not just the current month, since the individual percentile inputs were each generated (for all but the Z-Index) relative to the history of the current month only. This allows for a more confident estimation of the percentile by using more data to define the historical array (12

times as many as if we assessed the blends' raw weighted averages relative to the current month only).

- The precipitation percentile inputs are generated in a somewhat unusual way, combining month-to-date numbers from Climate Prediction Center with the National Climatic Data Center's monthly totals for prior months. As daily precipitation totals for the current month are ingested into the x-month totals, an identical proportion of the monthly precipitation that fell during the first month in the x-month period is eliminated (e.g., to determine a 6-month precipitation total, from which a percentile will be calculated and incorporated into the blend, for the period ending September 21, 2002, we add the daily preliminary precipitation amounts for September 1-21 to the 6-month total for March-August 2002, then subtract 21/30 of the March total from the result, since 21/30 of September have been added). This process (a) emulates natural cycles by adding precipitation as it falls but eliminating early-period precipitation evenly over the course of a month; and (b) ensures that the data utilized in real time are as consistent with the historical array as possible. The near-real-time climate division precipitation data are biased in some areas relative to the final NCDC monthly archive, with wet near-real-time biases in the central and northern Rockies particularly extreme. The data are adjusted where appropriate at the end of each month, but the biases remain in the data for all precipitation time scales since the end of the previous calendar month. In addition, the biased near-real-time data are used in the Palmer Drought Index, the Palmer Hydrologic Drought Index, the Z-Index, and CPC's modeled soil moisture data, and can remain in those calculations for several weeks. These blends may be subject to change in the future.

Vulnerability

The greatest vulnerability to drought in Los Angeles County is its agricultural economy. Yearly, $280,000,000 are generated as agricultural revenue. Other disastrous drought damage could be sustained to parks, landscaping and grounds around commercial and residential facilities, as well as to various plant and animal species, which depend on a delicate meteorological balance to survive.

Impact

A severe and long-lasting drought could affect the entire population of Los Angeles County (10.2 million) either directly or indirectly, through damage, economic impact and water shortages). I could generate a loss of 14%* or greater to agricultural revenues in Los Angeles County. Further potential dollar loss estimations are as follows:

Potential dollar losses to County-owned facilities	$1.5 Million
Potential dollar losses to Critical Facilities and Infrastructure	$350.000
Potential dollar losses to Commercial Property	$17.8 Million
Potential dollar losses to Residential or Private Property	$72.2 Million
Potential other dollar losses (Environmental, Historical, Economic, Human)	$39.2* Million
TOTAL POTENTIAL DOLLAR LOSSES FOR THIS HAZARD	**$141.4 MILLION**

MODERATE PRIORITY Natural Hazards

Land Slide

Landslide were rated a MODERATE PRIORITY HAZARD in Los Angeles County.

There are four categories of active and dormant landslides. They include debris slides, translational/rotational slides, earth flows, and debris flows and torrent tracks. Debris slide amphitheater and slopes and inner gorges are not technically landslides, but features formed by landslides processes. In some places, complex land sliding causes irregular ground surfaces. Generally, on land slide maps, such areas are depicted as disrupted ground or areas of extreme, high, moderate, and low relative stability.

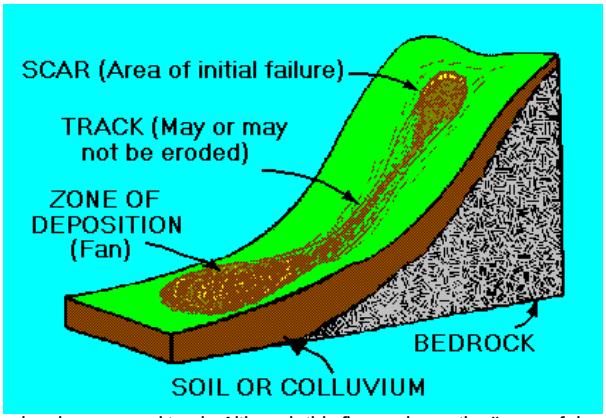
Slope-failure Hazards in Southern California

The geologic setting of southern California locally is conducive to slope failures and slope-failure deposits (landslides) that can be a hazard to human life and property. These hazards are created when geologic materials are displaced down a topographic slope under the influence of gravity. Factors that determine slope-failure occurrence include:

- Slope angle
- Geologic materials (substrate)
- Climatic conditions
- Earthquake shaking

Debris Flows

Sudden "mudslides" gushing down rain-sodden slopes and gullies are widely recognized by geologists as a hazard to human life and property. Most "mudslides" are localized in small gullies, threatening only those buildings in their direct path. They can burst out of the soil on almost any rain-saturated hill when rainfall is heavy enough. Often they occur without warning in localities where they have never been seen before.



Sketch of a typical debris avalanche scar and track. Although this figure shows the "zone of deposition" as quite near the source, debris avalanches can travel thousands of feet or, in exceptional cases, miles from the point of origin. Original drawing by Janet K. Smith.

The ashy slopes left denuded by wildfires in California are especially susceptible to "mudslides" during and immediately after major rainstorms.

Those who live down slope of a wildfire area should be aware of this potential for slope failure that is present until new vegetation rebinds the soil.

Debris avalanches and debris flows (both popularly called "mudslides") are shallow landslides, saturated with water, that travel rapidly down slope as muddy slurries. The flowing mud carries rocks, bushes, and other debris as it pours down the slopes.

A debris avalanche is a fast-moving debris flow that travels faster than about 10 mph or approximately 25 yards in about 5 seconds. Speeds in excess of 20 mph are not uncommon, and speeds in excess of 100 mph, although rare, do occur locally.

Debris avalanches pose hazards that are often overlooked. Houses in the path of debris avalanches can be severely damaged or demolished. Persons in these structures can be severely injured or killed.

Most rainstorms are of such low intensity that they do not trigger debris avalanches. Some intense storms may trigger only a few debris avalanches. However, when the ground is already saturated from previous rain, even relatively short high-intensity rainstorms may trigger debris avalanches.

The most common cause of debris avalanches and debris flows is the combination of heavy rainfall, steep slopes, and loose soil. Most fairly steep slopes have enough soil and loose rock for potential landslides. Although "stable" when dry, such slopes can produce local debris flows, often without warning.

Normally the source of the excess water is intense rainfall, although broken water pipes or misdirected runoff concentrated by roads, roofs, or large paved areas may trigger, or help to trigger, debris avalanches and debris flows. In California, most debris flows occur during wet winters.

Debris avalanches occur all over the world. They are particularly common in mountainous areas underlain by rocks that produce sandy soils. Debris avalanches have been noted in southern California during at least nine rainy seasons since 1915.

Debris flows are known to start on slopes as low as 15 degrees, but the more dangerous, faster moving flows (debris avalanches) are more likely to develop on steeper slopes. About two-thirds of all debris avalanches start in hollows or troughs at the heads of small drainage courses. Typically, a debris avalanche bursts out of a hillside and flows quickly down slope, inundating anything in its path. Because the path of a debris flow is controlled by the local topography just like flowing water, debris avalanches and debris flows generally follow stream courses.

Slopes burned by range and forest fires are especially susceptible to debris avalanches and debris flows because of the absence of vegetation and roots to bind the soil. The areas directly down slope are especially subject to damage from debris flows.

by Alan Barrows and Ted Smith, Calif Dept of Conservation

Geologic Considerations

Southern California's geologic setting and geologic history are as dynamic as the more than 20 million people that inhabit its landscape. The region has been shaped by restless earth forces that not only have created the mountains, valleys, deserts, and coastal lowlands we call home, but have created diverse geologic materials and geologic structures that form the landscape's foundation. These geologic elements include endless varieties of rocks, geologic structures (faults and folds), and surficial geologic materials.

Geologic Setting of the Transverse Ranges Province

The Transverse Ranges Province of southern California is so-named because the mountains, valleys, and geologic structures within this province lie east-west or "*transverse to*" the prevailingly northwest-trending grain characteristic of southern California. For example, northwest-trending faults of the Peninsular Ranges Province lend a northwest-oriented topographic and structural grain to that province. Likewise, the Coast Ranges and Sierra Nevada Provinces of southern and central California also are prevailingly northwest-trending. The Transverse Ranges lie athwart this northwest grain.

Although referred to collectively as the Transverse Ranges, the province consists of several discrete mountain ranges and intervening valleys, including:

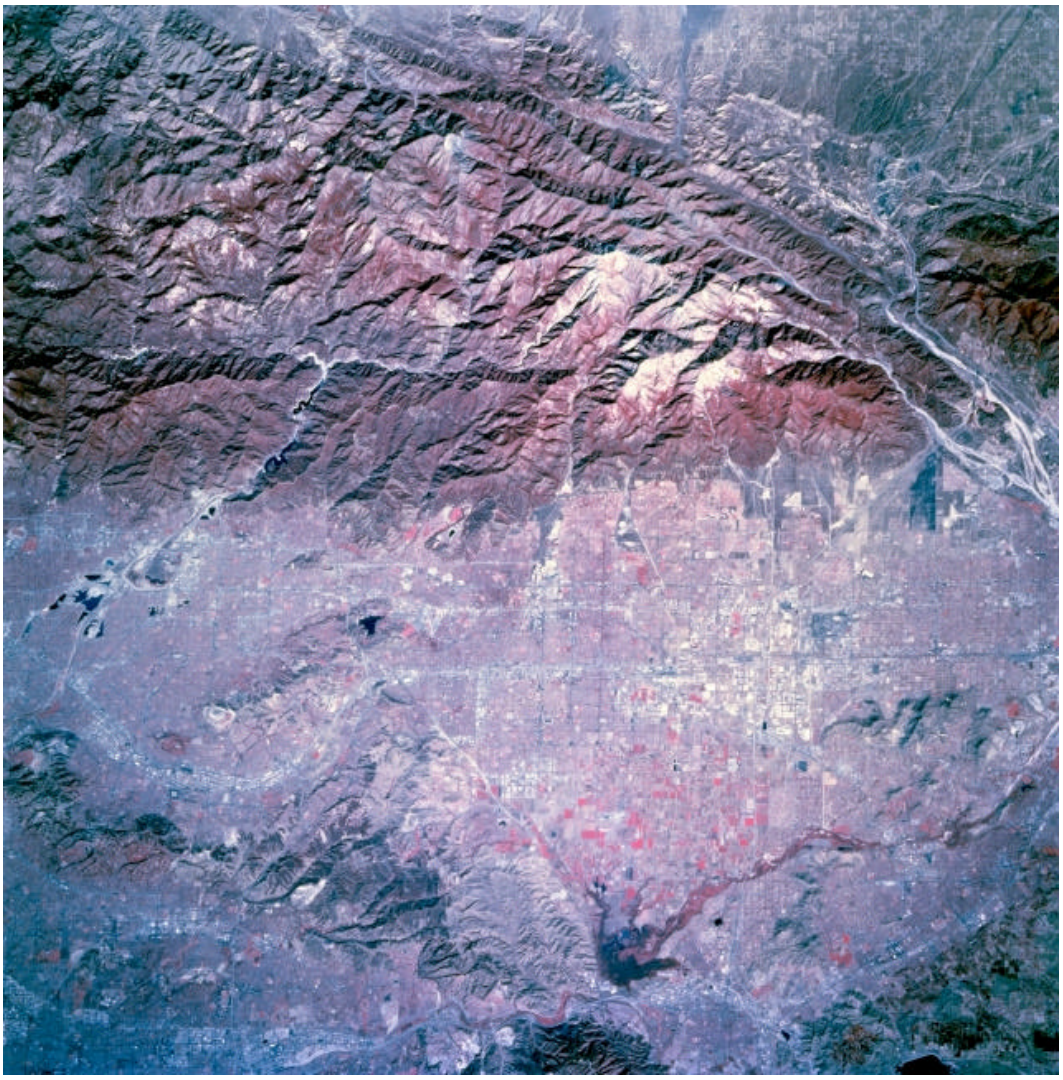
- The Santa Ynez and Topatopa Mountains
- Oak Ridge and the Santa Susanna Mountains
- Santa Clara and Simi Valleys
- Santa Monica Mountains
- San Gabriel Mountains
- San Bernardino Mountains
- Little San Bernardino Mountains
- Pinto Mountains
- Eagle and Cottonwood Mountains

Geologists group these discrete landforms within the Western, Central, and Eastern Transverse Ranges.

The San Gabriel Mountains

The San Gabriel Mountains are a fault-bounded block of ancient crystalline rocks that rises north of the Los Angeles Basin and the upper Santa Ana River Basin. The eastern end of the mountains rises abruptly to an elevation of over 10,000 feet. To the north, the mountains descend more gradually to the Mojave Desert and to the west to the Sierra Pelona and the Soledad Basin. The range is bounded on the north by the San Andreas Fault zone, on the south and southwest by thrust and reverse faults of the Cucamonga-Sierra Madre fault complex, and on the east by faults of the San Jacinto zone. The interior of the range is complexly deformed by faults of many different ages and tectonic styles.

Most of the crystalline basement rocks that make up the San Gabriel Mountains occur in two packages that are separated by a major geologic structure--the *Vincent Thrust* . The thrust apparently occurs throughout most of the range, and is a low-angle tectonic dislocation (fault or movement zone) that separates *upper-plate rocks* above the dislocation from *lower-plate rocks* below it. Fault movement along this low-angle zone may have been on the order of several tens of kilometers, and is responsible for bringing together the two distinctive packages of rock in the lower and upper plates.



Lower-plate rocks beneath the Vincent Thrust are a complex of metamorphosed sedimentary and volcanic rocks known as the Pelona Schist, a rock unit whose pre-metamorphic protolith consisted of Mesozoic (Jurassic and Cretaceous?) marine deep-water sand, silt, and calcareous and siliceous mud locally interlayered with basaltic flows. These rocks were metamorphosed at low to moderate grades (greenschist to lower amphibolite grade) in late Cretaceous or early Paleozoic time.

Upper-plate rocks above the Vincent Thrust include very old (Proterozoic) metamorphic and plutonic rocks that originally formed part of the ancient North American continental platform (Mendenhall Gneiss, anorthosite-syenite-gabbro complex). These older rocks are most abundant in the western and central part of the range. The ancient rocks have been intruded by various Mesozoic plutonic rocks that occur throughout the range, but are most abundant in the western and eastern parts.

A terrain of metamorphosed sedimentary rock and associated plutonic rocks and high grade (granulite grade) metamorphic rocks in the southeastern most San Gabriel Mountains is overprinted by a distinctive belt of mylonitic deformation locally intense enough to generate mappable thicknesses of mylonite. Geologists still have not resolved how these rocks relate structurally and provincially to crystalline rocks in the main mass of the San Gabriel Mountains.

The San Gabriel Mountains are traversed by deep, steep-sided canyons cut into highly fractured crystalline basement rocks that form the bedrock underpinnings of the mountains. The sides of most canyons are blanketed by unstable hill-slope rock debris that constantly is being stripped away by slope failures and by runoff and washed out to the range fronts.

Earthquakes & Landslides

Landslide damage from the Northridge earthquake was only moderate because the area of greatest landslide activity is not yet heavily developed. However landslides did, as described below, block roads; damage and destroy homes; locally disrupt water mains, sewers, and power lines; and damage oil- and gas-production facilities.

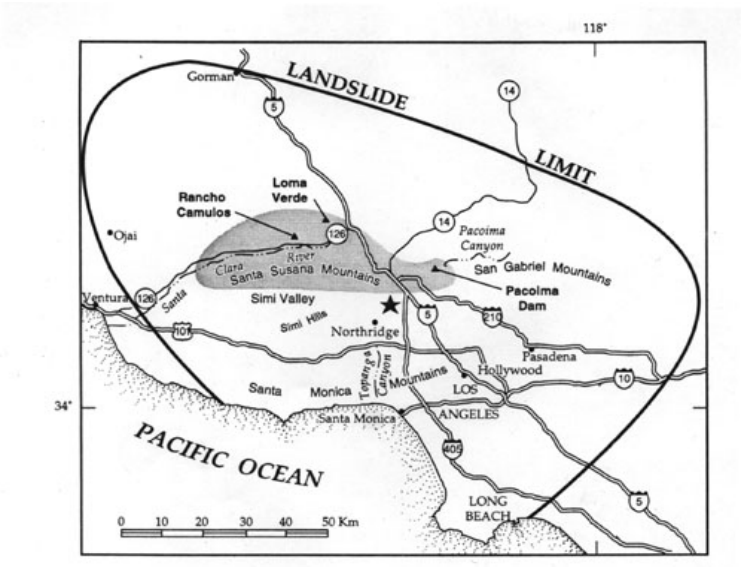


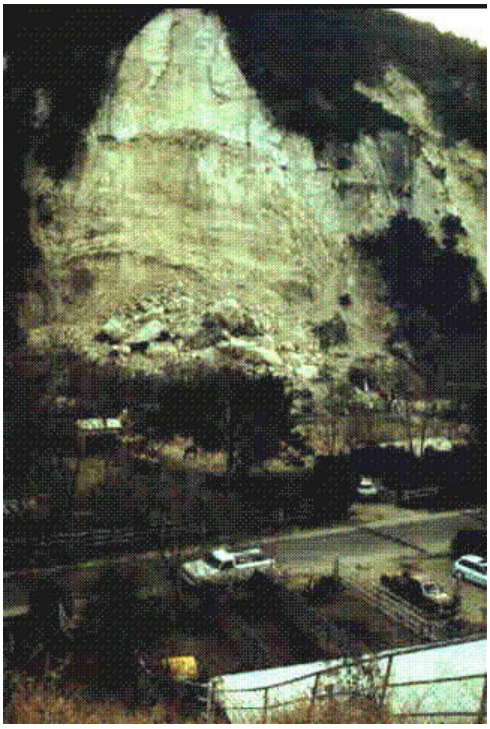
Figure 1. Map showing epicenter of Northridge earthquake (star), limit of landslides triggered by the earthquake (heavy, solid line), and area of greatest landslide concentration (shaded).

Landslides in the Santa Susana and western San Gabriel Mountains blocked many roads and thus hampered relief efforts and exacerbated the overall transportation problems caused by the earthquake.

Landslides impeded traffic flow that was diverted onto secondary highways as a result of the collapsed interchange at I-5 and California State Highway 14. Rock falls and rock slides closed many of the alternate routes across the San Gabriel Mountains from the Lancaster/Palmdale and Santa Clarita Valley areas (plate 1) to Los Angeles, and it was several days before some of these routes were cleared of rock debris and made available to commuters.

Dozens of homes in the central and eastern Santa Monica Mountains were moderately or severely damaged by reactivation of deep block slides. Although the landslide features are subtle and the damage patterns complex, making it difficult to distinguish shaking damage from ground-failure damage in this area, many clusters of damaged homes clearly relate to reactivation of old, deep block slides. Fill failures in some areas also damaged hundreds of homes and other buildings.

Shallow, disrupted slides also seriously damaged many structures. One large home in Pacific Palisades was destroyed when the bluff on which it was built failed during the earthquake and caused half the house to be torn loose and cascade down the steep slope. In the Santa Susana Mountains, rock falls damaged or destroyed several non-residential buildings, but no injuries were reported. In Tapo Canyon, north of Simi Valley in the Santa Susana Mountains, rock falls came closest to hitting residences; fortunately, only outbuildings were crushed beneath rock falls.



Pacoima Canyon, in the San Gabriel Mountains, experienced extreme landslide damage during the earthquake. Several large rock falls and rock slides from the precipitous slopes of the canyon dumped Pacoima Canyon, in the San Gabriel Mountains, experienced extreme landslide damage during the earthquake. Several large rock falls and rock slides from the precipitous slopes of the canyon dumped hundreds of thousands of cubic meters of landslide debris into the canyon, which blocked access to Pacoima Dam and damaged areas around the dam. About 50,000 m^3 of landslide debris was trucked from the canyon following the earthquake. Rock falls damaged the spillway and the shotcrete covering the dam abutment. Continuing failure of material weakened by the earthquake seriously hampered repair efforts.

An unfortunate additional effect of the rock falls and rock slides in the Santa Susana Mountains was an outbreak of valley fever (coccidioidomycosis), which can only be contracted by inhaling airborne dust

containing the fungal spores that cause the disease (Jibson and others, 1994b). The highly disrupted landslides triggered by the earthquake generated dense dust clouds (below) that blew downwind (southwestward) into Simi Valley (fig. 1), where a tight cluster of more than 150 cases of valley fever were diagnosed in the seven weeks following the earthquake (Centers for Disease Control and Prevention, 1994). During all of 1993, all of Ventura County had reported only 52 cases. Three valley fever fatalities occurred, which accounts for about 5 percent of the total earthquake fatalities.

The Northridge earthquake triggered landslides over an area of about 10,000 square kilometers. The landslide limit is the smoothed curve connecting the locations of farthest landslides at several different azimuths from the epicenter. The maximum epicentral distance to the landslide limit is about 70 km, which is about average in relation to historical worldwide earthquakes of this magnitude (Keefer, 1984). Within this broad area of scattered landslide activity is a 1,000 square kilometer area of much more concentrated land sliding that lies north and northwest of the epicenter, primarily in the Santa Susana Mountains and the mountains north of the Santa Clara River valley. This area of greatest landslide concentration consists primarily of Late Miocene through Pleistocene clastic sediment having little or no cementation and that has been folded and uplifted by rapid tectonic deformation. The young, weak material lacks significant tensile strength and erodes readily to form steep-walled canyons that commonly head in nearly vertical slopes. The combination of low strength and steep relief reaching elevations of 1,000 m above sea level makes the area highly susceptible to failure during seismic shaking.

Landslides were densest along the steep-walled canyons that have been incised into the northern and southern flanks of the Santa Susana Mountains; slides were sparser along the gently domed crest of those mountains. In the northeast part of the Santa Susana Mountains, landslide distribution reflects the regional geologic structure; outcropping strata that form steep ridges can be traced laterally by the broadly arcuate bands of landslides. Landslides were much more sparsely scattered throughout the Santa Monica and San Gabriel Mountains, which generally consist of more competent rock than exists in the Santa Susanas. One notable exception is the area in and around Pacoima Canyon, described subsequently.

The most common types of landslides triggered by the earthquake were highly disrupted, shallow falls and slides of rock and debris, numbering in the thousands to tens of thousands (if very small failures are considered) and extending over the entire area within the landslide limit. Deeper, more coherent slumps and block slides, commonly in more competent materials, numbered in the tens to perhaps hundreds and occurred primarily in the Santa Susana and Santa Monica Mountains. One well-developed liquefaction-induced lateral spread was mapped in Tapo Canyon (below).

Northeast of the epicenter, fewer and more widely scattered rock falls were triggered in the San Gabriel Mountains, which consist primarily of Mesozoic granitic and Precambrian metamorphic rock that, although deeply weathered, is more competent than the weak sediment of the Santa Susana Mountains. An exception is the southwest corner of the San Gabriel Mountains, where younger sediment produced abundant failures comparable to those in the Santa Susana Mountains. One area of exceptionally abundant landslide activity in the Mesozoic intrusive rock of the San Gabriel Mountains is near the mouth of Pacoima Canyon, where landslide concentrations were as high as in the Santa Susana Mountains. Slopes in surrounding canyons, however, had relatively few rock falls and rock slides despite having similar rock types exposed. Our preliminary assessment of the characteristics of these rocks that determine their susceptibility to seismic failure (criteria from Harp and Noble, 1993) indicates no significant differences between the rock-mass quality in Pacoima Canyon and that of surrounding canyons that experienced far fewer slides. Pacoima Canyon does, however, have much steeper, higher slopes than surrounding canyons, and this may make the slopes there inherently less stable as well as contributing to locally-amplified strong shaking. Certainly shaking levels were high at Pacoima Dam, where strong-motion records on bedrock at the south abutment produced peak accelerations of about 1.5 *g* (Shakal and others, 1994). Interestingly, the 1971 San Fernando earthquake also produced anomalously high ground accelerations in Pacoima Canyon (Cloud and Hudson, 1975).

The scattered landslides in the Santa Monica Mountains generally are fairly small, shallow, disrupted landslides. This presumably is because most of the rock in the Santa Monicas is more competent than that in the Santa Susanas and because the ground shaking appears to have been lower in the Santa Monicas. The highest concentration of slides is from the very high, steep slopes in Malibu Canyon.

The earthquake shaking reactivated several ancient block slides in the central and eastern Santa Monica Mountains, primarily between Topanga Canyon and Hollywood. This area, in general, is densely developed; thus, many of these slides damaged homes and roads. Unfortunately, the dense development generally made it impossible to precisely determine the geometric extent of individual landslides. Failures commonly involved blocks of weakly cemented, deeply weathered Tertiary sedimentary rock, measuring several tens of meters across, that slipped a few centimeters to several decimeters along bedding planes. One particularly notable example is along Mulholland Drive about 1.5 km east of I-405. Here, bedding-plane slip displaced a landslide block a few decimeters northward, which offset Mulholland Drive and created a series of scarps in the front yard of a home on the mountain crest (below).

Shaking-induced settlement and slumping of cut-and-fill embankments were common, especially within some of the subdivisions in the Santa Clarita Valley, where fill settlements and displacement along cut/fill contacts damaged numerous residences. Even though the fills presumably were compacted according to strict codes, shaking was severe enough within the area to induce enough displacement in some fills to severely damage many homes and make them unsafe. Rebuilding on lots that failed in the earthquake has required significant mitigation efforts and considerable expense. In some cases, deep pilings have been used to stabilize building sites before reconstruction proceeded. In some areas of the Santa Monica Mountains, ancient landslides were covered with artificial fill when areas were developed, and settlement or movement of fill, possibly related to reactivation of underlying landslides, severely damaged homes and infrastructure.

U. S. Geological Survey

Vulnerability

The USGS Seismic Hazard Zone Maps on the following pages show specific areas vulnerable to damage from Landslides. These maps depict seismic risk; however, when used in the context of topography and coupled with meteorological predispositions, they can also indicate potentially risk-prone areas to weather-caused landslides. A past tendency for high-end residential development in or around slide-prone areas increases the risk for high losses.

Impact

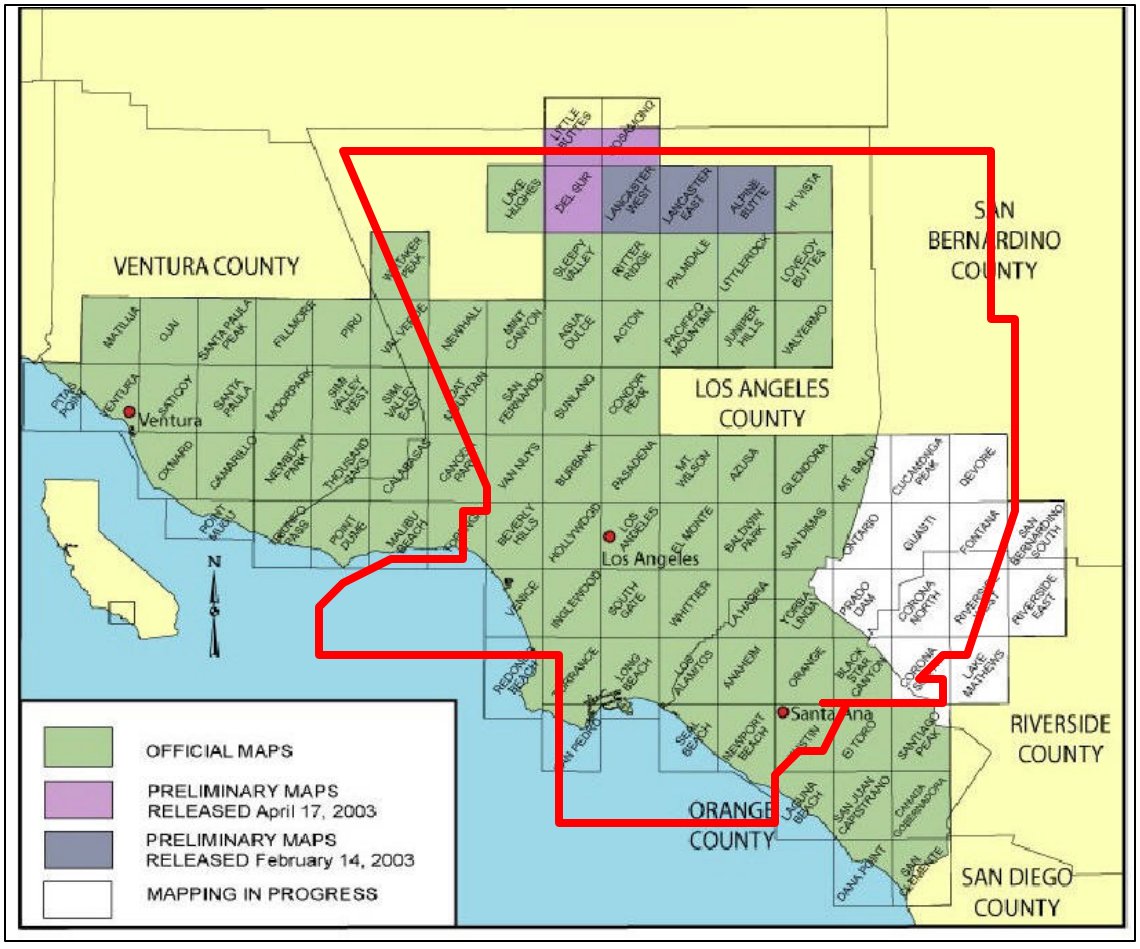
Using the historical information available, it is estimated that 165,000 people reside or work within areas at risk from landslide damage. Other estimated potential losses are as follows:

Potential dollar losses to County-owned facilities	$18.2 Million
Potential dollar losses to Critical Facilities and Infrastructure	$4.9 Million
Potential dollar losses to Commercial Property	> $1 Million
Potential dollar losses to Residential or Private Property	$46.6 Million
Potential other dollar losses (Environmental, Historical, Economic, Human)	$22 Million
TOTAL POTENTIAL DOLLAR LOSSES FOR THIS HAZARD	**$87.5 MILLION**

Official Seismic Hazard Maps

These Seismic Hazard Zone Maps may not show all areas that have the potential for liquefaction, landslide, strong earth ground shaking or other earthquake and geologic hazards. Also, a single earthquake capable of causing liquefaction or triggering landslide failure will not uniformly affect the entire area zoned.

U.S. Geological Survey base map standards provide that 90 percent of cultural features be located within 40 feet (horizontal accuracy) at the scale of this map (1:24,000). The identification and location of liquefaction and earthquake-induced landslide zones are based on available data. However, the quality of the data is varied. The zone boundaries depicted have been drawn as accurately as possible at this scale.



MAP EXPLANATION

Zones of Required Investigation:

Liquefaction

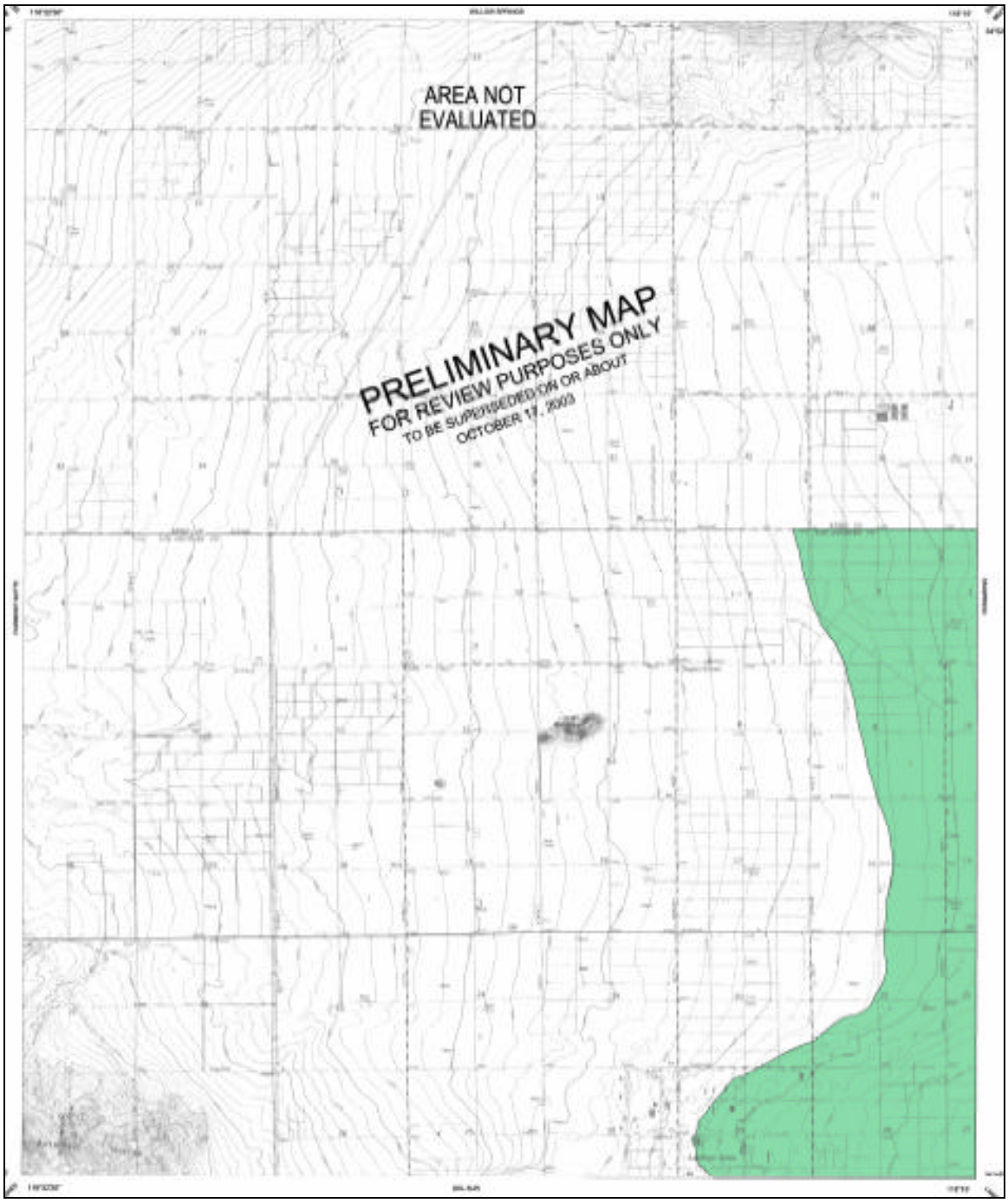
Areas where historical occurrence of liquefaction, or local geological, geotechnical and ground-water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Earthquake-Induced Landslides

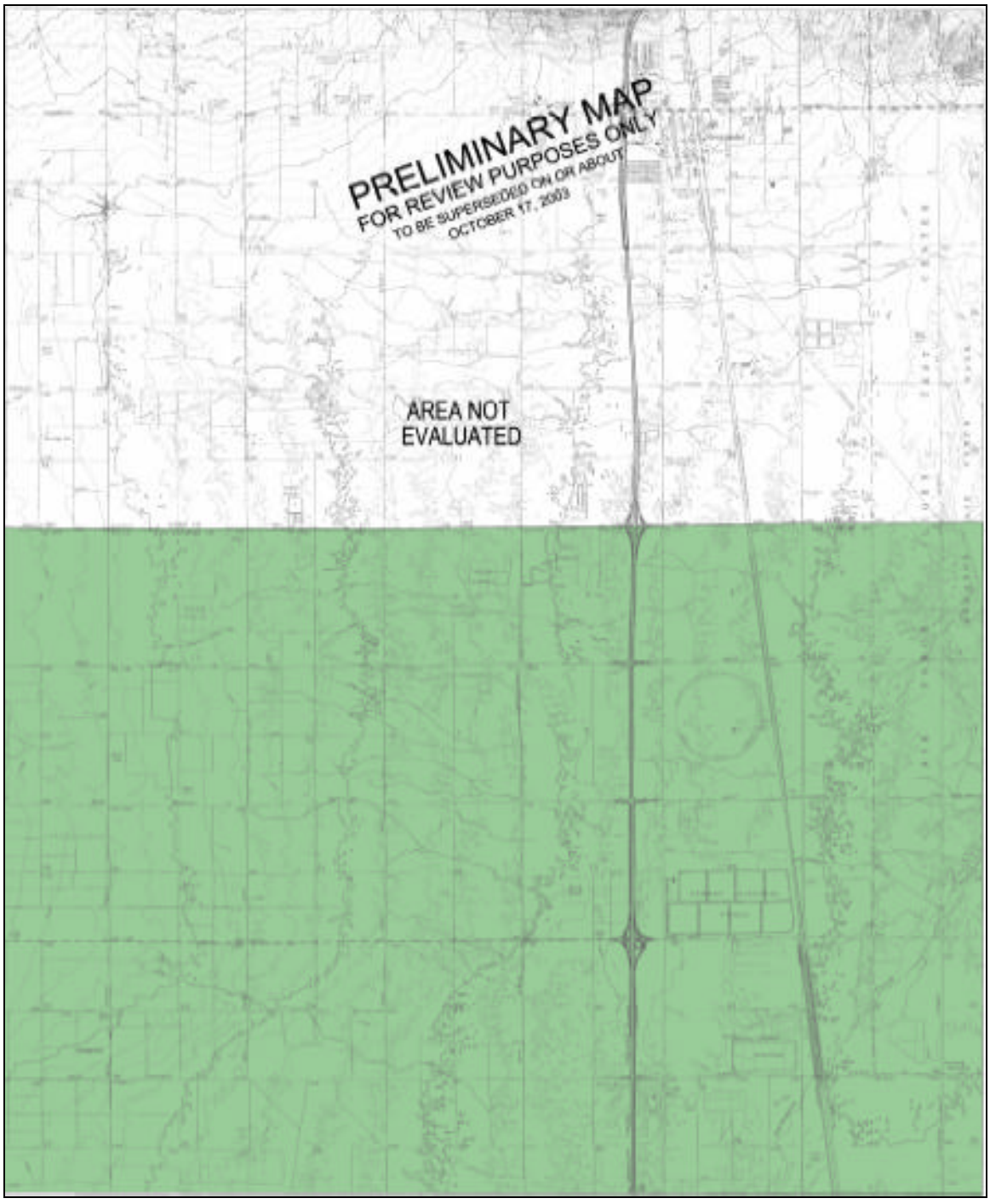
Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

NOTE: Seismic Hazard Zones identified on this map may include developed land where delineated hazards have already been mitigated to city or county standards. Check with your local building/planning department for information regarding the location of such mitigated areas.

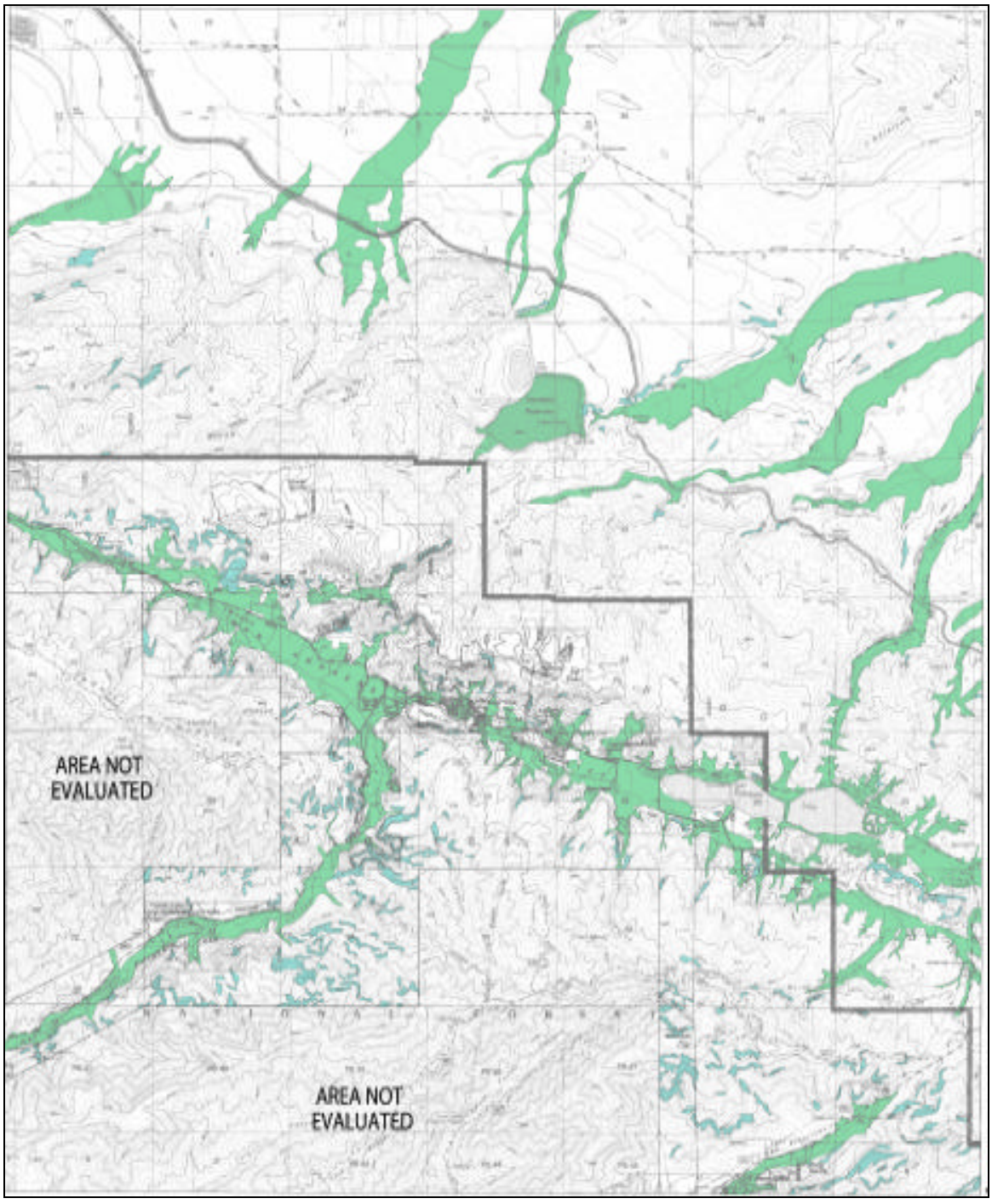
Little Buttes



Rosamond


PRELIMINARY MAP
FOR REVIEW PURPOSES ONLY
TO BE SUPERSEDED ON OR ABOUT
OCTOBER 17, 2003
AREA NOT
EVALUATED

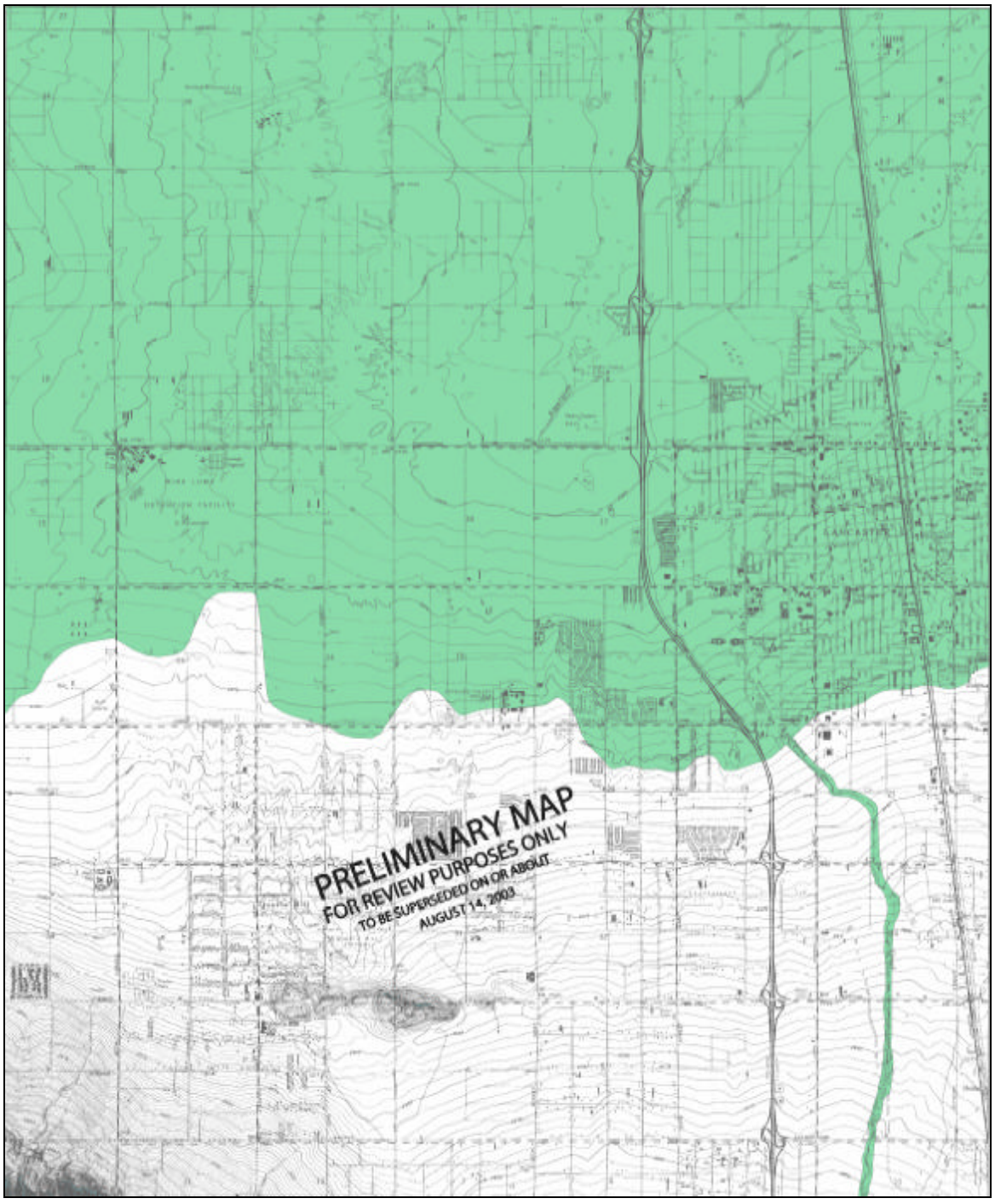
Lake Hughes



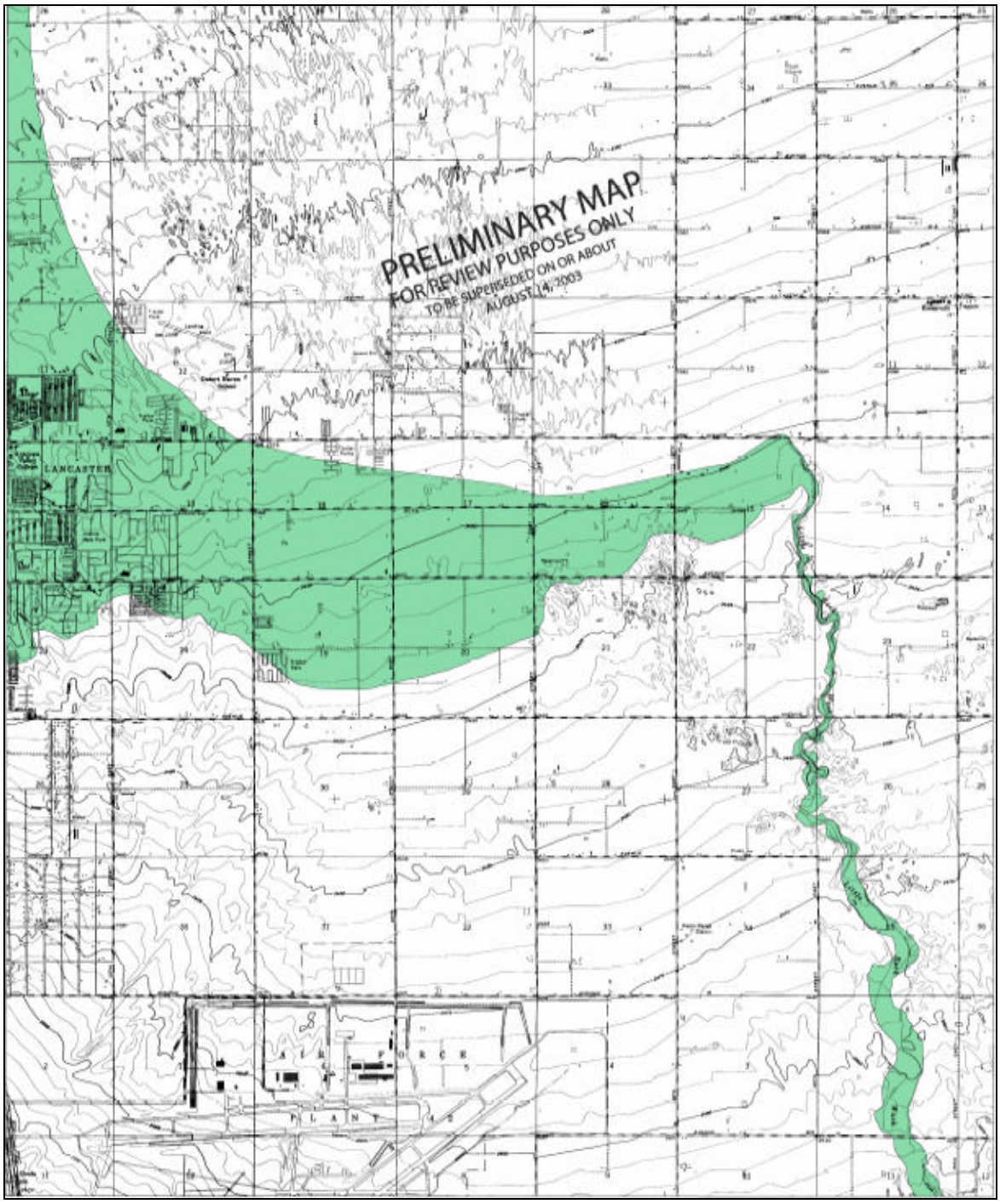
Del Sur


PRELIMINARY MAP
FOR REVIEW PURPOSES ONLY
TO BE SUPERSEDED ON OR ABOUT
OCTOBER 17, 2003

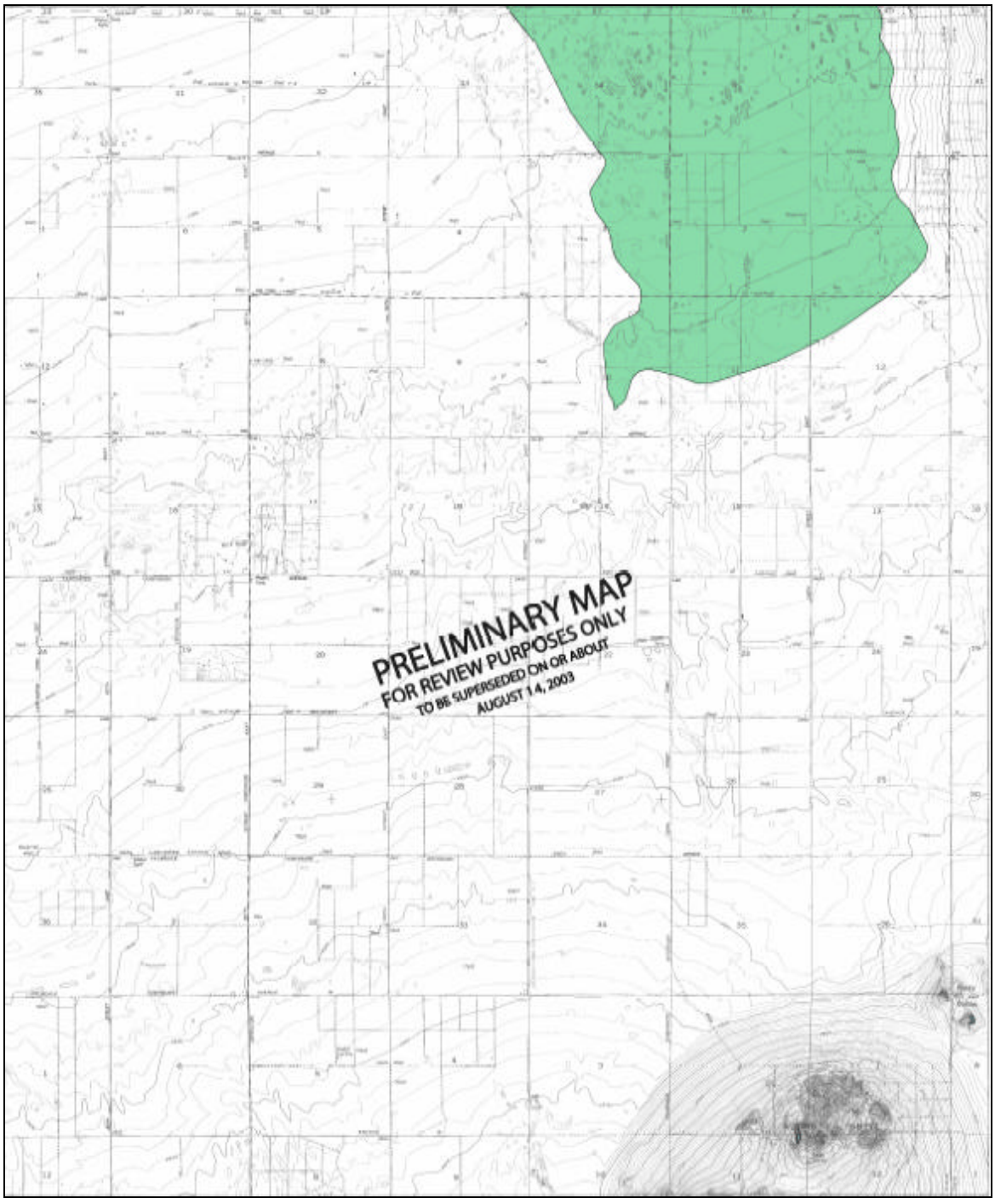
Lancaster West



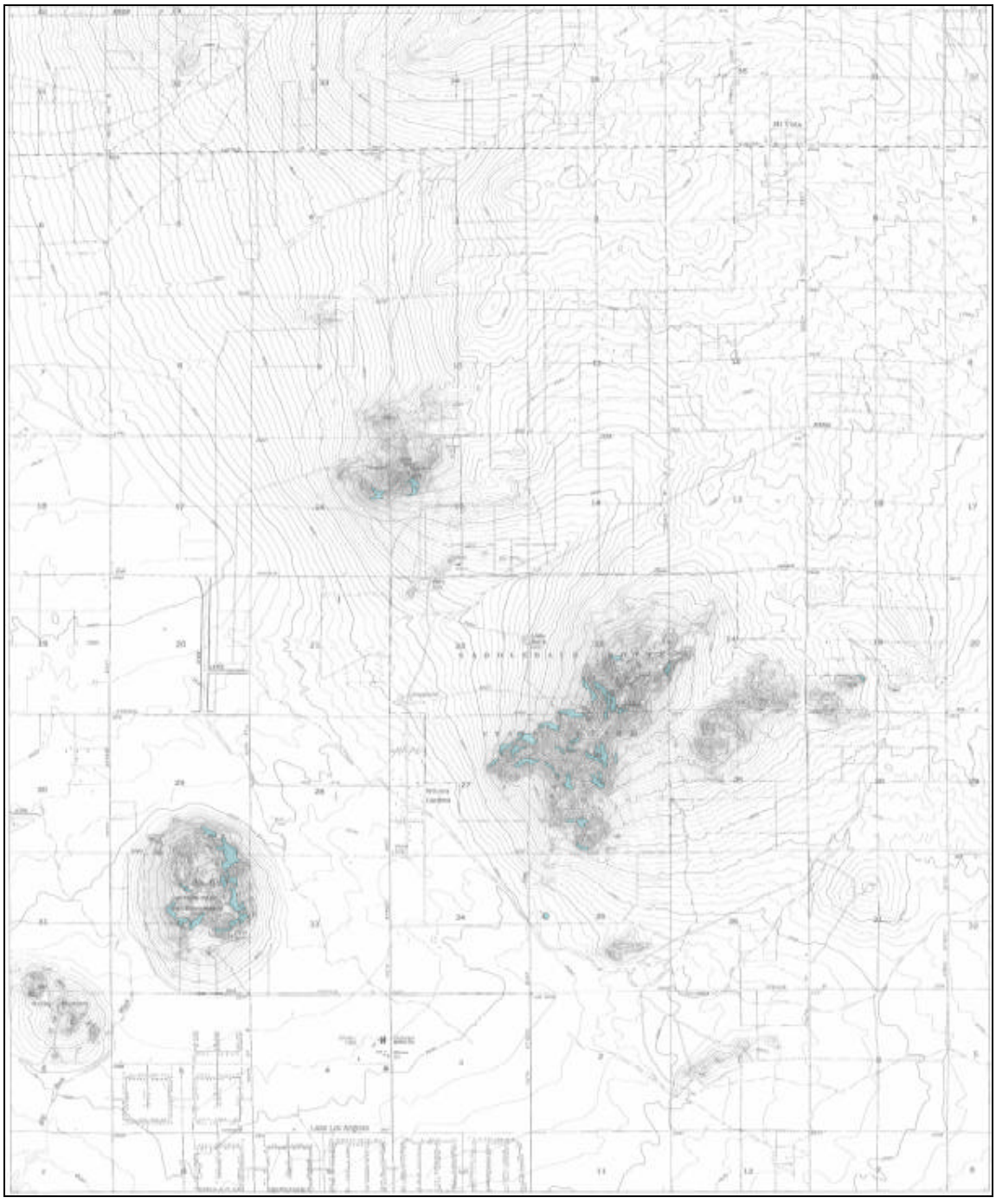
Lancaster East



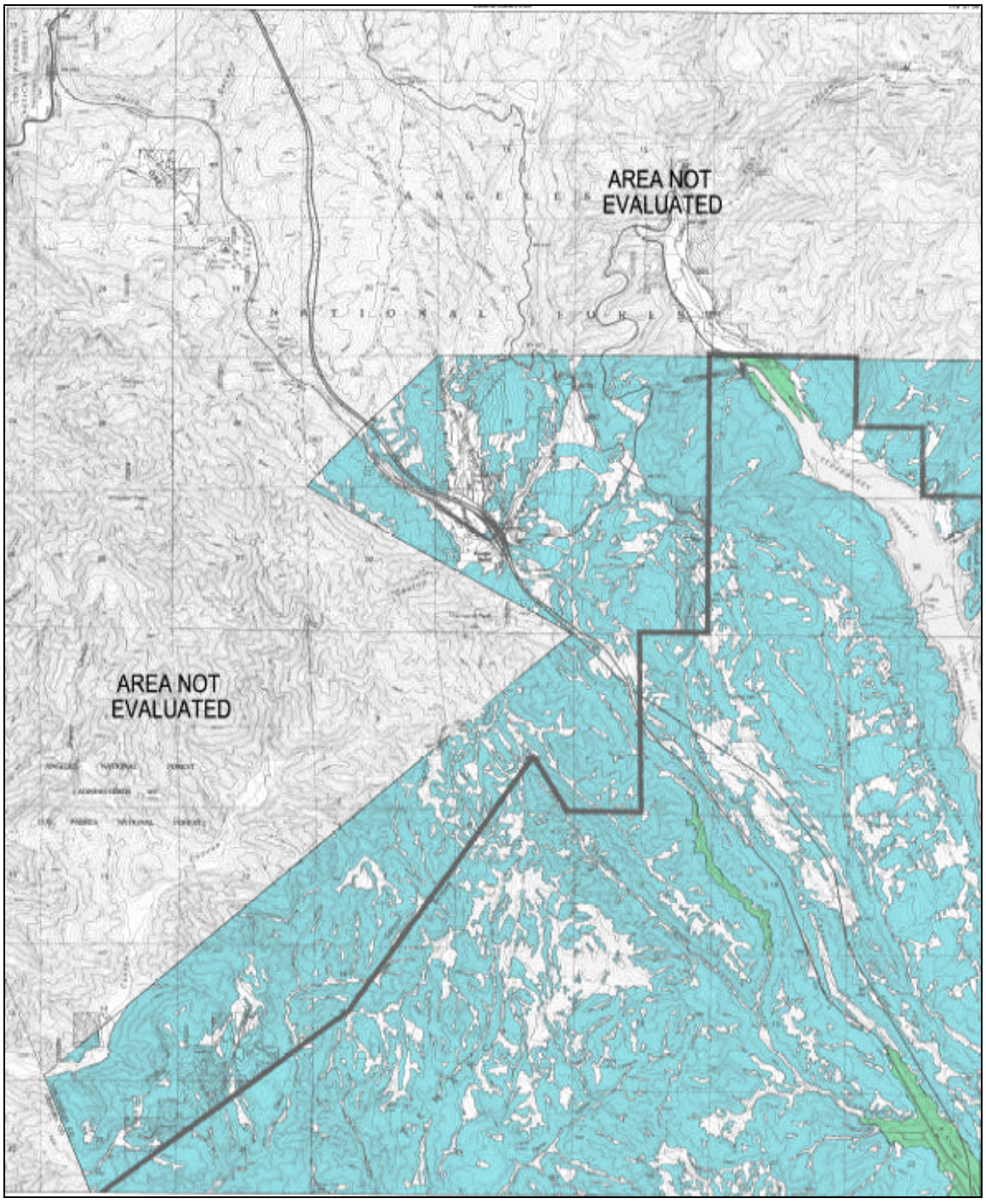
Alpine Butte



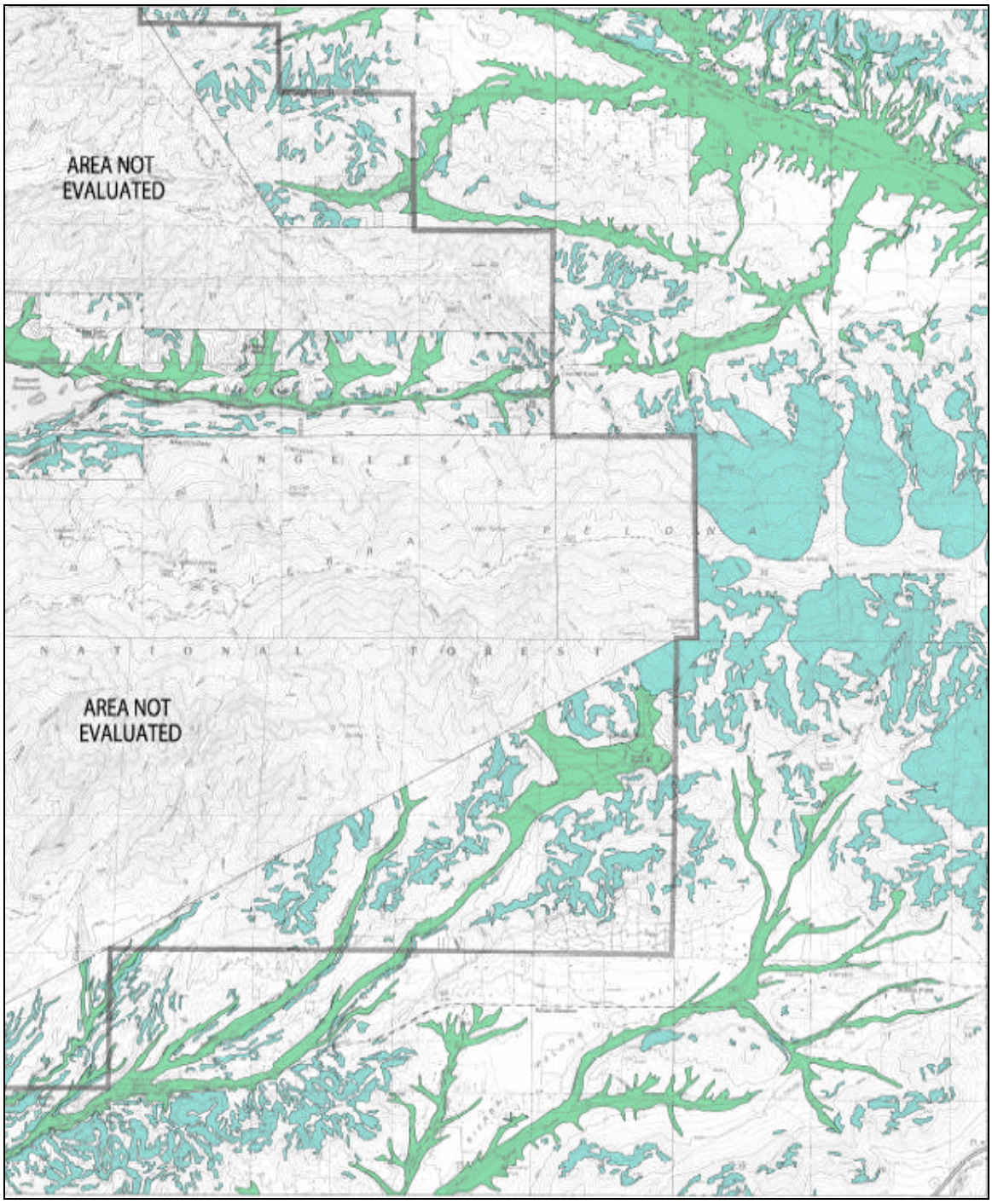
Hi Vista



Whitaker Peak



Sleepy Valley



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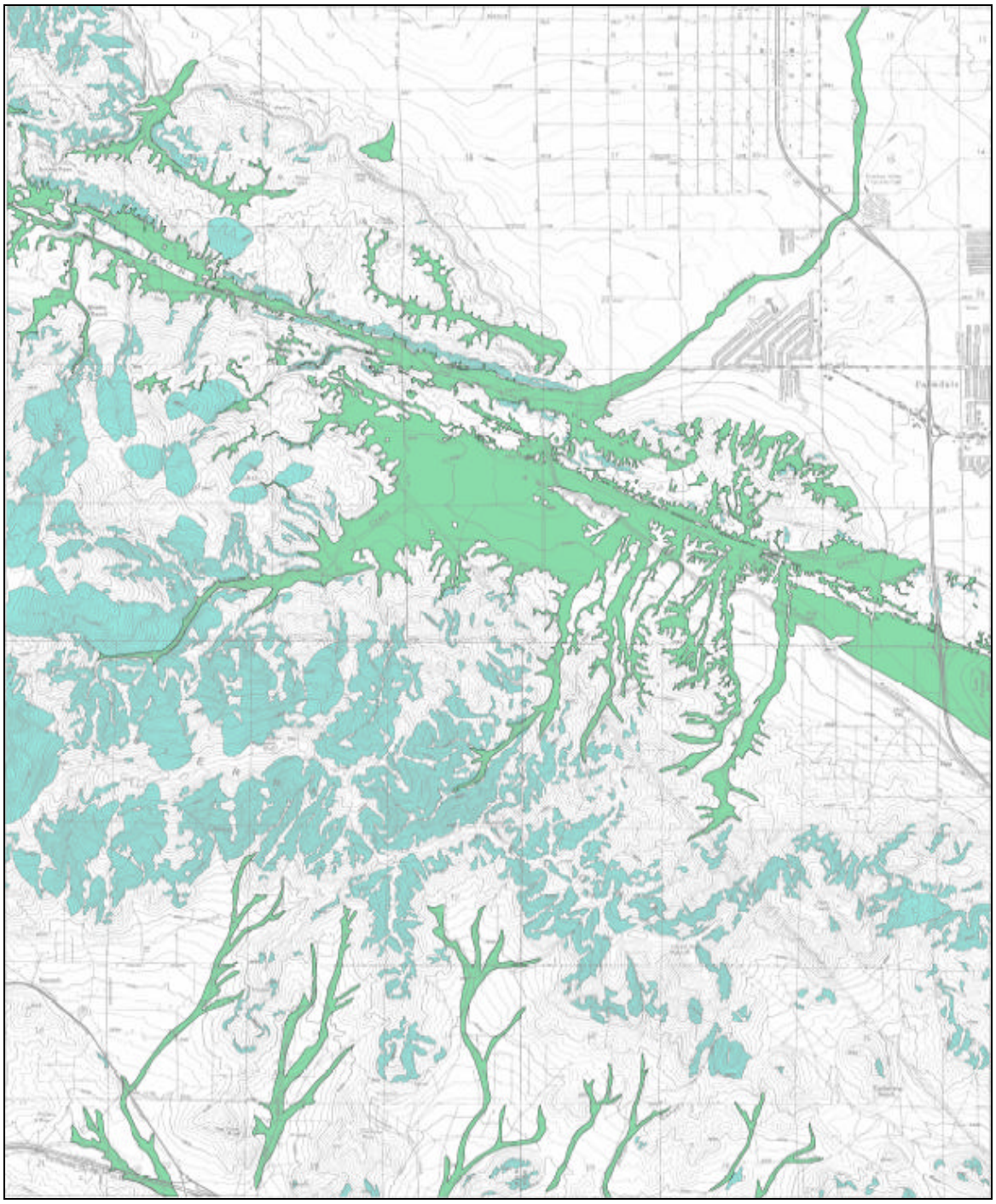
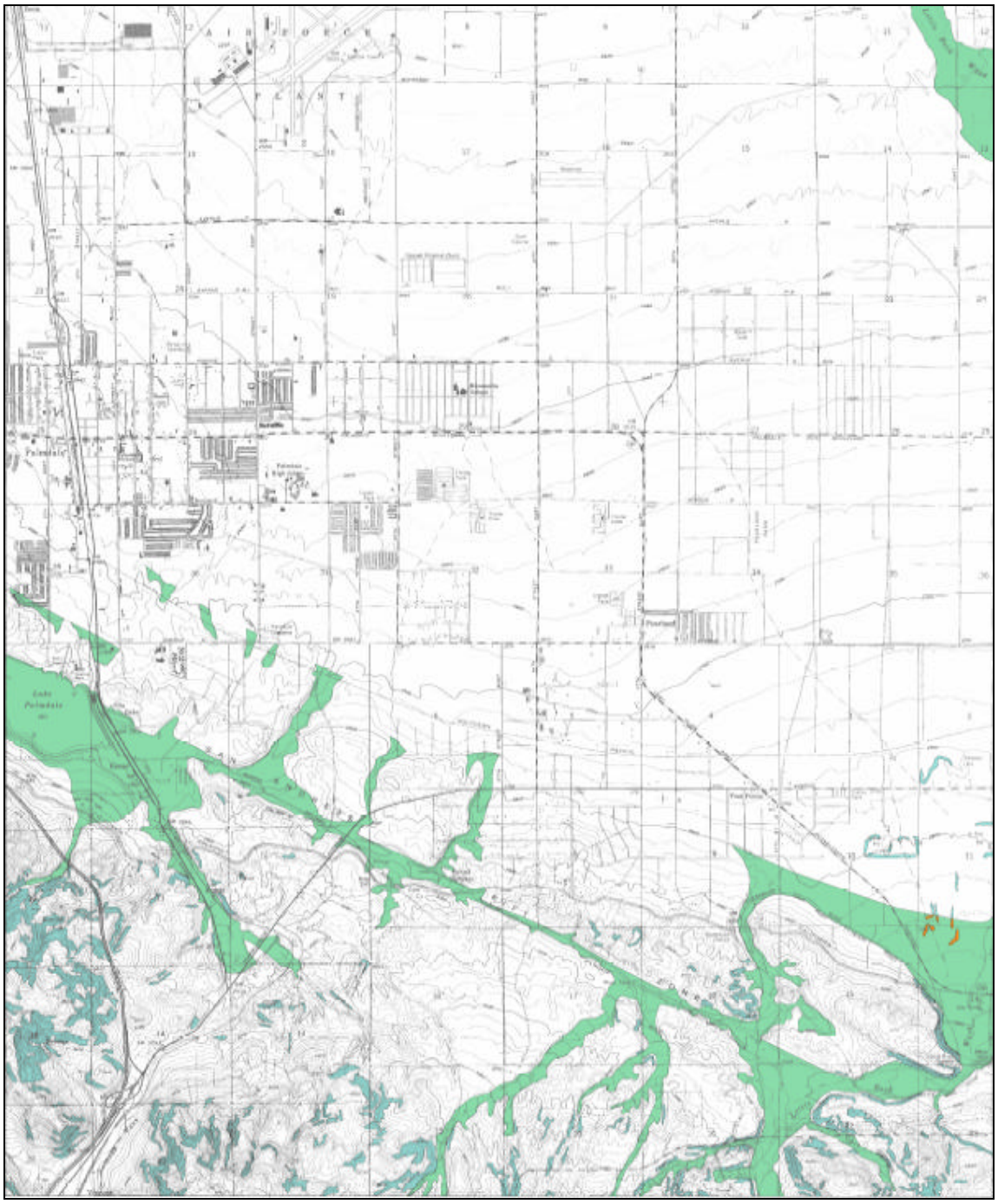


Palmdale



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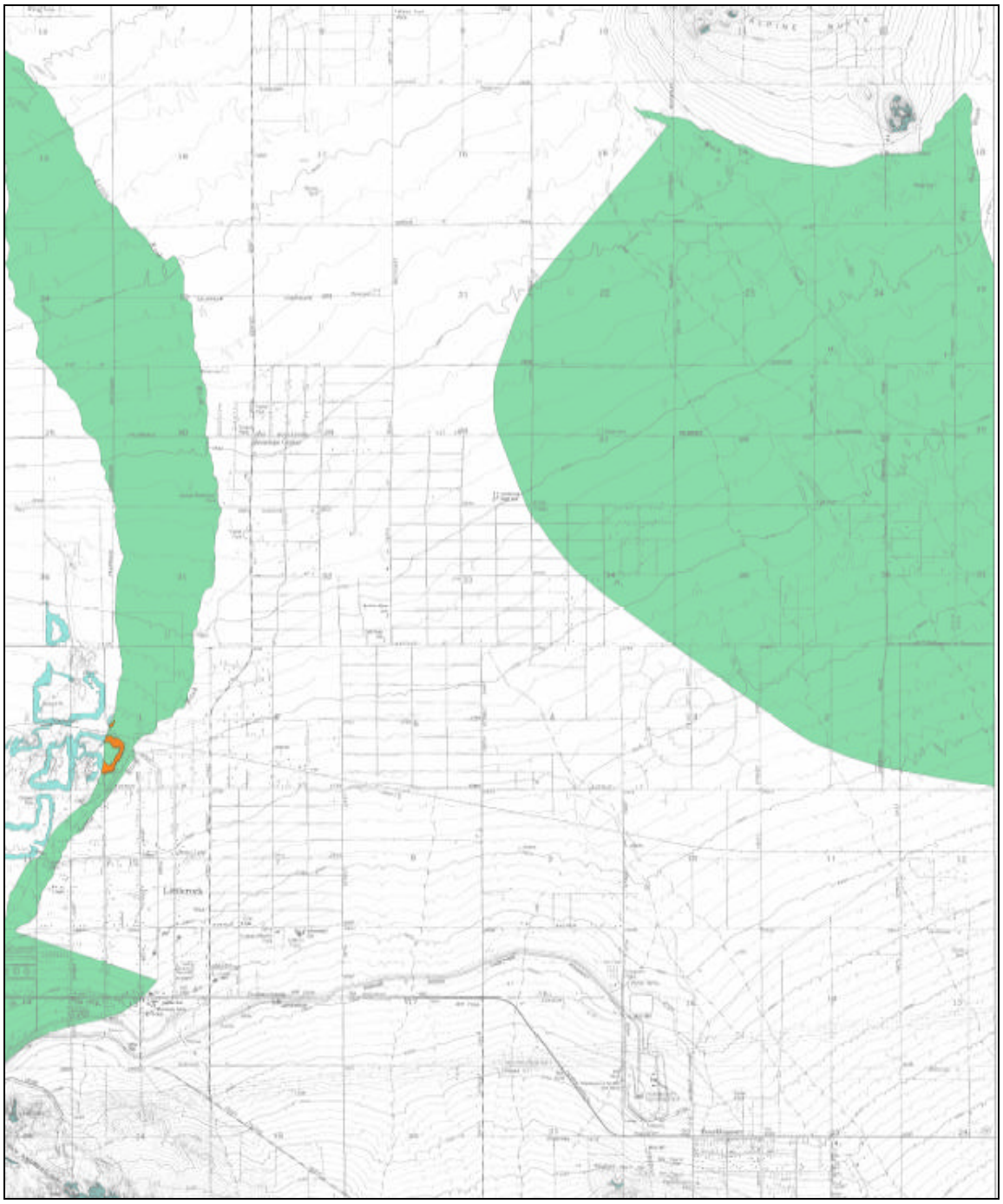
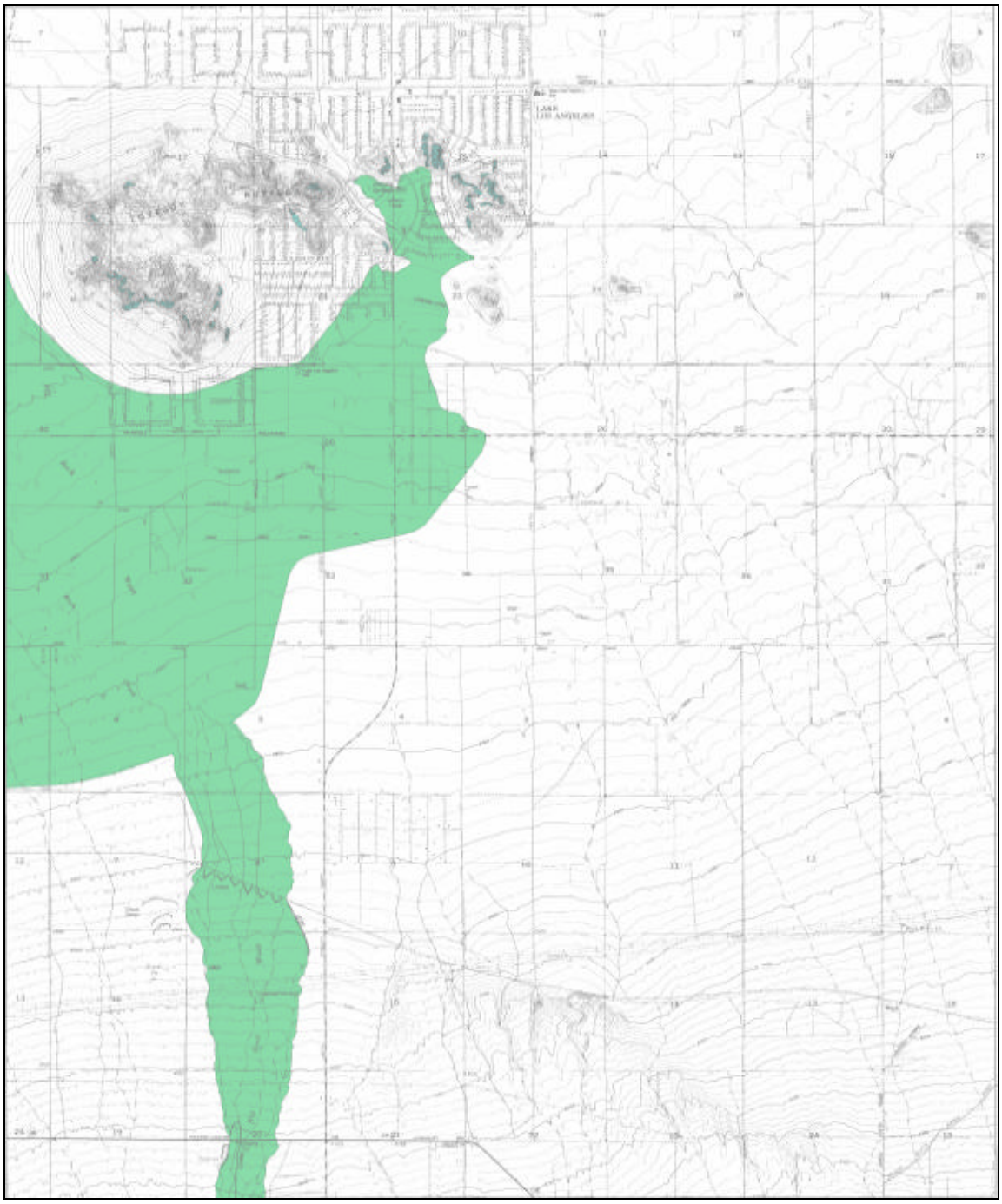
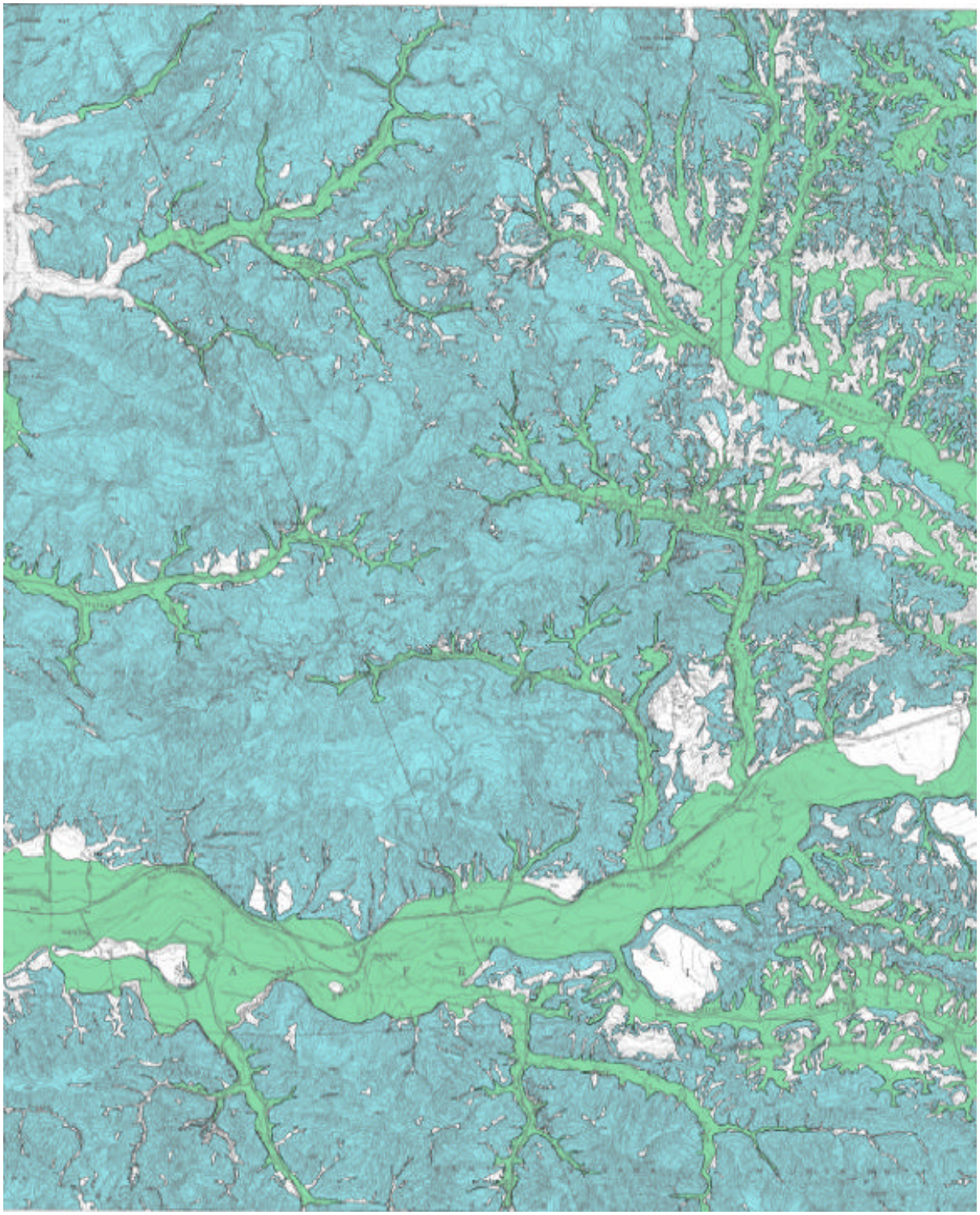


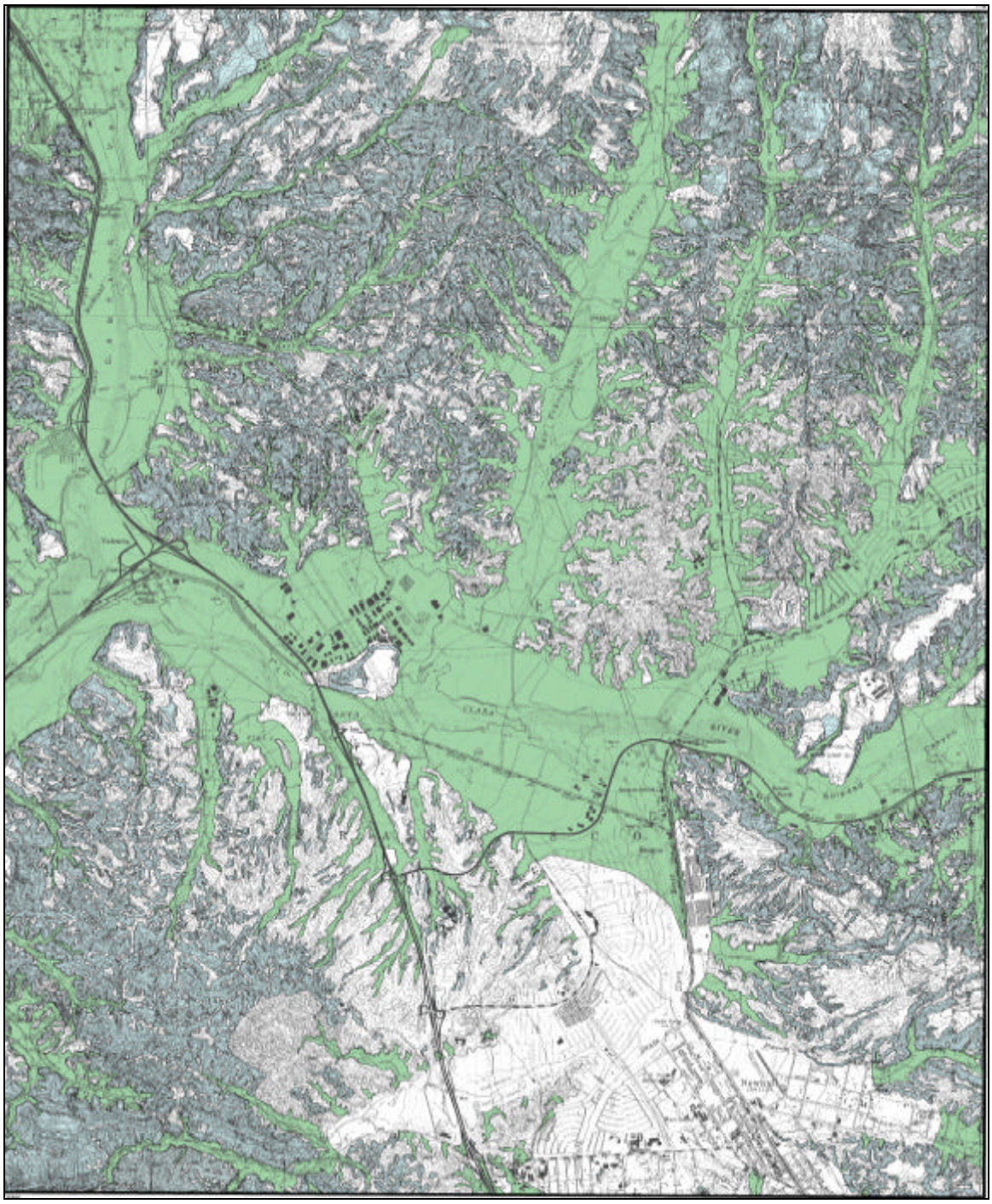
Lovejoy Buttes



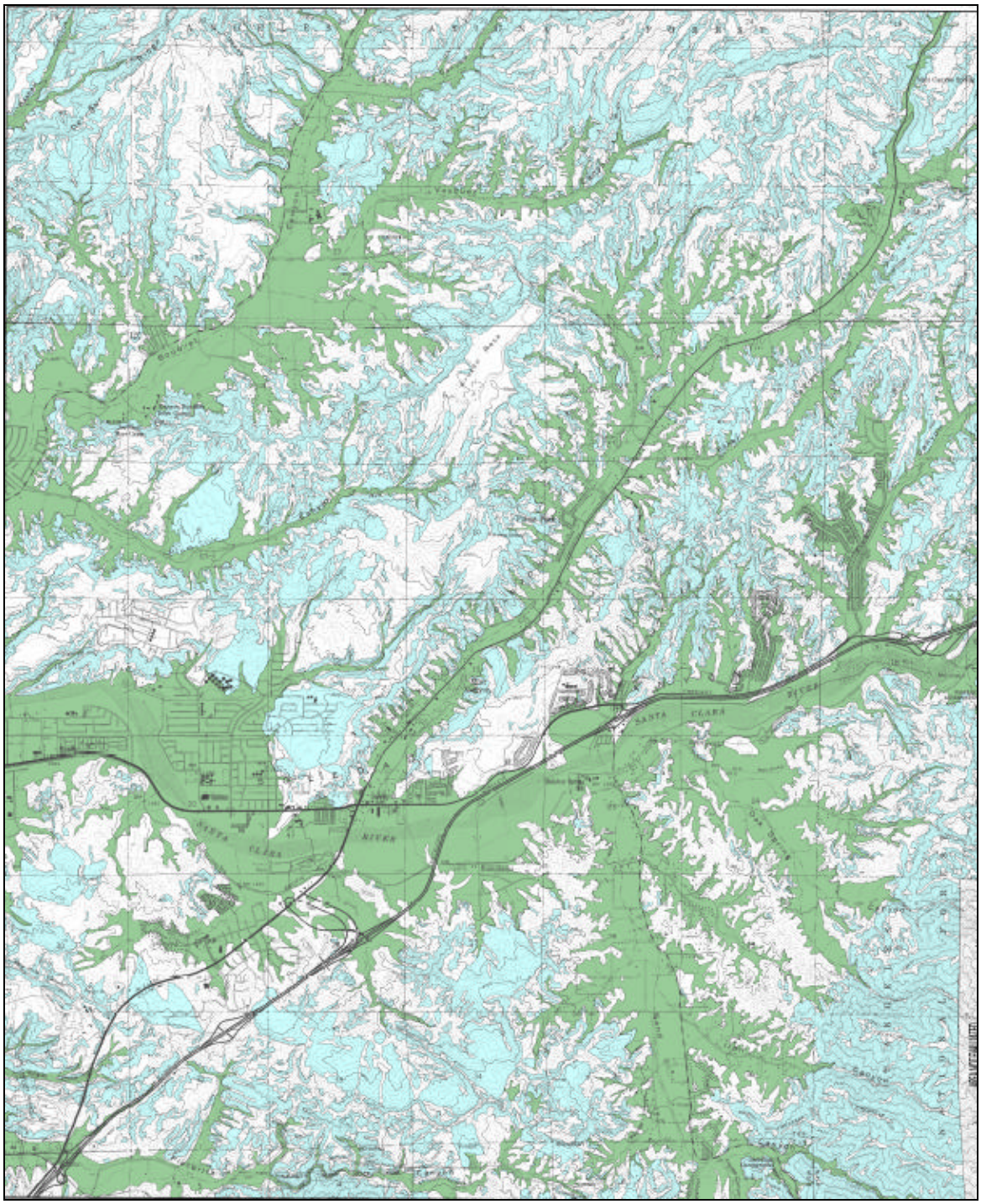
Val Verde



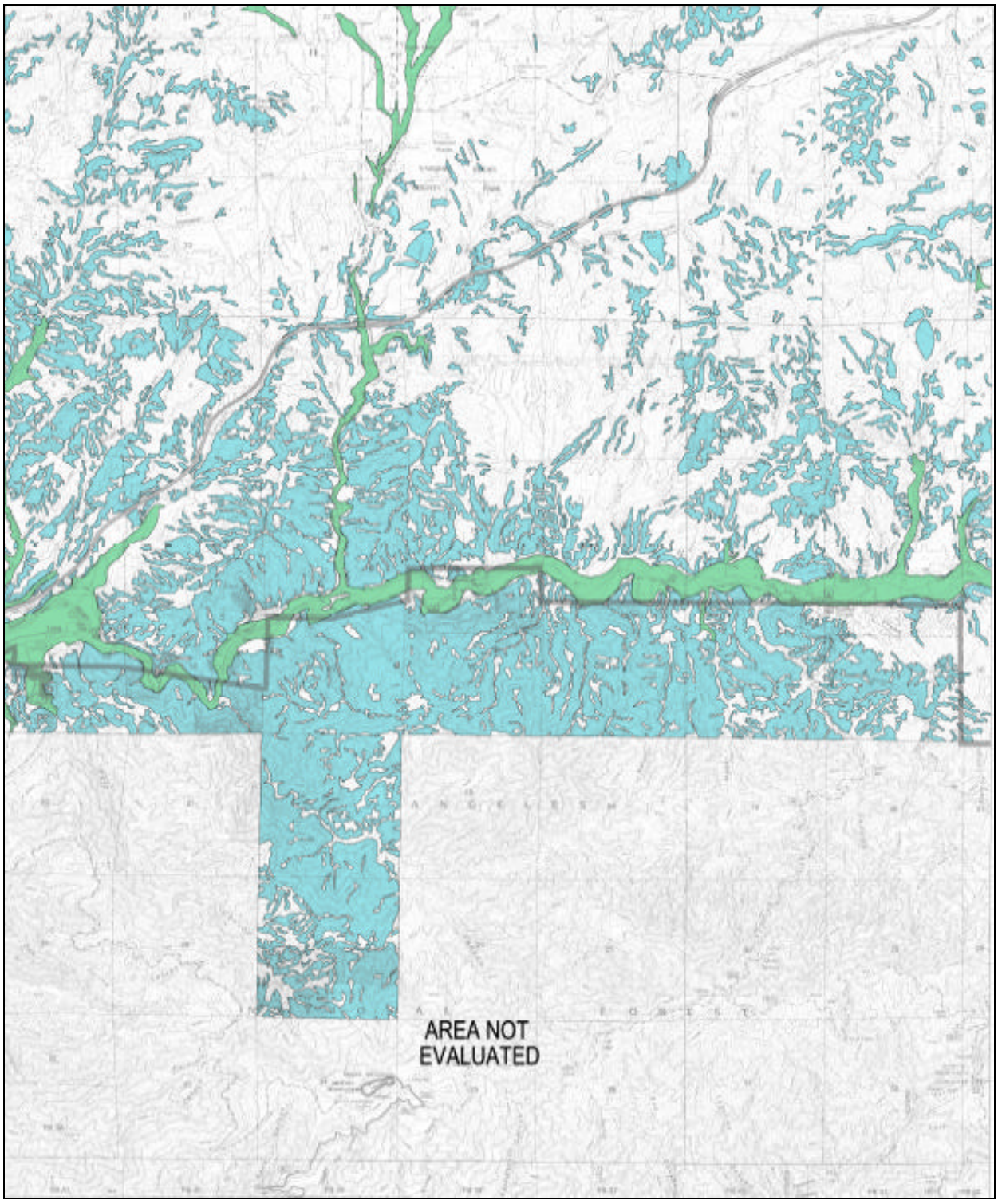
Newhall



Mint Canyon



Agua Dulce



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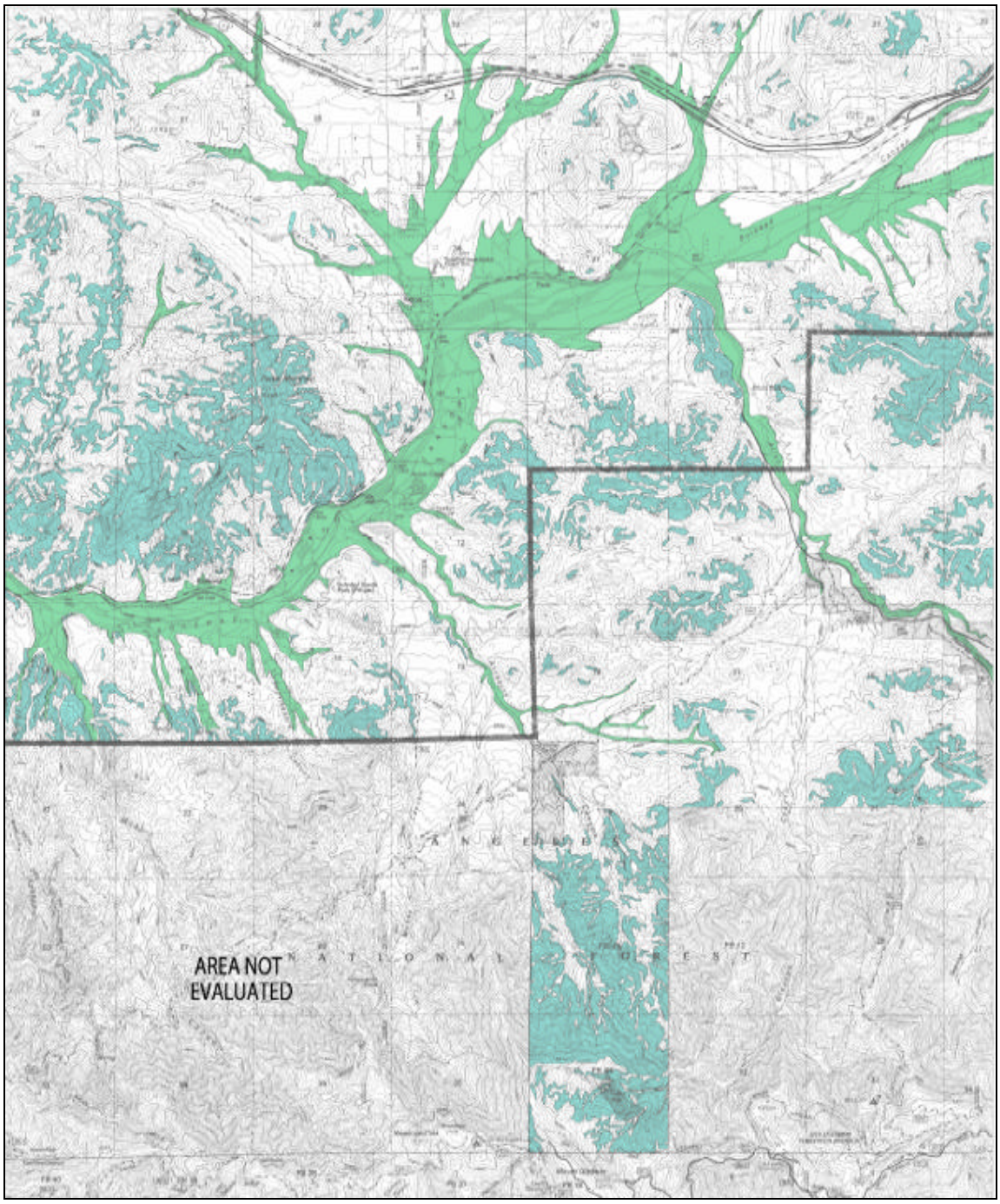
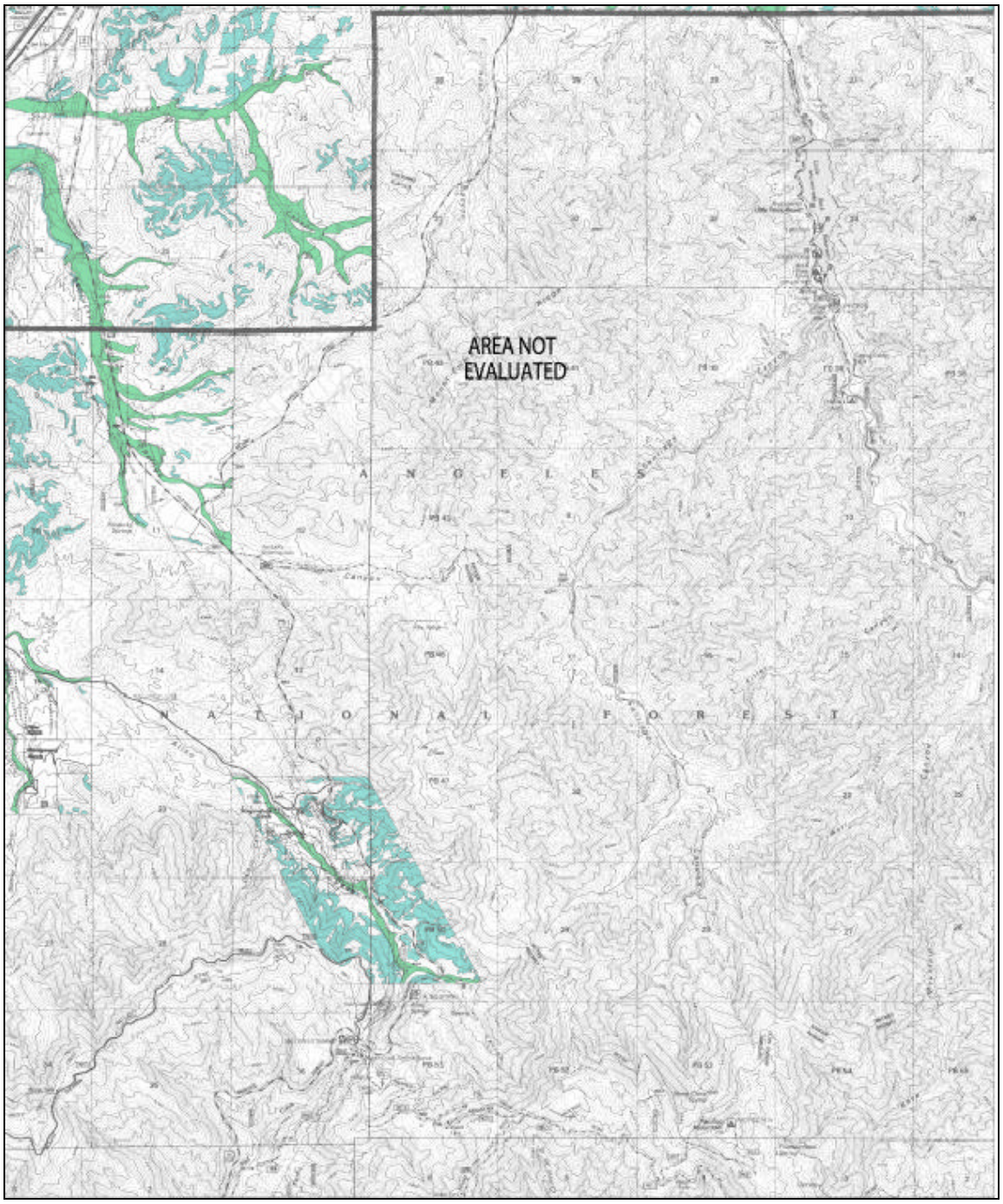


Pacifico Mountain



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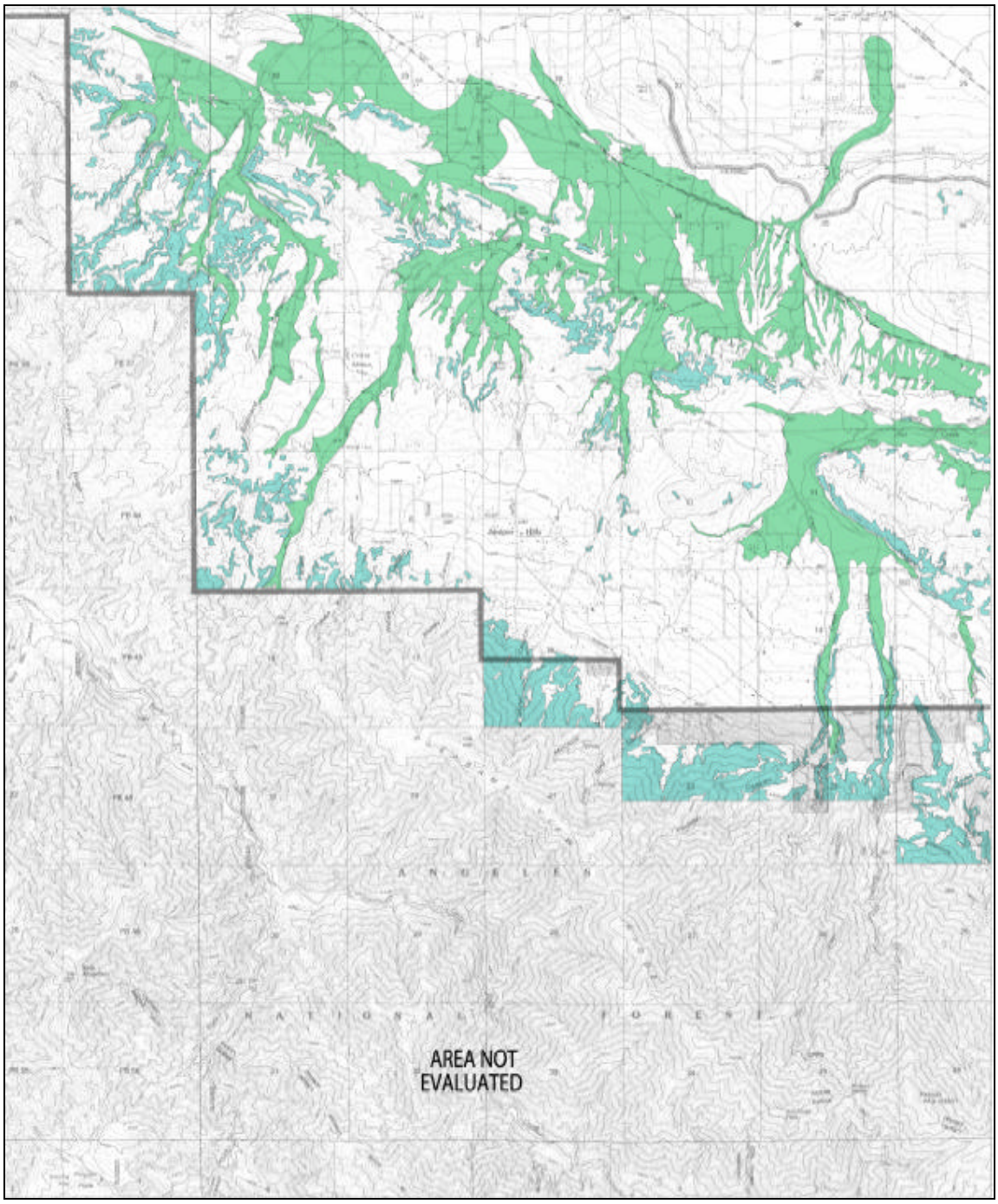
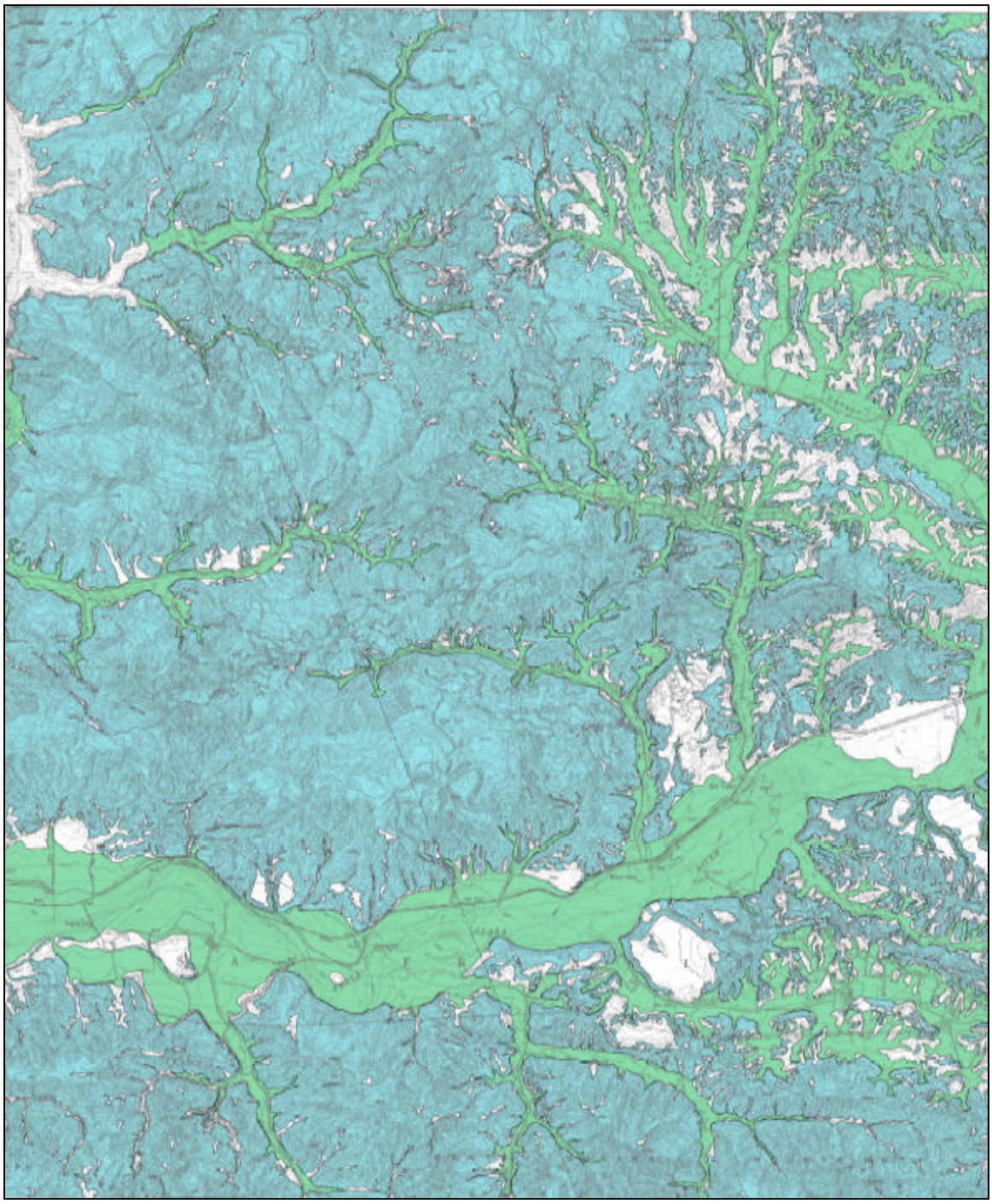
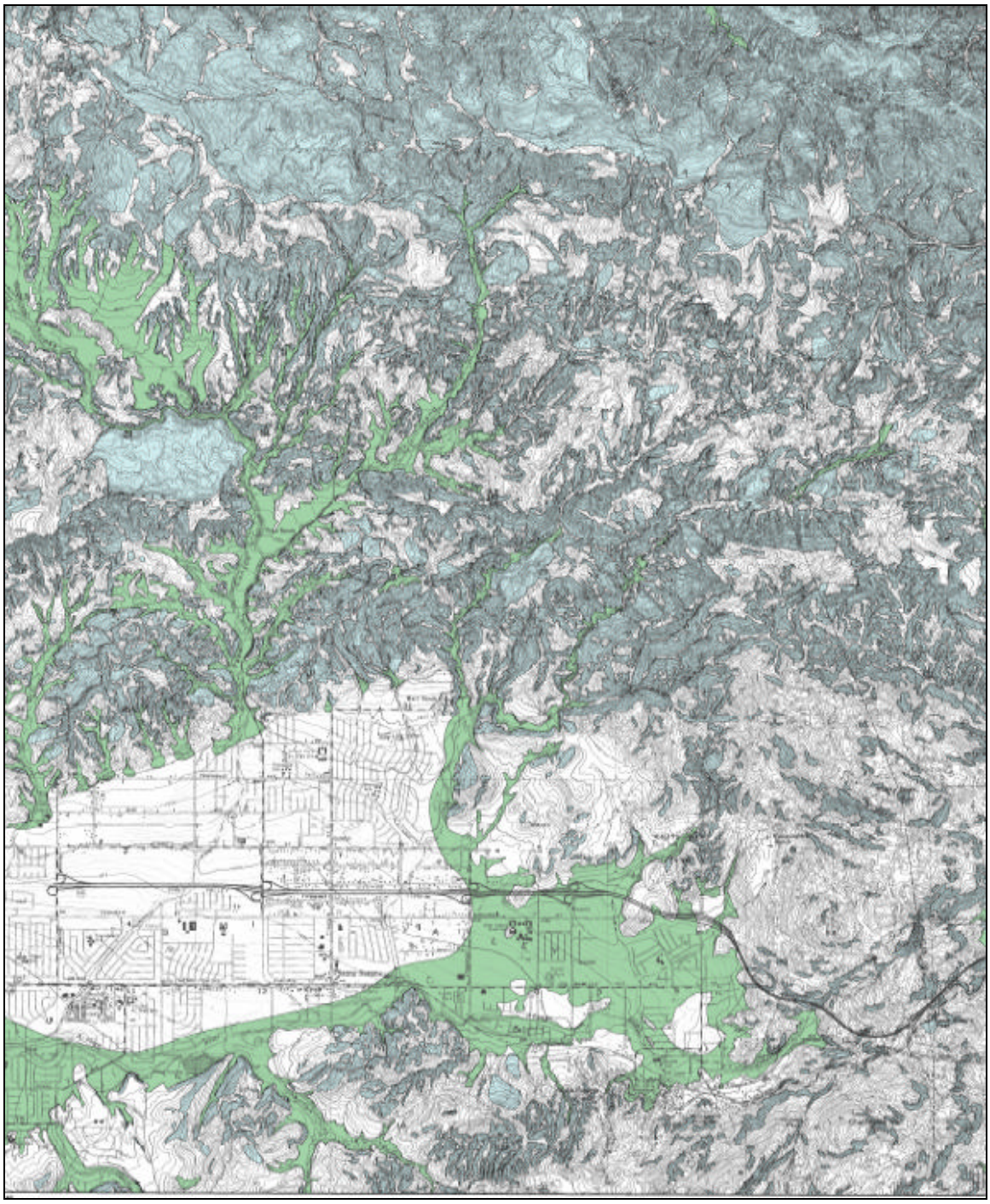


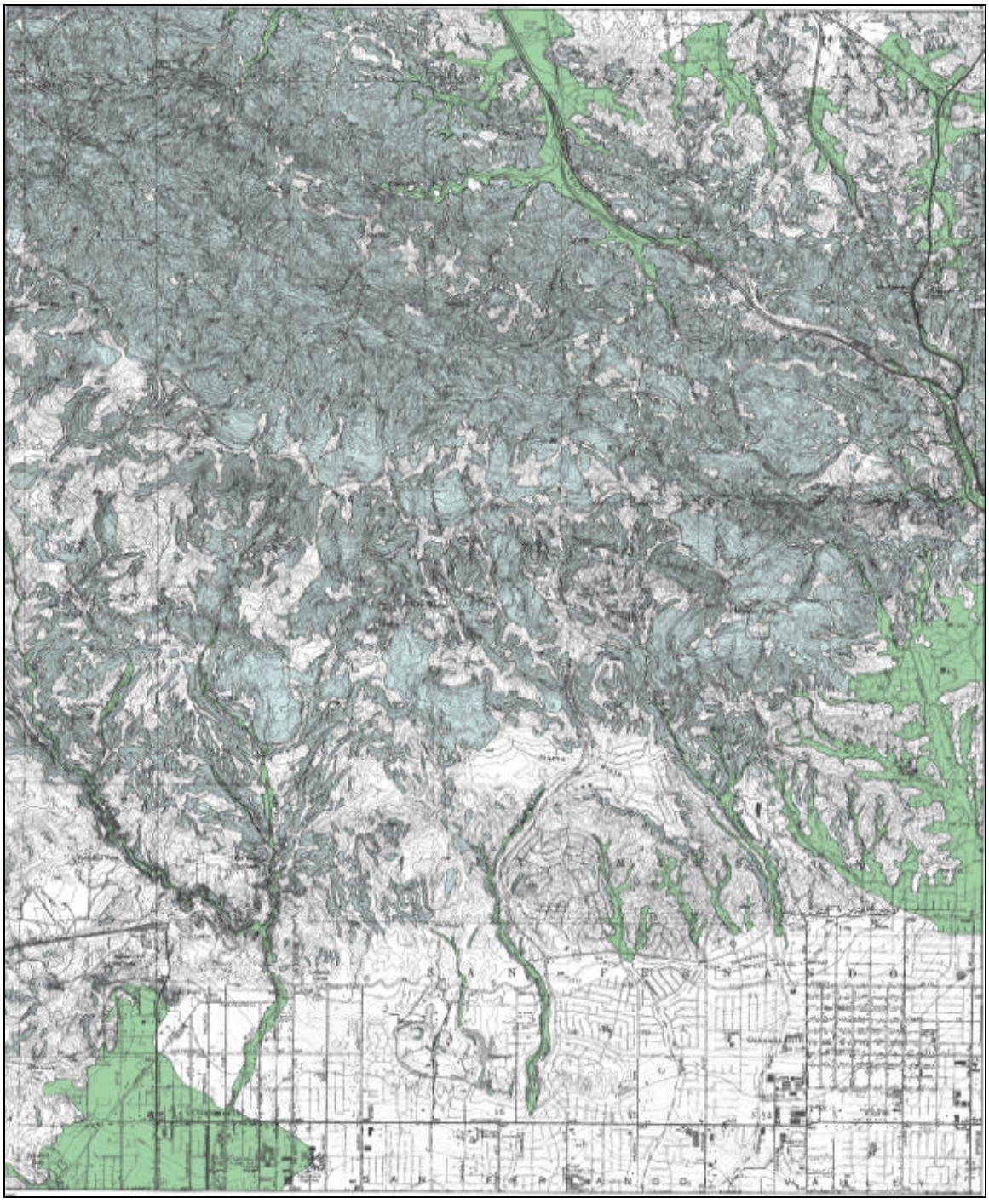
Val Verde Mountain



Simi Valley East



Oat Mountain



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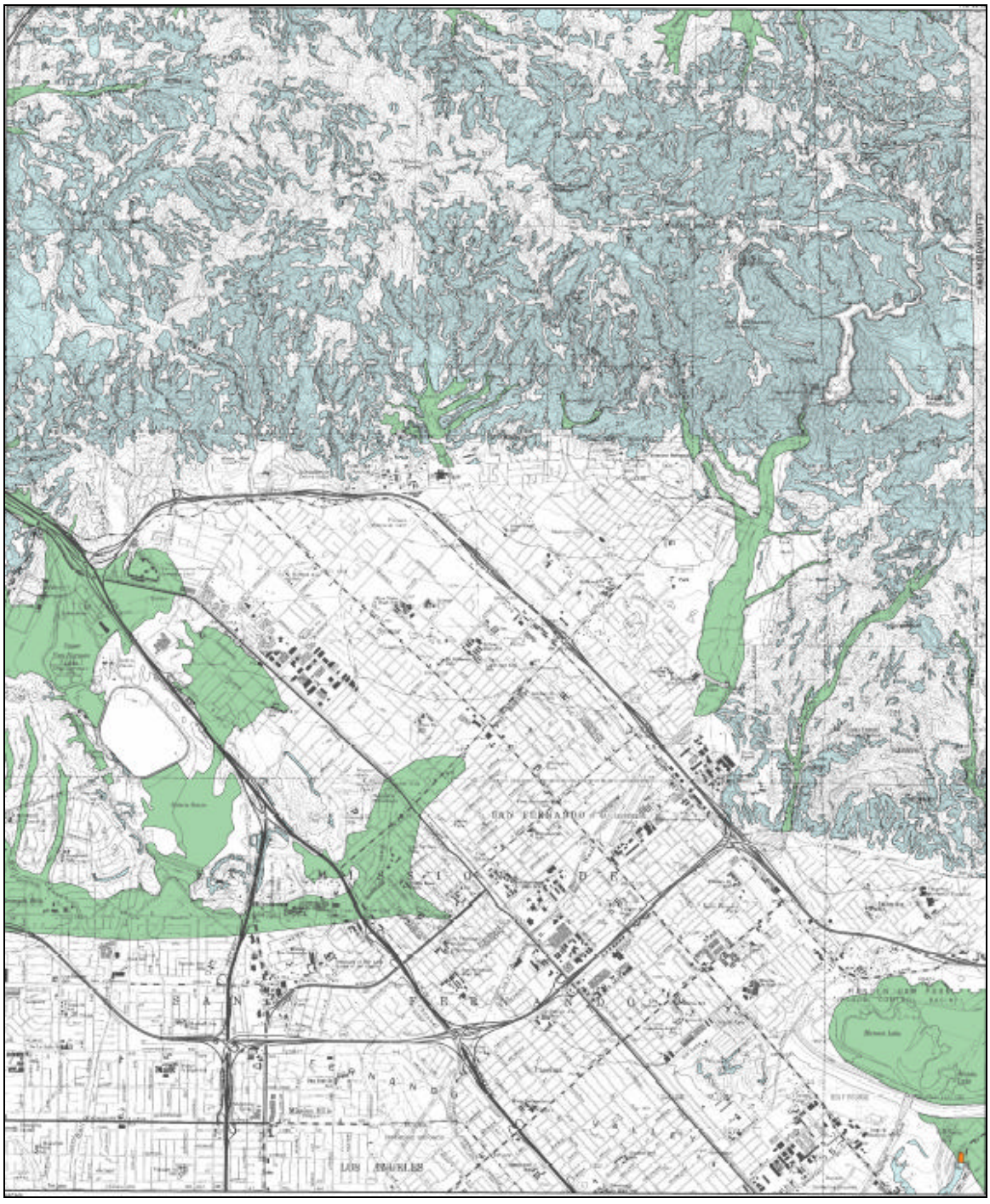
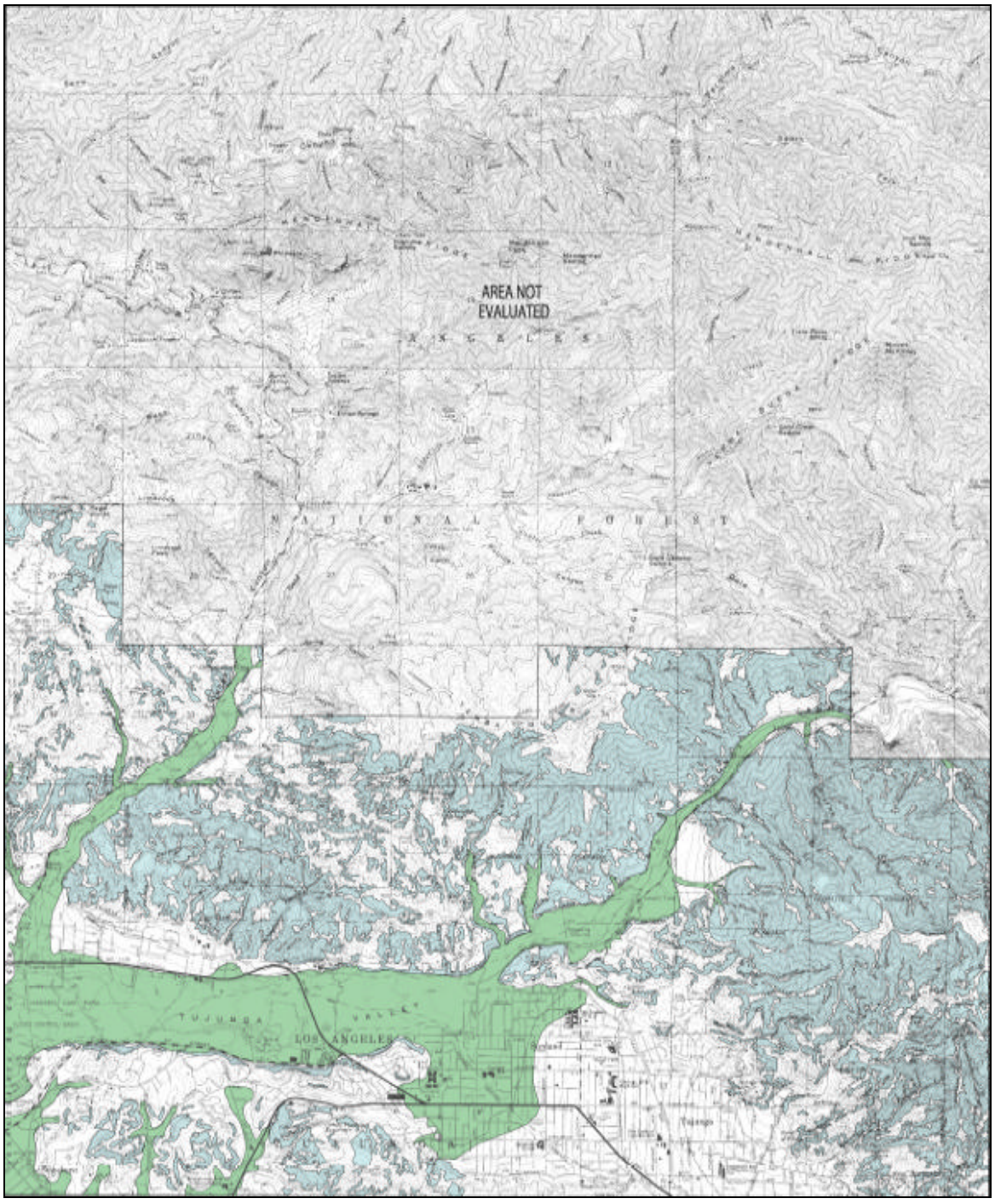


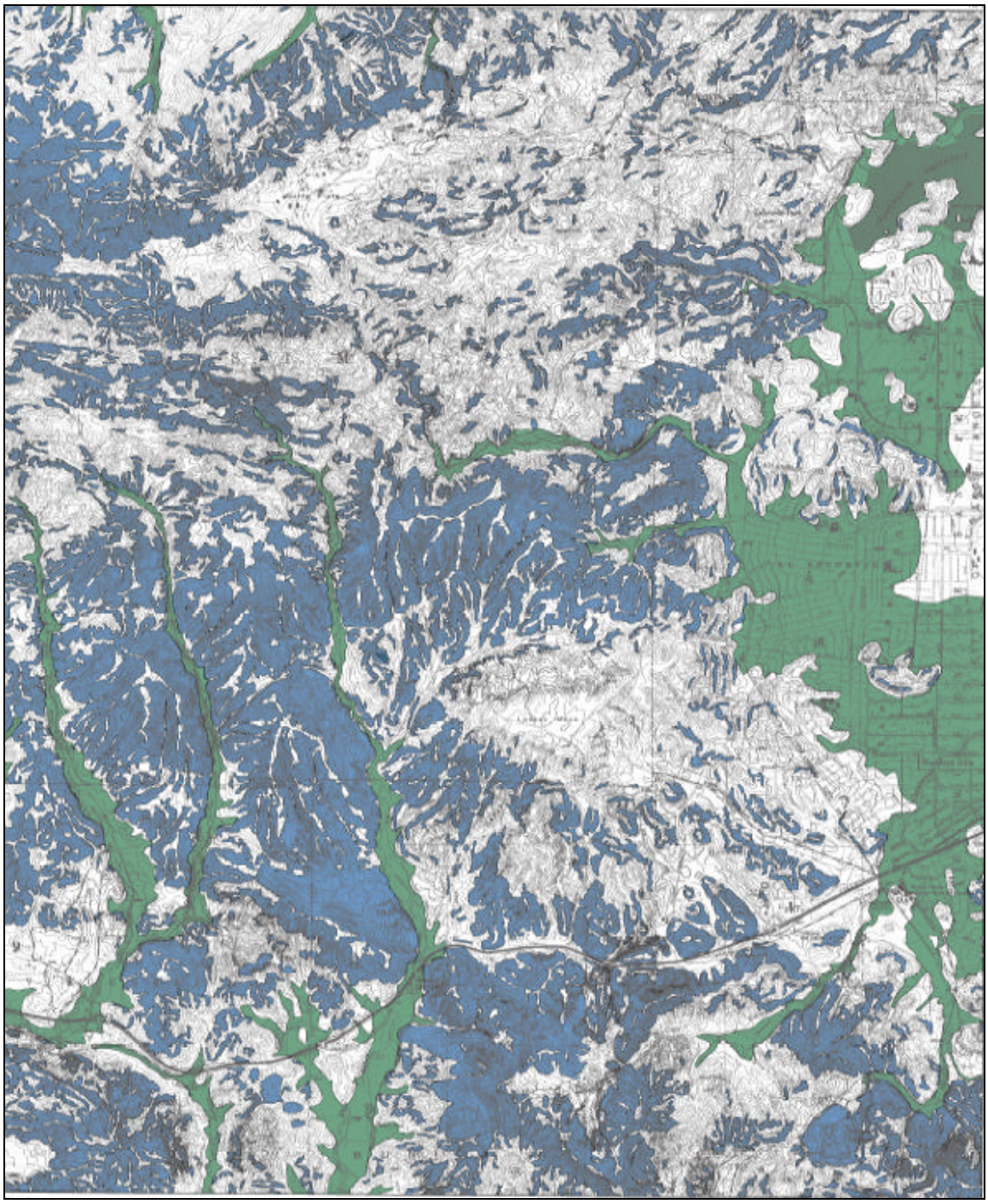
Sunland


AREA NOT
EVALUATED
NATIONAL FOREST
TUJUNGA VALLEY
LOS ANGELES

Condor Peak


AREA NOT
EVALUATED
A N G E L E S
N A T I O N A L F O R E S T
AREA NOT
EVALUATED

Calabasas



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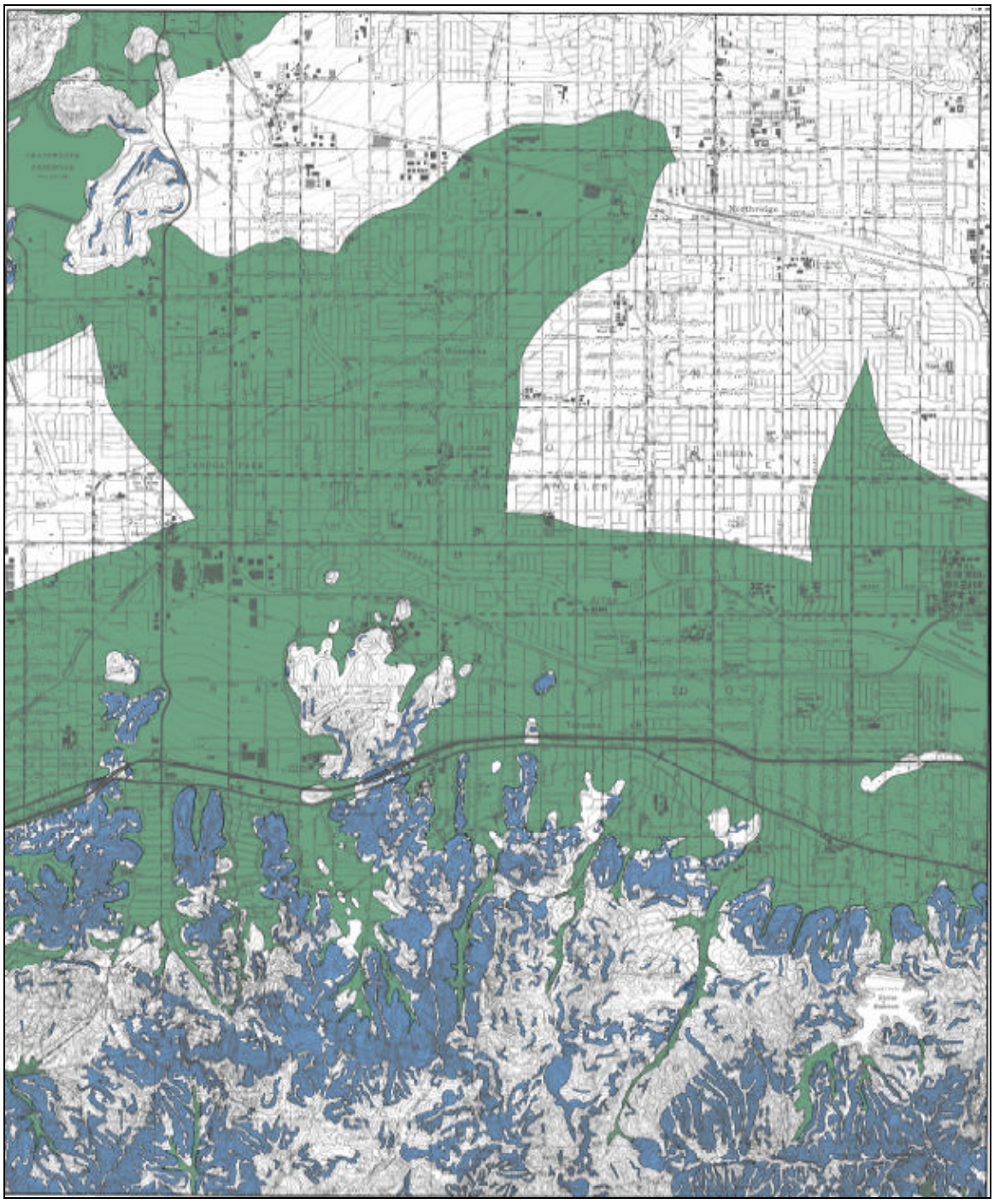
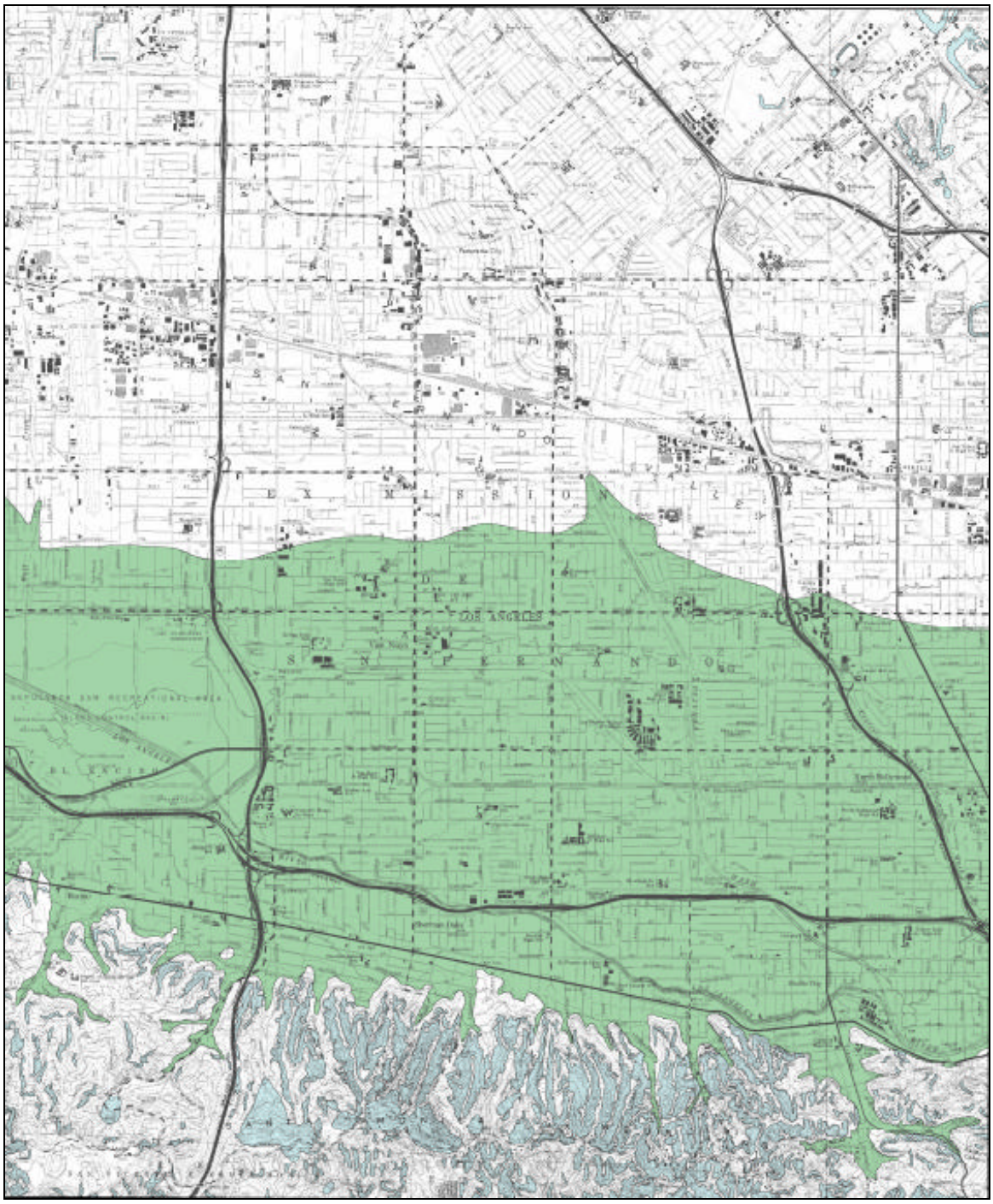
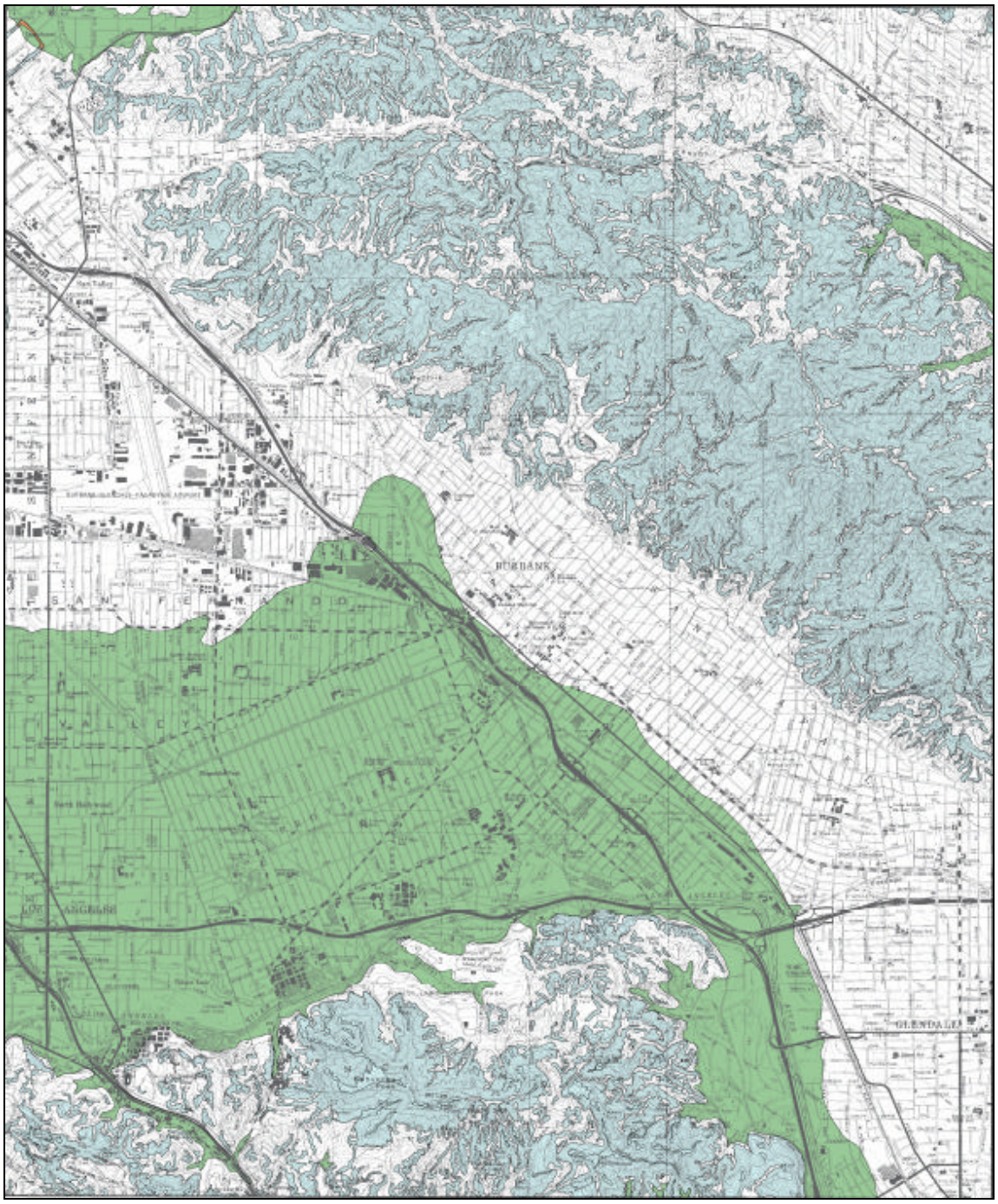


Van Nuys



Burbank



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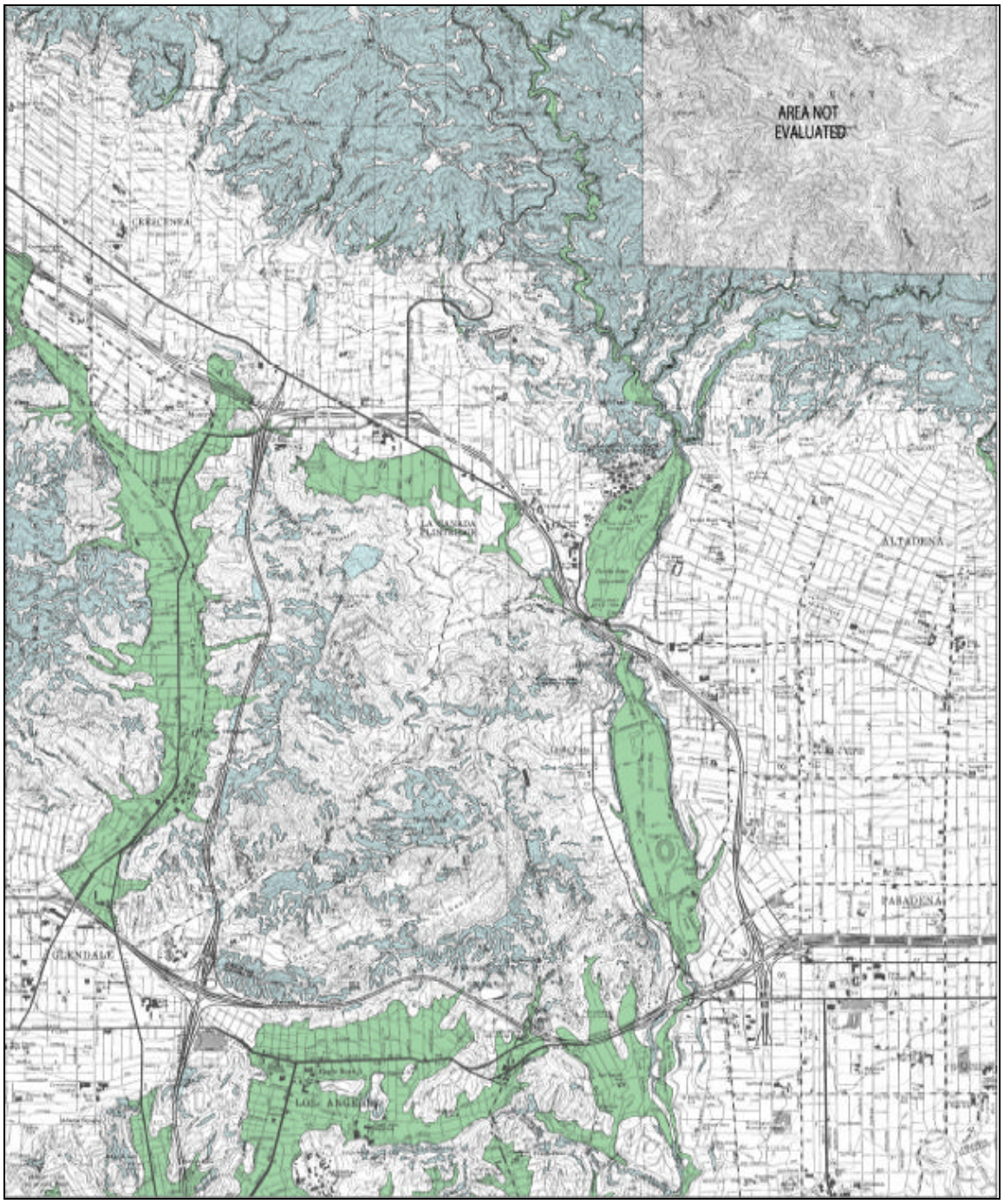
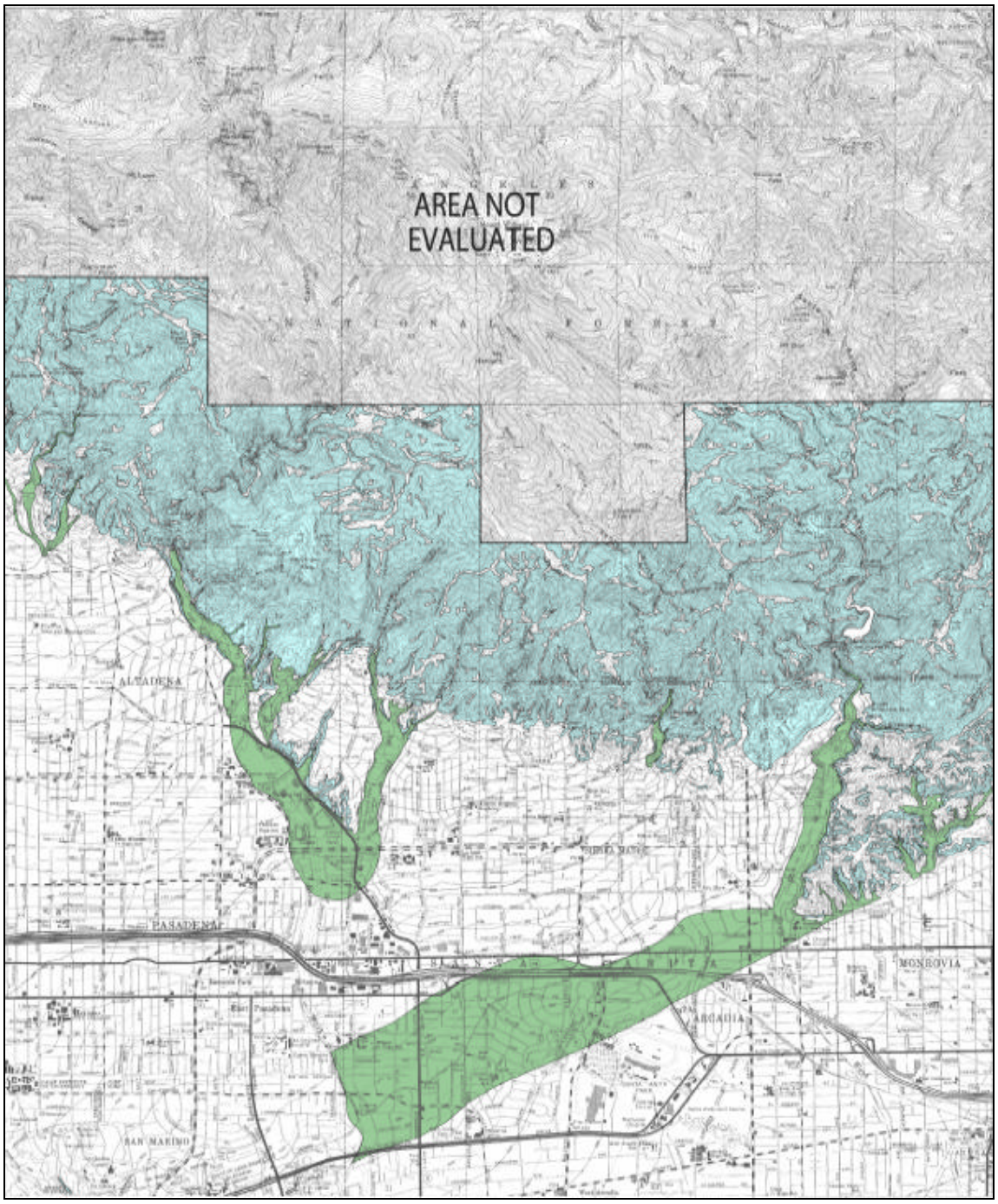
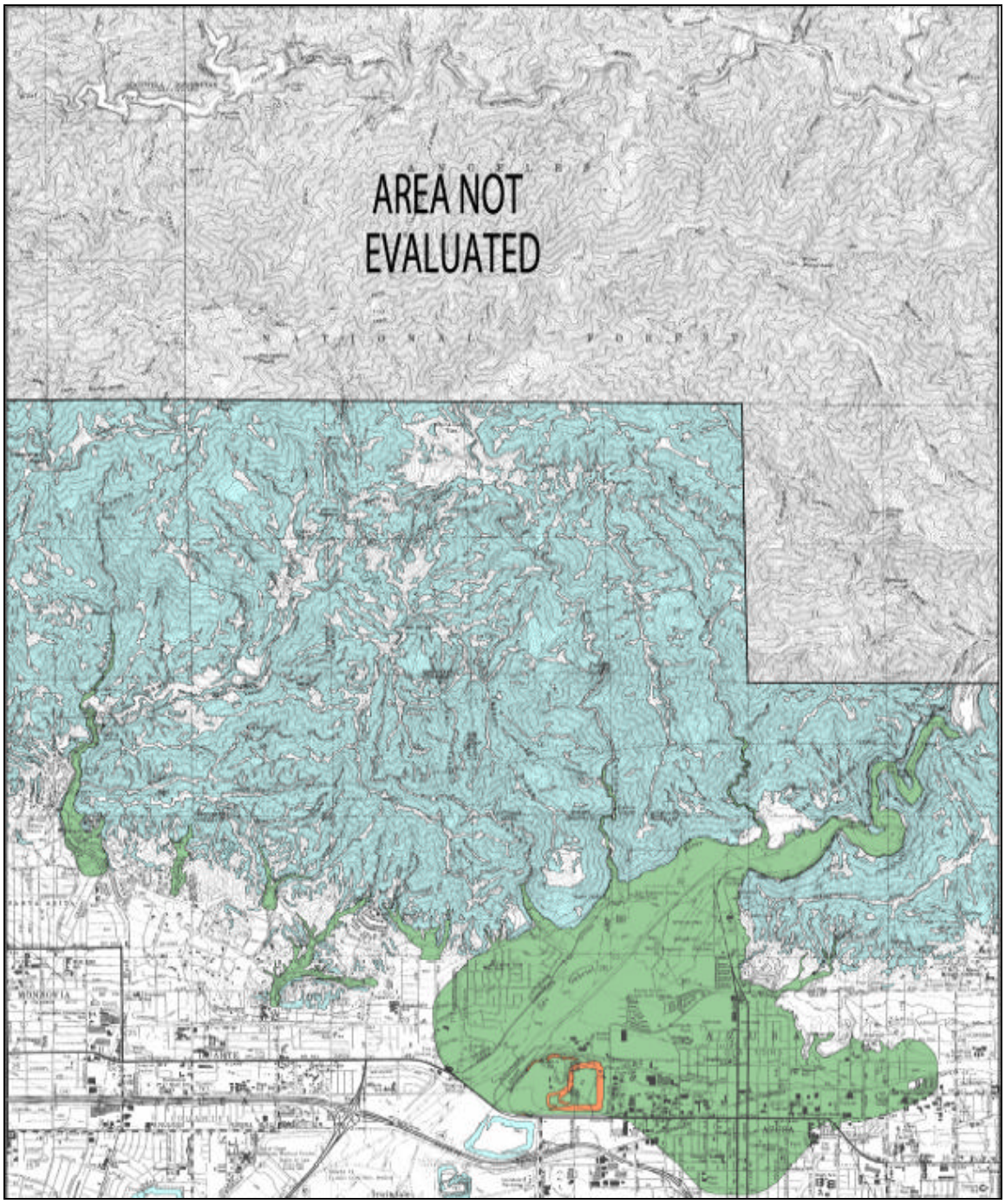


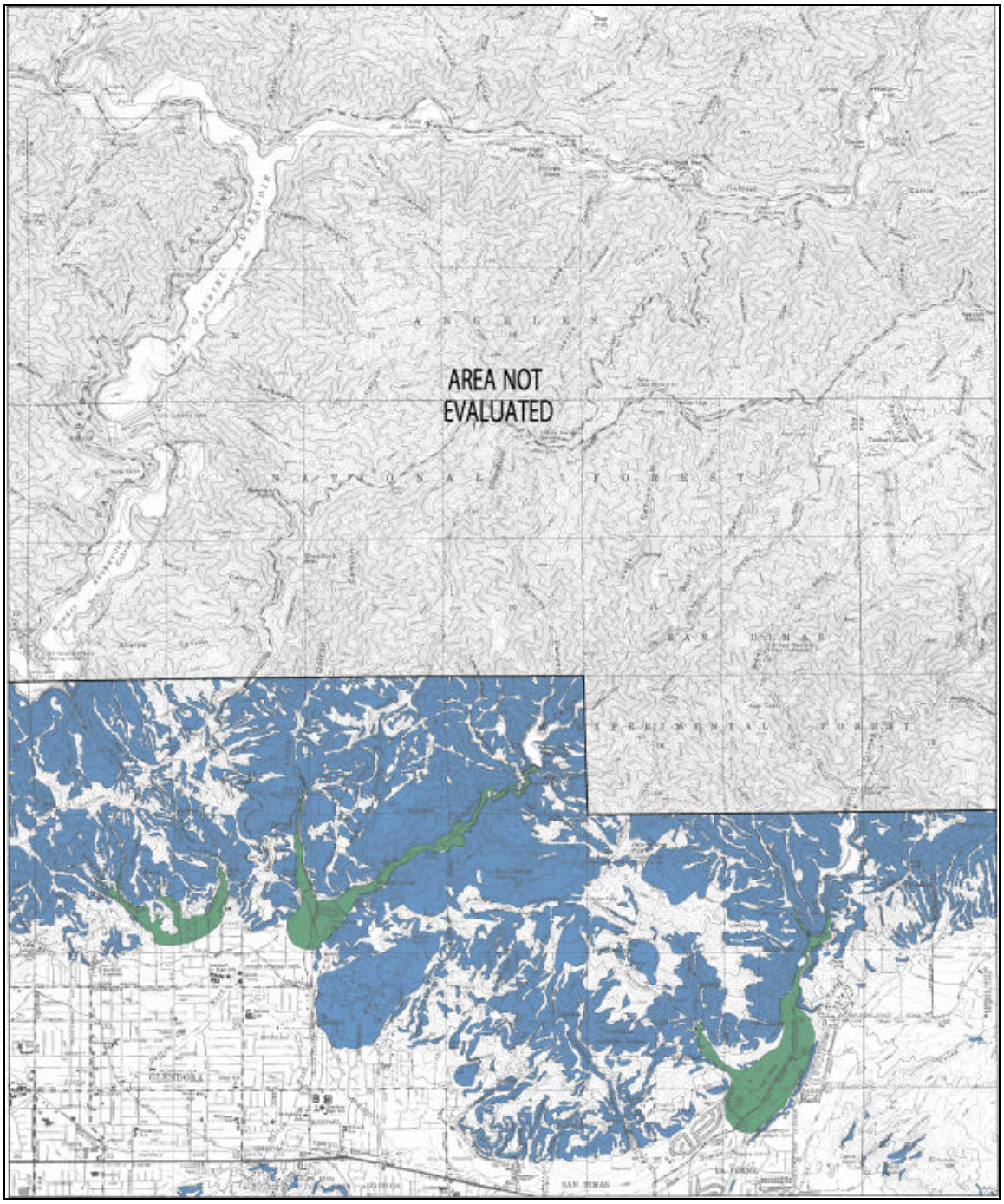
Mount Wilson



Azusa



Glendora



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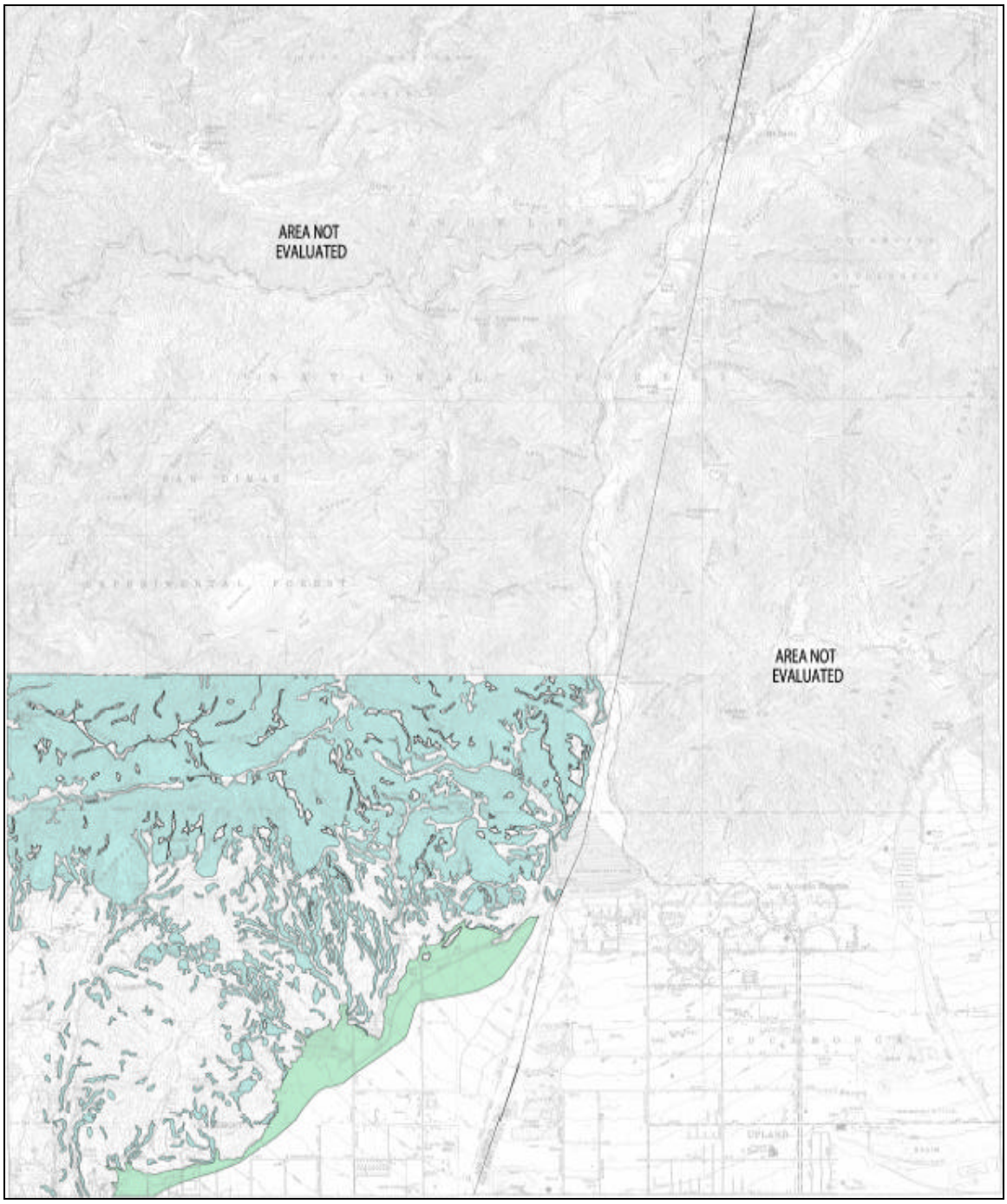

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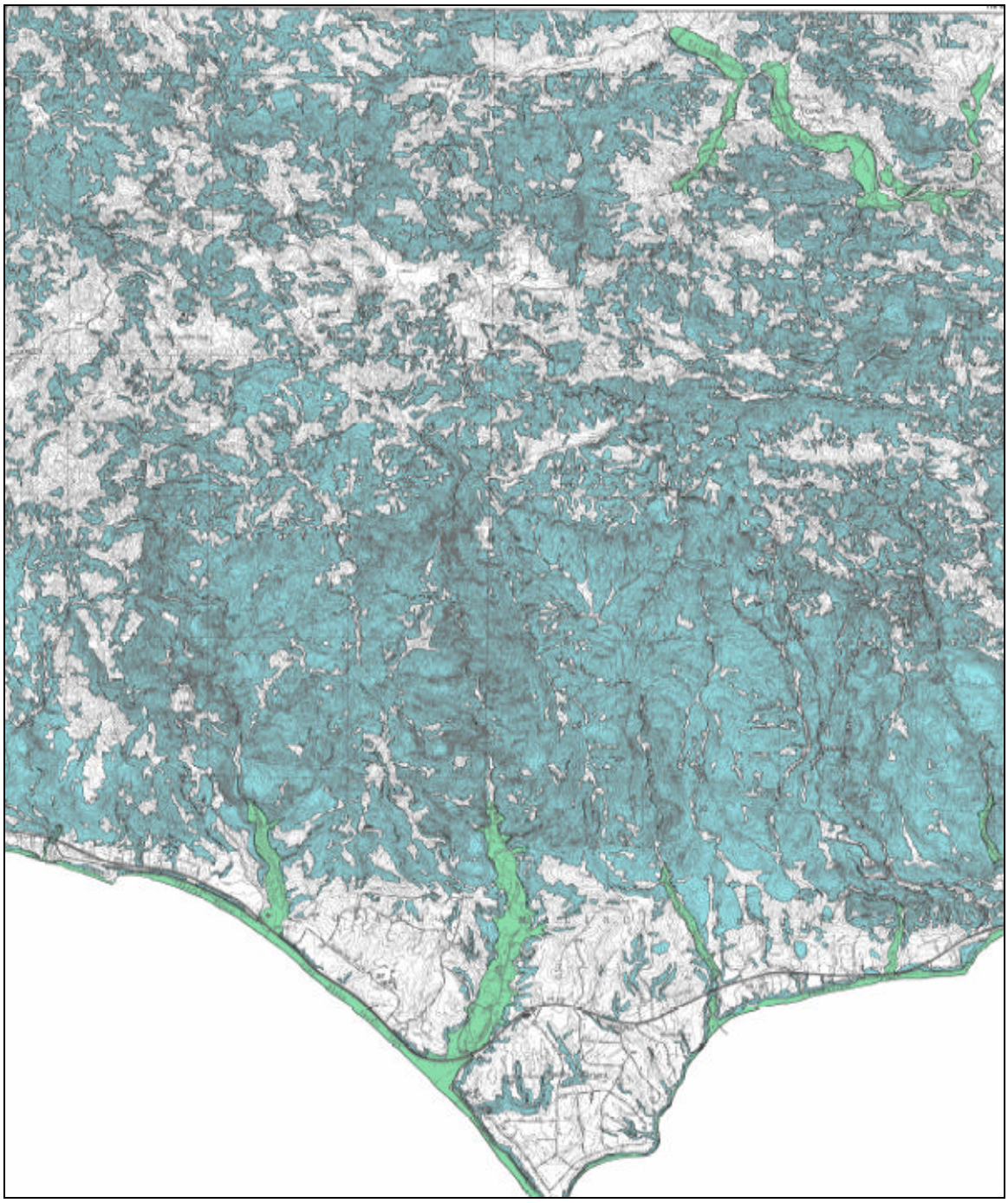
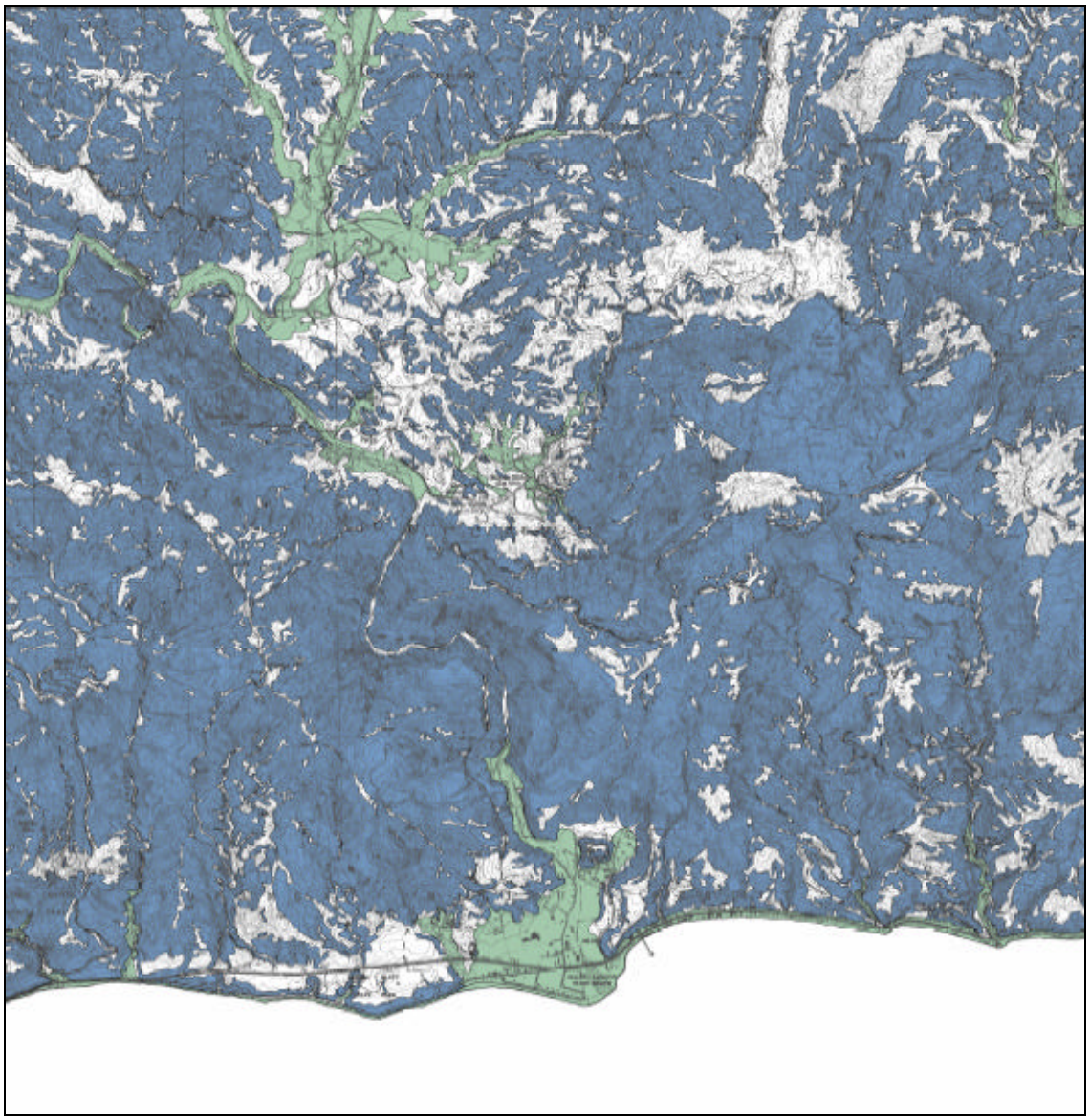
Point Dume

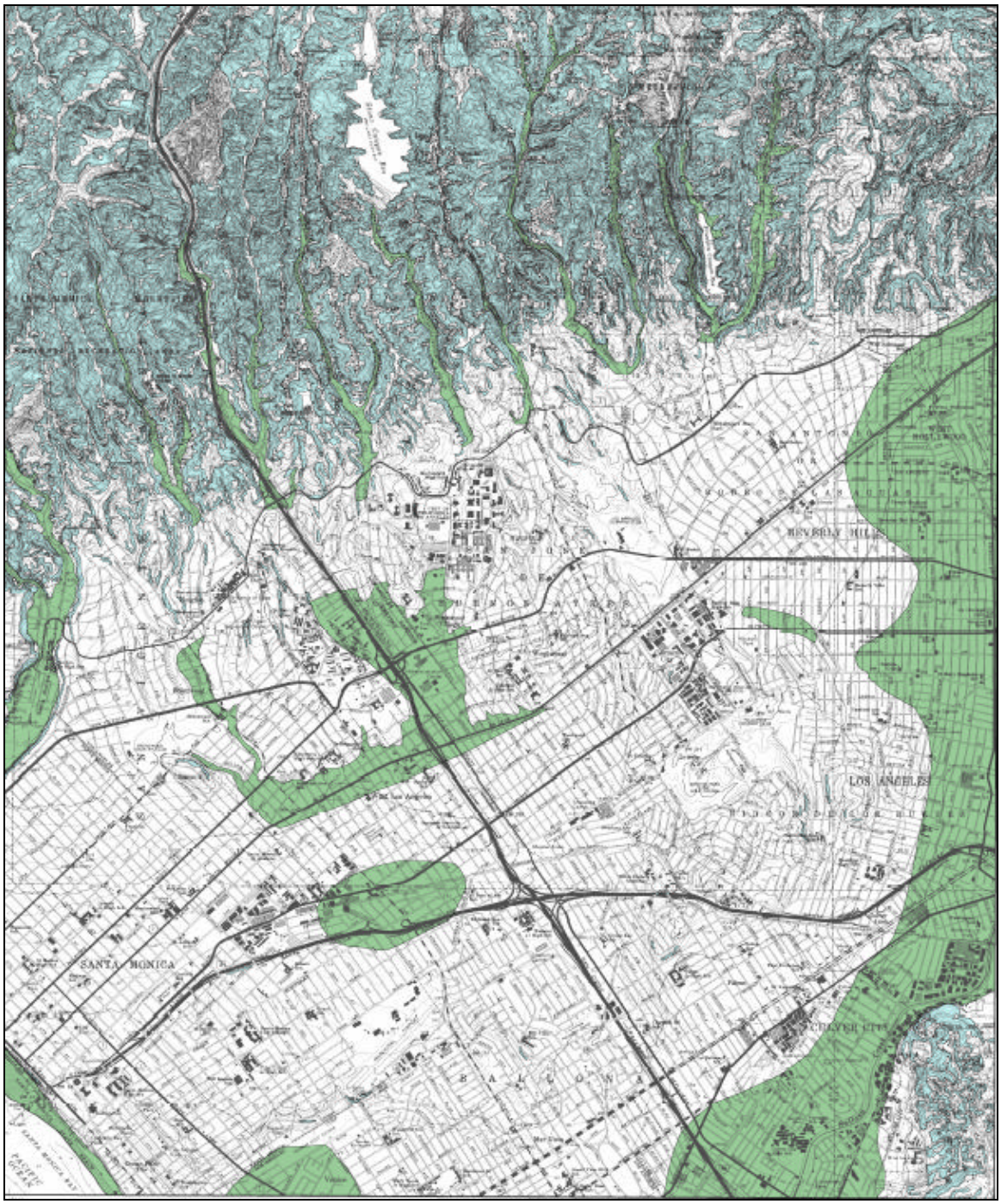


Malibu Beach

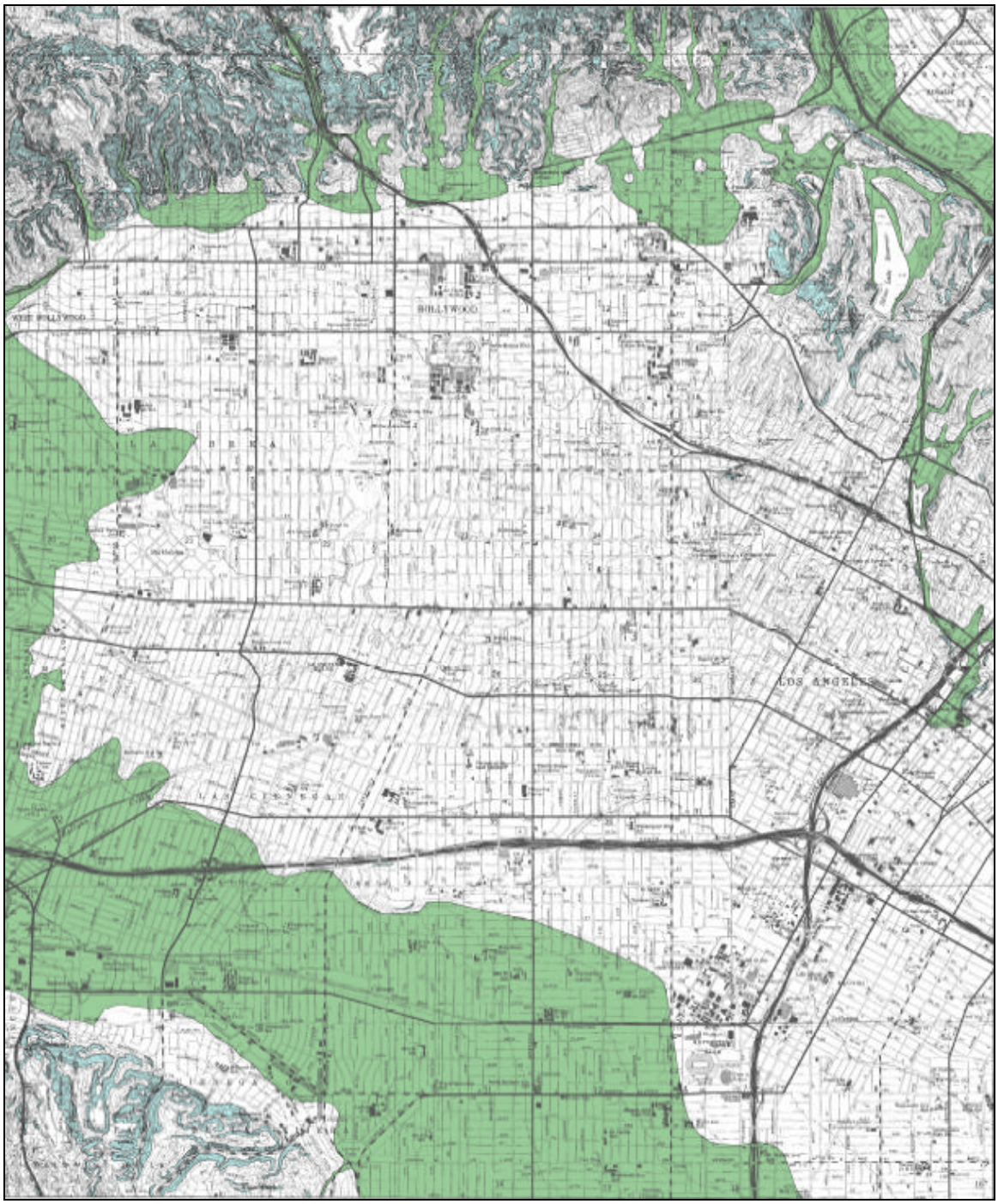


Topanga

Beverly Hills



Hollywood



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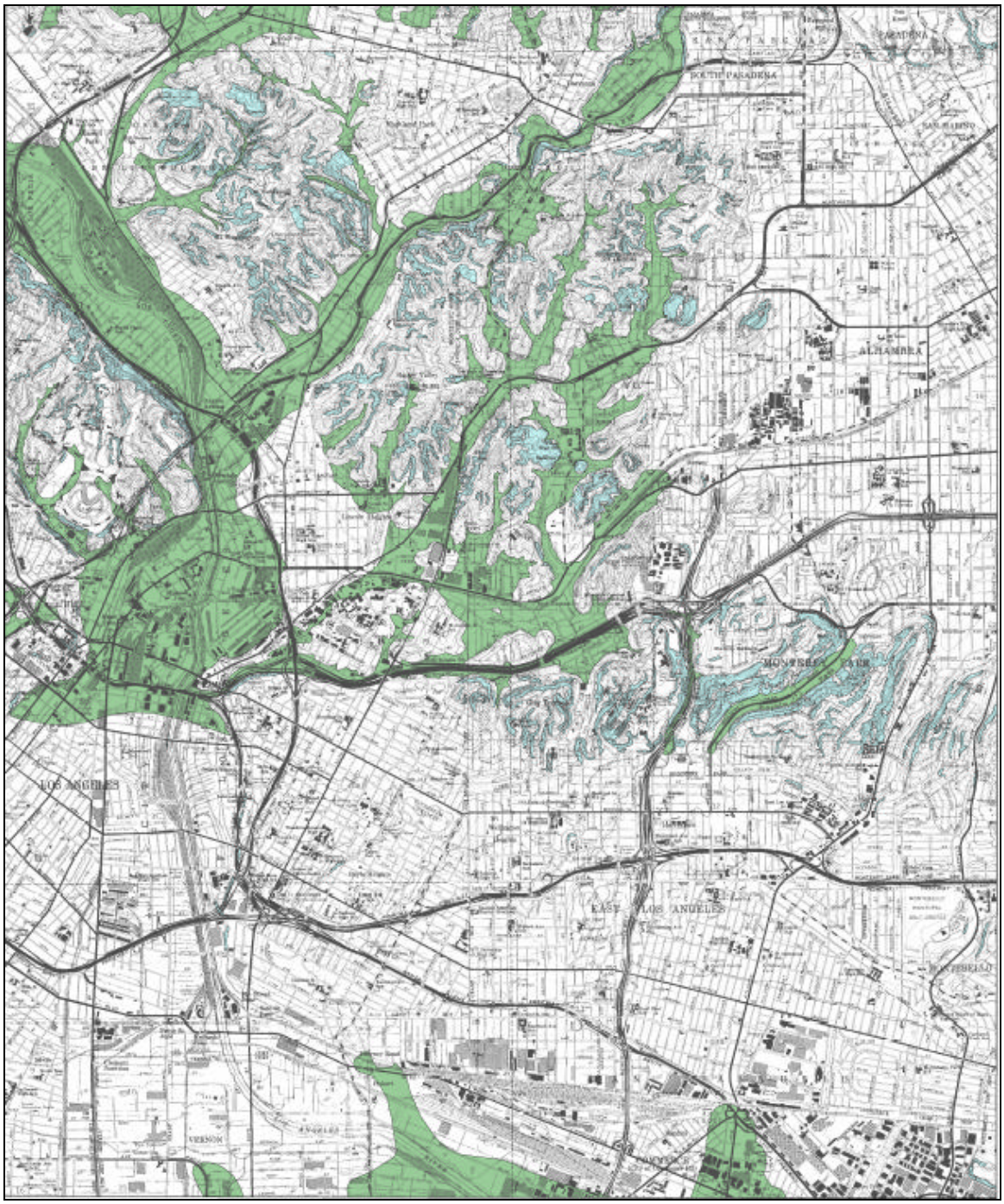
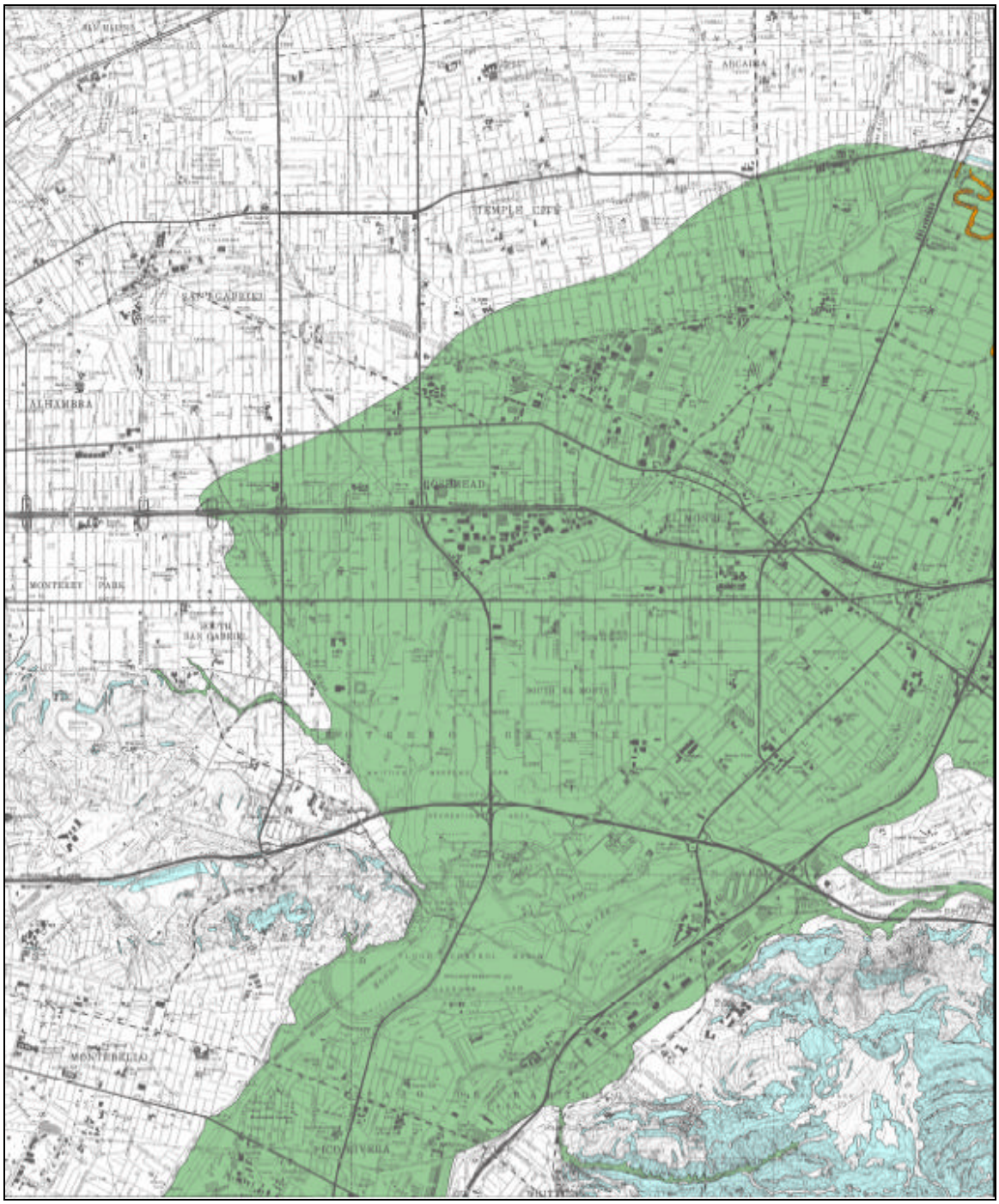
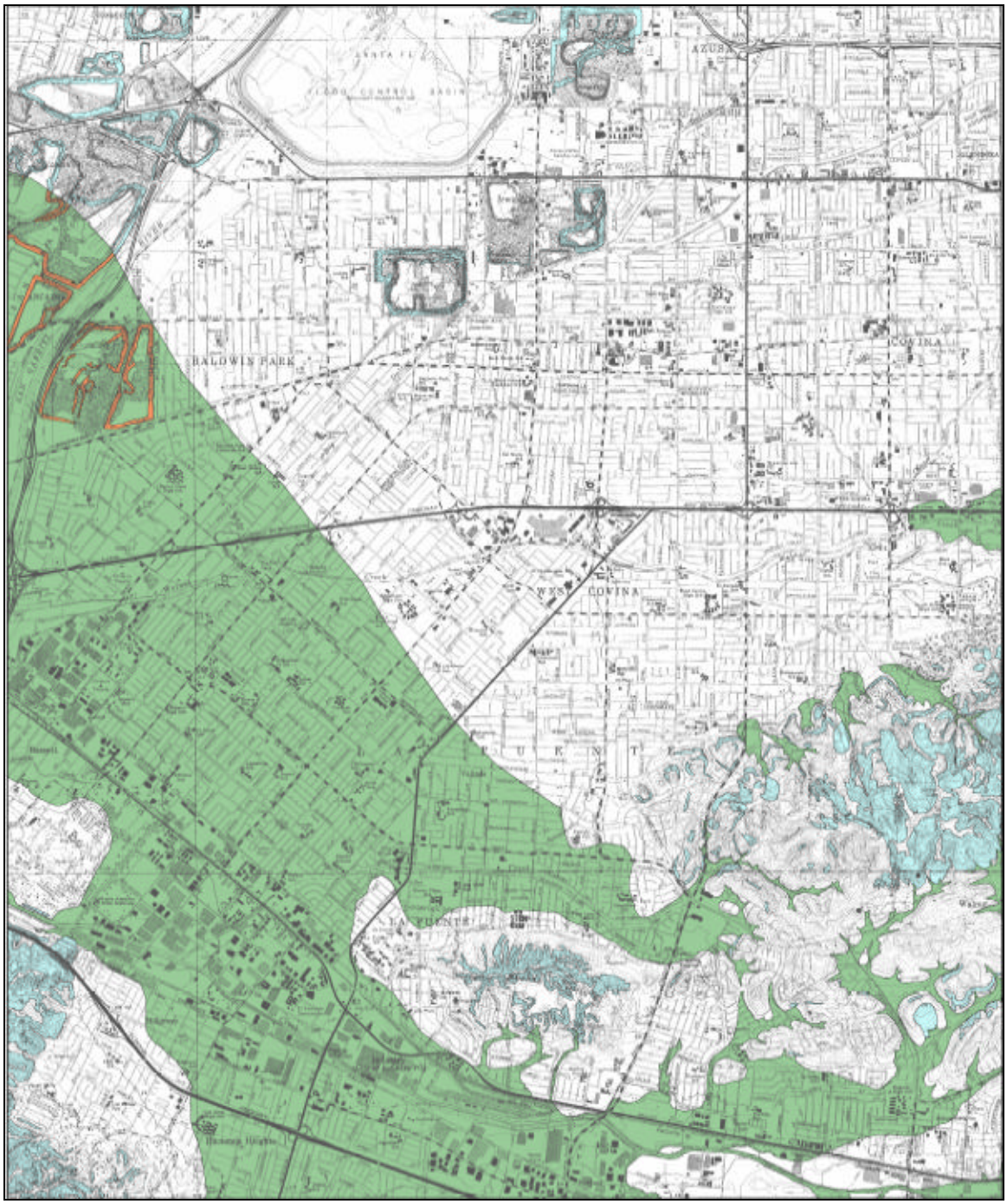


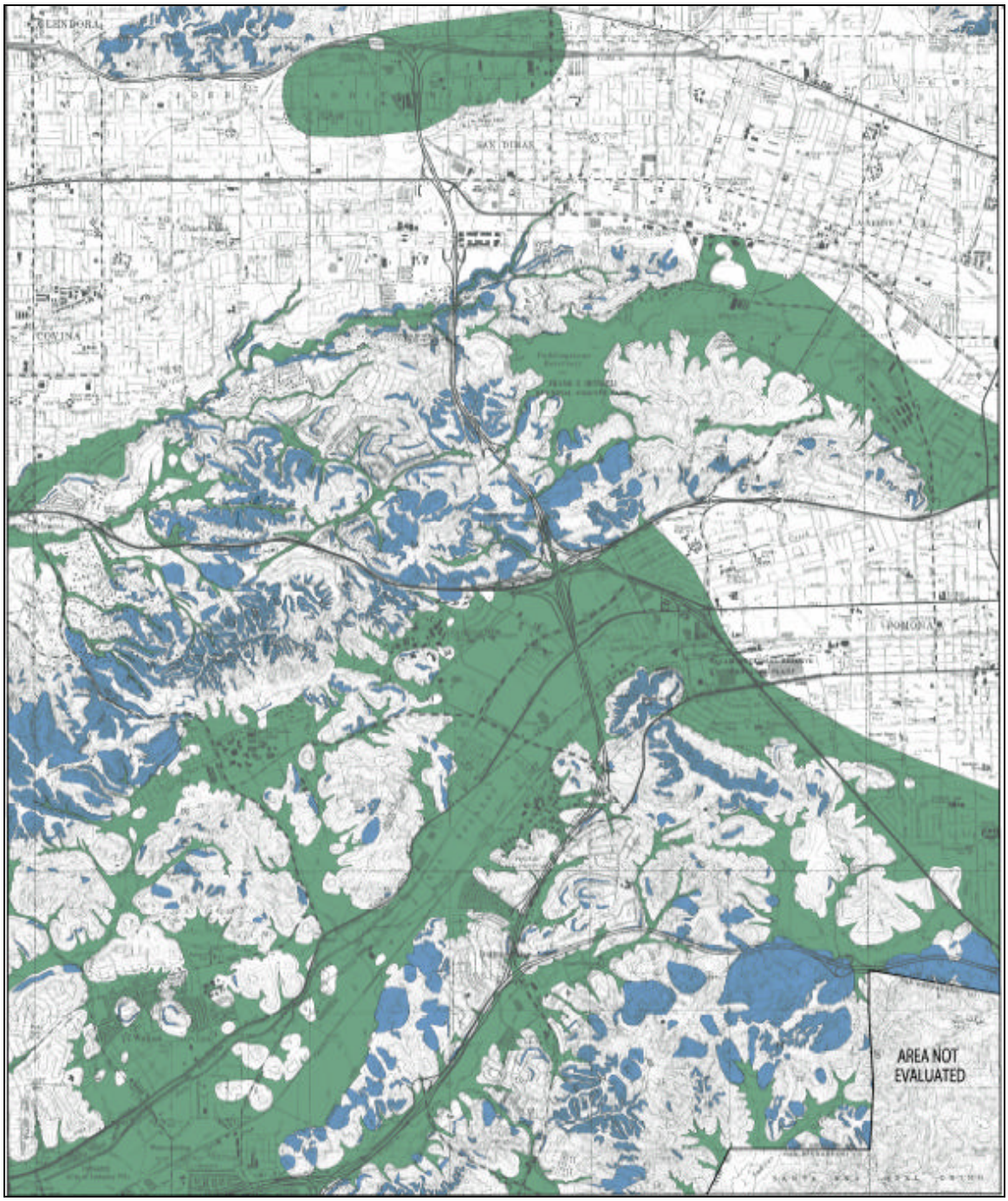
El Monte



Baldwin Park



San Dimas



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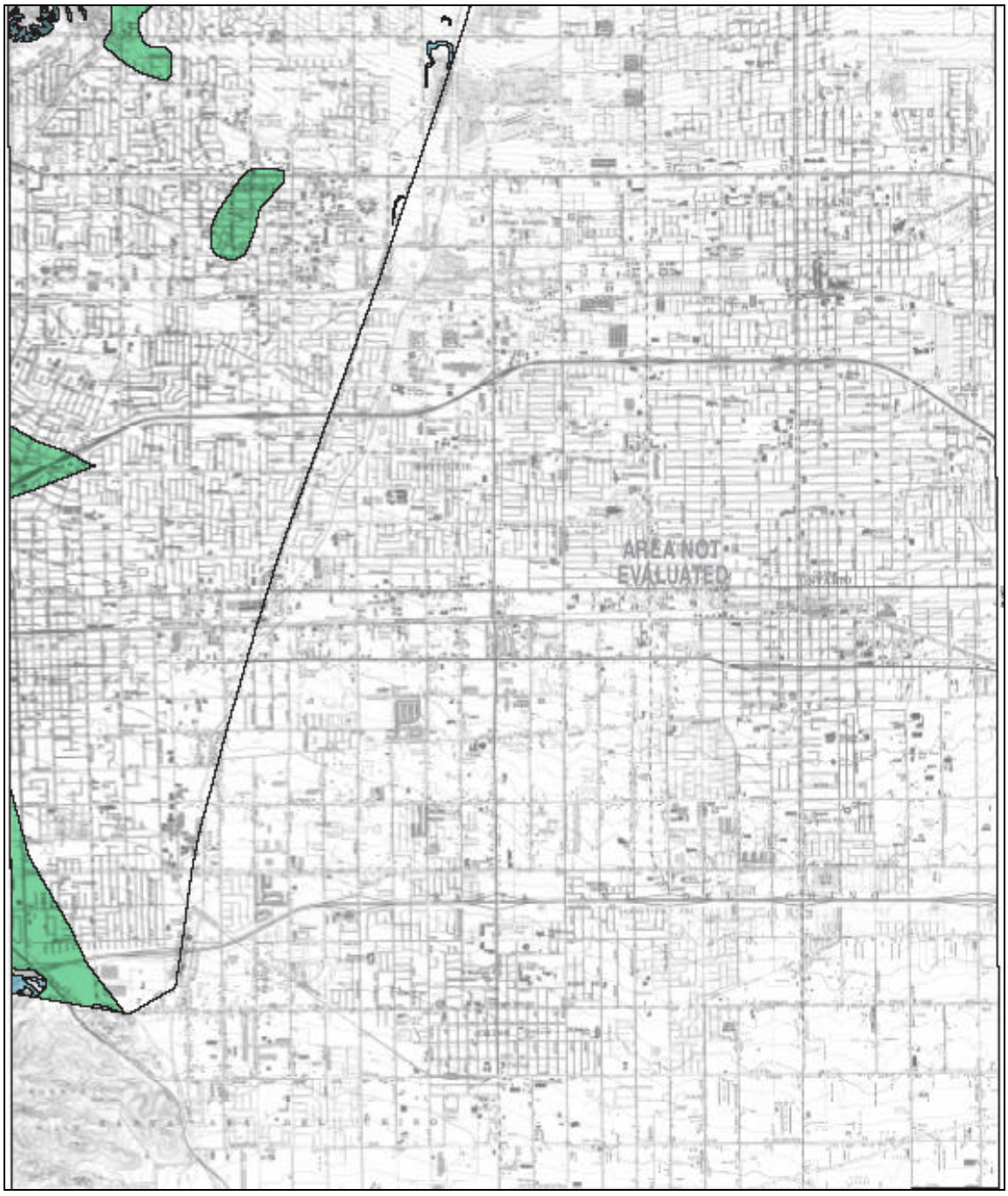

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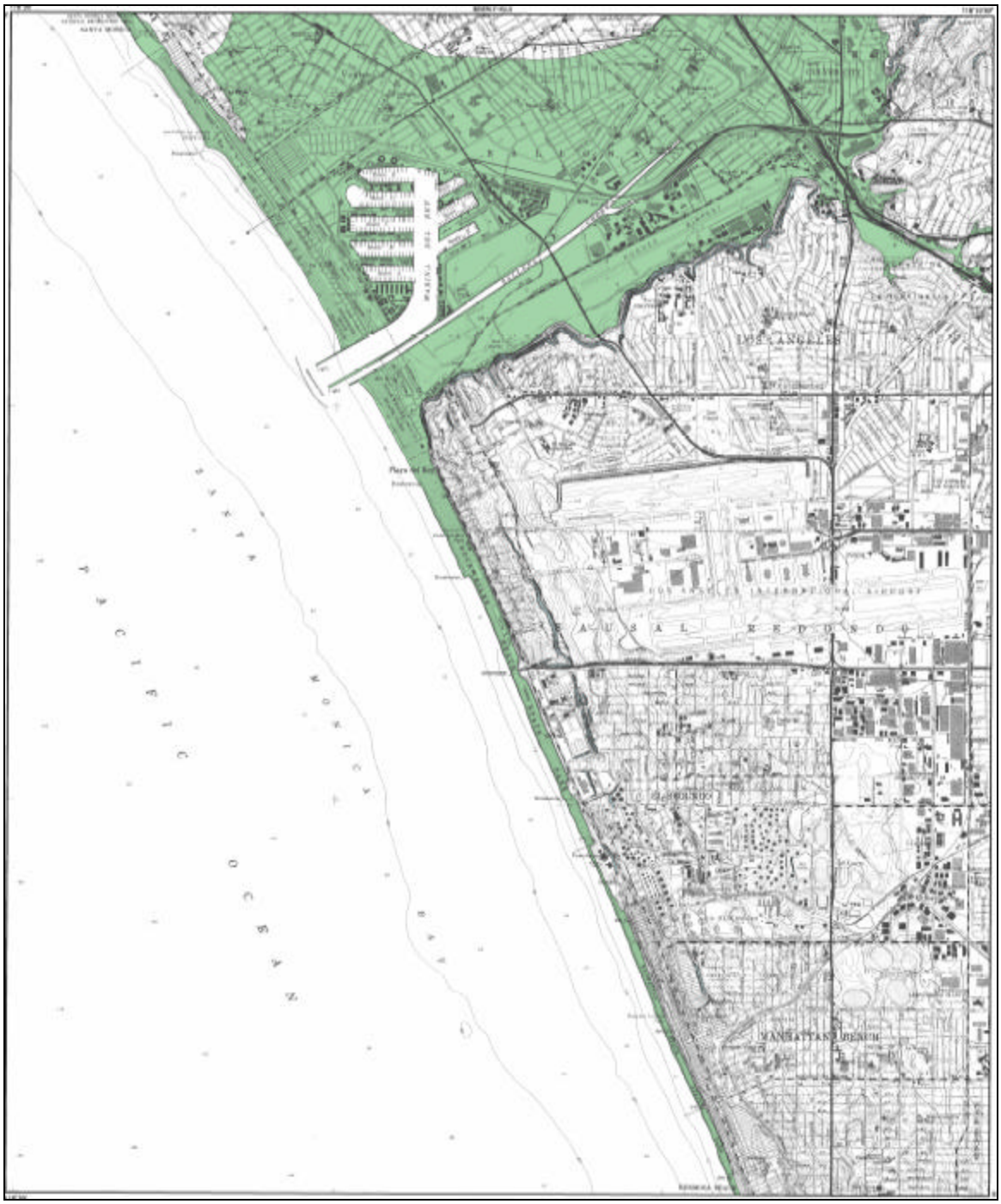

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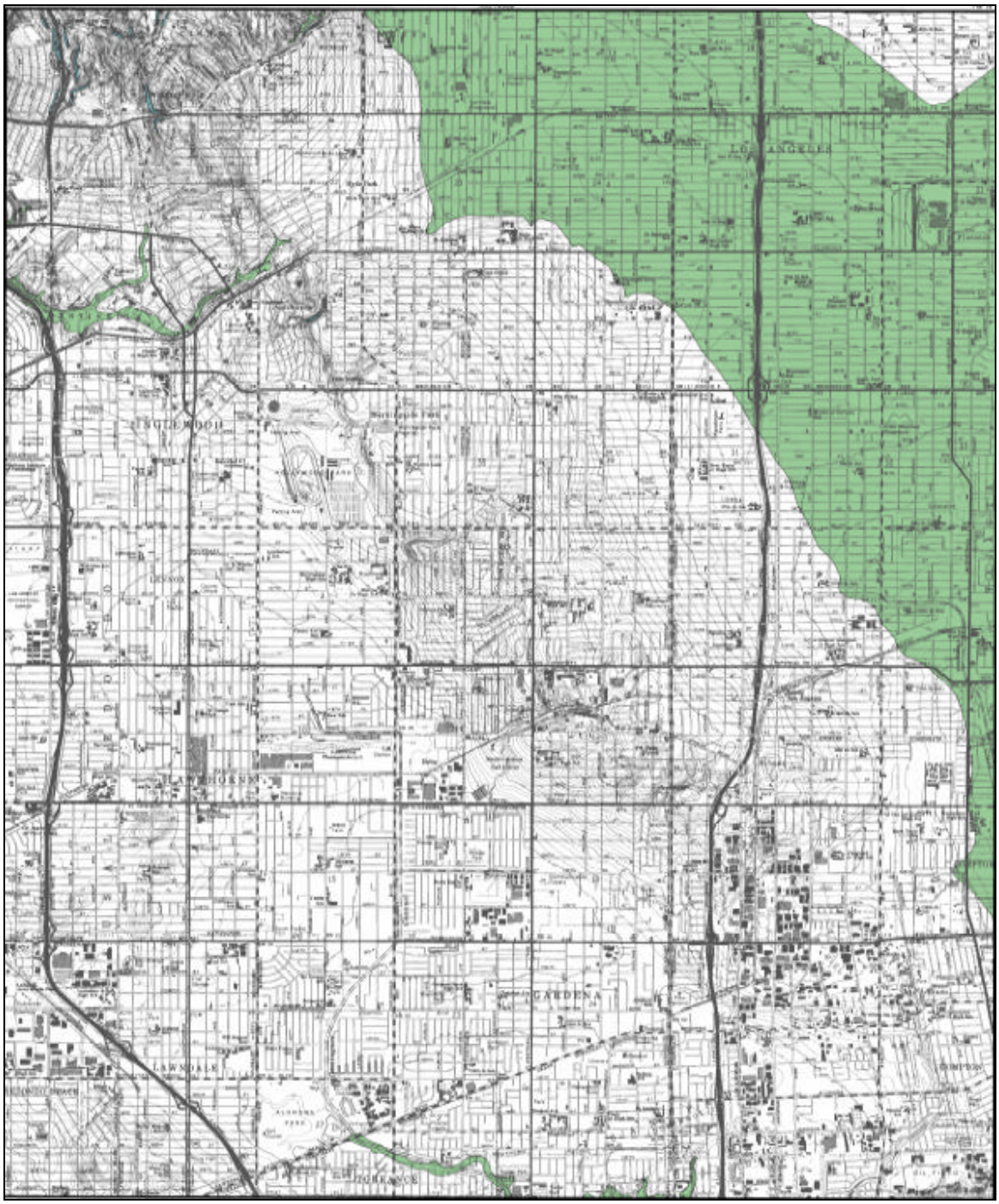
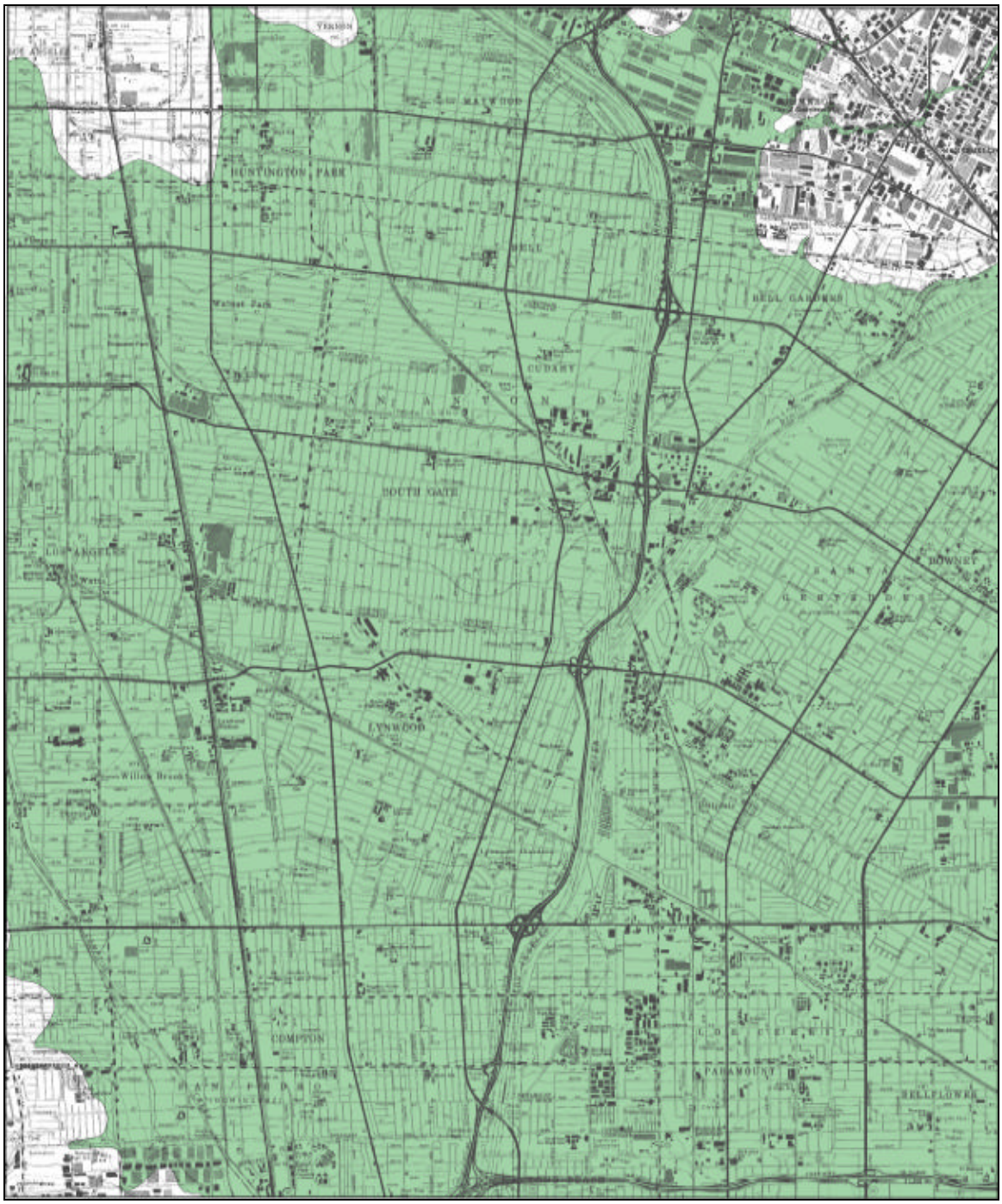


South Gate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PARAMOUNT
BELLFLOWER
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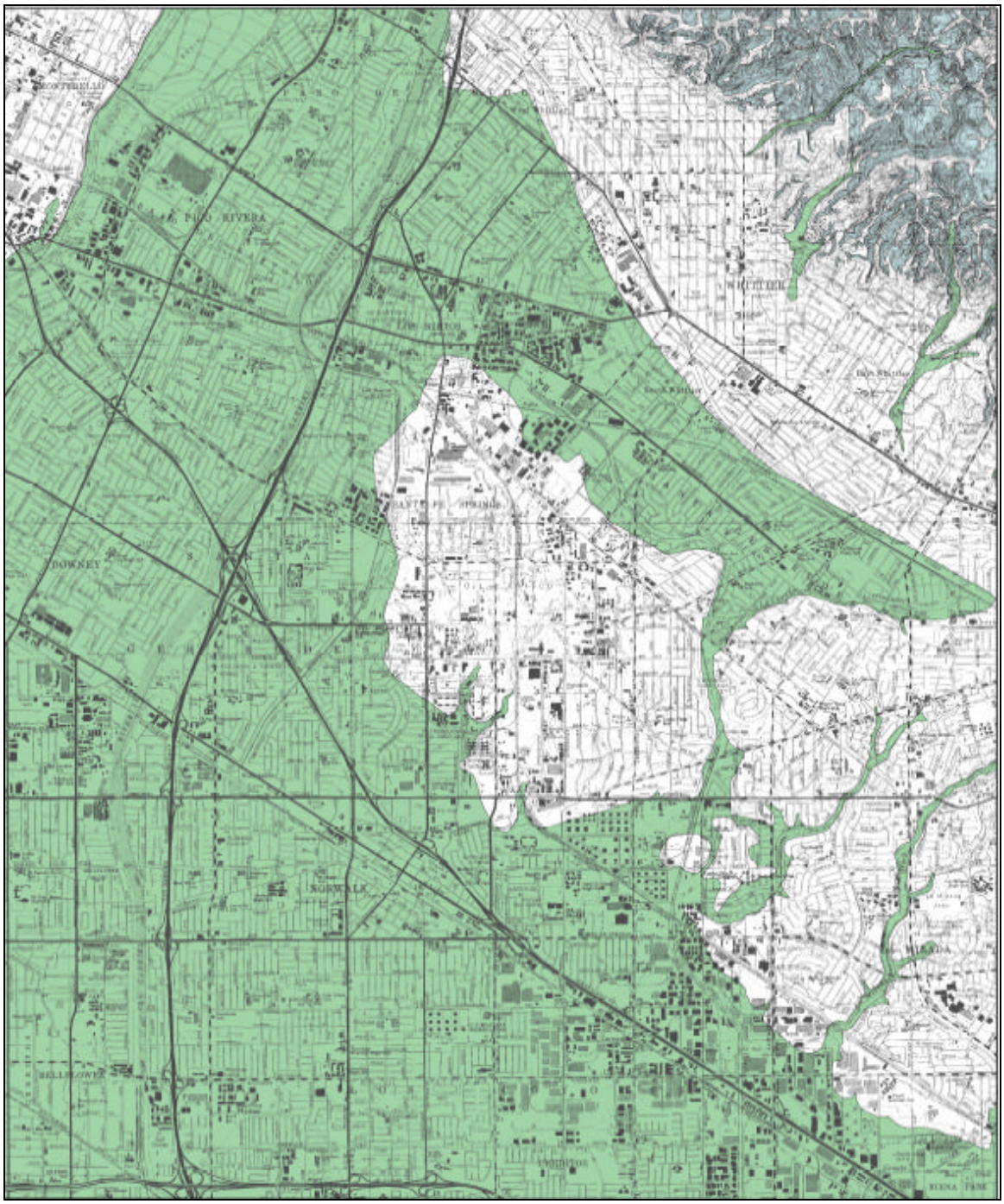
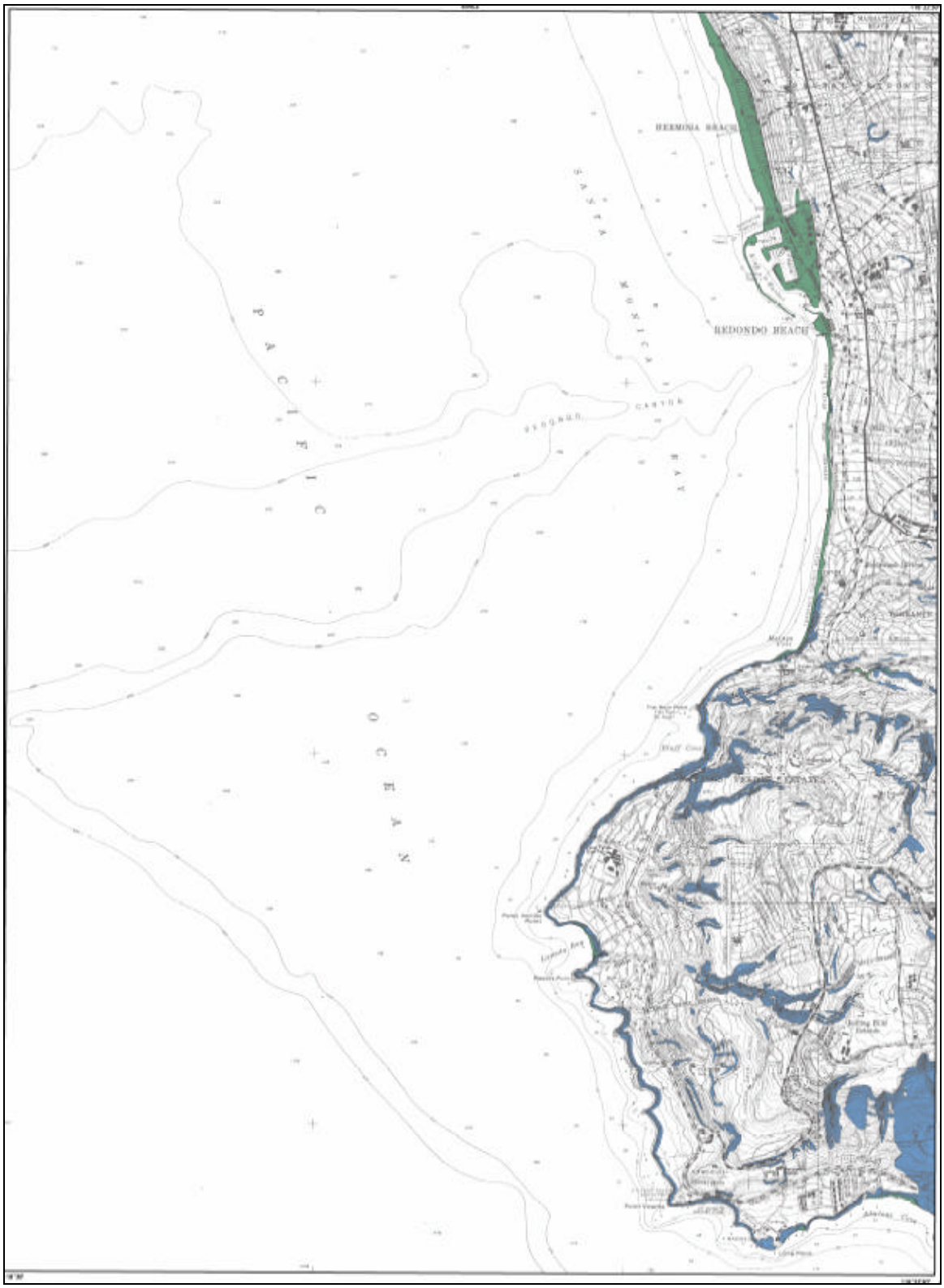


La Habre

Redondo Beach



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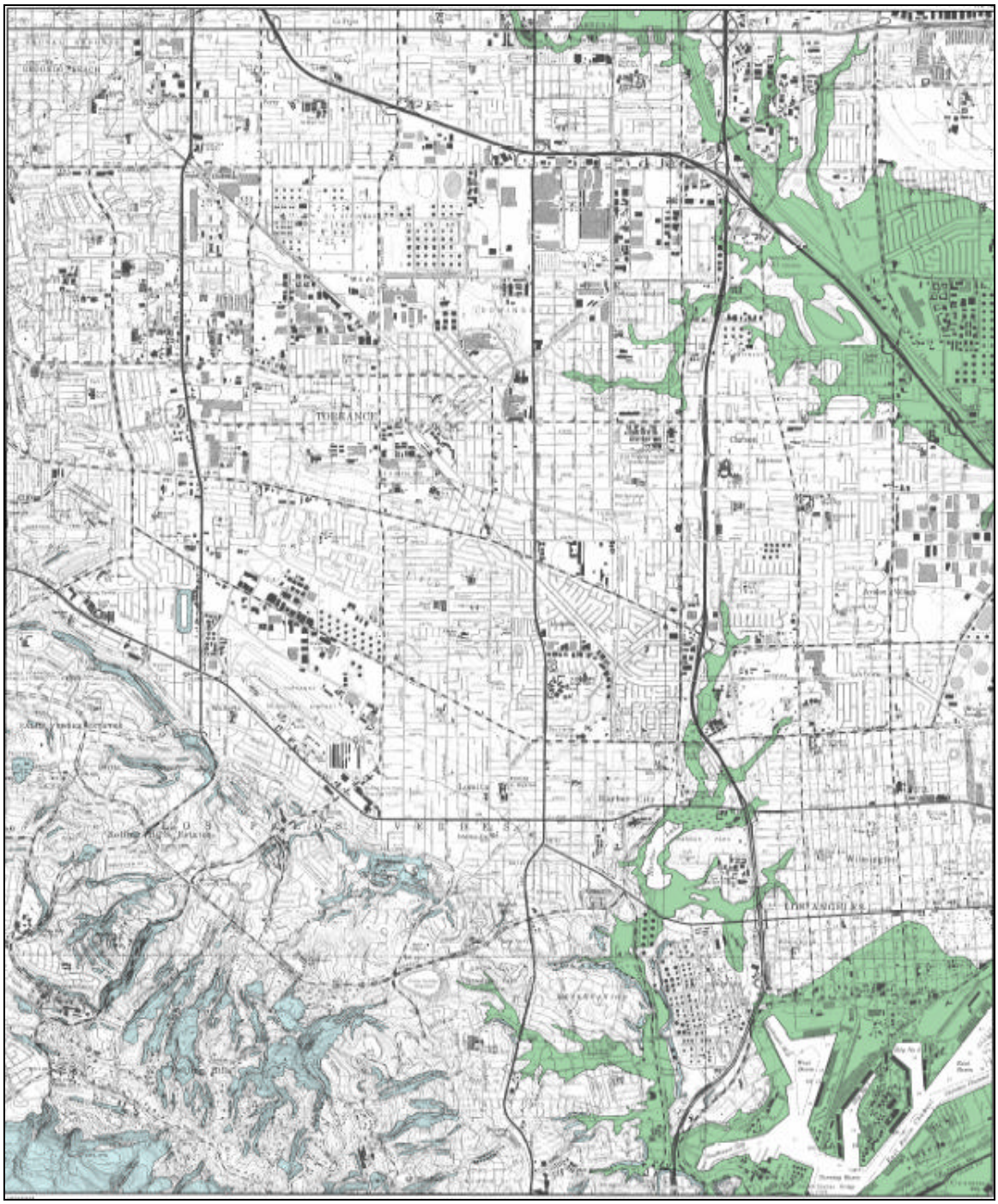

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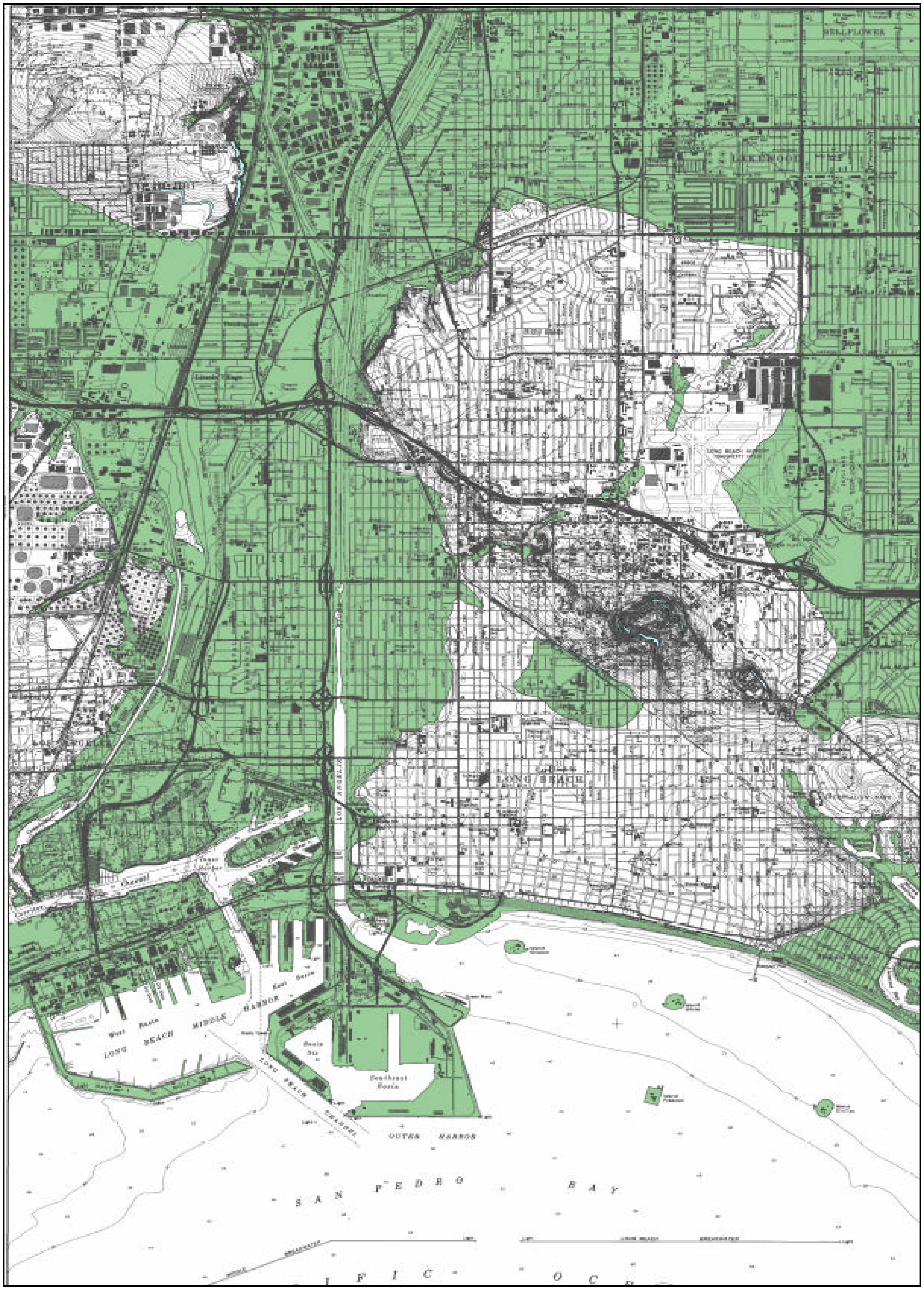
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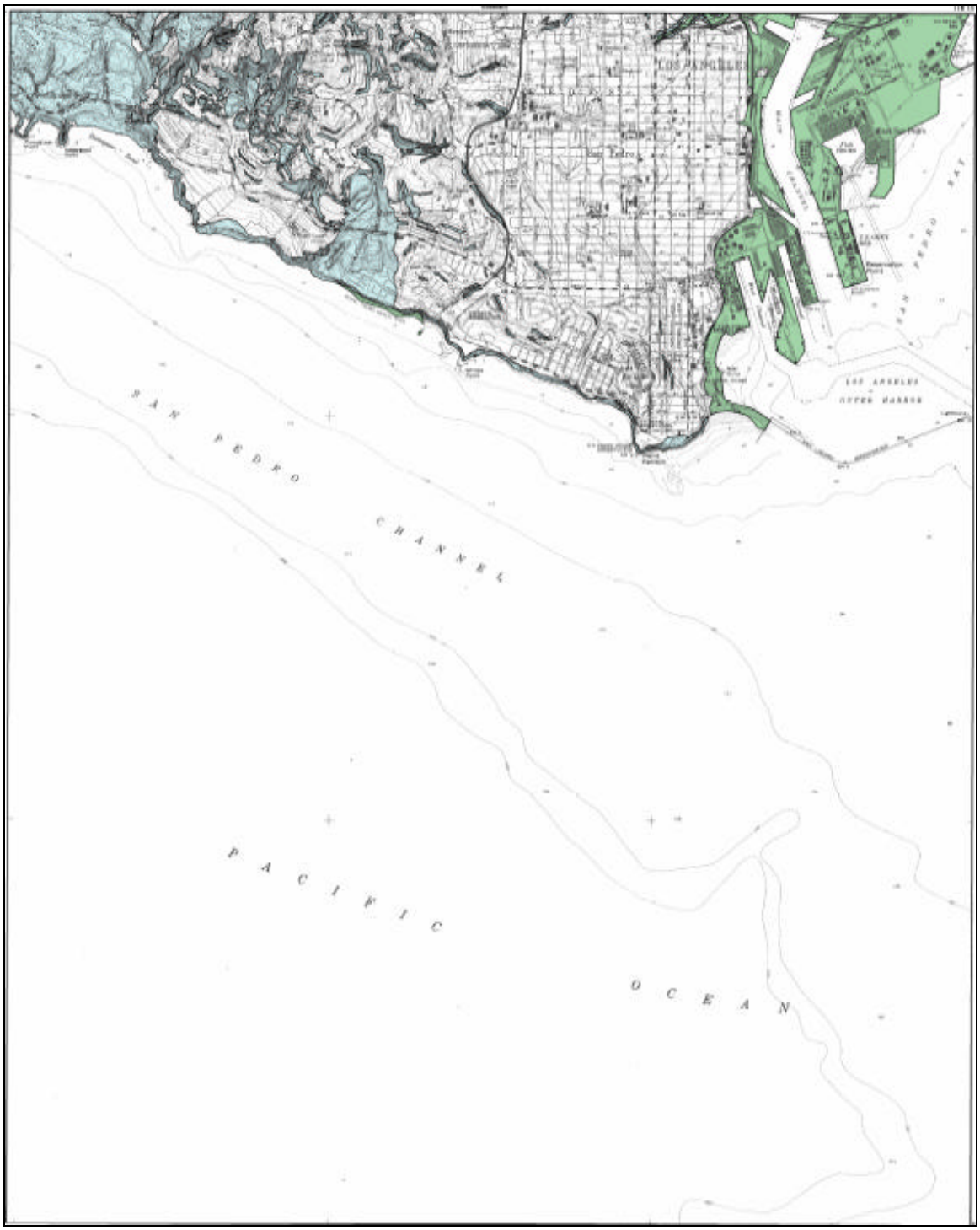
LAKEWOOD
LONG BEACH
OUTER HARBOR
SAN PEDRO BAY
MIDDLE HARBOR
LONG BEACH
Southeast Basin

San Pedro



Severe Weather

Severe Weather was rated a MODERATE PRIORITY HAZARD in Los Angeles County.

Windstorms

The potential risk of widespread damage in Los Angeles County from wind is not as considerable as the risk from earthquakes or wildfires. Nevertheless, severe windstorms pose a significant risk to life and property by creating conditions that disrupt essential systems such as public utilities, telecommunications, and transportation routes.

High winds can and do occasionally cause damage to homes and businesses. Severe windstorms can present a very destabilizing effect on the dry brush that covers local hillsides and urban wildland interface areas and increase wildfire threat. Destructive impacts to trees, power lines, and utility services also are associated with high winds.

Santa Ana Winds

Based on local history, most incidents of high wind in the Los Angeles County are the result of Santa Ana wind conditions. While high impact wind incidents are not frequent in the area, significant Santa Ana wind events have been known to negatively impact areas of the County.

Santa Ana winds are blustery, warm – (often hot) – dry winds that blow from the east or northeast. These occur below the passes and canyons of the coastal ranges of Southern California and in the Los Angeles basin. Typically they occur from October to March when cooler air in the desert increases air pressure and creates strong westerly winds. Generally speaking, wind speed must reach 25 knots to be classified as a Santa Ana wind.

The map above shows the direction of the Santa Ana winds as they travel from the stable, high-pressure weather system called the Great Basin High through the canyons and towards the low

pressure system off the Pacific. Areas of Los Angeles County are in the direct path of the ocean-bound Santa Ana winds.

While the effects of Santa Ana Winds are often overlooked, it should be noted that in 2003, two deaths in Southern California were directly related to the fierce condition. A falling tree struck one woman in San Diego. The second death occurred when a passenger in a vehicle was hit by a flying pickup truck cover launched by Santa Ana winds.

In windstorms, reports of dislodged roofs and fallen trees and power lines are common. The winds are not considered major widespread threats to population and property, but do involve responses from emergency service personnel. Fallen power lines may cause widespread power outages and fire. Falling trees can occasionally cause fatalities and serious structural damage. These incidents are rare as well as localized.

Hazard Extent

Windstorms that affect Los Angeles County, notably Santa Ana winds, are not location specific but rather impact much of the area. Passes between hillsides are susceptible to slightly higher wind speeds, although the amount of unsheltered development in hillside passes is not substantial.

In the case of a Santa Ana wind – which can last several days – hazards created by wind-fallen trees or utility poles can threaten property and have the potential for personal injury and even death. Many older neighborhoods have larger trees. Although these trees are usually well-rooted enough to withstand higher speed winds, broken and falling tree limbs can create significant hazards.

Strong Santa Ana winds typically occur annually. It is unlikely that Los Angeles County will be subject to widespread damage from wind storm activity but there is potential for isolated events, such as damage to property or communications. Although Santa Ana winds are frequent, the occurrence wind with enough velocity to cause significant damage is much less.

Vulnerabilities

There have been past occurrences of winds strong enough to create damage to property in Los Angeles County. However, there has not been a recorded instance of a windstorm strong enough to create wide spread damage. Damage is usually done to roofs and trees damage, and is generally isolated.

Life and Property

Based on the historical data for the region, windstorm events can be expected, perhaps annually, across widespread areas of the County. This can result in i emergency responses. Both residential and commercial structures with vulnerable or weak construction are susceptible to damage. Wind pressure can create a direct and frontal assault on a structure, pushing walls, doors, and windows inward. Conversely, passing currents can create lift suction forces that pull building components and surfaces outward. With extreme wind forces, roofs or entire buildings can fail, causing considerable damage. Debris carried by strong winds can contribute directly to loss of life, and indirectly to the failure of protective building envelopes, siding, or walls. When severe windstorms strike a community, resulting downed trees, power lines, and damaged property are major hindrances to emergency response and disaster recovery.

Utilities

Historically, falling trees have been the major cause of power outages in the region as a result of high winds. Windstorms can cause flying debris that cut utility lines. For example, tree limbs breaking in winds of only 45 mph can be thrown over 75 feet. As such, overhead power lines may receive damage in even relatively minor windstorms. Falling trees bringing electric power lines down to the ground create the possibility of electric shock.

Infrastructure

Windstorms can damage buildings, power lines, and other property and infrastructure because of falling trees and branches. During wet winters, saturated soils cause trees to become less stable and more vulnerable to uprooting from high winds. Windstorms can result in collapsed or damaged buildings or blocked roads and bridges, damaged traffic signals, streetlights, and parks. Roads blocked by fallen trees during a windstorm may have severe consequences to people who need to be accessed by emergency workers.

Emergency response operations can be complicated when roads are blocked or when power supplies are interrupted. Industry and commerce can suffer losses from interruptions in electric services and from extended road closures. They can also sustain direct losses from damaged buildings, injured personnel, and damage to other vital equipment. There are direct consequences to the local economy resulting from windstorms related to both physical damages and interrupted services.

Transportation

Windstorm activity can have an impact on local transportation in addition to the problems caused by downed trees and electrical wires blocking streets and highways. During periods of extremely strong Santa Ana winds, major highways may require temporarily closure to truck and recreational vehicle traffic. Typically these disruptions are not long lasting, nor do they generally carry a severe long-term economic impact on the region.

Increased Fire Threat

Perhaps the greatest danger from in Southern California comes from the combination of the always present threat of wild fires and the drying hot Santa Ana winds that occur every few years in the urban/wildland interface. With the Santa Ana winds driving the flames, the speed and reach of the wild fires is much greater than in times of calm wind conditions. The higher fire hazard raised by Santa Ana wind conditions requires that even more care and attention be paid to proper brush clearances on property in the wildland/urban interface areas.

Losses

Losses from damage caused by windstorms are generally limited to isolated property such as roofs or tree damage. There are no areas of specific risk in Los Angeles County. Losses are seldom significant in the County.

Existing Mitigation

As stated, one of the most common problems associated with windstorms are power outages. High winds may cause trees to bend, sag, or break (tree limbs or entire trees). They may come in contact with nearby electrical distribution power lines. Fallen trees can cause short-circuiting and conductor overloading. Wind induced damage to the power system may cut power to customers, be costly to repair, and in some cases cause wild land fires.

California Code

One of the strongest and most widespread existing mitigation strategies pertains to tree clearance. Currently, California State Law requires utility companies to maintain specific clearances – depending on the type of voltage running through the line – between electrical power lines and all vegetation.

The following California Public Resource Code Sections establish tree pruning regulations:

- 4293: Power Line Clearance Required
- 4292: Power Line Hazard Reduction
- 4291: Reduction of Fire Hazards Around Buildings
- 4171: Public Nuisances

The following pertain to tree pruning regulations and are taken from the California Code of Regulations:

- Title 14: Minimum Clearance Provisions • Sections 1250-1258
- General Industry Safety Orders
- Title 8: Group 3: Articles 12, 13, 36, 37, 38
- California Penal Code Section 385

The following California Public Utilities Commission section has additional guidance:

- California Public Utilities Commission • General Order 95: Rule 35

Failure to allow a utility company to comply with the law can result in liability to the homeowner for damages or injuries resulting from a vegetation hazard. Many insurance companies do not cover this type of damage if the policy owner has refused to allow the hazard to be eliminated. The power companies, in compliance with the above regulations, collect data about tree failures and their impact on power lines. This mitigation strategy assists the power company in preventing future tree failure.

El Nino

On February 9, 1998, President Clinton, in response to a request from Governor Wilson, declared a major disaster for 27 counties in the State of California. The disaster was designated as FEMA-1203-DR-CA. On February 13, 1998 four additional counties were added; on February 26, four more counties were added, and on March 6, 1998, six additional counties were designated, bringing the total to 41.

The County of Los Angeles established a special task force comprised of county department members to distribute sandbags and clear flood channels. In Monterey County, farmers and landowners along the Salinas River banded together to reduce flooding that caused $240 million in damages in 1995. They formed a coalition and spent $2 million to clean out vegetation, sandbars, and other flow impediments along 40 miles of the river, and increased water flow capacity by 33 percent. As a result, the Salinas River did not flood during the El Nino '98 Storms. In anticipation of El Nino-driven pounding surf and high tides, City and Orange County crews built, along the beach, a 10-foot high berm several hundred yards long to protect scores of beach-front homes in the City of Seal Beach.

The National Flood Insurance Program reported a surge in Californians purchasing flood insurance following the El Nino Community Preparedness Summit held in October, 1997. The number of policies went from a pre-summit total of 264,914 to 333, 753 by the end of November. This number climbed to 365,000 by the end of December according to FEMA.

Disasters have unique and defining characteristics. The El Nino '98 Storms are no exception. The most distinct characteristic of FEMA-1203-DR-CA has been the landslides, coastal erosion, and related earth movement problems brought on by rapidly recurring storms which produce heavy rains, high winds, and large waves.

Overview of FEMA-1203-DR-CA

Disaster Declaration

On February 9, 1998, President Clinton signed a major disaster declaration that designated "El Nino '98, FEMA-1203-DR-CA." As a result of the Presidential declaration, section of the Robert T. Stafford Disaster Relief and Emergency Assistance Act were implemented, providing Individual Assistance and Public Assistance to the designated counties. The declaration also activated the Hazard Mitigation Grant Program (HMGP) which is applicable to all counties in the State. After the initial declaration by President Clinton, 14 additional counties requested to receive a federal declaration, bringing the total number of designated counties to 41.

The 41 designated counties were: Alameda, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Nor6te, Fresno, Glenn, Humboldt, Kern, Lake, **Los Angeles**, Marin, Mendocino, Merced, Monterey, Napa, Orange, Riverside, Sacramento, San Benito, San Bernardino, San Diego, San Francis o, San Joaquin, San Luis Obispo, San Mateo, Santa Ba5bara, Santa Clara, Santa Cruz, Solano, Sonoma, Stanislaus, Sutter, Tehema, Trinity, Tulare, Ventura, Yolo, Yuba.

El Nino '98

In the spring of 1997, Pacific Ocean temperatures along the equator from South America to Australia were rising above normal, changing wind patterns in the area. This is phenomenon known as El Nino. As part of the global impact of El Nino, heavy storms for 1997-1998 were predicted for the State of California.

In anticipation of a serious El Nino winter season, emergency services agencies throughout the State started making preparations. During summit convened on October 6, 1997, Governor Pete Wilson directed the State to take a series of actions in to prepare for the severe storms that were predicted to hit California as a result of El Nino. The Governor directed the Office of Emergency Services (OES) and the Department of Water Resources (DWR) to conduct a series of regional briefings over the next two months to assist local communities in their El Nino preparations. In October 1997, the first of six briefings for local and state agencies was held. FEMA held the "El Nino Community Preparedness Summit" in Santa Monica, on October 14, 1997

Agencies such as DWR and the Corps of Engineers accelerated efforts to complete projects and work which began as a result of the prior year's disastrous flooding. Many local agencies accelerated repairs, cleaned storm channels, and implemented community education efforts, while the State issued environmental permits that allowed repair and mitigation work to move forward prior to the arrival of the storms. Although difficult to quantify, it is clear that without these and a multitude of other efforts, the devastation from the disaster would have been far greater.

About 170% of normal precipitation was experienced in most areas, with several locations receiving 300% or more above normal. Rainstorms occurred continuously in February, ranging in duration from 1 to 3 days, with only a day of rest between cycles. The season's most severe storm occurred on February 2nd, and a series of storms continued until February 24, 1998. A strong jet stream was present across the Pacific during this time and this colder air mass also increased rain and snow. February rains were three times normal, and the mountain snow pack rose from 15% to 185%. The pattern was similar to the winter of 1982-83, the most serious past El Nino year. The El Nino '98 Storms were of average temperature --unlike those of 1997, which were warmer, resulting in rainfall at higher elevations.

Description of Damage and Impact

Damage occurred almost as soon as the first heavy rains began in November, 1997. In Orange County, the damage became serious enough for a local disaster declaration on December 6, 1997. This was followed by a gubernatorial disaster declaration on December 10, 1997.

Casualties included 17 confirmed deaths and 29 confirmed injuries. The total amount of residential damage was estimated at over $120 million. Roads, utilities, and levees were also damaged. As of April 29, 1998, the Disaster Field Office (DFO) estimated damages as follows: 91 homes have been destroyed, 2,303 homes suffered major damages, and 4,252 homes incurred minor damage.

According to the California Coastal Commission, *Storm Summary Report for Coastal California, March 10, 1998,* the El Nino '98 Storms caused extensive damage along Coastal California. In many cases, coastal bluff and mountain soils lost stability due to saturation from copious precipitation and large waves. High river levels caused flooding of several low elevation areas. There was a great deal of beach erosion in Los Angeles, Orange, and San Mateo Counties, as well as other parts of California. Storm waves damaged many low-lying oceanfront structures. The Coastal Commission issued approximately 75 emergency coastal permits, mostly for rip rap and seawall repairs to protect residential structures.

Impacts to Individuals

By April 28, 1998, FEMA's Human Services Division had received over 70,125 tele-registrations for FEMA disaster assistance. The Disaster Housing Program had received a total of 46,730 applications, and had provided $20.6 million in assistance. As of April 15th the Small Business Administration (SBA) had issued 31,509 home and personal property loan applications and had approved more than $16

million in low interest loans. In addition, the SBA had issued 9,699 business loan applications and approved $6,504,400 in business loan funds. The Individual and Family Grant Program (IFGP) had received 37,093 requests as of April 28th. For serious, unmet needs beyond the maximum IFGP award, the State Supplemental Grant (SSG) could provide up to an additional $10,000, and had awarded 17 grants for an additional $82,663 in aid to individuals. The Public Assistance (Infrastructure) Program had received 269 Damage Survey Reports (DSRs) totaling $26,582,560 as of April 28, 1998. According to the preliminary damage assessment, damage to local government facilities was estimated at $300 million.

Shelters

The El Nino '98 Storms created a need to feed and shelter thousands of people. The American Red Cross (ARC), members of the National Volunteer Organizations Active in Disaster (NVOAD), and numerous other voluntary agencies, are usually the first to respond to the needs of disaster victims. The Red Cross provided housing for 5,112 people at 91 shelter locations, more than 140,000 meals were served, and financial assistance was extended to more than 2,300 households. The Red Cross relief efforts for the El Nino winter storms exceeded $4.6 million.

Levees

Unlike the flooding in the previous year (FEMA-1155-DR-CA), California Winter Storms of 1997), there were less widespread floods and levee problems. Due in part top the lower temperatures, the duration of rains, and pre-storm repair efforts to shore-up levees at risk, there were only a few levee breaks and seepage. According to DWR, The Sacramento River was not strained to capacity. The San Joaquin River briefly approached flood stage at the Vernalis Gage, but did not exceed it. Many of the areas that flooded were predictable, such as Rio Linda in Sacramento County and the residential areas along the Pajaro River in Monterey County. The area around Clear Lake in Lake County repeated its flooding history, and set a record for the stage height. The Russian River at Guerneville was above flood stage, as was the Petaluma River.

Landslides

Landslides and debris flows had a greater impact during this disaster than in the federal disasters of 1995 and 1997. The severity of the problems ranged from the catastrophic losses in the Rio Nido community of Sonoma County, to small erosion problems with minor impact. Landslides and erosion also caused residential damage and destruction in Alameda County, Humboldt County, Los Angeles County, San Mateo County, San Francisco County, Santa Cruz County, Ventura County, and various other sites within the state.

Vulnerability

The frequent storms that occurred in February 1998 saturated soils and triggered numerous debris flows and landslides, resulting in severe damage throughout river valleys and coastal areas. Eroding cliffs jeopardized homes, and debris flows forced many residents to evacuate their homes. Such headline grabbing events focused attention on the geologic problems produced by the wet season. It should be noted, however, that deep-seated landslide movements could continue after the heavy rains have stopped.

Soil and rock that comprises hill slopes will eventually move downhill. Some of this material will move grain-by-grain thorough erosion and soil creep, and some will move as larger slabs or liquefied masses, commonly called landslides and mudslides. Geologists generally classify landslides on their shape, rate (speed) of movement, type of motion, and material properties. In most classification schemes, there are

three distinct types of movement: flow (e.g. debris flows and mudflows); sliding along a discrete plane or failure (e.g. debris slide); and falling (e.g. rock falls and avalanches).

Landslides can be small, involving only a few cubic yards of material, or large, involving more than a square mile of land. Some landslides are shallow, only a few feet deep, while others can be hundreds of feet deep. Landslides can be slow, and move only a few inches a year. It can also be fast and move at tens to hundred of miles per hour.

While most hill slopes are marginally stable under dry conditions, the addition of water from rainfall, snowmelt, or human activities (e.g. watering lawns) can radically alter the character of the soil and weathered rock and lessen the stability of slopes. Generally, all other conditions being equal, if groundwater is at or near the ground surface, there is a great probability that a landslide or debris flow will occur.

Another major factor that may trigger landslides is sudden changes in the shape of the slope. Slope changes that may trigger landslides include, but are not limited to, man-made cuts and fills, undermining of slopes by stream erosion or formation of gullies, or undermining and overloading of slopes due to landslide movement on adjacent land. In fact, landslide movement in one part of a hill slope can radically affect the stability of adjacent slopes. Events at Rio Nido in Sonoma County illustrate how complex the changes in stability can be. In simplified terms, the Rio Nido landslide began when a block of soil and rock, high on a ridge, rotated down and out on the slope. This movement pushed a bulge of material onto the existing steep slope at the toe of the landslide. Fissures opened at both the top of the rotational block and within the toe of the landslide. The rotational movement of the landslide also undermines up-slope areas (decreasing stability), changing the groundwater flow patterns (increasing stability in parts of the slide while decreasing stability in other). Because the toe of the landslide was no longer supported by the surrounding slope (the slope became overly steep), the saturated outside edge failed by toppling and breaking apart. This loose material then mobilized as debris flow down a stream channel, picking up additional debris, including sediment and trees, as it flowed toward the houses on the canyon flow below. Immediate concerns were that the landslide mass would continue to move high on the slope, and as it did, the entire mass would break apart and fail as a massive debris flow that would inundate a much larger down slope area. Currently, the rotational component of the Rio Nido landslide has not shifted since monitoring equipment was installed two weeks after the failure began.

Hillsides may also be more vulnerable to debris flows following wildfires. Removal of vegetation generally makes hillsides more susceptible to erosion and landslides. After a forest fire there is reduction in the amount of vegetation on the hillsides to hold the soil in place. Also, the roots decay over a period of years following the fire. This results in an increased landslide hazard for 3 to 5 years following a large fire. In 1997, Southern California had 27 wildfires greater than 300 acres. At least 22 of those sites had some erosion damage in 1987, and it came in the form of debris flows and minor flooding.

There is evidence to suggest that most landslides and debris flows occur where they have happened in the past. For example, the Rio Nido landslide is next to an existing landslide deposit identified on a CA Division of Mines and Geology (DMG) map.

Though landslides are fairly common in California's hillside areas, there is considerable pressure to construct new homes at these locations. Some communities require site-specific investigations prior to permitting development. Engineers attempt to stabilize slopes by providing drainage, flattening slopes, and filing-in valleys. Sometimes, these modified slopes and fills require maintenance and while many of these modified slopes could last decades, some failures occur. This is what happened to houses in

Laguna Niguel, Orange County, which were built on an engineered slope that had shown signs of distress for three years.

Just as there is pressure to develop hill slope areas, the beautiful ocean views from sea cliffs make them desirable places to live. During the recent disaster, accelerated cliff erosion in Pacifica resulted from slightly higher than normal seasonal ground water infiltration. When the ground becomes saturated, wave action can more easily remove materials that have fallen to the bottom of the cliffs, temporarily accelerating cliff retreat in the areas up slope. The rocks in these particular cliffs are highly fractured and nonresistant. They include sandstone, shale, and metamorphic rocks that are prone to rapid erosion during the rainy season. Erosion usually has occurred episodically, not continually at the same time. This year the cliffs locally eroded as much as 10 feet, compared to the frequently noted annual averages of 3 to 4 inches.

Impact

At any given time, a disastrous meteorological event would affect half of the population (5.2 million) of Los Angeles County (damage, work loss, economic loss, injury/death etc.). Historically, it can be determined that a percentage of .12% can be used to estimate dollar losses in Los Angeles County for disastrous damage from severe weather and destructive winds. The following estimated potential losses are calculated:

Potential dollar losses to County-owned Facilities	$17.9 Million
Potential dollar losses to Critical Facilities or Infrastructure	$4.6 Million
Potential dollar losses to Commercial Property	$212.5 Million
Potential dollar losses to Residential and Private Property	$871.8 Million
Potential other dollar losses (Environmental, Historical, Economic, Human)	$435.1 Million
TOTAL POTENTIAL DOLLAR LOSSES FOR THIS HAZARD	**$1.54 BILLION**

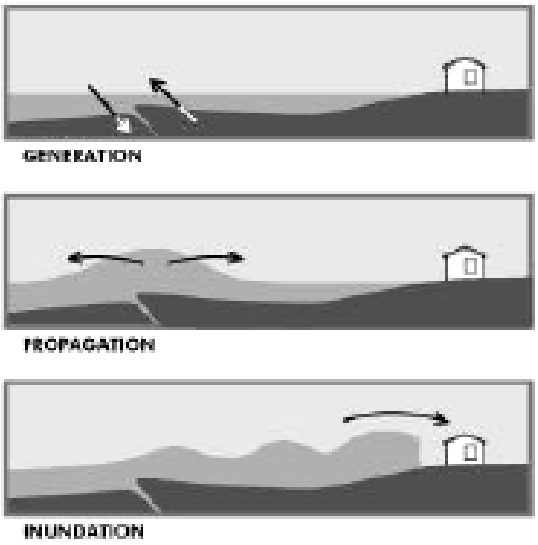
LOW PRIORITY Natural Hazards

Tsunami

Tsunami (Seismic Sea Wave) was rated a LOW PRIORITY HAZARD in Los Angeles County.

Tsunami Definition

A tsunami is a series of long waves generated by any sudden displacement of a large volume of water. Tsunamis are triggered by submarine earthquakes, submarine volcanic eruptions, underwater landslides or slumps of large volumes of earth, meteor impacts, and even onshore slope failures that fall into the ocean or a bay. Tsunami waves can propagate as a series of long waves across entire ocean basins. The hazard can last for many hours as the tsunami passes, and waves may resonate in some harbors and bays for days after the initial attack. For example, tsunamis from the 1960 offshore Chile event were recorded for more than one week in some locations.

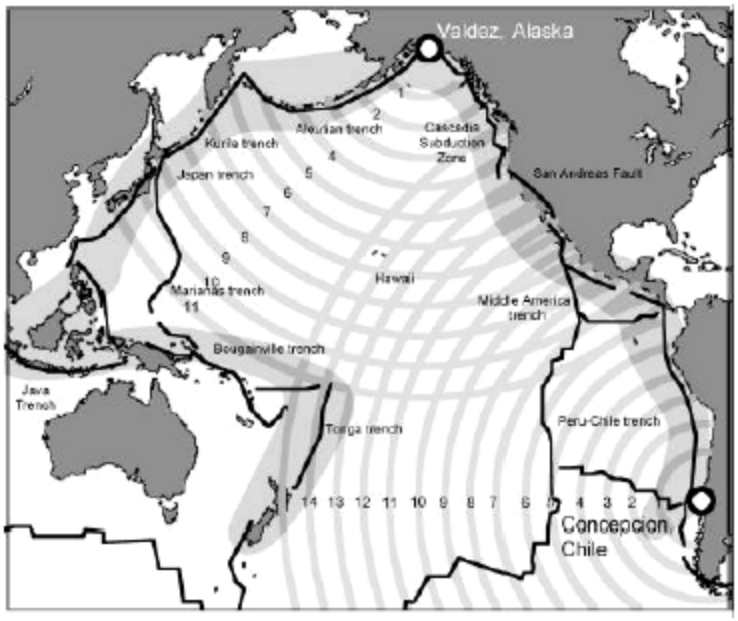


A tsunami is a series of deep, long waves
Generated by a sudden displacement of a large volume of water.

Seiches (or harbor oscillations) are a related hazard for enclosed bays, inlets, and lakes. Alaska and parts of Washington and British Columbia, in particular, have numerous communities vulnerable to such events. These destructive tsunami-like waves can be generated by earthquake motions, subsidence or uplift of large blocks of land, submarine and onshore landslides, sediment failures, and volcanic eruptions. Large tidal bores, strong currents, and the interaction of ocean swells and surf outside of bays and inlets may amplify the waves. The strong currents associated with these events may be more damaging than inundation by waves.

Source Zones

Tsunamis are associated primarily with seismic activity. The Pacific "Ring of Fire," one of the most active seismic features on earth, circles the Pacific Ocean from the southern tip of Chile, north along the west coasts of both South and North America, turning west along the Aleutian Islands arc of Alaska, and south through Japan, the Philippines, and the eastern Indo-Pacific region. Occasionally, tsunamis generated within this region threaten almost every island and coastal settlement in the Pacific Rim, including those in the five Pacific states: Alaska, California, Hawaii, Oregon, and Washington.



The Pacific "Ring of Fire" is the most active seismic feature on earth. Tsunami waves triggered by seismic activity can travel across the Pacific Ocean at up to 500 miles per hour, striking distant coastal areas in a matter of hours. The figure shows the estimated number of hours for tsunami-generated waves to travel across the Pacific Ocean from Alaska and Chile, respectively.

While not on the Ring of Fire, Hawaii sits in the center of a tectonic hot spot. Earthquakes and large landslides along the flanks of Hawaii, associated with the injection of magma into volcanoes' "plumbing systems," have generated tsunamis. In some areas, the risk of tsunamis from landslides may be greater than that posed by offshore earthquakes. Some locations, like parts of Alaska and Hawaii, may be stricken by multiple tsunamis from different sources such as volcanic eruptions, submarine earthquakes, and landslides, which may occur at the same time, greatly compounding the hazard.

Local and Distant Sources of Tsunamis

Tsunamis are typically classified as either local or distant. These two types of tsunamis have different implications for comprehensive planning; zoning; building siting, design, and construction activities; and evacuation warning. For example, local tsunamis likely will follow associated earthquake ground shaking and possibly ground failures that may produce additional damage. Evacuation will have to be nearly instantaneous when responding to local tsunamis, but assuming effective warning systems exist, many hours may be available to evacuate people from exposed areas before distantly-generated tsunami waves arrive.

Tsunamis from Local Sources

Tsunamis from local sources usually result from earthquakes occurring off nearby coasts. In the Pacific Northwest, including Alaska, these typically involve large subduction earthquakes in the Cascadia Subduction Zone or the Alaskan-Aleutian Subduction Zone. The Cascadia zone, where the Farallon (or Gorda or Juan de Fuca) Plate is sliding beneath the North American Plate, lies approximately 60 miles (100 kilometers) seaward of Cape Mendocino, California, and extends north along the coasts of Oregon, Washington, and British Columbia to the Queen Charlotte Islands. The Alaskan-Aleutian zone, where the Pacific Plate is sliding beneath the North American Plate, extends from southeastern Alaska to the westernmost tip of the Aleutian Islands.

Along active subduction coasts, tsunamis may also be generated by large landslides, both submarine and above water, into coastal waters (e.g., Lituya Bay, Alaska), and by volcanic activity (e.g., Krakatoa, Indonesia), especially along the Aleutian volcanic island chain.

In Hawaii, two of the largest tsunamis in the historic record (1868 and 1975) were caused by normal-fault earthquakes on the flank of the island. A few other much smaller Hawaii tsunamis may have been caused by onshore or submarine landslides. Volcanic activity is associated with these events such as the eruptions of Kilauea in 1975. Although explosive volcanic eruptions are uncommon in Hawaii, such activity does occur and may trigger local tsunamis.

In California south of the Cascadia Subduction Zone, local tsunamis may be generated by large offshore or coastal fault movements. Some parts of the coast are cut by active reverse and thrust faults, which push up the coast or offshore ridges during large earthquakes. Other parts are dominated by strike-slip faulting, where large areas of seafloor uplift or subsidence occurs due to local irregularity in the fault trends. In southern California, large submarine landslides along the steep and unstable slopes of the continental shelf edge and offshore borderland ridges can generate locally-destructive tsunamis for the adjacent coastal areas.

The travel time for a locally-generated tsunami, from initiation at the source to arrival at coastal communities may be within five to 30 minutes. For example, a series of destructive tsunamis began striking coastal communities on Okushiri Island, Japan, about eight minutes after the July 12, 1993, Hokkaido-Nansei-Oki earthquake main shock. At least one village was hit by tsunami waves estimated to be 12 meters high (39.5 feet) while waves at other locations were between five and ten meters high (about 16.5 to 33 feet). Located almost directly above the epicentral area, the island received tsunami warnings about five minutes after the earthquake, about the best warning time possible with present technology. Fortunately, casualties were limited because people fled to evacuation sites on higher ground immediately after feeling the earthquake without waiting for an official warning. Public information and training programs were effective in reducing losses from this event.

Tsunamis from Distant Sources

Tsunamis from distant sources are the most common type observed along the Pacific Coast of the United States. Large tsunamis generated anywhere around the Pacific "Ring of Fire" propagate across the ocean with little energy loss before striking populated U.S. coastlines. The Pacific states may suffer both regional and Pacific-wide tsunamis. By definition, regional tsunamis affect smaller areas than Pacific-wide tsunamis, either because the energy released is of insufficient magnitude for Pacific-wide propagation or because the geographical configuration of the source area restricts the tsunami's spread. The combined impacts of the earthquake and regional tsunami that originated off the Philippine Islands on August 16, 1976, killed approximately 8,000 people in the affected area. Regional destructive tsunamis within the Sea of Japan in 1983 and 1993 were unable to propagate out into the larger Pacific Ocean basin.

Pacific-wide tsunamis, although less frequent than regional tsunamis, have greater destructive potential because the waves are larger, travel farther, and affect broader coastal areas. The time required for a distant tsunami to reach the Hawaiian and mainland coasts will vary between approximately 5½ to 18 hours, depending upon the tsunami's place of origin. The effects of a distant tsunami on a coastal area may be negligible or severe depending upon the magnitude of the tsunami, its source distance, and its direction of approach. For example, the tsunami generated by the May 22, 1960, Chile earthquake spread death and destruction across the Pacific Ocean from Chile to Hawaii, Japan, and the Philippines.

The coastal and offshore source zone measured about 135,000 square miles (approximately 218 miles by 622 miles), nearly the same area as the state of California. The length of the fault rupture may have reached 750 miles. As a result, over 2,000 fatalities occurred in Chile, due mostly to the tsunami. Losses also were severe in Hilo, Hawaii (61 fatalities and 282 serious injuries), and in Japan (122 fatalities). In contrast, Kodiak Island, Alaska, noted less than one meter rise in the water level, and losses in California were mainly in harbors where strong currents smashed, sank, or grounded small craft, and damaged dock facilities.

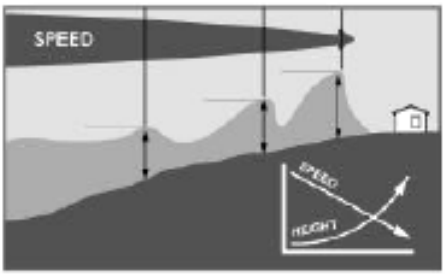
Tsunamis generated by the March 28, 1964, Alaskan earthquake caused both distant and local impacts, including losses in all five Pacific states, as well as other Pacific Rim countries. Alaska suffered 106 fatalities and over $84 million in damage, but in Hawaii, compared to the 1960 Chilean event, damage was minimal. In contrast, Crescent City, California, suffered ten fatalities and over $7 million in damage, and Kodiak Island, Alaska—one of several Alaskan cities and communities to suffer losses—experienced land subsidence of about 6.5 feet followed by ten waves that contributed to the destruction of about 80 percent of the industrial and commercial areas and killed 15 people. Kodiak's bedrock location limited earthquake shaking damage to only minor losses. Valdez, Alaska, experienced submarine landslides and local tsunamis where the highest wave reached 23 feet, destroying much of the town. Consequently, Valdez was rebuilt at a higher elevation to minimize future tsunami damage. Seward, Alaska, experienced tsunamis 30 to 40 feet high due to both fault rupture and local submarine landslides, causing extensive damage to the docking areas and fires in petroleum storage facilities.

Tsunami Characteristics

Tsunamis travel outward from the source area and may be highly directional. For example, for an earthquake-generated tsunami, most of the energy propagates at right angles away from the long axis of the source fault rupture. The wave speed depends on the water depth, undergoing accelerations and decelerations as the ocean bottom depth varies. Such wave speed changes cause the wave fronts to bend (refract), creating area where the energy is focused (wave height increases) and defocused (wave height decreases). In the open ocean, wave speeds may reach 500 miles per hour (800 kilometers per hour)—as fast as a jet airplane—with the distance between successive crests

(wavelength) often exceeding 100 miles. Wave heights in deep water may be only a few feet high, and due to their long wavelength, produce only a gentle rise and fall of the sea surface that is usually unnoticed.

As a tsunami enters the shoaling waters near the coast, its wave speed diminishes, its wavelength decreases, and its height increases, often greatly. The first wave may not be the largest, with the initial wave typically being followed by several larger and more destructive waves. Even though the waves slow upon reaching the coastline, they still travel faster than Olympic long-distance runners—faster than 15 miles per hour.



As a tsunami approaches shore, it slows down and dramatically increases in height.

The configuration of the coastline, the shape of the ocean floor, and the characteristics of the advancing waves play important roles in the potential for destruction. For islands, no matter from which direction the tsunami arrives, all sides usually will be affected. As the wave wraps around the island, the height or run-up may be small at many points along the coast, but increases greatly where the two opposing wave fronts meet on the backside of the island. Focusing effects due to the wave front bending on irregular coasts may also result in locally high wave amplification. Bays, sounds, inlets, rivers, streams, offshore canyons, islands, and flood control channels may cause various effects and result in greater damage than many people would expect.

It has been estimated, for example, that a tsunami wave entering a Southern California flood control channel could reach a mile or more inland, especially if it enters at high tide. Offshore canyons can focus tsunami wave energy and islands can filter the energy. The orientation of the coastline determines if the waves strike head-on or are refracted from other parts of the coastline.

Unlike earthquake shaking where damage may occur over large areas in the source region— hundreds of square miles in many cases—tsunamis impact long, low-lying stretches of linear coastline, extending inland for relatively short distances. After striking a coast, the wave reflects back to sea, but may also be reflected back to the coast again and again from offshore islands or submerged ridges, banks, and shelves, as a series of waves.

Rather than rising water, the first visible indication of an approaching tsunami could be receding water (drawdown) caused by the wave trough preceding a large inbound wave crest. Rapid drawdown creates strong currents in harbor inlets and channels that can damage coastal structures due to erosive scour, such as around piers and pilings. As the water's surface drops, piers can be damaged by boats or ships straining at or breaking their mooring lines. The vessels can overturn or sink due to strong currents, collision with other objects, or impact with the harbor bottom.

Conversely, a rise in water level may be the first indication of a tsunami. The advancing tsunami may initially resemble a strong surge increasing the sea level like the rising tide, but the tsunami surge rises

faster and does not stop at the shoreline. Even if the wave height appears to be small, for example, three to six feet, the strength of the accompanying surge can be deadly. Waist-high surges can cause strong currents that float cars, small structures, and other debris. Boats and debris are often carried inland by the surge and left stranded when the water recedes. Outflow following inundation also creates strong currents, which rip at structures and pound them with debris, and erode beaches and coastal structures.

Moreover, under certain conditions the crest of an advancing wave may overtake the preceding trough while some distance offshore, causing the wave to proceed shoreward as a "bore" with a churning front. The bore phenomenon resembles a step-like rise in the sea level that advances rapidly (from 10 to 60 miles per hour). Normal tidal bores at the Bay of Fundy, Canada, or the Yellow River, China, provide examples of this phenomenon.

The force and destructive effects of tsunamis should not be underestimated. At some locations the advancing turbulent wave front will be the most destructive part of the wave. In other situations, the greatest damage may be caused by the outflow of water back to the sea between crests, sweeping all before it and undermining roads, buildings, bulkheads, and other structures.

This outflow action can carry enormous amounts of highly damaging debris with it, resulting in further destruction. Ships and boats, unless moved away from shore, may be dashed against breakwaters, wharves, and other craft, or be washed ashore and left grounded after the seawater recedes.

Factors Unique to Tsunami Risk Management

Coastlines have always been a favored location for human settlements. Attractive coastal locations and a growing affluent population have combined to increase development of housing, maritime facilities, and resorts in coastal communities in recent times. Long gaps between devastating tsunami events (and apparent disregard of more frequent hazards such as strong storms, sea level changes, and coastal erosion) have produced a coastal population that seems to ignore the destructive tsunami threat. According to one recent estimate, 489 cities in Alaska, California, Hawaii, Oregon, and Washington are susceptible to tsunami inundation, with an estimated 900,000 people living or working within areas that could be inundated by a 50-foot tsunami.

The State of California has 152 cities in locations susceptible to damage from a tsunami affecting a population of 589.500 (2001 figures).[3]

Mainland coastal states and Hawaii have several unique factors that affect the siting of development and design of buildings. Recently prepared maps for several locations show potential tsunami inundation areas along different types of coastlines. Important factors affecting tsunami exposure include:

- All or parts of the mainland states are located near active subduction zones (Cascadia and Alaska-Aleutian) or other well-defined tsunami-producing zones. Local tsunamis generated by these zones will reach the coasts extremely quickly (within 5-30 minutes, depending on the distance to the zones).

- Strong earthquakes, whether accompanied by tsunamis or not, are rare events in most low lying coastal communities. With little strong ground shaking experience,

[3] Source: TsuInfo Alert, v.2, no. 2, March-April 2000. Terry Wallace, University of Arizona, Department of Geosciences.

these communities have little awareness of earthquake hazards. Yet even with minimal earthquake activity, the risk of damage from a major tsunami is considered high for these communities.

- Except in Hawaii and a few mainland coastal communities, tsunami awareness is not currently embedded in coastal community "culture."

- Coastal communities vary in size, but with some notable exceptions, such as Los Angeles, Honolulu, Santa Barbara, San Francisco, and San Diego, most communities are relatively small.

- Many coastal communities are largely recreational, having many short-term and seasonal visitors. This presents a special problem as losses could be very high if a destructive tsunami occurred at a seasonal peak population time.

While the concept of mitigation is simple, there are many complex issues involved in achieving effective mitigation. Mitigation actions involve public policy, intergovernmental relations, public-private partnerships, economics, acceptable risk, and a wide range of specialized activities and programs. In all cases, mitigation programs and procedures are based on understanding the nature and probable severity of the hazard and the vulnerability of the area. Vulnerability assessments describe the weaknesses of buildings, systems and communities that make them susceptible to damage from the hazards.

Not all areas share the same hazard, vulnerability, and exposure. In general, a greater hazard justifies more rigorous mitigation measures. The key question becomes "How severe a problem are we dealing with in each community?" The answers to this question provide the basis for making public safety policy choices.

As with many natural hazards, exact probabilities or return intervals are extremely difficult to define, but two comparisons are instructive. First, California's building designs have been based on earthquakes expected to occur once every 475 years with the intent that collapse will not occur. In the Midwest, designs are based on avoiding collapse in earthquakes occurring once in 2,500 years. Second, flood loss prevention policies deal with events expected to occur every 100 to 500 years. While Hilo, Hawaii, has experienced numerous tsunamis, and Crescent City,

California, experienced two damaging tsunamis in four years (1960 and 1964), many communities at risk have little or no recent history with tsunami damage. Where development has not yet occurred, one mitigation action is to avoid the hazard. This takes a combination of knowledge and willingness by decision makers to set aside such areas and define them as unacceptable risks. Where development already exists or is virtually certain to occur, two fundamental strategies are available to help ensure that the potential effects of natural hazards are considered during the planning process. Although oversimplified, these two approaches are: 1) managing the hazard; and 2) managing the development. For example, managing the hazard by improving drainage can help control small-scale flooding and keep developed areas dry. Managing the development, for example, by avoiding constructing improvements in high-velocity floodplains and landslide-prone hillsides may be more effective and less environmentally disruptive than building expensive structures to control flooding or landslides.

Although probabilities of occurrence may be extremely difficult to establish for tsunamis, using an approach similar to the application of probabilities to other hazards may be helpful. For example, a possible approach for tsunami mitigation is to prevent development or limit it to coastal-dependent facilities designed to the expected tsunami forces where tsunamis are expected once in every 100 years. Near-shore rapid-onset events (locally-generated tsunamis) could be subject to similar controls

where tsunamis are expected once in every 500 years. In areas likely to experience tsunamis once in every 2,500 years, at least adequate evacuation precautions should exist, such as designing for vertical evacuation, designating "safe buildings," and maintaining effective plans for horizontal evacuation from low-lying to higher ground areas.

This is especially true for areas with large resident or visitor coastal populations "at risk," such as beach communities. Land use and mitigation actions taken for other reasons may also help limit tsunami damage. For example, preventing construction in floodplains, because of their highly saturated soils and low elevations, could reduce losses from tsunami inundation and earthquake ground shaking. Low density uses, such as parkways or protected habitat areas, could also help mitigate tsunami losses.

California Local Development Regulations/Programs

State law authorizes implementation of the local general plans through zoning, subdivision procedures, preparation of specific plans, capital facility programming, redevelopment, and development agreements. Based on statutory and case law, the use of all these implementation tools must be consistent with the local general plan.

State law requires that all cities and counties adopt building codes that are consistent with state adopted model codes (as of July 1, 1999, based on the 1997 Uniform Building Code (UBC)).

State law provides for State modification of the model codes and allows for some variations at the city/county level based on unique local conditions.

State Coastal Policies

The California Coastal Management Program (CCMP) was designed to respond to the federal Coastal Zone Management Act (CZMA) and was certified by the federal government in 1978. The enforceable policies of that document are contained in Chapter 3 of the California Coastal Act of 1976 (Public Resources Code Section 30000 et seq.). The California Coastal Commission is the lead agency responsible for the overall administration and operation of the CCMP.

Coastal cities and counties are subject to both the Planning and Zoning Law (as described above) and the California Coastal Act. The California Coastal Act applies to the coastal zone, a strip along the California coast generally "extending seaward to the state's outer limit of jurisdiction, including all offshore islands, and extending inland generally 1,000 yards from the mean high tide line of the sea." (Public Resources Code Section 30103) Each city or county lying wholly or partly within the coastal zone must prepare a Local Coastal Plan (LCP) for that part of its jurisdiction within the zone or request that the Coastal Commission prepare an LCP for them. An LCP consists of a coastal land use plan (i.e., portions of a city's or county's general plan), zoning ordinance, zoning district maps, and where required, other programs necessary to implement the Coastal Act. In addition, it must contain a specific public access component to assure that maximum public access to the coast and to public recreation areas is provided.

While the Coastal Act provides that the content of each LCP is to be determined by the local government in full consultation with the Commission and with full public participation, the LCP must address a list of policies that can be grouped under the following seven headings: access, recreational and visitor-serving uses, marine resources, agriculture, new development, public works, and coastal-dependent industrial development. The contents of coastal land use plans overlap most of the required content of general plans, and, for this reason, many local governments have integrated their coastal land use plans in their general plans. The specific contents of local coastal plans (LCPs) are not specified by state law. However, LCPs must be certified by the Coastal Commission as consistent with

policies of the Coastal Act. It should be noted that since tsunami hazard areas can and do exceed the boundaries of the Coastal Zone, LCP policies cannot be relied upon exclusively to mitigate the tsunami risk.

The Coastal Act (Public Resources Code, Division 20) has provisions relating to geologic hazards, but does not mention tsunamis specifically. Section 30253(1) states that "…new development shall minimize risks to life and property in areas of high geologic, flood, and fire hazard." Section 30610.1(c)(3) states that coastal development permits shall be required for the construction of single-family residences on vacant lots that are "located within an area known to the affected local government, or designated by any other public agency, as a geologic hazard area or as a flood hazard area...", unless it has been "determined by the affected local government to be a safe site for the construction of a single-family residence."

The 1965 McAteer-Petris Act established the San Francisco Bay Conservation and Development Commission (BCDC) as a state agency. The San Francisco Bay Plan, completed in 1969 and subsequently incorporated into state law, includes policies on 18 issues critical to the use of the Bay ranging from ports and public access to design considerations and weather. The 1969 revisions to the Act further specified that the San Francisco Bay Conservation and Development Commission is the permanent agency responsible for maintaining the Bay Plan and carrying out the provisions of the law. Over the years, the Commission has adopted a number of amendments to the Bay Plan, and the Legislature has amended the McAteer-Petris Act several times.

State Role

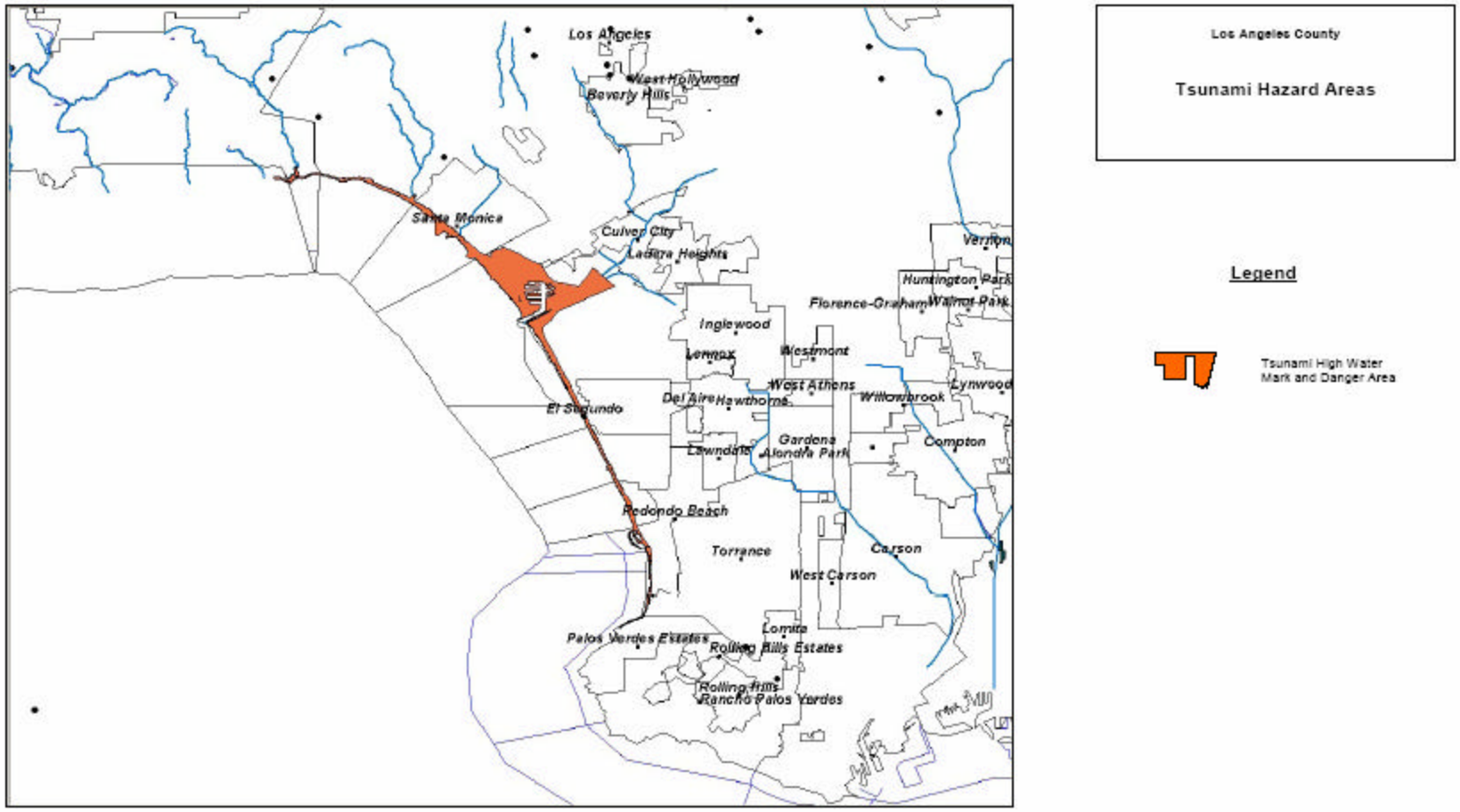
While State law requires the preparation of general plans and specifies the basic content of the general plan (including the required elements), there is no state land use plan or set of statewide goals or policies that general plans are required to meet. The Governor's Office of Planning and Research publishes the *General Plan Guidelines*, but these are advisory only.

The specific contents of Local Coastal Plans (LCPs) are not specified by state law either. However, LCPs must be certified by the Coastal Commission as consistent policies of the Coastal Act. In practice, the Coastal Commission has been very aggressive in ensuring conformance with Coastal Act policies.

The Seismic Hazards Mapping Act directs the State Geologist to compile maps identifying seismic hazards for use by local governments. The Act does not require the State Geologist to prepare maps for tsunamis or seiche hazards unless there is supplemental funding. The State Geologist, however, can adopt tsunami and seiche hazard maps prepared by other agencies. The State hazards maps are to be used in preparing local general plans and trigger requirements for geotechnical reports in connection with local government review and approval of individual project proposals.[4]

[4] This entire section was taken from "Background Paper 1: Understanding the Tsunami Risk", A multi-state mitigation project of the National Tsunami Hazard Mitigation Program (NTHMP). Mitigation Program (NTHMP)

Los Angeles County Tsunami Hazard Area Los Angeles County GIS Data



Rise in Ground Water

Rise in Ground Water was rated a LOW PRIORITY HAZARD in Los Angeles County.

There is no historical data pertaining to a catastrophic or disastrous rise in ground water in Los Angeles County.

Volcano

Volcano was rater a LOW PRIORITY HAZARD in Los Angeles County.

A volcano is a mountain that is built up by an accumulation of lava, ash flows, and airborne ash and dust. When pressure from gases and the molten rock within the volcano becomes strong enough to cause an explosion, volcanic eruptions occur.

No active volcanoes are in Los Angeles County. No historical record of this hazard is available for the region.

"The molten rock (magma) that feeds volcanoes comes from much closer to the surface than the core, which is about 2,900 kilometers (about 1,750 miles) deep. Volcanoes are located where there is a source of magma. Lots of times this is at plate boundaries and that's also where there are lots of faults and earthquakes. The San Andreas Fault is a place where two plates are sliding PAST one another, so there are lots of faults and earthquakes. One of the main places where rock is melted is where one plate slides UNDER another. That happens further north in the Cascades of Washington, Oregon, and northern California and that's why they have some active volcanoes (like Mount St. Helens) there. Los Angeles and southern California may have a lot of potential for earthquakes, but are probably safe from volcanoes for a while."

Ronald R. Charpentier, Geologist, U.S. Geological Service

Tornado

Tornado was rated a LOW PRIORITY HAZARD in Los Angeles County.

A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. It is spawned by a thunderstorm (or sometimes as a result of a hurricane) and produced when cool air overrides a layer of warm air, forcing the warm air to rise rapidly. The damage from a tornado is a result of the high wind velocity and windblown debris.

Less than one tornado event occurs in the entire State of California in any given year; and poses a very minor threat compared to other hazards. No historical record of this hazard is available for the region.

Synopsis of Estimated Potential Losses for High & Moderate Natural Hazards

Hazard	Estimated Population at Risk	Potential $ losses to County-owned Facilities	Potential $ losses to Critical Facilities & Infrastructure	Potential $ losses to Commercial Buildings	Potential $ losses to Residential & Private Property	Potential other $ losses (Environmental, Historical, Economic, Human)	Total Potential $ losses for this hazard
Totals	**10.2 Million (local) 3.9 Million (commute)**	**$14.9 Billion**	**$3.8 Billion**	**$177.6 Billion**	**$726.5 Billion**	**$362.6 Billion**	**$1.121 Trillion**
Earthquake	1.94 Million 741,000	$2.8 Billion	$722 Million	$33.7 Billion	$138.1 Billion	$68.9 Billion	$243.5 Billion
Wildland Fire	204,000	$298 Million	$76 Million	$3.5 Billion	$12.8 Billion	$7.3 Billion	$23.9 Billion
Flood	391,000	$13.4 Million	$3.4 Million	$15.9 Million	$61.5 Million	$32.6 Million	$111.3 Million
Drought	10.2 Million	$1.5 Million	$350,000	$17.8 Million	$72.7 Million	$39.2 Million	$126.1 Million
Landslide	165,000	$18.2 Million	$4.9 Million	> $1 Million	$46.6 Million	$22 Million	$87.5 Million
Severe Weather, Destructive Winds	5.1 Million	$17.9 Million	$4.6 Million	$212.5 Million	$871.8 Million	435.1 Million	$1.54 Billion
Tsunami	Low Risk						
Sinkholes / Subsidence	Low Risk						
Rise in Ground Water	Low Risk						
Volcano	Low Risk						
Tornado	Low Risk						
Natural Hazards the do not pertain to Los Angeles County	Avalanche, Hailstorm, Hurricane						

County of Los Angeles

All-Hazard Mitigation Plan

Version 1.0

October 2004

SECTION 4

Hazard Vulnerability Analysis

Part B

Technological and Human Caused Hazards

Prepared by Dimensions Unlimited, Inc.

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Section 4B– Hazard Vulnerability Analysis

HIGH PRIORITY Technological & Human-caused Hazards

Terrorism & Weapons of Mass Destruction (WMD)

Terrorism & Weapons of Mass Destruction were rated as HIGH PRIORITY HAZARDS in Los Angeles County.

The complexity, scope, and potential consequences of a terrorist threat or incident require that there be a rapid and decisive capability to resolve the situation. The resolution to an act of terrorism demands an extraordinary level of coordination of crisis and consequence management functions and technical expertise across all levels of government. No single Federal, State, or local governmental agency has the capability or requisite authority to respond independently and mitigate the consequences of such a threat to national security.

The incident may affect a single location or multiple locations, each of which maybe a disaster scene, a hazardous scene and/or a crime scene simultaneously.

Differences Between WMD Incidents and Other Incidents

As in all incidents, WMD incidents may involve mass casualties and damage to buildings or other types of property. However, there are several factors surrounding WMD incidents that are unlike any other type of incidents that must be taken into consideration when planning a response. First responders' ability to identify aspects of the incident (e.g., signs and symptoms exhibited by victims) and report them accurately will be essential to maximizing the use of critical local resources and for triggering a Federal response.

1. The situation may not be recognizable until there are multiple casualties. Most chemical and biological agents are not detectable by methods used for explosives and firearms. Most agents can be carried in containers that look like ordinary items.

2. There may be multiple events (e.g., one event in an attempt to influence another event's outcome).

3. Responders are placed at a higher risk of becoming casualties. Because agents are not readily identifiable, responders may become contaminated before recognizing the agent involved. First responders may, in addition, be targets for secondary releases or explosions.

4. The location of the incident will be treated as a crime scene. As such, preservation and collection of evidence is critical. Therefore, it is important to ensure that actions on-scene are coordinated between response organizations to minimize any conflicts between law enforcement authorities, who view the incident as a crime scene, and other responders, who view it as a hazardous materials or disaster scene.

5. Contamination of critical facilities and large geographic areas may result. Victims may carry an agent unknowingly to public transportation facilities, businesses, residences, doctors' offices, walk-in medical clinics, or emergency rooms because they don't realize

that they are contaminated. First responders may carry the agent to fire or precinct houses, hospitals, or to the locations of subsequent calls.

6. The scope of the incident may expand geometrically and may affect mutual aid jurisdictions. Airborne agents flow with the air current and may disseminate via ventilation systems, carrying the agents far from the initial source.

7. There will be a stronger reaction from the public than with other types of incidents. The thought of exposure to a chemical or biological agent or radiation evokes terror in most people. The fear of the unknown also makes the public's response more severe.

8. Time is working against responding elements. The incident can expand geometrically and very quickly. In addition, the effects of some chemicals and biological agents worsen over time.

9. Support facilities, such as utility stations and 911 centers along with critical infrastructures, are at risk as targets.

10. Specialized State and local response capabilities may be overwhelmed.

State of California Terrorism Guidance

The catastrophic attacks on the World Trade Center Building in New York City and the Alfred P. Murrah Federal Building in Oklahoma City shocked the nation into the reality that there are no domestic safe havens from acts of terrorism. These two apparently unrelated events punctuate our nation's vulnerability, and highlight California's risk of similar attack against its public officials, private and multi-national corporations, public infrastructure, and government facilities.

Historically, California has had a long experience combating terrorist groups, both domestic and international. Domestic terrorist groups in the state have been largely issue-oriented, while the few known internationally based incidents have mostly targeted the state's émigré communities and been related to foreign disputes. Today, however, both groups are more likely to be aligned nationally and/or internationally through electronic networking. The issues and politics of these groups remain essentially unchanged but now include increasing expressions of hatred for existing forms of government. The World Trade Center Incident demonstrates that international terrorist groups have the potential to operate with deadly effectiveness in this country. Such groups may offer no allegiance to any particular country but seek political or personal objectives that transcend national/state boundaries.

There is appropriate concern that such attacks as witnessed in Tokyo, New York City, and Oklahoma City could occur in California. A terrorist acting alone or in concert with any of the known national or international groups could readily commit acts of terrorism in California. The open availability of basic shelf-type chemicals and mail order biological research materials, coupled with an access to even the crudest laboratory facilities, could enable the individual extremist or an organized terrorist faction to manufacture proven highly lethal substances or to fashion less sophisticated weapons of mass destruction. The use of such weapons could result in mass casualties, long term contamination, and wreak havoc to both the state and national economies.

The freedom of movement and virtually unrestricted access to government officials, buildings, and critical infrastructure afforded to California's citizens and foreign visitors, presents the terrorist

with the opportunity and conditions of anonymity to deliver such devastation and its tragic consequences with only the crudest devices of nuclear, chemical, or biological content.

Terrorist incidents create a unique environment in which to manage emergency response. Local responders are typically the first on scene during an actual incident and local government has primary responsibility for protecting public health and safety. Ordinarily, the local first response will be conducted under California's Standardized Emergency Management System (SEMS) which forms the basis of California's concept of operations for managing any kind of emergency or disaster, including terrorist incidents. The local responders will manage all aspects of the incident until the FBI assumes command, by virtue of its legal authority, of the law enforcement aspects relating to identifying, apprehending, and neutralizing the terrorists and their weapons. Local and state authorities always maintain control of their response resources and continue to operate utilizing SEMS.

Governor's Office of Emergency Services Terrorism Response Plan

Los Angeles County Terrorism Early Warning (TEW) Group

Effective and rapid dissemination of indications and warnings to local emergency response agencies is an essential yet problematic element of terrorism management efforts. For bio-terrorist threats, such efforts must integrate ongoing real-time surveillance efforts. Terrorism Early Warning Groups are a multilateral, multidisciplinary effort to monitor open source data to identify trends and potential threats, monitor potential threat information during periods of heightened concern, assess potential targets and perform net assessments to guide decision making during actual events. TEW provides integrated threat and net assessment from a multi-jurisdictional perspective. City and county fire departments work together with emergency management, FBI, local law enforcement agencies, Department of Health Services, as well as other state and federal offices. The formation of TEW groups supports field response in the preparation for and response to acts of terrorism.

IAFC, October 2001 (et sec)

The Los Angeles Operational Area TEW Group provides Unified Command Structure with the impact of an attack on the operational area, gauges resource needs and shortfalls, continuously monitors and assesses situational awareness and status, and acts as the point of contact for inter-agency liaison in order to develop options for courses of action for incident resolution. TEW is an Emerging Threat Workspace (Civil Battle Lab) for stimulating National Strategy for emerging threat issues:

- Terrorism and Infrastructure Protection
- Public Order (Riots/Disturbances)
- Civil-Military Interoperability for Urban Operations
- Civilian Police (CIVPOL) for Peace Officers
- Networked Threats and Emerging Threats
- Counterterrorism Technology Test Bed

Biological & Chemical Terrorism

The Public Health Response to Biological and Chemical Terrorism: Interim Planning Guidance for State Public Health Officials (hereafter referred to as the Planning Guidance) outlines steps for strengthening the capacity of the public health system to respond to and protect the nation against the dangers of a terrorism incident. Although the Planning Guidance focuses on the biological and chemical terrorism preparedness efforts of state-level health department personnel, it can be used as a planning tool by anyone in the response community, regardless of his or her position within that community or level of government.

The public health community at large also can use this document to improve its terrorism preparedness and develop terrorism response plans. The preparedness program outlined in this Planning Guidance, once implemented, should improve the ability of all public health agencies to respond to emergency situations arising from all sources, not just terrorism.

The Planning Guidance focuses on the capabilities that state health departments are likely to need to respond effectively to a terrorism incident. Despite the public health focus of this document, the terrorism plan ultimately should not be agency-specific. Instead, the terrorism plan should be integrated, outlining the roles and responsibilities of all agencies that participate in a response. This coordinated terrorism plan should then be annexed to the states all-hazard Emergency Operations Plan (EOP)

Background

The intentional release of sarin, an organophosphate nerve agent, into the Tokyo subway system helped to focus the United States on its need to prepare for what was once unthinkable. Aum Shinrikyo, the group responsible for the Tokyo incident, disbursed botulinum toxin and anthrax bacteria, and the group attempted to obtain Ebola (1).

The World Trade Center and Oklahoma City bombings confirm that terrorism is not an event that occurs only on foreign soil. Terrorism incidents or threats involving *Salmonella* (2) and ricin (3) amply demonstrate that the United States is vulnerable not only to bombs but to biological and chemical threats as well.

These and other events caused health departments across the country to consider their ability to respond to a terrorism incident. In addition to their more traditional responsibilities in disease surveillance and management, health departments are defining their roles to respond effectively to an intentional release of biological organisms or hazardous chemicals into an unsuspecting population.

Because states differ in size, population, risks, needs, and capabilities, terrorism preparedness and response efforts inevitably must differ. This document does not establish a “one-size-fits-all” model; rather, it addresses important areas of preparedness and response that can be tailored to meet the needs of individual jurisdictions. Health department officials should consider the information contained in this guidance, identify the health and medical effects that an explosion or the intentional release or threatened release of a biological organism or hazardous chemical could have on the population, and prepare to address the public health consequences of those effects.

Well-developed surveillance and epidemiologic capacity is the foundation on which health departments will detect, evaluate, and design effective responses to terrorism events. Not only will this capacity facilitate the initial detection and response in a terrorism event, it will be essential

to monitoring the impact of these events and the effectiveness of public health responses. Detection of acute or insidious terrorism attacks using biological (or certain chemical) agents also will require linking of data from a variety of sources. An effective public health response will depend on the timeliness and quality of communications among numerous public health agencies at local, state, and federal levels; clinicians; laboratories; poison centers; medical examiners; and other health response partners.

Complementing the need for accurate and timely case reports is the need for expertise to analyze the information properly. Epidemiologic expertise is critical to judging whether the incident involves biological or chemical agents or is a consequence of a natural phenomenon, an accident, or terrorism. Expertise also is critical in determining the likely site and time of the exposure; size and location of the population exposed; prospect for delayed exposure or secondary transmission of an infectious agent; and whether any people should receive prophylaxis (either medications or vaccines) and, if so, which population groups.

Timely and accurate information and analysis must be coupled with effective and rapid dissemination of information to those who need to know (e.g., response partners and the public) to instill confidence in both the short- and long-term response of the affected community.

Targeting Information (CONFIDENTIAL INFORMATION)

Following is a listing of facilities organized by city, that have been deemed possible terrorist targets

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Terrorism Mitigation

Because the primary mechanism for past terrorist incidents has been bombings and because of the potential for mass casualties from a WMD terrorist event, the primary focus of the state's hazard mitigation strategy for terrorism is on mitigation measures that reduce risk from bomb blast and nuclear, biological, and chemical attacks to critical state facilities and population. Measures include:

Hardening (construction/retrofitting)

- Relocation/retrofitting of air intakes
- Ventilation system upgrade/retrofit
- Protect tower bases of bridges
- Seismic retrofitting
- Upgrade/retrofit water main system
- Blast guard window film/glazing, frames
- Egress improvements

Barriers and Fencing

- Fencing around air intakes
- Fencing around fuel supply
- Vehicle barriers, bollards, popup gates, hydraulic barriers
- Waterfront security system
- Perimeter fencing

Redundant systems

- Fire protection system
- Communications systems
- Information technology
- Utility (Gas/Heat/Water)
- Utility (Electric)

Security Measures

- Security systems/early warning systems
- Warning and alarms systems directly related to system protection/shut down
- Smart utility management systems on all critical services.

Planning/Studies

- Telecommunications plans
- IT disaster recovery plans
- Business continuity/resumption plans
- Intelligence gathering and sharing
- Threat, vulnerability, and risk assessments

- Evacuation plans
- Site security planning

Seismic Study

- Retrofitting
- Interior lighting
- Exterior lighting
- Staging areas

Surveillance

- Secure Access & Entry Points
- Card swipe system
- Magnetometer
- Metal detectors
- Surveillance cameras & closed circuit TVs
- Personnel detection equipment
- Vehicle detection equipment
- Radar systems
- Building access system
- Motion detectors
- Replacing door locks and keys

IT Systems

- Security management system
- Building access system
- Employee identification system
- Coding protocol for sensitive records.

These above-listed measures are already being used in many communities and situations and have proven effective in reducing or eliminating hazard risk. Each of these measures directly meets an objective stated in the state's Hazard Mitigation Strategy.

Utility Loss

Utility Loss was rated a HIGH PRIORITY HAZARD in Los Angeles County.

The 2000-2001 California electricity crisis brought to light many critical issues surrounding the state's power generation and distribution system, including its dependency on out-of-state resources. Although California has implemented effective energy conservation programs, the state continues to experience both population growth and weather cycles that contribute to a heavy demand for power.

Hydro-generation provides approximately 25 percent of California's electric power, with the balance coming from fossil fuels, nuclear, and green sources. As experienced in 2000 and 2001, blackouts can occur due to losses in transmission or generation and/or extremely severe temperatures that lead to heavy electric power consumption.

The Impact of Loss of Power on Water & Sewer Systems

California is a populous state that receives minimal rainfall. Approximately 70% of the population obtains its drinking water from surface sources with the remainder relying on ground water supplies. The basic types of system used by the water companies are pressurized (pressure fed) and non-pressurized (gravity fed) systems. The basic types of system used by the sewer companies are collection and treatment systems that use force pumps to move sewerage.

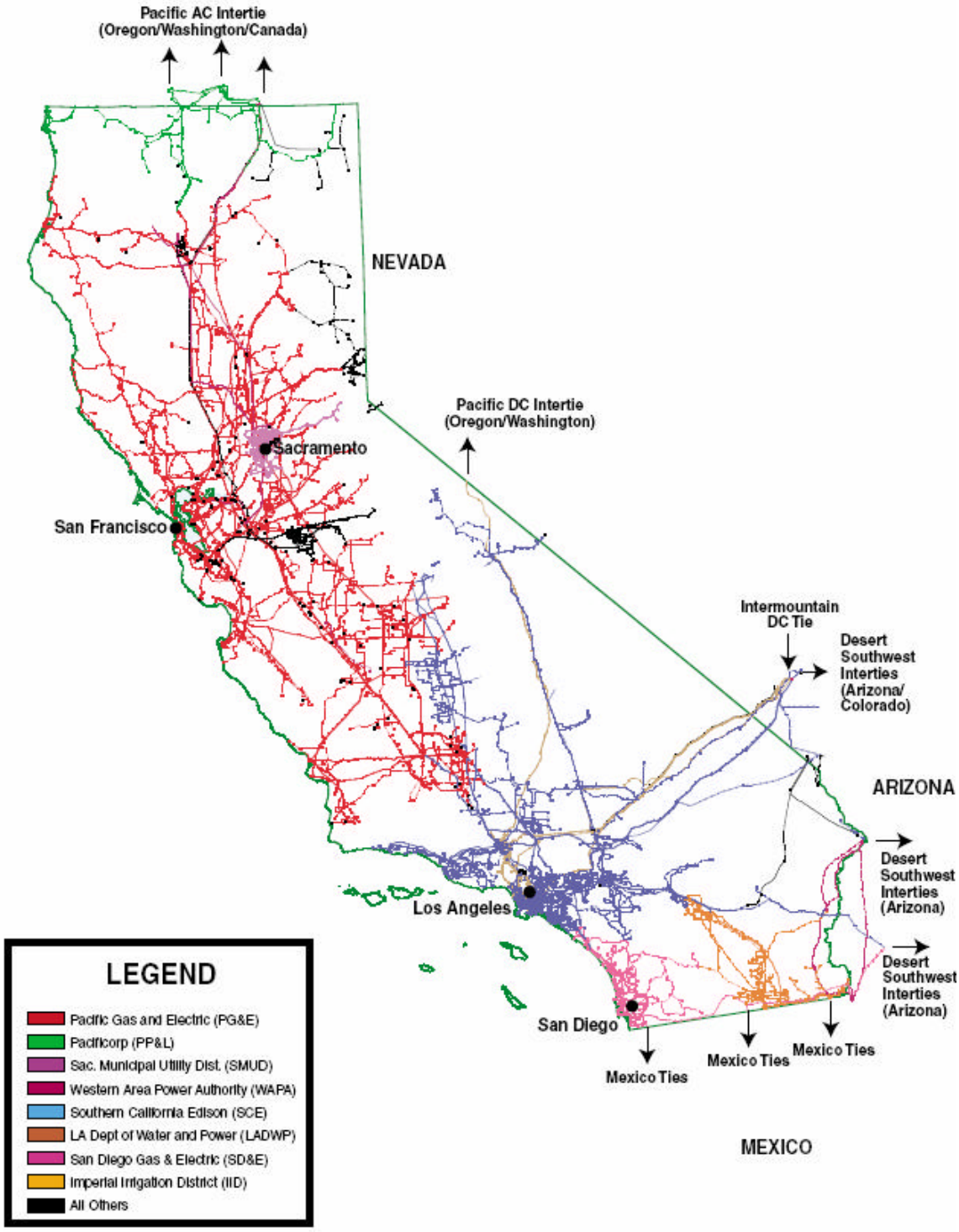
Drinking water is supplied to California residents through a myriad of governmental agencies, cities, districts, private utilities, mutual water companies, private businesses, and individually owned wells. There are over 10,000 public water suppliers in the state serving water to approximately 29 million consumers. Less than 10% of the public water systems in the state serve collectively more than 95% of the state's population. The remaining 90% of the systems serves less than 5% of the population. D.01-05-089 added Category M (limited other customers as necessary to protect public health and safety, to the extent exempted by the Commission) to the list of essential customers normally exempt from rotating outages.

Due to the energy situation and rolling blackouts that occurred earlier in the year, the Water Division has conducted an informal inquiry into the impact of the rolling blackouts and has concluded that during the first four months of the year, California energy situation and rolling blackouts have had no significant impact upon the California Water and Sewer System Industries, in part due to the "Y2K" efforts in 1999. Water utilities and sewer system utilities appear to have the matter well under control with little to no impact on customer service at this time.

The Effects on Public Health & Safety

Public health and safety must be the primary factor used to evaluate a customer's eligibility for exemption from rotating outages. Exempting a fire department from rotating outages is of little value if the water resources needed to fight these fires are not available to it, particular during the high fire season. Fires that start during extreme fire weather conditions are a high risk to the safety of the residents and firefighters, and have a high probability of spreading rapidly and inflicting major property loss, if water pumping facilities are compromised.

Power Transmission Lines in California

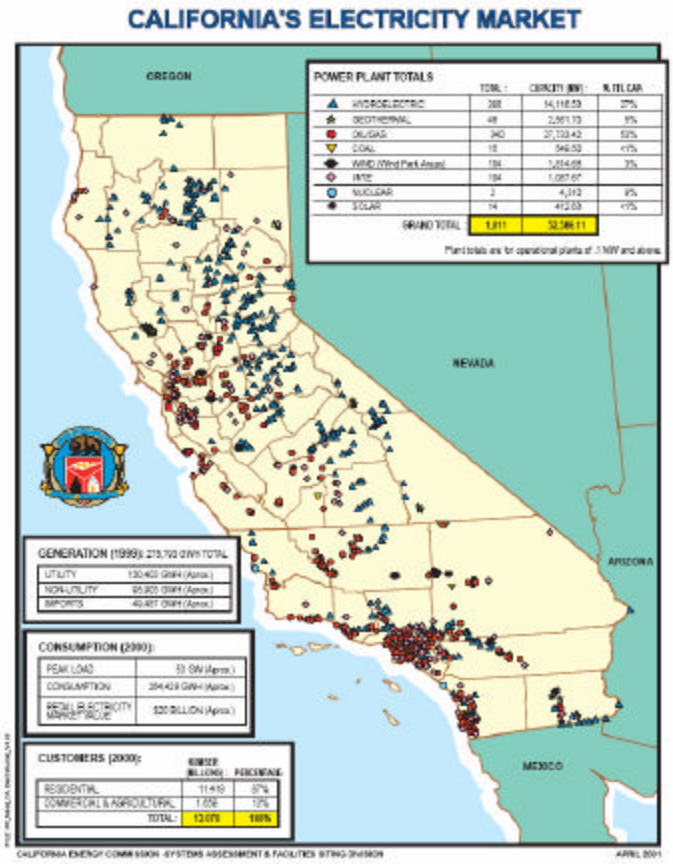


Californi a Department of Energy

A review of the Chief of the Los Angeles County Fire Department's (LACFD) comments indicated that the emergency restoration procedures are likely inadequate and do not ensure that sufficient water supplies will be available in an emergency. LACFD also is concerned that the procedures have not been activated nor tested, the procedures may not have been communicated consistently between the electric utilities, water agencies and fire fighting forces, the procedures do not provide for the instantaneous supply of water required in a fire emergency, and the current procedures require the caller to identify the exact location of the power restoration.

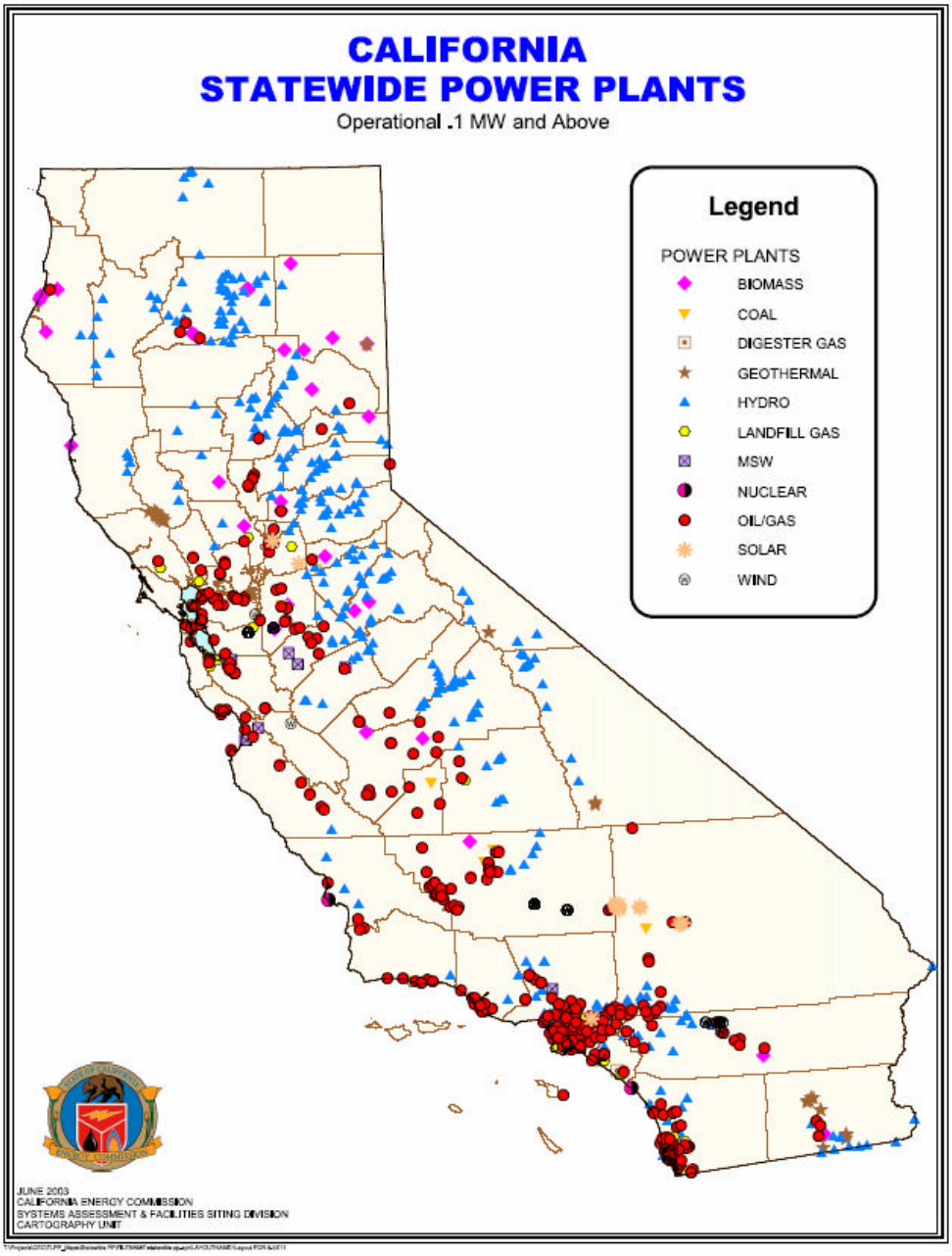
California has experienced many power outages from natural disasters such as fires, floods, earthquakes, and rainstorms. This means that water and sewer systems must have adequate back up power for extended electric outages independent of rolling blackouts. Many large water systems have adequate storage facilities and have installed backup generators to maintain system pressures during power failure due to "Y2K" efforts. Rotating power outage duration is usually less than two hours or between two to four hours. Therefore, rolling blackouts have little impact on customer service.

In addition, water and sewer treatment utilities may request partial or complete rotating outage exemption from electric utilities in times of emergency identified as requiring their service, such as fire fighting. The Water Division believes that it is reasonable to order electric companies to notify all of their water and sewer customers and test the emergency restoration procedures to minimize the effects on public health and safety. The Water Division recommends that water and sewer companies be excluded from the Category M.



Mitigation measures available for these systems

Backup power was a big issue due to the energy situation and rolling blackouts that occurred this summer. Many water systems have argued that backup power was not necessary since they received electrical power from more than one substation, but the power shortage has negated that argument. Many large water systems have adequate storage facilities and have installed backup generators to maintain system pressures during power failures due to "Y 2K" efforts. It is the smaller systems that generally do not have backup power. To mitigate possible public health and safety impacts due to a loss of power, the Water Division recommends that all water companies with pressurized systems and sewer companies install backup generators on the wells with the largest pumping capacity or the lead wells. This will assure system integrity.



Biological & Health Emergencies

Biological/Health Emergencies were rated a HIGH PRIORITY HAZARD in Los Angeles County.

Los Angeles County has experienced numerous disasters, varying in type and severity. Disasters often result in the need for health and human services as part of the immediate and long-term recovery period. Some disasters are localized with service needs focused in a single location; other disasters, such as earthquakes and civil unrest, result in geographically widespread health and human services needs.

It is essential following a disaster to identify locations where large numbers of people are gathered in open areas. These areas will require evaluation in order to assess health and human service needs. The recovery period may be shortened if health, mental health, and housing problems can be addressed quickly.

This plan is primarily directed to Los Angeles County Departments that will provide the initial team members. Other key human service providers, public and private, will be added to the teams to meet the growing needs of disaster victims.

Mission statements of the following Departments all relate to health and human services; they are annotated below:

Department of Health Services:

> "...To protect, maintain, and improve the health of the community."

Community Health Services:

> "... To provide population based public health services and public health clinics in order to assure healthy communities in Los Angeles County through the services of Public Health Nurses, Public Health Investigators, and others."

Environmental Health Services:

> "... To protect health, prevent disease, and promote health for all persons in Los Angeles County through the management of potentially harmful chemical, physical, or biological agents in the environment."

Department of Mental Health:

> The Department of Mental Health (DMH) will coordinate and provide mental health services to community disaster victims and disaster workers throughout the entire duration of the disaster and its recovery period. DMH will augment the Department of Health Services by providing disaster mental health services.

Department of Public Social Services:

The Department of Pubic Social Services (DPSS) is responsible, in partnership with the American Red Cross, to ensure that residents receive appropriate emergency shelter. DPSS is the County's liaison with Emergency Network Los Angeles/LA Voluntary Agencies Active in Disaster (ENLA/LAVOAD). In a disaster, DPSS will communicate community needs to this agency.

Department of Children and Family Services:

The Department of Children and Family Services (DCFS) is responsible for the safety and well-being of the children in its care, and the children otherwise known as "unaccompanied minors" who may be left unsupervised as a result of a disaster.

Department of Community and Senior Services:

The Department of Community and Senior Services (CSS) will manage and staff emergency shelters; contact high-risk IHSS clients; implement the Federal Repatriation Program; staff Disaster Services Centers using volunteers and contract agencies; provide public information through the Information and Referral network; and perform outreach and disaster assistance services through grants received from the California Departments of Aging and Social Services.

Disaster Assessment & Recovery Team (DART)

County human services departments have formed interdisciplinary **D**isaster **A**ssessment and **R**ecovery **T**eams (DARTs), which will activate following a disaster. Once activated, DARTs will go to parks, shelters, and other areas where large numbers of people are gathered. Activities will:

- Encourage people to move to established shelters or, if safe, return to their homes;
- Identify health and human services needs that will assist large groups of people to recover from the event;
- Maximize resource utilization;
- Eliminate resource duplication; and
- Respond immediately to meet health and human needs for larger groups of people.

The following are important assumptions; they are not prioritized:

- DARTs will focus on community assessment and service referral; individual service delivery will be provided as time allows.
- Some team members in the impacted area(s) may not necessarily activate until their personal situations are stabilized.
- In any particular disaster, not all teams may be needed.
- Teams may be re-deployed from their identified service planning area.

- DARTs do not replace other departmental disaster response efforts or their primary disaster response mission, but work in concert with their emergency operations services.
- Team size will be determined by need and available transportation resources.
- The teams may require support from public safety agencies, such as transportation and security.
- Composition of the teams will vary over time with evolving health and human needs and services.
- Teams will request bilingual/bicultural assistance from departmental employees, community agencies, other established networks or Emergency Network Los Angeles as needed.
- Teams may request assistance from other agencies as needed.
- Safety is a priority. Teams will not expose themselves to dangerous situations.
- All requests will follow the Standardized Emergency Management System protocols for requesting assistance.

Team Roles

DART Teams

Teams will self-designate operational roles for each team member, to include at least a leader, assistant leader, and record keeper. These roles will transfer as the team's composition changes. However, when providing services, each team member will work within their prescribed discipline.

DART Members

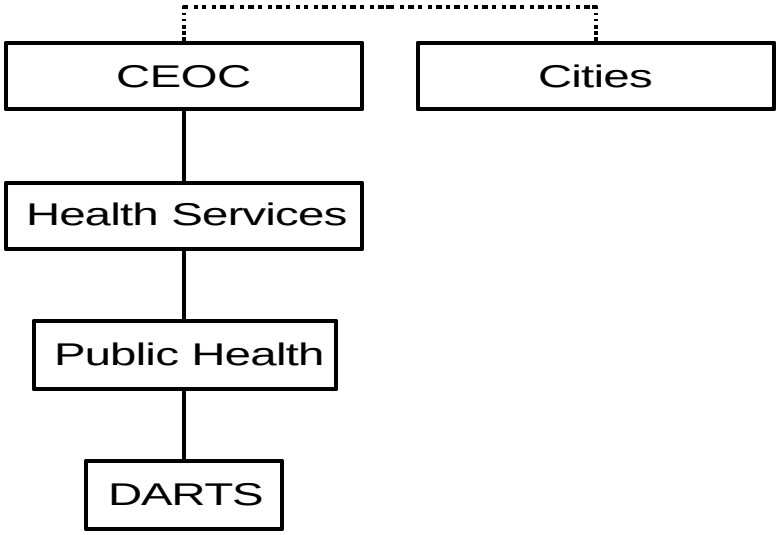
Team members will:

- Be expected to mobilize respective Department resources to respond to disaster needs.
- Provide services within their specific discipline.
- Collaborate with the team leader on the formulation of the daily report.

Command Structure

Per SEMS, the Operational Area coordinates information, resources and priorities among all local governments. For the County of Los Angeles, the Operational Area is synonymous with the County Emergency Operations Center (CEOC). County Departments report to the CEOC in a disaster.

The command structure for the DART team follows existing chain of command.



Public Health Rapid Response Team (PHRRT)

The mission of the **P**ublic **H**ealth **R**apid **R**esponse **T**eams (PHRRT) will be to conduct rapid, coordinated epidemiologic investigations or health needs assessments while providing technical assistance to DART members and response partners in the mitigation of public health emergencies. The PHRRT units will be trained and equipped to respond to CBRNE (Chemical, Biological, Radiological, Nuclear, and Explosive) events, natural and manmade disasters, and other large-scale infectious disease outbreaks. PHRRT members will be equipped to respond 24 hours a day, 7 days a week to a variety of emergency settings countywide including field investigation sites, impact zones, recovery shelters, field treatment centers, and/or medical facilities. Team functions will include:

- Rapid collection, analysis, and dissemination of epidemiologic data to provide decision makers with critical information in the midst of a public health emergency
- Post-disaster surveillance or monitoring, via active or passive mechanisms, of critical health-related data sources and zones of impact
- Technical or operational assistance to emergency response personnel under the Incident Command Structure of the Standardized Emergency Management System including Disaster Assessment and Recovery Team personnel.
- Identification of at-risk populations for the effective deployment and delivery of public health resources (needs assessments, contact tracing, etc.)
- Provide critical public health information to those affected and interface with other local responders on the potential health risks of a disaster.
- Assist with the implementation and evaluation of disaster mitigation strategies that will set the stage for additional comprehensive public health interventions

- Evaluation and analysis of post-disaster impact, resource utilization, and community health through rapid needs assessments and impact surveys

PHRRT Team Structure & Response

The PHRRT will consist of a field-deployable 40-person team of pre-designated, highly trained public health personnel. Based on the nature of the incident, the following Public Health programs or units may act as the designated lead (or co-lead) units for the PHRRT during a public health emergency:

- Health Assessment and Epidemiology (including Injury Program, Toxics Epidemiology)
- Acute Communicable Disease Control (including Immunization Program)
- Disease Control Programs (Veterinary Program, TB, etc.)
- Environmental Health (including Environmental Hygiene, Radiation Management)
- Public Health Nursing Programs
- Public Health Investigations

Composition of Team

In order to provide an effective, multi-disciplinary response workforce, the PHRRT unit will include the following classifications of Los Angeles County public health personnel:

- Epidemiologists / Epidemiology Analysts (8 Field-Based, 5 Central)
- Environmental Health Specialists (6, includes Sanitarians, Hygienists, Rad. Technicians)
- Public Health Laboratory Technicians (2)
- Public Health Veterinarians (2)
- Program or SPA Medical Directors (4)
- Public Health Nurses or Program Specialists (8)
- Public Health Investigators (8)
- Communications Specialist (2)
- Media Liaisons (2)
- Agency Liaisons (EOC, DOC, TEW)

The composition and structure of the PHRRT will allow for partial or scaled mobilization and deployment of personnel to adjust to the projected needs of any public health emergency, including smallpox. The designated lead Public Health program(s) and PHRRT Commander will be charged with determining the level of deployment and number of PHRRT personnel needed to adequately assess and respond to the public health impact of an event. To ensure coordination

and cooperation with other relevant response entities in the county such as the Emergency Medical Services Agency, Department of Mental Health, and the Los Angeles County Terrorism Early Warning Group network of agencies, the composition and structure of the PHRRT teams will serve to complement or augment the specialized capacity of these entities. For example, PHRRT personnel will cross-train with DART personnel to understand individual roles and the necessary level of interaction required to respond effectively. Conversely, personnel such as criminal investigators, medical examiners, and Health Haz-mat personnel may be tasked to the PHRRT to assist with public health base and field operations.

Additional personnel tasked to the PHRRT will include information systems technicians, transport personnel and other clerical staff who will be pre-identified to ensure availability of services to support effective central and field-based operations. These individuals will be pre-identified by the Chief of Operations for Public Health who is tasked with operational support for all public health resources during a public health emergency. Any subsequent additions and support personnel from the Federal or State level will be integrated into ongoing PHRRT response activities through the designated lead unit(s) and provide expanded support when needed.

Health Hazards

West Nile Virus

Humans

As of August 17, 2004 , a total of 189 WNV infections have been reported from the following local health jurisdictions: San Bernardino (76), Los Angeles (59), Riverside (40), Orange (6), Imperial (1), Kern (2), Fresno (2), Tulare (1), Ventura (1) and Yolo (1) counties. Thirteen of these WNV infections were initially detected in asymptomatic individuals through screening done at blood banks- one of these individuals later became symptomatic. Of the 177 WNV cases with symptoms, 80 are classified as West Nile fever cases, 74 are classified as West Nile neuroinvasive disease, and 23 are of unknown status. The median age for all cases where data was available = 50 years (range: 9 – 91 years). Median age for West Nile fever cases = 46 years (range: 9 – 82 years). Median age for West Nile neuroinvasive disease cases = 59 years (range: 15 – 91 years). 115/177 (65%) of the cases are male. There have been five fatalities to date in California in Orange (1), San Bernardino (2) and Los Angeles (2) counties.

Equines

The California Department of Food and Agriculture confirmed 30 WNV equine cases from the counties of Alpine(1), Butte (1), Fresno (1), Orange (1), Riverside (12), Sacramento (4), San Bernardino (2), San Diego (1), Tehama (1), and Ventura (1) last week. This represents the first equine cases in the counties of Alpine, Butte, Orange, San Diego, and Ventura and the first indication of WNV in Alpine County-. Forty-eight horses have been euthanized or have died after being infected with WNV.

Dead Birds

The following eleven new counties detected WNV in dead birds last week: Calaveras (1), Lake (1), Lassen (1), Mariposa (1), Plumas (1), San Luis Obispo (1), San Mateo (1), Sierra (1), Sutter (2), Yolo (1), and Yuba (3). An additional 183 WNV positive dead birds were reported last week from Alameda (1), Butte (48), Contra Costa (1), El Dorado (2), Fresno (9), Glenn (5), Kern (3), Los Angeles (37), Mendocino (1), Orange (20), Placer (1), Riverside (1), Sacramento (16), San

Diego (1), San Joaquin (2), Santa Barbara (1), Shasta (4), Solano (1), Sonoma (7), Stanislaus (3), Tehama (18), and Tulare (1). In 2004, a total of 1,447 WNV positive dead birds have been detected in California.

Mosquito Pools and Sentinel Chickens:

A total of 109 mosquito pools tested positive for WNV last week from Los Angeles (43), Orange (30), San Bernardino (26), Kern (4), Shasta (3), Riverside (1), Sacramento (1), and San Luis Obispo (1) counties, thus bringing the yearly total to 523. This represents the first positive mosquito activity reported in San Luis Obispo County. Fourteen chickens from Imperial (4), Los Angeles (3), and San Bernardino (7) counties seroconverted to WNV last week, bringing the yearly total to 214.

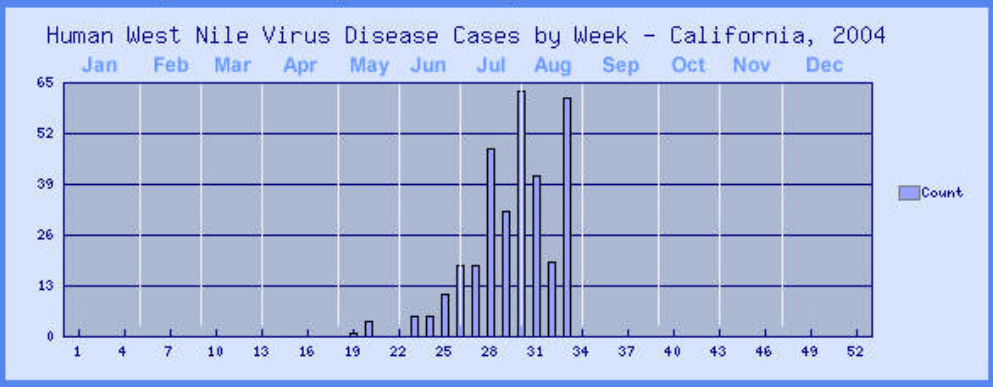
Summary of West Nile Virus Activity in California, 2004

(Los Angeles and neighboring counties)

	Summary of West Nile Virus Activity in California, 2004				
	Humans	Equines	Dead Birds	Mosquito Pools	Sentinel Chickens
Los Angeles	**124**	**4**	**763**	**240**	**37**
Orange	19	1	127	95	-
Riverside	63	59	130	94	121
San Bernardino	119	25	284	121	95
San Diego	1	1	10	-	-
Santa Barbara	-	-	3	-	-
Santa Clara	-	-	21	-	-
Ventura	1	1	9	-	-
State Totals	**343**	**158**	**1,922**	**685**	**313**

California West Nile Virus Surveillance Information Center

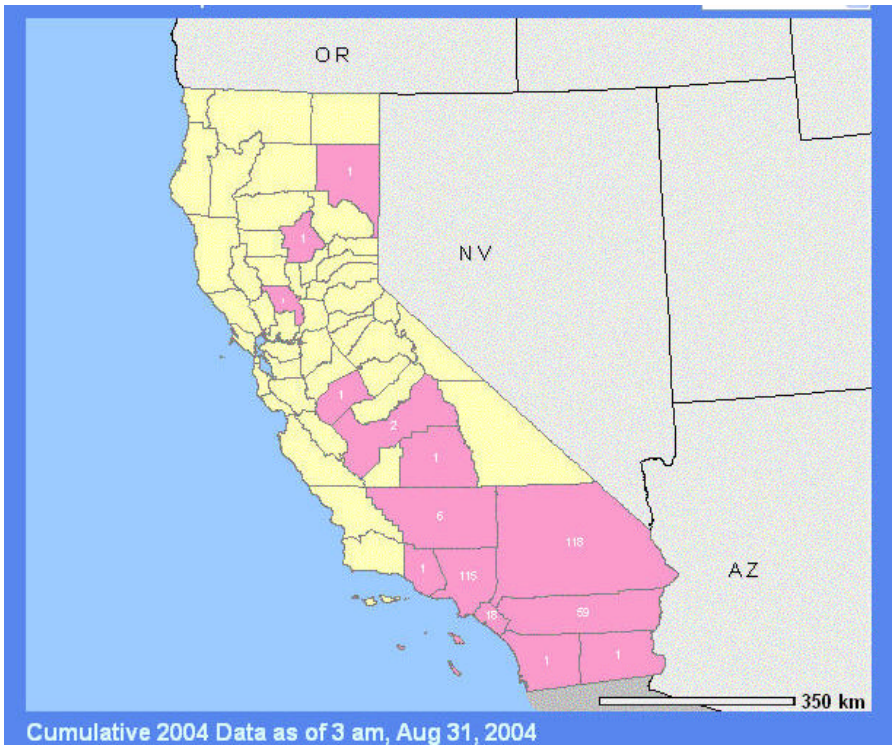
These data are provisional and may be revised or adjusted in the future.



Cumulative Human Disease Cases by County - California, 2004

Butte County	1
Fresno County	2
Imperial County	1
Kern County	6
Lassen County	1
Los Angeles County	115
Merced County	1
Orange County	18
Riverside County	59
San Bernardino County	118
San Diego County	1
Tulare County	1
Ventura County	1

Yolo County 1



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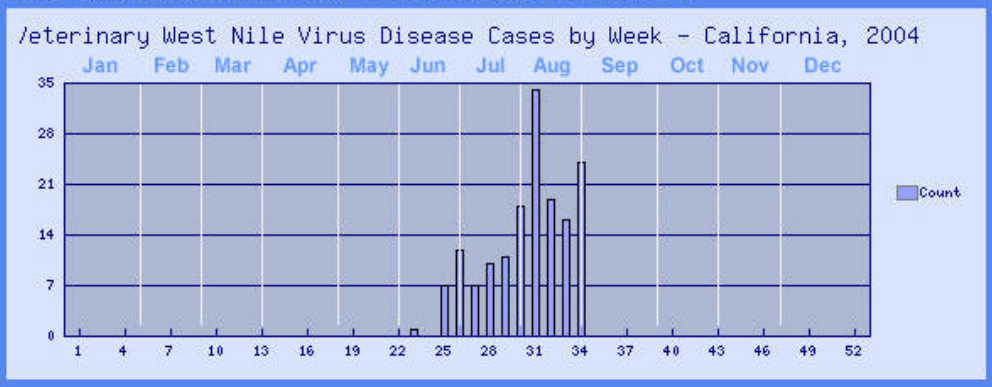
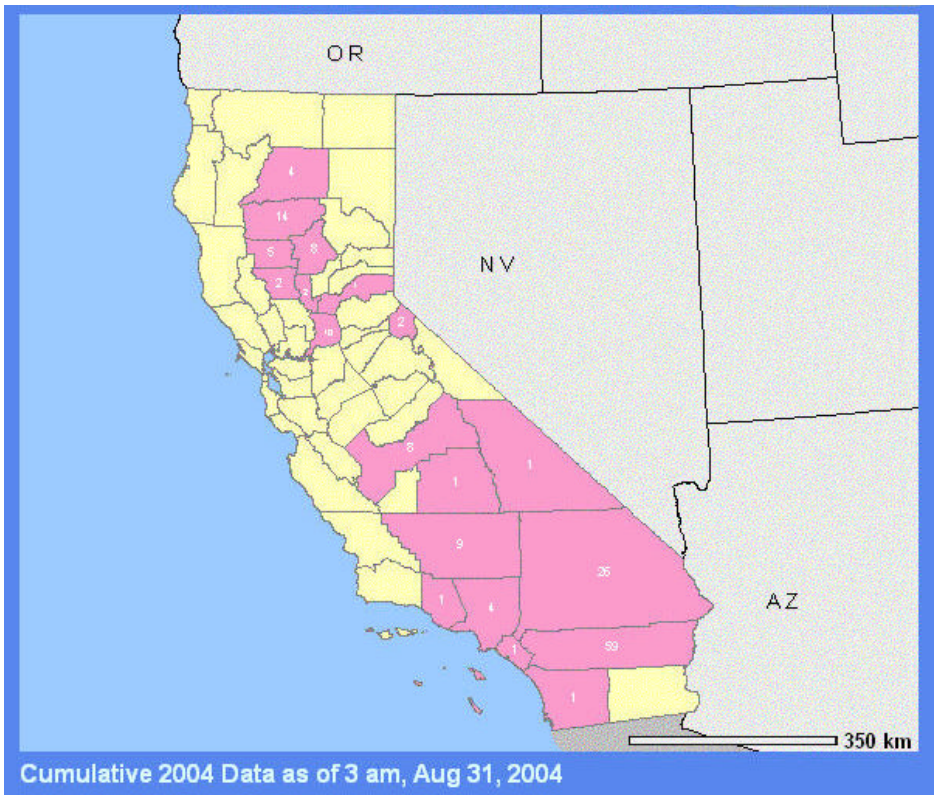


Cumulative Veterinary Disease Cases by County - California, 2004

Alpine County	2	Sacramento County	10
Butte County	8	San Bernardino County	26
Colusa County	2	San Diego County	1
Fresno County	8	Shasta County	4
Glenn County	5	Sutter County	2
Inyo County	1	Tehama County	14
Kern County	9	Tulare County	1
Los Angeles County	4	Ventura County	1
Orange County	1		
Placer County	1		
Riverside County	59		



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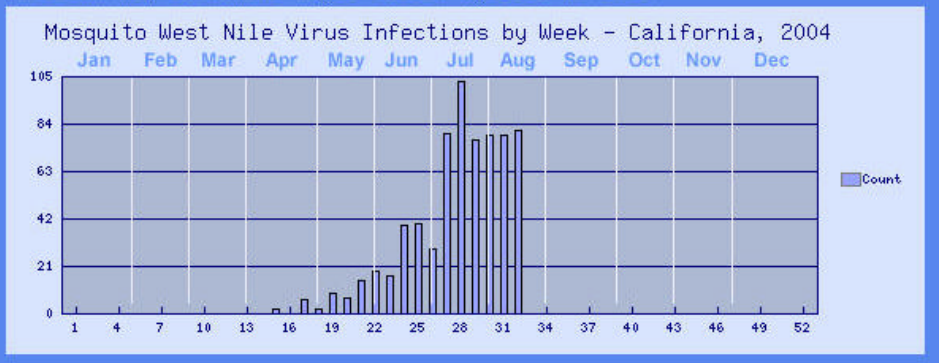
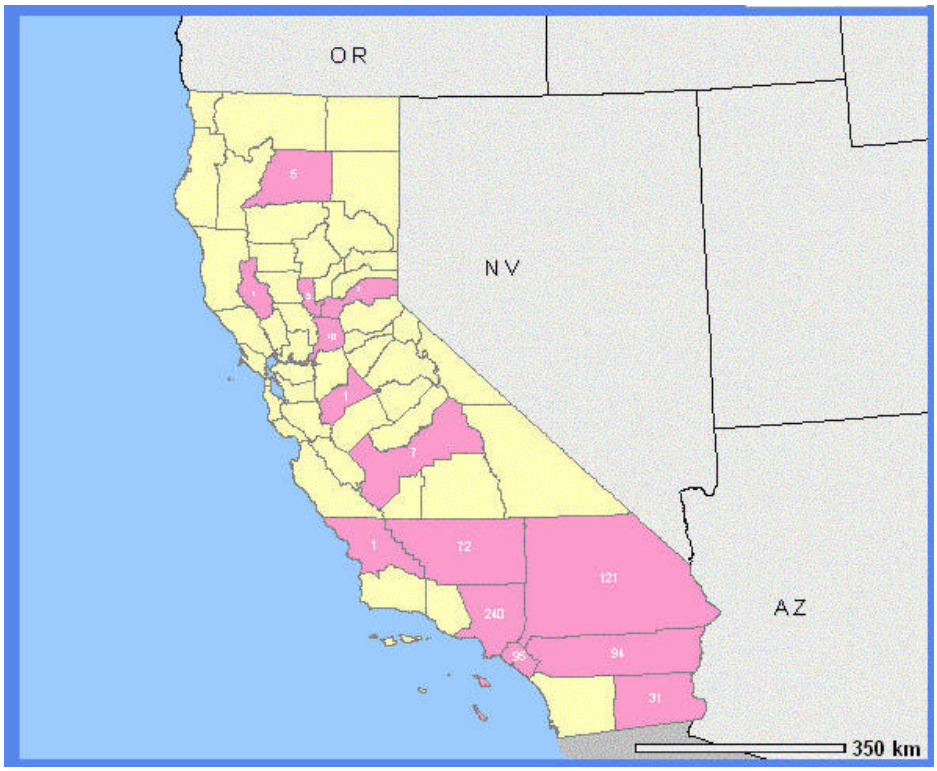


Cumulative Mosquito Infections by County - California, 2004

Fresno County	7	Shasta County	5
Imperial County	31	Stanislaus County	1
Kern County	72	Sutter County	5
Lake County	1		
Los Angeles County	240		
Orange County	95		
Placer County	1		
Riverside County	94		
Sacramento County	10		
San Bernardino County	121		
San Luis Obispo County	1		



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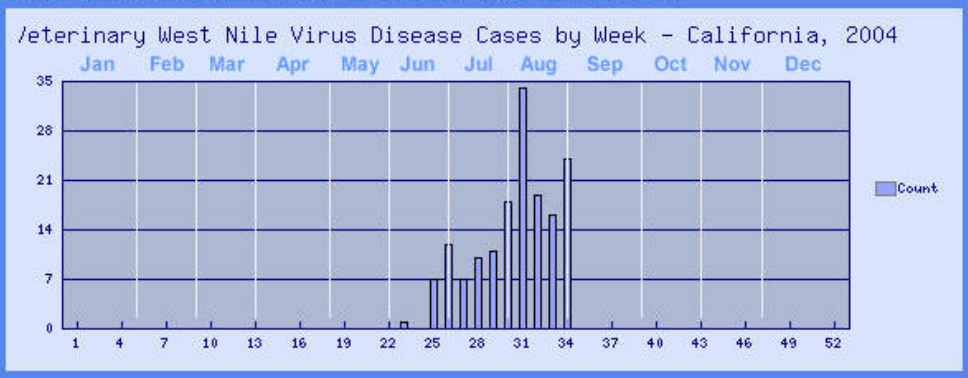
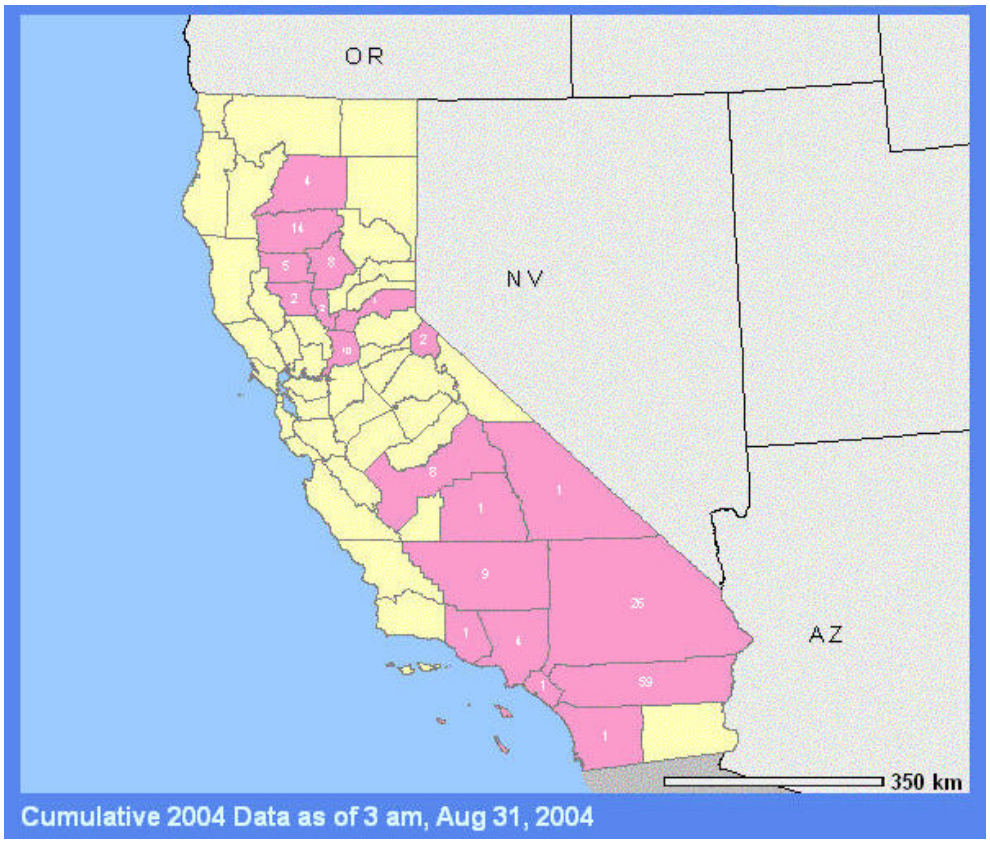


Cumulative Veterinary Disease Cases by County - California, 2004

Alpine County	2	Sacramento County	10
Butte County	8	San Bernardino County	26
Colusa County	2	San Diego County	1
Fresno County	8	Shasta County	4
Glenn County	5	Sutter County	2
Inyo County	1	Tehama County	14
Kern County	9	Tulare County	1
Los Angeles County	4	Ventura County	1
Orange County	1		
Placer County	1		
Riverside County	59		



West Nile Virus Facts

1. West Nile virus (WNV) is a mosquito-borne disease that is common in Africa, west Asia and the Middle East .

2. West Nile virus was first detected in the United States in New York in 1999. Since then, WNV has spread to 46 states, Canada, and Mexico .

3. In 2003, three locally acquired human WNV cases were detected in residents of Los Angeles, Imperial, and Riverside counties, and WNV activity was detected in dead birds, mosquitoes, sentinel chickens, and a horse in six southern California counties. West Nile virus has also been detected in 2004 in southern California.

4. Last year there were almost 10,000 human cases of WNV detected, including 262 deaths in the United States.

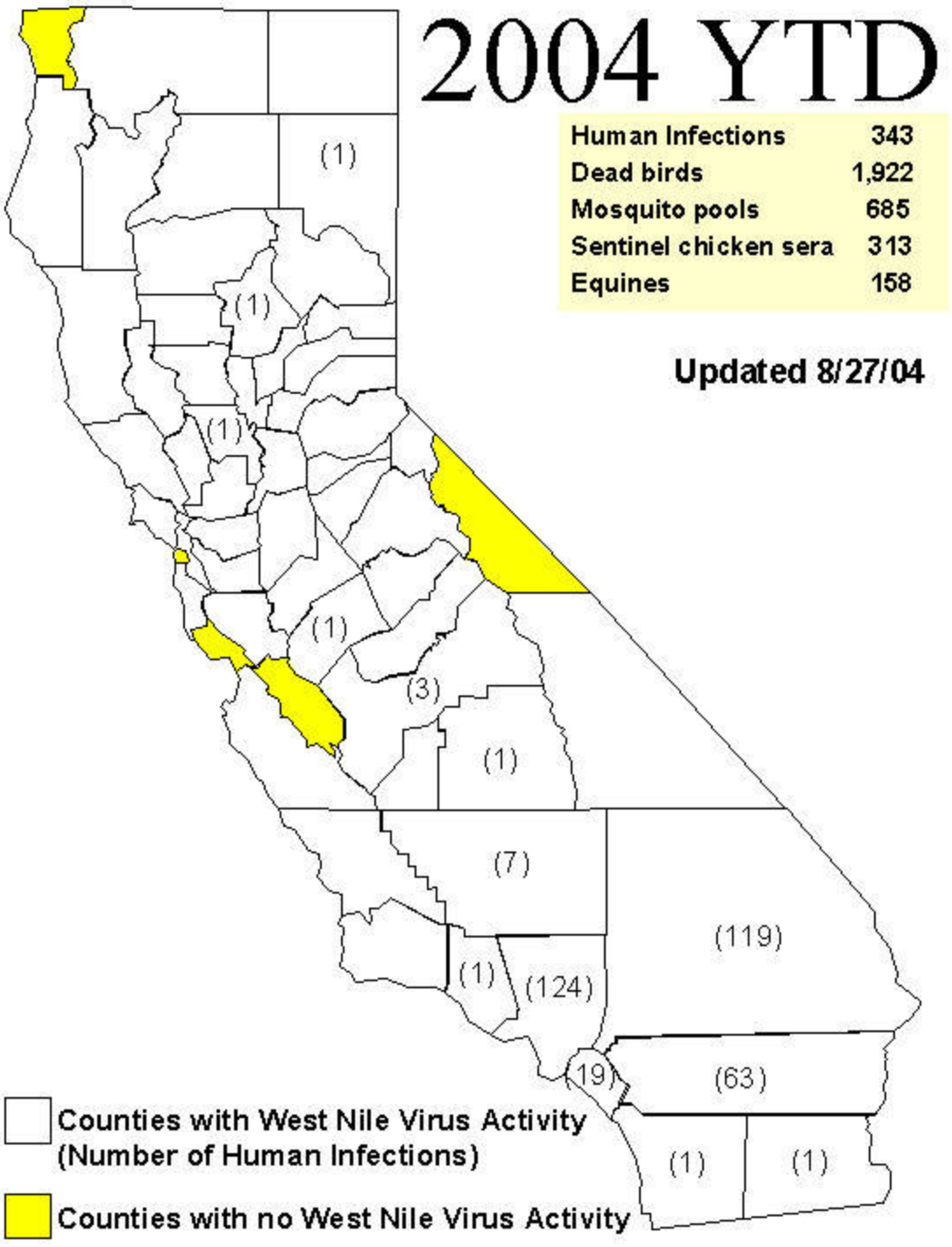
5. People usually get WNV from the bite of an infected mosquito. There is also evidence that WNV can be acquired via a blood transfusion or organ transplant from an infected donor.

6. Most people who are bitten by a mosquito with WNV will not get sick. People who do become ill may experience mild to moderate flu-like symptoms like fever, headache and body ache. It is estimated that less than 1% of the people who are infected with WNV become severely ill and require hospitalization. The elderly and immuno-compromised are particularly susceptible to illness caused by WNV.

7. Currently there is no specific treatment for WNV infection. Since it is a virus it does not respond to antibiotics. In severe cases hospitalization and supportive care is important.

8. California has a long history of conducting surveillance for mosquito-borne viruses and has taken active steps to ensure early detection of WNV. Due to ongoing collaboration between over 70 local mosquito and vector control agencies and state public agencies, California is well prepared to detect, monitor, and respond to WNV. These agencies use a variety of scientific techniques and products to control mosquitoes in their earliest stages and play a key role in reducing the risk of WNV. Also California has launched a statewide public education effort about personal protection measures and reporting dead birds.

9. The public is encouraged to assist in the efforts to detect and monitor WNV by calling the WNV hotline if they find a crow, raven, magpie, jay, sparrow, finch, or hawk that has been dead for about a day. Birds play an important role in maintaining and spreading this virus. Mosquitoes acquire the virus from infected birds, and then transmit the virus to people. Evidence of the virus in dead birds is often the first indication that WNV has been introduced into a new region.


2004 YTD
Human Infections 343
Dead birds 1,922
Mosquito pools 685
Sentinel chicken sera 313
Equines 158
Updated 8/27/04
(1)
(1)
(1)
(1)
(3)
(1)
(7)
(1)
(124)
(119)
(19)
(63)
(1)
(1)
Counties with West Nile Virus Activity
(Number of Human Infections)
Counties with no West Nile Virus Activity

Surveillance for Human Cases

Because the primary public health objective of surveillance systems for neurotropic arboviruses is prevention of human infections and disease, human case surveillance alone should not be used for the detection of arbovirus activity, except in jurisdictions where arbovirus activity is rare, or resources to support avian-based and/or mosquito-based arbovirus surveillance are unavailable.

GOALS OF SURVEILLANCE FOR HUMAN CASES: To 1) assess the local, state and national public health impact of WNV disease and monitor national trends; 2) demonstrate the need for public health intervention programs; 3) allocate resources; 4) identify risk factors for infection and determine high-risk populations; 5) identify geographic areas in need of targeted interventions; and 6) identify geographic areas in which it may be appropriate to conduct analytic studies of important public health issues.

Recent Experience

1. In the U.S. during 1999-2002, the peak human risk for WN viral infection occurred in August and September, although in 2002 human illness onset was reported as early as mid-May and as late as mid-December. In many regions, the peak minimum infection rates in mosquitoes and a rapid increase in the number of reported avian and equine WN viral infections occurred just prior to the period of maximal human risk.

2. In 1999-2002, the majority of reported, confirmed, or probable cases of human WN viral disease were among persons with meningo-encephalitis. Testing of patients with aseptic meningitis or unexplained febrile illnesses for evidence of WN viral infection may be beneficial, but can also overwhelm laboratory testing capacity and appears to be of relatively low yield for surveillance purposes since the majority of these cases will not be due to WNV infection.

3. Most patients with WN encephalitis or meningitis (WNME) are older adults, generally over 50 years old. In the U.S. in 1999-2001, the median age among the 142 reported WNME cases was 68 years. In 2002, among 2,942 reported cases of WN meningo-encephalitis, the median age was 59 years. Although 21% of reported cases were in persons younger than 40, only 4% of reported cases were in persons younger than 18.

4. When WN viral infections were first identified in the U.S., WN encephalitis was associated with a Guillain-Barrè-like syndrome with generalized muscle weakness. In 1999-2000, generalized muscle weakness was reported in 29% of WN encephalitis cases. In 2002, at least 2 new neurologic syndromes associated with WN viral infection were identified: acute flaccid paralysis ("WN poliomyelitis-like syndrome") and brachial plexopathy.

5. Using CDC-recommended test methods in public health laboratories, WNV-specific IgM antibody was detected in acute-phase (i.e., those collected 8 or less days after illness onset) serum or CSF specimens, or both, in the large majority of confirmed cases. In contrast, only a small number of suspected cases were subsequently confirmed in which specific IgM antibody reactivity in acute-phase serum or CSF was in the equivocal or low-positive range.

6. Longitudinal studies of WNME cases have shown that WNV-specific IgM antibody can persist in serum for 12 months or longer.[43] Thus, the presence of WNV-specific IgM antibody in a single serum sample is not necessarily diagnostic of *acute* WN viral

infection. For this reason, especially in areas where WNV is known to have circulated previously, suspected, acute WN viral disease cases should be confirmed by observing a fourfold or more change in titer of WNV-specific antibody in serum and the presence of WNV-specific IgM antibody in CSF, when available.

7. In 1999 in the U.S., the sensitivity of polymerase chain reaction (PCR) tests of CSF for the diagnosis of human WN encephalitis cases was only 57%; more recent statistics are currently unavailable. Thus, PCR for the diagnosis of WN viral infections of the human central nervous system (CNS) continues to be experimental and should not replace tests for the detection of WNV-specific antibody in CSF and serum, tests that are far more sensitive.

8. During 1999-2001, 7 cases of uncomplicated WN fever (WNF) were reported in the U.S., which represents 5% of the total number of WNV disease cases reported. In 2002, over 1,100 WNF cases were reported (30% of total). Contributing factors likely include the intensive media attention paid to the 2002 epidemic that may have led to increased consumer demand for WNV diagnostic testing by patients and physicians, and the greater availability of commercial testing. Nevertheless, during 1999-2002, WNF was probably significantly under-diagnosed in the U.S. It has been estimated that approximately 20 WNF cases occur for every WNME case.

9. For suspected WNV disease cases in immuno-compromised patients, WNV-specific antibody may not be present. Since longer viremias may be observed in these patients, testing serum and CSF samples for the presence of virus or viral RNA may be useful.

Vector Control

A surveillance program adequate to monitor WNV activity levels associated with human risk must be in place. Detection of epizootic transmission of enzootic arboviruses typically precedes detection of human cases by several days to 2 weeks or longer (e.g., as found in SLE epidemics). If adequate surveillance is in place, the lead time between detecting significant levels of epizootic transmission and occurrence of human cases can be increased, which will allow for more effective intervention practices. Early-season detection of enzootic or epizootic WNV activity appears to be correlated with increased risk of human cases later in the season. Control activity should be intensified in response to evidence of virus transmission, as deemed necessary by the local health departments.

Such programs should consist of public education emphasizing personal protection and residential source reduction; municipal larval control to prevent repopulation of the area with competent vectors; adult mosquito control to decrease the density of infected, adult mosquitoes in the area; and continued surveillance to monitor virus activity and efficacy of control measures.

As evidence of sustained or intensified virus transmission in an area increases, emergency response should be implemented. This is particularly important in areas where vector surveillance indicates that infection rates in *Culex* mosquitoes are increasing, or that potential accessory vectors (e.g., mammalophilic species) are infected with WNV. Delaying adulticide applications in such areas until human cases occur is illogical and negates the value and purpose of the surveillance system.

Adult Mosquito Control Recommendations

Ground-based (truck-mounted) application of adult mosquito control agents has several positive attributes. Where road access is adequate, such as in urban and suburban residential areas, good coverage may be achieved. In addition, ground-based application can be done throughout the night, thereby targeting night-active mosquito species. Such applications are prone to skips and patchy coverage in areas where road coverage is not adequate or in which the habitat contains significant barriers to spray dispersal and penetration.

Aerial application is capable of covering larger areas in shorter time periods than a ground-based application. This is a critical positive attribute when large residential areas must be treated quickly. In addition, aerial application is less prone to patchy coverage than ground-based application in areas where road coverage is not adequate. One limitation of aerial application is that many applicators will not fly at night, potentially reducing the effectiveness of the applications in Culex species control efforts. Cost benefits of aerial application over ground application may not be realized unless relatively large areas are treated.

Several formulations of a variety of active ingredients are available for adulticide applications. Material choice for ground-based or aerially applied mosquito control in public health emergency situations is limited by EPA restrictions on the pesticide label and applicable state and local regulations.

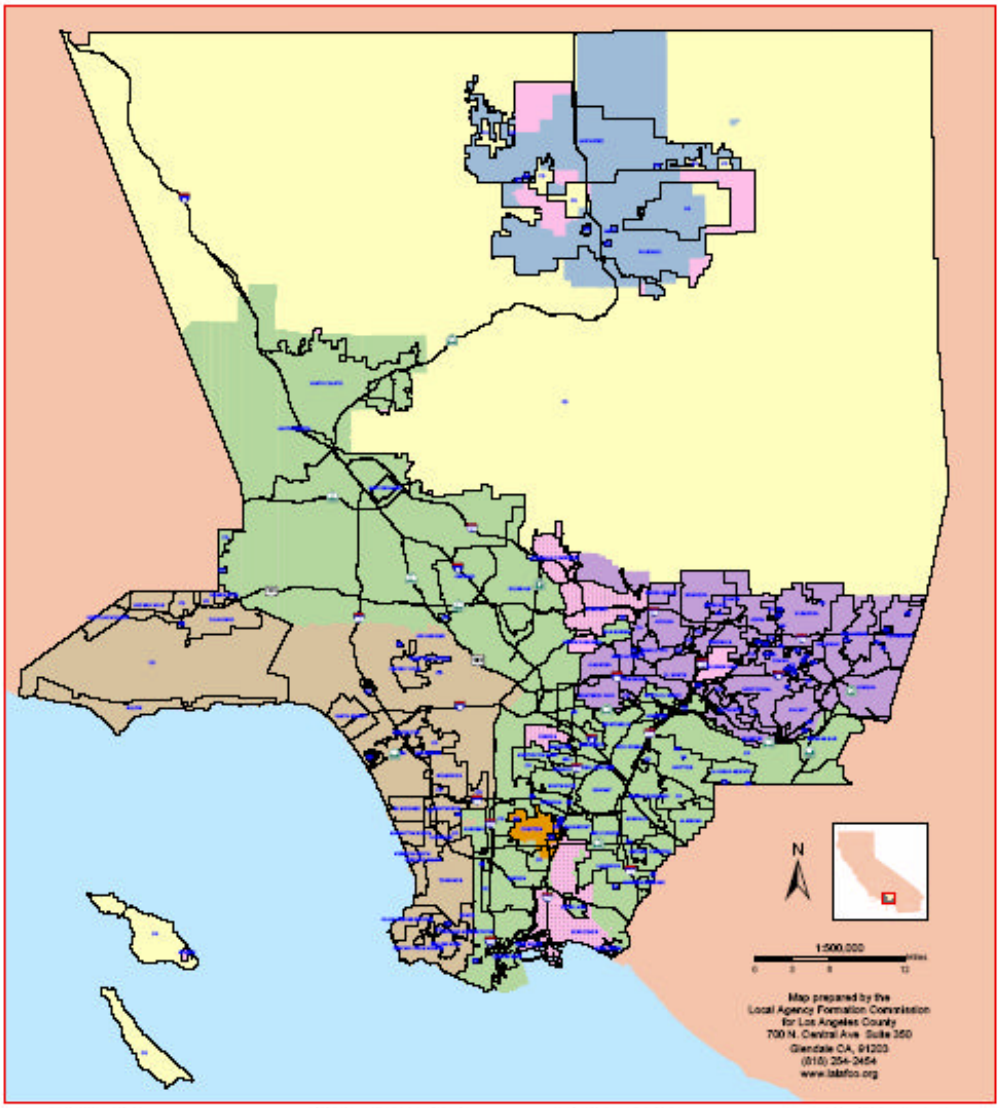
Multiple applications will likely be required to appreciably reduce Culex populations and interrupt arbovirus transmission. An emergency SLE virus response plan developed for New Orleans, Louisiana[63] indicates the need for repeated applications to control Cx.quinquefasciatus, and the need to repeatedly apply adulticides in high-risk areas (areas with human cases or positive surveillance events). Two to three adulticide applications spaced 3-4 days apart may be required to significantly reduce Cx. pipiens populations. Effective surveillance must be maintained to determine if and when re-treatment is required to maintain suppression of the vector populations.

Urban/suburban population centers with multiple positive surveillance events as described above should be treated first to most efficiently protect the largest number of people from exposure to WNV. Applications should be timed to coincide with the peak activity periods of the target species. For example, applications should be made at night to maximize control of night-active Culex species. Other species such as Oc. sollicitans or Ae. vexans are active shortly after sunset and are effectively controlled with appropriately timed applications. Day-active potential accessory vectors (e.g., Oc. japonicus, Oc. triseriatus,

Ae. albopictus) must be addressed separately and are most effectively controlled by residential source reduction efforts, though there is preliminary evidence that early morning ULV applications may be used to control these species.

Centers for Disease Control and Prevention, “Epidemic/Epizootic West Nile Virus in the United States: Guidelines for Surveillance, Prevention, and Control”; U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Infectious Diseases, Division of Vector-Borne Infectious Diseases, Fort Collins, Colorado, 3rd Revision, 2003

Mosquito and / or Vector Control Districts
Incorporated and Unincorporated Areas of Los Angeles County



Antelope Valley
Mosquito and Vector Control District
P.O. Box 1192
Lancaster, CA 93584
(661) 942-2917
www.avmosquito.org

Compton Creek
Mosquito Abatement District
1224 S. Santa Fe Ave.
Compton, CA 90221
(310) 639-7375

Greater Los Angeles County
Vector Control District
12545 Florence Ave.
Santa Fe Springs, CA 90670
(562) 944-9656
www.glacvcd.org

San Gabriel Valley
Mosquito & Vector Control District
1145 N. Azusa Canyon Rd.
West Covina, CA 91790
(626) 814-9466
www.sgvmosquito.org

Los Angles County West
Vector Control District
6750 Centinela Ave.
Culver City, CA 90230
(310) 915-7370
www.lawestvector.org

Non-District Mosquito
and / or Vector Control

City of Long Beach
Health and Human Services
2525 Grand Ave. Rm. 220
Long Beach, CA 90815
(562) 570-4132
www.longbeach.gov

City of Pasadena
Public Health Department
1845 N Fair Oaks Ave
Pasadena, CA 91103
(626) 744-6005
www.ci.pasadena.ca.us/publichealth/

City of LaCañada-Flintridge City Hall
1327 Foothill Blvd.
La Cañada Flintridge, CA 91011
(818) 790-6880
www.lacanadaflintridgecity/index.htm

City of Vernon
4305 South Santa Fe Ave
Vernon, CA 90058
(326) 826-1420
www.cityofvernon.org/index1.htm

Los Angeles County
Public Health
Department of Health Services

Acute Communicable
Disease Control Program
313 N. Figueroa St.
Los Angeles, CA 90012
(213) 240-7941
www.lapublichealth.org/acd/index.htm

Environmental Health
Vector Management
5050 Commerce Dr.
Baldwin Park, CA 91706
(626) 430-5200
www.lapublichealth.org/eh/index.htm

Veterinary Public Health
3834 S. Western Ave., Suite 230
Los Angeles, CA 90062
(323) 730-3723
www.lapublichealth.org/vet/index.htm

State of California Department
of Health Services

Communicable Disease Control
Toll Free Telephone: 877-968-2473
E-mail: arbovirus@dhs.ca.gov
www.westnile.ca.gov

Cities not covered by
Mosquito and/or Vector
Control Districts

Unincorporated County
areas not covered by
Mosquito and/or Vector
Control Districts

This map was made possible by the Epidemiology and Laboratory Capacity (ELC) and Emerging Infections Program (EIP) Cooperative Agreement funds (Grant No. U50/CCU412601-07/2) from the Centers for Disease Control and Prevention (CDC) and dedicated professionals for the independent, city, county and state public services in Los Angeles County.

030104

Severe Acute Respiratory Syndrome (SARS)

Los Angeles County includes major port cities, and as such diseases anywhere in the world constitute a potential threat. Severe acute respiratory syndrome (SARS), a recently recognized, contagious febrile lower respiratory infection caused by a novel corona virus called SARS-CoV, is an example of a potential threat to a port city.

The worldwide outbreak of SARS that occurred between November 2002 and July 2003 most likely originated in China and then spread through travel. During this outbreak 22 potential SARS cases were investigated in Los Angeles. Seven were considered probable SARS but none of these cases had a specimen that was positive for SARS-CoV infection. The investigation and monitoring required for 22 potential cases was considerable.

It is possible that SARS may re-emerge; therefore, it is important that Los Angeles County be prepared to immediately identify cases and contain the disease.

The California Health and Safety Code (H&S), the California Code of Regulations (CCR) and the Los Angeles County Code (LACC) grant the Los Angeles County Health Officer authority to collect records and data with respect to communicable disease, initiate disease control measures, control property and manage persons (including isolation and quarantine).

SARS Case Count

During November 2002-July 2003, a total of 8,098 probable SARS cases were reported to the World Health Organization (WHO) from 29 countries. In the United States, only 8 cases had laboratory evidence of infection with SARS-CoV. Since July 2003, when SARS-CoV transmission was declared contained, active global surveillance for SARS-CoV disease has detected no person-to-person transmission of SARS-CoV. CDC has therefore archived the case report summaries for the 2003 outbreak.

During the 2003 epidemic, CDC and the Council of State and Territorial Epidemiologists (CSTE) developed surveillance criteria to identify persons with SARS in the United States. The surveillance case definition changed throughout the epidemic, to reflect increased understanding of SARS-CoV disease.

In California, there were a total of 29 cases, 22 of which were suspect, 5 were probably SARS and 2 were confirmed.

SARS Surveillance

The key to controlling a SARS outbreak is prompt detection of cases and their contacts, followed by rapid implementation of control measures. Identification of SARS cases is the basic step in prevention efforts, whereas contact tracing provides a means to focus case-finding and containment efforts on persons who are at greatest risk of SARS-CoV disease. Two features of SARS-CoV disease pose challenges for case surveillance. First, the early signs and symptoms are not specific enough to reliably distinguish SARS-CoV disease from other common respiratory illnesses. Second, existing laboratory diagnostic tests are not adequately sensitive early in the course of illness. Therefore, risk of exposure (i.e., to another case of SARS-CoV disease or to a setting where SARS-CoV transmission is occurring) is key to considering the likelihood of a diagnosis of SARS-CoV disease.

Potential sources of SARS-CoV for future exposures include persistent infection in previously ill persons or reintroduction to humans from an animal reservoir. In the absence of SARS-CoV transmission worldwide, the most likely sites of recurrence are the original site of introduction of SARS-CoV from animals to humans and locations where person-to-person SARS-CoV transmission previously occurred. Laboratories that contain live SARS-CoV could be a source of further transmission if compromised laboratory techniques result in laboratory-acquired infections. Because persons with SARS-CoV disease tended to appear in clusters (e.g., in healthcare facilities, households, and a few special settings) during the 2003 outbreaks, early signals of the reappearance of the illness in U.S. communities could include unusual clusters of unexplained pneumonia.

In the presence of person-to-person SARS-CoV transmission anywhere in the world, patients with SARS-CoV disease or sites of SARS-CoV transmission become the most likely sources of exposure. Contact tracing, the identification of persons who had contact with a potential case of SARS-CoV disease or may have been exposed while present in locations (e.g., hospitals) with known SARS-CoV transmission, is essential for the implementation of appropriate measures to reduce further spread of the disease.

The overall goals of SARS surveillance are to:

- Maximize early detection of cases and clusters of respiratory infections that might signal the re-emergence of SARS-CoV disease while minimizing unnecessary laboratory testing, concerns about SARS-CoV, implementation of control measures, and social disruption.

- If person-to-person SARS-CoV transmission recurs, maintain prompt and complete identification and reporting of potential cases to facilitate outbreak control and management.

- Identify and monitor contacts of cases of SARS-CoV disease to enable early detection of illness in persons at greatest risk.

Lessons Learned

The following lessons from the global experience with SARS surveillance have been considered in developing this document:

- Astute healthcare providers will likely be the key to early detection and reporting of initial cases of SARS-CoV disease.

- The key to recognizing persons with SARS-CoV disease is identification of an epidemiologic link of exposure to another case of SARS-CoV disease or to a setting (e.g., hospital) where SARS-CoV transmission is occurring.

- Screening criteria for epidemiologic linkages need to reflect 1) the status of SARS-CoV transmission globally and the risk of exposure from international and domestic travel, and 2) the status of SARS activity in the community, at the work site, or in other settings where a patient with SARS-like illness may have been.

- In a setting of extensive SARS-CoV transmission, the possibility of SARS-CoV disease should be considered in all persons with a fever or lower respiratory illness, even if an epidemiologic link cannot be readily established.

- Healthcare facilities were disproportionately affected by SARS-CoV, and healthcare workers were among the first and most severely affected groups in every large outbreak reported.

- Contact tracing is resource intensive yet critical to containment efforts since it allows early recognition of illness in persons at greatest risk.

- Collection of appropriate and timely clinical specimens for laboratory testing is central to monitoring the status of SARS-CoV transmission at the local, state, and federal levels.

- Timely reporting of cases, updates on the clinical status and disposition of patients, real-time analysis of data, and timely dissemination of information are essential for outbreak-management decisions.

- Paper-based reporting systems are too slow and labor intensive to manage a large SARS outbreak. A rapid and efficient electronic reporting system that facilitates real-time analysis of clinical, epidemiologic, and laboratory information at the local level is essential.

- Frequent communication and data sharing among public health officials and healthcare providers are needed to update the status of potential and confirmed cases of SARS-CoV disease.

Mad Cow Disease (Creutzfeldt-Jakob disease (vCJD))

Background

New variant CJD (vCJD) is a rare, degenerative, fatal brain disorder in humans. Although experience with this new disease is limited, evidence to date indicates that there has never been a case of vCJD transmitted through direct contact of one person with another. However, a case of probable transmission of vCJD through transfusion of blood components from an asymptomatic donor who subsequently developed the disease has been reported.

As of December 1, 2003, a total of 153 cases of vCJD had been reported in the world: 143 from the United Kingdom, six from France, and one each from Canada, Ireland, Italy, and the United States (note: the Canadian, Irish, and U.S. cases were reported in persons who resided in the United Kingdom during a key exposure period of the U.K. population to the BSE agent).

Almost all the 153 vCJD patients had multiple-year exposures in the United Kingdom between 1980 and 1996 during the occurrence of a large UK outbreak of bovine spongiform encephalopathy (BSE, commonly known as mad cow disease) among cattle.

There has never been a case of vCJD that did not have a history of exposure within a country where this cattle disease, BSE, was occurring.

It is believed that the persons who have developed vCJD became infected through their consumption of cattle products contaminated with the agent of BSE. There is no known treatment of vCJD and it is invariably fatal.

Since 1996, evidence has been increasing for a causal relationship between ongoing outbreaks in Europe of a disease in cattle, called bovine spongiform encephalopathy (BSE, or "mad cow disease"), and a disease in humans, called variant Creutzfeldt-Jakob disease (vCJD). Both

disorders are invariably fatal brain diseases with unusually long incubation periods measured in years, and are caused by an unconventional transmissible agent.

On December 23, 2003, the U.S. Department of Agriculture (USDA) announced a presumptive diagnosis of bovine spongiform encephalopathy (BSE, or "mad cow" disease) in an adult Holstein cow from Washington State. The diagnosis was confirmed by an international reference laboratory in Weybridge, England, on December 25. Preliminary trace-back based on an ear-tag identification number suggests that the BSE-infected cow was imported into the United States from Canada in August 2001.

Description

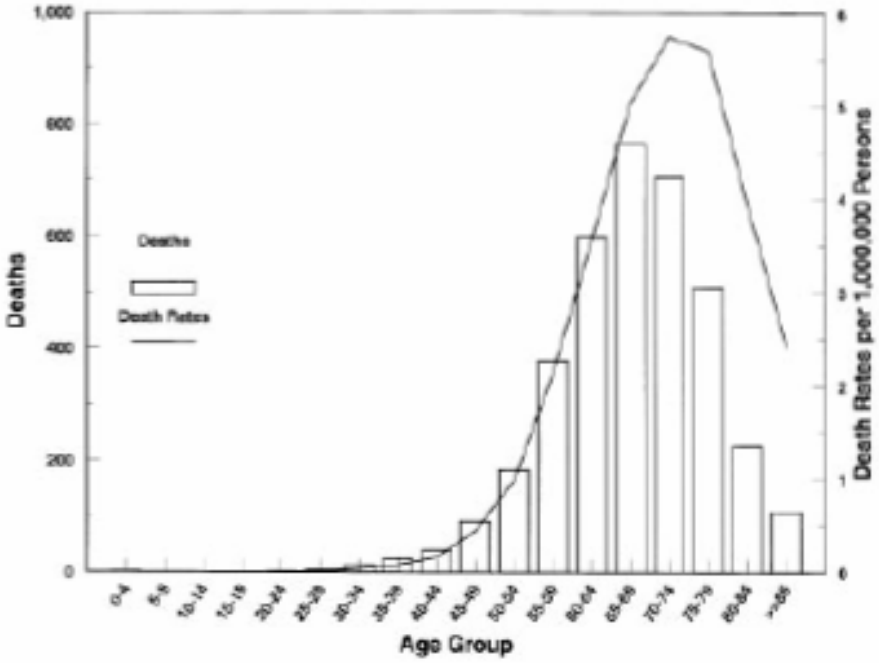
Since 1996, strong evidence has accumulated for a causal relationship between ongoing outbreaks in Europe of disease in cattle called bovine spongiform encephalopathy (BSE, or "mad cow disease") and a disease in humans originally called new variant Creutzfeldt-Jakob disease or more recently simply variant CJD (vCJD). Both disorders are invariably fatal brain diseases with unusually long incubation periods measured in years and are caused by an unconventional transmissible agent. Although there is very strong evidence that the agent responsible for the human disease is the same agent responsible for the BSE outbreaks in cattle, the specific foods that might be associated with the transmission of this agent from cattle to humans are unknown. However, bioassays have identified the presence of the BSE agent in the brain, spinal cord, retina, dorsal root ganglia (nervous tissue located near the backbone), distal ileum, and the bone marrow of cattle experimentally infected with this agent by the oral route.

In addition to cattle, sheep are susceptible to experimental infection with the BSE agent by the oral route. Thus, in countries where flocks of sheep and goats may have been exposed to the BSE agent through contaminated feed, a theoretical risk exists that these animals might have developed infections caused by the BSE agent and that these infections are being maintained in the flocks, even in the absence of continued exposure to contaminated feed (for example, through maternal transmission). Regardless, as of July 2002, cattle remain the only known food animal species with disease caused by the BSE agent.

U.S. Surveillance for CJD

The Centers for Disease Control and Prevention (CDC) monitors the trends and current incidence of CJD in the United States by analyzing death certificate information from U.S. multiple cause-of-death data, compiled by the National Center for Health Statistics, CDC. By 3- or 4-year periods from 1987 through 2001, the average annual death rates of CJD (not vCJD) have remained relatively constant, ranging from 0.95 cases per 1 million in 1999-2001 to 1.14 cases per 1 million in 1995-1998. In addition, deaths from non-iatrogenic CJD in persons aged <30 years in the United States remain extremely rare (<5 cases per 1 billion per year). In contrast, in the United Kingdom, over half of the patients who died with vCJD were in this young age group.

In addition, CDC collects, reviews and, when indicated, actively investigates reports by health care personnel or institutions of possible CJD or vCJD cases. Also, in 1996-97, CDC established, in collaboration with the American Association of Neuro-pathologists, the National Prion Disease Pathology Surveillance Center at Case Western Reserve University, which performs special diagnostic tests for prion diseases, including post-mortem tests for vCJD.



Creutzfeldt-Jakob disease deaths and death rates by age group. United States, 1979 through 1994.

California Creutzfeldt-Jakob Disease (CJD) Surveillance Project

The California Creutzfeldt-Jakob Disease Surveillance Project is funded by the federal Centers for Disease Control and Prevention (CDC) through the California Emerging Infections Program (EIP) to improve the public health capacity to detect cases of CJD. In 1996, the first cases of variant CJD occurring in unusually young persons and resulting from ingestion of bovine spongiform encephalopathy (BSE)-contaminated beef were identified in the United Kingdom. Since then, the CDC and the EIP have conducted enhanced surveillance and death certificate reviews. National surveillance has indicated that the incidence of CJD in the United States is about 1 case per million population per year (JAMA, Vol. 284, No. 18, November 8, 2000). Recently, one confirmed case of variant CJD was identified in a Florida resident and another in a Canadian resident, both of whom resided in the United Kingdom during the height of the BSE epidemic. In addition, the identification of chronic wasting disease (CWD), a form of transmissible spongiform encephalopathy affecting deer and elk in the mid-western United States, has led to heightened awareness and surveillance efforts for any associated potential human public health risks.

CDC Dispatch, Vol. 2, No. 4—October-December 1996 Emerg ing Infectious Diseases

Influenza (Flu)

Epidemics of influenza typically occur during the winter months and have been responsible for an average of approximately 36,000 deaths per year in the United States during 1990–1999. Influenza viruses also can cause pandemics, during which rates of illness and death from influenza-related complications can increase dramatically worldwide. Influenza viruses cause disease among all age groups. Rates of infection are highest among children, but rates of serious

illness and death are highest among persons aged ≥ 65 years and persons of any age who have medical conditions that place them at increased risk for complications from influenza.

Influenza vaccination is the primary method for preventing influenza and its severe complications. In this report from the Advisory Committee on Immunization Practices (ACIP), the primary target groups recommended for annual vaccination are 1) groups that are at increased risk for influenza-related complications (e.g., persons aged ≥ 65 years and persons of any age with certain chronic medical conditions); 2) the group aged 50–64 years because this group has an elevated prevalence of certain chronic medical conditions; and 3) persons who live with or care for persons at high risk (e.g., health-care workers and household contacts who have frequent contact with persons at high risk and who can transmit influenza to persons at high risk). Vaccination is associated with reductions in influenza-related respiratory illness and physician visits among all age groups, hospitalization and death among persons at high risk, otitis media among children, and work absenteeism among adults. Although influenza vaccination levels increased substantially during the 1990s, further improvements in vaccine coverage levels are needed, chiefly among persons aged <65 years who are at increased risk for influenza-related complications among all racial and ethnic groups and among blacks and Hispanics aged ≥ 65 years. ACIP recommends using strategies to improve vaccination levels, including using reminder/recall systems and standing orders programs. Although influenza vaccination remains the cornerstone for the control and treatment of influenza, information is also presented regarding antiviral medications, because these agents are an adjunct to vaccine.

Biology of Influenza

Influenza A and B are the two types of influenza viruses that cause epidemic human disease. Influenza A viruses are further categorized into subtypes on the basis of two surface antigens: hemagglutinin (H) and neuraminidase (N). Influenza B viruses are not categorized into subtypes. Since 1977, influenza A (H1N1) viruses, influenza A (H3N2) viruses, and influenza B viruses have been in global circulation. In 2001, influenza A (H1N2) viruses that probably emerged after genetic re-assortment between human A (H3N2) and A (H1N1) viruses began circulating widely. Both influenza A and B viruses are further separated into groups on the basis of antigenic characteristics. New influenza virus variants result from frequent antigenic change (i.e., antigenic drift) resulting from point mutations that occur during viral replication. Influenza B viruses undergo antigenic drift less rapidly than influenza A viruses.

A person's immunity to the surface antigens, including hemagglutinin, reduces the likelihood of infection and severity of disease if infection occurs. Antibody against one influenza virus type or subtype confers limited or no protection against another. Furthermore, antibody to one antigenic variant of influenza virus might not protect against a new antigenic variant of the same type or subtype. Frequent development of antigenic variants through antigenic drift is the virologic basis for seasonal epidemics and the reason for the usual incorporation of ≥ 1 new strains in each year's influenza vaccine.

Influenza Epidemic

The influenza (flu) epidemics that happen nearly every year are important events. Influenza is a respiratory illness that makes hundreds of thousands of people sick each year. The illness can cause severe health problems for the elderly and younger people with diseases, such as diabetes, heart or lung disease, and illness that can weaken the immune system. Typical primary influenza illness lasts about a week and is characterized by abrupt onset of fever, muscle aches, sore throat, and nonproductive cough. In some persons, severe malaise and cough can persist for several days or weeks.

Influenza infection not only causes primary illness but also can lead to severe secondary medical complications, including influenza viral pneumonia, secondary bacterial pneumonia, worsening of underlying medical conditions, such as congestive heart failure, asthma, or diabetes, or other complications such as ear infections (i.e., otitis media) in children.

Elderly persons (i.e., those 65 years and over) and persons with certain underlying medical conditions, such as chronic heart or lung disease, are at increased risk for developing complications from influenza infection. These complications increase the risk for hospitalization or death.

One of the most important features about influenza viruses is that their structure changes slightly but frequently over time (a process known as “drift”), and that this process results in the appearance of different strains that circulate each year. The composition of the flu vaccine is changed each year to help protect people from the strains of influenza virus that are expected to be the most common ones circulating during the coming flu season.

The ability of the vaccine to protect against influenza during a particular season depends on several factors, but particularly 1) the match between influenza strains in the vaccine and strains circulating in the community, and 2) the ability of each person's immune system to mount a protective response as a result of the vaccination. Although the vaccine may not prevent everyone who takes it from getting sick, it does reduce the risk of severe illness, hospitalization, and death. That's why it is so important for anyone who wants to reduce his or her risk of getting severely ill from influenza to receive the vaccine each year.

Influenza Pandemic

By contrast to the more gradual process of drift, in some years, the influenza virus changes dramatically and unexpectedly through a process known as “shift.” Shift results in the appearance of a new influenza virus to which few (if any) people are immune. If this new virus spreads easily from person to person, it could quickly travel around the world and cause increased levels of serious illness and death, affecting millions of people. **This is called an influenza pandemic.**

Fortunately, pandemics don't occur very often. There has not been an influenza pandemic since 1968. In 1997, however, a flu virus, that had previously infected only birds, caused an outbreak of illness in humans. This virus, known as the “avian flu,” resulted in 18 illnesses and six deaths in Hong Kong but did not easily spread from person to person. Still, it provided a frightening reminder that the next pandemic could occur at any time. Governments around the world took notice. The U.S. government worked with State and local governments, and private-sector partners, to develop strategies and programs that would prepare our country for a pandemic.

Influenza Pandemic Start

There are three main types of influenza viruses: A, B, and C. Influenza C causes only mild disease and has not been associated with widespread outbreaks. Influenza types A and B, however, cause epidemics nearly every year. Influenza A viruses are divided into subtypes, based on differences in two surface proteins: hemagglutinin (H) and neuraminidase (N). Influenza B viruses are not divided into subtypes. During an influenza flu season, usually one or more influenza A subtype and B viruses circulate at the same time.

A pandemic is possible when an influenza A virus makes a dramatic change (i.e., "shift") and acquires a new H or H+N. This shift results in a new or "novel" virus to which the general population has no immunity. The appearance of a novel virus is the first step toward a pandemic.

However, the novel influenza A virus also must spread easily from person to person (and cause serious disease) for a pandemic to occur. Influenza B viruses do not undergo shift and do not cause influenza pandemics.

The reservoir for Type A influenza viruses is wild birds, but influenza A viruses also infect animals such as pigs and horses, as well as people. The last two pandemic viruses were combinations of bird and human influenza viruses. Many persons believe that these new viruses emerged when an intermediate host, such as a pig, was infected by both human and bird influenza A viruses at the same time. A new virus was created. Events in Hong Kong in 1997, however, showed that this is not the only way that humans can become infected with a novel virus. Sometimes, an avian influenza virus can "jump the species barrier" and move directly from chickens to humans and cause disease.

Since, by definition, a novel virus is a virus that has never previously infected humans, or hasn't infected humans for a long time, it's likely that almost no one will have immunity, or antibody to protect them against the novel virus. Therefore, anyone exposed to the virus--young or old, healthy or weak--could become infected and get sick. If the novel virus is related to a virus that circulated long ago, older people might have some level of immunity. It is possible that the novel virus may be especially dangerous to some age groups that are not usually at risk of severe illness or death from annual influenza (such as healthy young adults). Such widespread vulnerability makes a pandemic possible and allows it to have potentially devastating impact.

Influenza Pandemic Impact

There's no simple answer to the question of how serious a pandemic might be. It all depends on how virulent (severe) the virus is, how rapidly it can spread from population to population, and the effectiveness of pandemic prevention and response efforts. The 1918 Spanish flu is an example of a worst-case scenario because the strain was highly contagious and quite deadly. This pandemic killed more Americans than all the wars of the 20th century. Since our world today is vastly more populated, and people travel the globe with ease, the spread of a next pandemic could be more rapid than that of previous pandemics.

The impact of a pandemic isn't measured only by how many people will die. If millions of people get sick at the same time, major social consequences will occur. If many doctors and nurses become ill, it will be difficult to care for the sick. If the majority of a local police force is infected, the safety of the community might be at risk. If air traffic controllers are all sick at once, air travel could grind to a halt, interrupting not only business and personal travel, but also the transport of life-saving vaccines or anti-viral drugs. Therefore, a vital part of pandemic planning is the development of strategies and tactics to address all these potential problems.

Avian Influenza (Bird Flu)

Influenza viruses that infect birds are called " avian influenza viruses." Only influenza A viruses infect birds. All known subtypes of influenza A virus can infect birds. However, there are substantial genetic differences between the subtypes that typically infect both people and birds. Within subtypes of avian influenza viruses there also are different strains (described in "Strains").

Avian influenza H5 and H7 viruses can be distinguished as "low pathogenic" and "high pathogenic" forms on the basis of genetic features of the virus and the severity of the illness they cause in poultry; influenza H9 virus has been identified only in a "low pathogenicity" form. Each of these three avian influenza viruses (H5, H7, and H9) can theoretically be partnered with any one

of nine neuraminidase surface proteins; thus, there are potentially nine different forms of each subtype (e.g., H5N1, H5N2, H5N3 …H5N9).

Below is summary information about these three prominent subtypes of avian influenza virus:

Influenza A H5

- Potentially nine different subtypes
- Can be highly pathogenic or low pathogenic
- H5 infections have been documented among humans, sometimes causing severe illness and death

Influenza A H7

- Potentially nine different subtypes
- Can be highly pathogenic or low pathogenic
- H7 infection in humans is rare, but can occur among persons who have close contact with infected birds; symptoms may include conjunctivitis and/or upper respiratory symptoms

Influenza A H9

- Potentially nine different subtypes
- Documented only in low pathogenic form
- Three H9 infections in humans have been confirmed.

Spread of Avian Influenza Viruses among Birds

Avian influenza viruses circulate among birds worldwide. Certain birds, particularly water birds, act as hosts for influenza viruses by carrying the virus in their intestines and shedding it. Infected birds shed virus in saliva, nasal secretions, and feces. Susceptible birds can become infected with avian influenza virus when they have contact with contaminated nasal, respiratory, or fecal material from infected birds. Fecal-to-oral transmission is the most common mode of spread between birds.

Most often, the wild birds that are host to the virus do not get sick, but they can spread influenza to other birds. Infection with certain avian influenza A viruses (for example, some H5 and H7 strains) can cause widespread disease and death among some species of domesticated birds.

Avian Influenza Infection in Humans

Although avian influenza A viruses do not usually infect humans, several instances of human infections and outbreaks of avian influenza have been reported since 1997. Most cases of avian influenza infection in humans are thought to have resulted from contact with infected poultry or contaminated surfaces. However, there is still a lot to learn about how different subtypes and strains of avian influenza virus might affect humans. For example, it is not known how the

distinction between low pathogenic and highly pathogenic strains might impact the health risk to humans. Of the documented cases of human infection with avian influenza viruses, illnesses caused by highly pathogenic viruses appear to be more severe.

Because of concerns about the potential for more widespread infection in the human population, public health authorities closely monitor outbreaks of human illness associated with avian influenza. To date, human infections with avian influenza viruses detected since 1997 have not resulted in sustained human-to-human transmission. However, because influenza viruses have the potential to change and gain the ability to spread easily between people, monitoring for human infection and person-to-person transmission is important.

To date, there have been no recorded cases of Avian Influenza in California. Documented cases in North America include: British Columbia, Canada; The Eastern United States; and Texas.

Small Pox

Smallpox virus is a high-priority "Category A" agent that poses a risk to Los Angeles County, California and national security because it can be easily disseminated and transmitted from person to person, results in high mortality rates and has the potential for major public health impact, might cause public panic and social disruption, and requires special action for public health preparedness.

The Los Angeles County Department of Health Services (LAC DHS) developed this Smallpox Preparedness, Response and Recovery Plan for the County to prepare for the possibility of an outbreak of smallpox in the County.

If an outbreak of smallpox were to occur, several factors could contribute to a more rapid spread of smallpox than was routinely seen before this disease was eradicated in 1977. These factors include: 1) virtually non-existent immunity to smallpox in the absence of naturally occurring disease and the discontinuation of routine vaccination in the United States in the early 1970's, 2) potentially delayed recognition of smallpox by health personnel who are unfamiliar with the disease, 3) increased mobility and crowding of the population, and 4) potential use of higher virulence "weaponized" viruses with decreased incubation periods. Because of these factors, a single case of smallpox would require an immediate and coordinated public health and medical response to contain the outbreak and prevent further infection of susceptible individuals.

Vaccination

The federal government has not yet provided definitive guidance on the extent of preparedness vaccination (smallpox vaccination of persons prior to a confirmed case of smallpox). It is anticipated that the guidance will be forthcoming in the near future. Such guidance, and release of sufficient quantities of smallpox vaccine, may be for: (1) specified first responders only, (2) a larger group of health care workers, law enforcement, and emergency responders, or (3) the entire population on a voluntary basis. Guidance may be provided in a phased manner for these, or other, groups over time.

The LAC DHS is prepared to implement the guidance received from the federal government on preparedness vaccination. Since this vaccination will take place prior to a smallpox emergency and there will be no urgency to complete vaccination within a few days (as required in a smallpox emergency), existing facilities and staff are deemed sufficient to carry out preparedness vaccination of the first two groups. It may even be that federal personnel will be utilized for this

preparedness vaccination of limited numbers of persons. LAC DHS has developed its own recommendations for preparedness smallpox vaccination prioritization.

Los Angeles County Smallpox Preparedness Plan

Monkey Pox

The Centers for Disease Control and Prevention (CDC) and state and local health departments continue to investigate cases of monkeypox among persons who had close contact with wild or exotic mammalian pets or persons with monkeypox. Results of serologic testing, polymerase-chain-reaction analysis, viral culture and gene sequencing performed at the CDC indicate that the causative agent is monkeypox virus, a member of the orthopoxvirus group of viruses. CDC is updating previous interim guidance concerning infection control precautions and exposure management in the health-care and community settings. The guidance will be further updated as additional information about the epidemiology of disease transmission is better understood.

Limited data on transmission of monkeypox virus are available from studies conducted in Africa. Person-to-person transmission is believed to occur primarily through direct contact and also by respiratory droplet spread. Transmission of monkeypox within hospitals has been described, albeit rarely. Extrapolating from smallpox for which airborne transmission has been clearly described, airborne transmission of monkeypox virus cannot be excluded, especially in patients presenting with cough.

To date in the United States there has been no evidence of person-to-person transmission of monkeypox. However, recovery of monkeypox virus from skin lesions and tonsillar tissue demonstrates the potential for contact and droplet transmission, and at least a theoretical risk for airborne transmission.

A recent modification of CDC.s infection control guidance is based on the accumulating experience in the United States that suggests a relatively low risk of person-to-person transmission. All health-care settings, i.e., hospitals, emergency departments, physician offices, have the capacity to care for monkeypox patients and protect health-care workers and other patients from exposure.

Centers for Disease Control and Prevention

Hoof & Mouth Disease

In the United States we usually call it "Hoof and Mouth Disease." In the U.K. they call it "Foot and Mouth Disease." But, wherever it appears, and whatever it's called, this highly contagious livestock disease means trouble. The outbreak of the disease in Great Britain quickly spread to the European continent, and British officials even considered eradicating that country's entire livestock population. The last major outbreak in the U.S. was in 1929.

Hoof and mouth disease is a viral infection that afflicts animals with cloven hooves such as cattle, pigs, and sheep. Onset of the disease is characterized by fever, which is followed by the development of blisters inside the mouth and on the feet. It is transmitted easily among animals through fluids such as blood, saliva, and milk. Fluid from broken blisters has especially high concentrations of the virus. The disease is not necessarily fatal, and symptoms can clear up after several weeks, but the disease generally leaves animals underweight and sometimes disabled. Because of the highly infectious nature of the disease, and the condition in which it leaves

animals even after they have recovered, farmers almost always destroy infected animals and burn their carcasses.

While not susceptible to the hoof and mouth, humans can carry and transmit the disease without even realizing it. This makes an already highly contagious disease even more difficult to contain. Governments can control the export and import of farm animals, and can destroy animals possibly exposed to the disease, but confining the human carriers of the virus is much more difficult.

This disease is explained further under "**Agricultural Loss**."

Hepatitis

Hepatitis is inflammation of the liver. Several different viruses cause viral hepatitis. They are named the hepatitis A, B, C, D, and E viruses.

All of these viruses cause acute, or short-term, viral hepatitis. The hepatitis B, C, and D viruses can also cause chronic hepatitis, in which the infection is prolonged, sometimes lifelong.

Other viruses may also cause hepatitis, but they have yet to be discovered and they are obviously rare causes of the disease.

Hepatitis Incidence/Epidemiology

Hepatitis A occurs sporadically and epidemically worldwide, with a tendency to cyclic recurrences.

Epidemics are uncommon in developing countries where adults are generally immune. Improved sanitation and hygiene conditions in different parts of the world leave large segments of the population susceptible to infection, and outbreaks may result whenever the virus is introduced.

Common-source epidemics, related to contaminated food or water, may evolve explosively, as did the largest mollusc-linked epidemic in Shanghai, in 1988, involving about 300 000 people.

Worldwide, HAV infections account for 1.4 million cases annually.

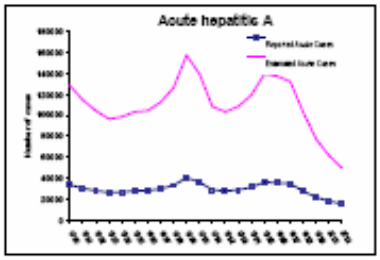
Strain	Disease Spread	People at Risk	Prevention	Treatment
Hepatitis A	Primarily through food or water contaminated by feces from an infected person. Rarely, it spreads through contact with infected blood	International travelers; people living in areas where hepatitis A outbreaks are common; people who live with or have sex with an infected person; during outbreaks, day care children and employees, men who have sex with men, and injection drug users	The hepatitis A vaccine, also, avoiding tap water when traveling internationally and practicing good hygiene and sanitation	Hepatitis A usually resolves on its own over several weeks
Hepatitis B	Through contact with infected blood, through sex with an infected person, and from mother to child during childbirth	People who have sex with an infected person, men who have sex with men, injection drug users, children of immigrants from disease-epidemic areas, infants born to infected mothers, people who live with an infected person, health care workers, hemodialysis patients, people who received a transfusion of blood or blood products before July 1992 or clotting factors made before 1987, and international travelers	Hepatitis B vaccine	For chronic hepatitis B: drug treatment with alpha interferon, peginterferon, lamivudine, or adefovir dipivoxil. Acute hepatitis B usually resolves on its own. Very severe cases can be treated with lamivudine
Hepatitis C	Primarily through contact with infected blood, less commonly, through sexual contact and childbirth	Injection drug users, people who have sex with an infected person, people who have multiple sex partners, health care workers, infants born to infected women, hemodyalysis patients, and people who received a transfusion of blood or blood products before July 1992 or clotting factors made before 1987	There is no vaccine for hepatitis C; the only way to prevent the disease is to reduce the risk of exposure to the virus. This means avoiding behaviors like sharing drug needles or sharing personal items like toothbrushes, razors, and nail clippers with an infected person	Chronic hepatitis C: drug treatment with perginterferon alone or combination treatment with peginterferon and the drug ribavirin. Acute hepatitis C: treatment is recommended if it does not resolve within 2 to 3 months
Hepatitis D	Through contact with infected blood. This disease occurs only in people who are already infected with hepatitis B	Anyone infected with hepatitis B: injection drug users who have hepatitis B have the highest risk. People who have hepatitis B are also at risk if they have sex with a person infected with hepatitis D or if they live with an infected person. Also at risk are people who received a transfusion of blood or blood products before July 1992 or clotting factors made before 1987	Immunization against hepatitis B for those not already infected; also. avoiding exposure to infected blood, contaminated needles, and an infected person's personal items.	Chronic hepatitis D: drug treatment with alpha interferon
Hepatitis E	Through food or water contaminated by feces from an infected person. This disease in uncommon in the United States	International travelers; people living in areas where hepatitis E outbreaks are common; and people who live or have sex with an infected person	There is no vaccine for hepatitis E; the only way to prevent the disease is to reduce the risk of exposure to the virus. This means avoiding tap water when traveling internationally and practicing good hygiene and sanitation	Hepatitis E usually resolves on its own over several weeks or months

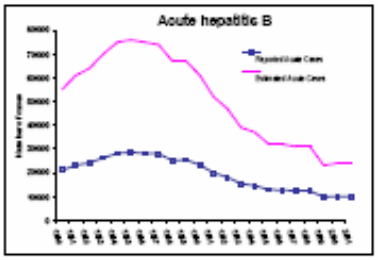
Hepatitis Facts

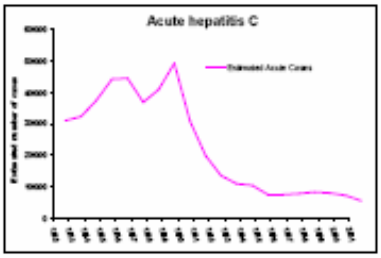
- An estimated 40,000 people were infected with the hepatitis C virus (HCV) in 1998.
- There are an estimated 3.9 million people who are or have been infected with hepatitis C, 2.7 of whom are chronically infected; approximately 70% of people infected do not know they have the virus.
- 8,000 – 10,000 people die of hepatitis C each year. The Centers for Disease Control and Prevention (CDC) estimate that the number of annual deaths from hepatitis C will triple in the next 10 –20 years.
- Hepatitis B is responsible for 5,000 deaths annually, including 3,000 – 4,000 from cirrhosis and approximately 1,000 – 1,500 from primary liver cancer.
- One out of every 250 people is a carrier of hepatitis B and can pass it on to others, often unknowingly.
- There were approximately 80,000 estimated new infections of hepatitis B in the United States in 1999.
- Up to 90% of pregnant women who are carriers of the hepatitis b virus could transmit the virus to their children. Vaccinations of the newborns would prevent them from becoming carriers.
- Due to the screening of pregnant women for HBV and vaccinations of newborns with the hepatitis B vaccine, there has been a decline in that number of infected newborns.
- Hepatitis B is 100 times more infectious than HIV, the virus that causes AIDS. There are 500 million hepatitis B viral particles in one teaspoon of blood compared to 510 HIV particles.
- The estimated medical and work loss cost per year of hepatitis B is $700 million; the estimated medical and work loss cost per year of hepatitis C is $600 million.
- One out of every 20 people will be infected with hepatitis B in his/her lifetime.
- Approximately 5,000 liver transplants were performed in 2000. Because of the shortage of organs, it is estimated that nearly 1,700 prospective recipients died in 2001 while waiting for a liver for transplantation. There are currently over 18,000 people waiting for a liver transplant.
- Non-Hispanic African Americans have the highest infection rate for hepatitis C; Asian and Pacific Islanders have the highest rate for hepatitis B infection.

Disease Burden from Viral Hepatitis A, B, and C in the United States

	Hepatitis A		Hepatitis B		Hepatitis C	
	2001	2000	2001	2000	2001	2000
Number of Acute Clinical Cases Reported[a]	10,616	12,297	7,694	8,036	No data	No data
Estimated Number of Acute Clinical Cases[b]	46,000	57,000	22,000	22,000	4,000	5,700
Estimated Number of New Infections[b]	90,000	140,000	78,000	81,000	25,000	35,000
Number of Persons with Chronic Infection[c]	No chronic infection		1.25 million		3.7 million	
Estimated Annual Number of Chronic Liver Disease Deaths[†]	No chronic infection		5,000		8,000-10,000	
Percent ever infected[‡]	31.3%		4.5%		1.8%	







HEPATITIS A

Year	Reported Acute Cases	Estimated Acute Cases	Estimated Total New Infections
1980	29087	124,000	254,000
1981	25802	110,000	223,000
1982	23424	100,000	226,000
1983	21534	92,000	221,000
1984	22038	94,000	232,000
1985	23211	99,000	226,000
1986	23429	100,000	239,000
1987	25280	108,000	255,000
1988	28508	122,000	305,000
1989	35822	153,000	360,000
1990	31522	135,000	373,000
1991	24219	104,000	288,000
1992	23112	99,000	274,000
1993	24238	104,000	284,000
1994	26795	115,000	333,000
1995	31582	135,000	356,000
1996	31032	133,000	335,000
1997	30021	128,000	341,000
1998	23229	99,000	243,000
1999	17047	73,000	181,000
2000	13397	57,000	143,000
2001	10616	46,000	90,000

HEPATITIS B

Year	Reported Acute Cases	Estimated Acute Cases	Estimated Total New Infections
1980	19014	53,000	208,000
1981	21151	59,000	229,000
1982	22176	62,000	239,000
1983	24319	68,000	267,000
1984	25116	73,000	281,000
1985	25812	74,000	287,000
1986	25108	73,000	283,000
1987	25916	72,000	287,000
1988	23175	65,000	253,000
1989	23421	65,000	255,000
1990	21277	59,000	232,000
1991	17911	50,000	193,000
1992	16126	45,000	175,000
1993	13381	37,000	144,000
1994	12517	35,000	133,000
1995	10805	30,000	113,000
1996	10837	30,000	112,000
1997	10416	29,000	110,000
1998	10258	29,000	109,000
1999	7894	21,000	79,000
2000	8036	22,000	81,000
2001	7844	22,000	78,000

HEPATITIS C

Year	Estimated Acute Cases	Estimated Total New Infections
1982	29,500	180,000
1983	30,000	188,000
1984	35,000	219,000
1985	42,700	261,000
1986	43,000	262,000
1987	35,400	216,000
1988	39,400	240,000
1989	47,800	291,000
1990	29,400	179,000
1991	18,400	112,000
1992	12,000	73,000
1993	9,400	57,000
1994	8,900	54,000
1995	5,900	36,000
1996	5,900	36,000
1997	6,500	39,000
1998	6,800	41,000
1999	6,400	39,000
2000	5,700	35,000
2001	4,000	25,000

Notes on sources and methodology:

a. Number of Acute Clinical Cases Reported: For hepatitis A and hepatitis B, the number of cases reported to the National Notifiable Disease Surveillance System (NNDSS). Cases of hepatitis C are also reported to NNDSS (3,856 cases in 2001) but are unreliable for monitoring trends in hepatitis C because these reports include cases based only on a positive laboratory test for anti-HCV, most of which represent chronic HCV infection. (CDC. Summary of Notifiable Diseases, United States, 2000, MMWR 2002;49(53)

b. Estimated Number of Clinical Cases and New Infections: The ratio of reported acute cases to the total number of newly acquired infections occurring was estimated by catalytic modeling of seroprevalence data (from the National Health and Nutrition Examination Survey (NHANES III)) . Incidence estimates adjusted for underreporting and asymptomatic infections were then calculated by multiplying the number of cases reported (for hepatitis A and hepatitis B, NNDSS data are used; for hepatitis C, Sentinel Counties Study of Viral Hepatitis data are used) by these ratios. HAV: Armstrong GL et al, Pediatrics 2002, 109(5):839-845; HCV: Armstrong GL et al. Hepatology 2000, 31:777-782.

c. Number of Persons with Chronic Infection: HBV: Margolis HS, Coleman PJ, Brown RE, et al. Prevention of hepatitis B virus transmission by immunization: An economic analysis of current recommendations. JAMA 1995; 274(15): 1201 - 1208. HCV: Alter MJ et al. Prevalence of hepatitis C virus infection in the United States, 1988 through 1994. NEJM 1999; 341:556-562.

†: Estimated Annual Number of Chronic Liver Disease Deaths: Estimated number of chronic liver disease deaths are for the year 1990. HBV: Centers for Disease Control and Prevention. Protection against Viral Hepatitis. MMWR 1990; 39(RR-2). HCV: Centers for Disease Control and Prevention. Recommendations for the prevention and control of hepatitis C virus infection and HCV-related chronic disease. MMWR 1998; 47(RR-19):1-39.

‡: Percent ever infected: Prevalence estimates for HAV, HBV and HCV come from the Third National Health and Nutrition Examination Survey. HAV: CDC. Prevention of Hepatitis A through active or passive immunization. MMWR 1999; 48: RR-12. HBV: McQuillan GM, et al. Prevalence of hepatitis B virus infection in the United States: The National Health and Nutrition and Examination Surveys, 1976 through 1994. AJPH 1999; 89(1)14-18. HCV: Alter MJ et al. Prevalence of hepatitis C virus infection in the United States, 1988 through 1994. NEJM 1999; 341:556-562.

Other Diseases

Plague

Plague is transmitted to humans by fleas or by direct exposure to infected tissues or respiratory droplets; the disease is characterized by fever, chills, headache, malaise, prostration, and leukocytosis that manifests in one or more of the following principal clinical forms:

- Regional lymphadenitis (bubonic plague)
- Septicemia without an evident bubo (septicemic plague)
- Plague pneumonia, resulting from hematogenous spread in bubonic or septicemic cases (secondary pneumonic plague) or inhalation of infectious droplets (primary pneumonic plague)
- Pharyngitis and cervical lymphadenitis resulting from exposure to larger infectious droplets or ingestion of infected tissues (pharyngeal plague)

Brucellosis

Brucellosis is an infectious disease caused by the bacteria of the genus *Brucella*. These bacteria are primarily passed among animals, and they cause disease in many different vertebrates. Various *Brucella* species affect sheep, goats, cattle, deer, elk, pigs, dogs, and several other animals. Humans become infected by coming in contact with animals or animal products that are contaminated with these bacteria. In humans brucellosis can cause a range of symptoms that are similar to the flu and may include fever, sweats, headaches, back pains, and physical weakness. Sever infections of the central nervous systems or lining of the heart may occur. Brucellosis cab also cause long-lasting or chronic symptoms that include recurrent fevers, joint pain, and fatigue.

Brucellosis is not very common in the United States, where100 to 200 cases occur each year. But brucellosis can be very common in countries where animal disease control programs have not reduced the amount of disease among animals.

Botulism (Food-borne)

Ingestion of botulinum toxin results in an illness of variable severity. Common symptoms are diplopia, blurred vision, and bulbar weakness. Symmetric paralysis may progress rapidly.

Botulism (Wound)

This is an illness resulting from toxin produced by *Clostridium botulinum* that has infected a wound. Common symptoms are diplopia, blurred vision, and bulbar weakness. Symmetric paralysis may progress rapidly.

Water/Waste Water Emergency

Water/Waste Water Emergencies were rated a HIGH PRIORITY HAZARD in Los Angeles County.

Water

With a growing population and economy, increasing environmental concerns and vibrant agriculture industry at play, how we choose to collect, store, distribute, use and dispose of water has never been more critical.

Every drop of water not used by a household, farm or business can be used to create higher river flows to benefit fisheries and floodways. Likewise, recycled water stored in new reservoirs can be used to recharge over-drafted groundwater aquifers. In short, new and innovative ideas are on the table that will help California rework its waterworks so that it is not necessary to choose between the environment, the economy, and people's livelihoods and lifestyles.

From the northern reaches to the San Joaquin Delta, which provides two-thirds of the state's residents with their drinking water, California is under the gun to reconstruct and rehabilitate its water and wastewater systems. The challenge is being met on many fronts. On these pages you will find a summary of the water and wastewater challenges California faces today, along with the lowdown on solutions in the works.

Problems

- Our groundwater basins are over-drafted and our existing surface storage cannot meet future water demands, particularly in times of drought.

- The gap between water supply and demand in California is predicted to total 2.4 million acre feet during drought years and up to 6.2 million acre feet in drought years by 2020. (An acre foot is enough to meet the annual needs of between one and two households.) Six million feet is roughly triple the amount of water the Bay Area uses in a year. At the same time, growers, manufactures and businesses are demanding more reliable and better quality water.

- It can take 20 years or longer to develop and finance a supplemental water supply for new developments.

- About 894 gallons of water are needed to grow the food for the daily diet of an average person. On an annual basis, an individual's water use is about 326, 310 gallons.

- Some of our cities rely on water mains and sewers that are more than 100 years old.

- In 2001 California officials issued more than 2,000 beach closings and health advisories because of sewer spills and overflows. Spills and overflows typically happen because wastewater systems have not been upgraded to facilitate new growth, and sewer pipes have not been replaced in time to avert a main break.

- When it rains, at times as little as one-quarter inch, the volume of combined runoff and wastewater becomes too great for sewage treatment plants to handle, and the flow is diverted to outfall points that discharge raw sewage, toxic industrial waste and floatables such as garbage and syringes.

- California needs an estimated $8.4 billion for local wastewater treatment improvements.

Solutions - Water

Through a state/federal partnership known as CALFED, for example, some $10 billion in expanded storage, increased recycling and conservation, ecological restoration of key watersheds, and improved water distribution and conveyance has been identified that over the next few decades help meet some of these challenges. Cities are expanding wastewater treatment systems, improving water distribution infrastructure, and developing local recycling programs as well, some using funds from the CALFED program.

To offset water shortages, the state's water recycling program needs more investment. In 1998, the last year it revised its state Water Plan, the California Department of Water Resources issued a 10-year capital improvement forecast calling for more than $1.6 billion in spending to ensure delivery of clean water. In addition, a state/federal partnership known as CALFED is overseeing a vast reworking of the state's water storage and distribution system. The CALFED program as it is known foresees $10 billion in environmental and ecological restoration projects, new storage facilities, recycling programs, water transfer arrangements to help strike a balance the state's competing water needs.

Solutions - Wastewater

State and federal water quality regulations require cities and other municipalities to upgrade wastewater treatment and distribution systems to prevent overflows during wet weather no later than 2014. Pipe replacement projects, construction of new retention ponds, increased recycling and conservation programs, and expanded treatment facilities are all part of the mix of solutions.

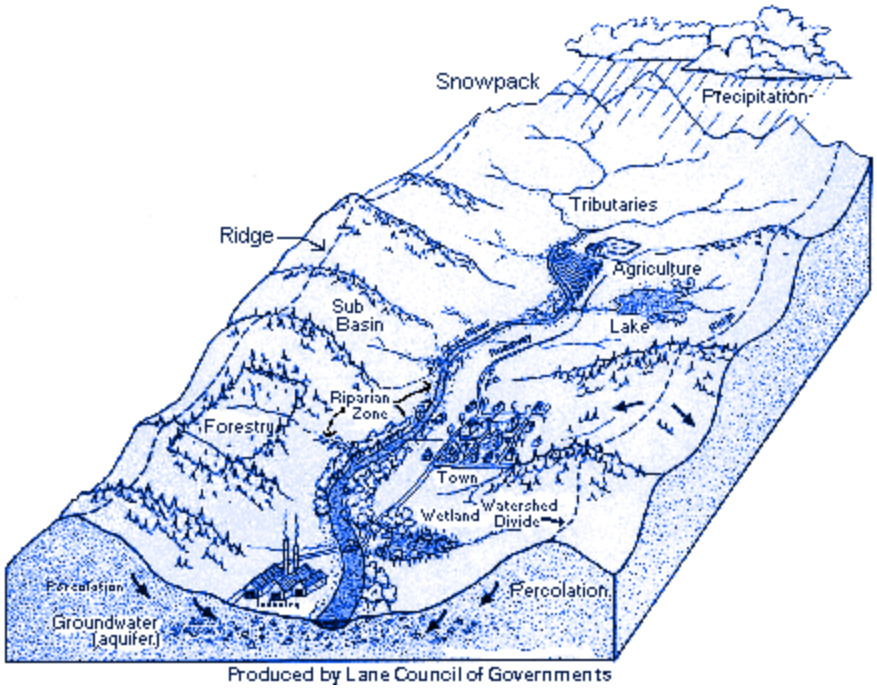
California Dept. of Water Resources, Water Education Foundation, Natural Resources Defense Council

Water Sheds

A watershed is the area of land where all of the water that is under it or drains off of it goes into the same place. John Wesley Powell, scientist geographer, put it best when he said that a watershed is:

"that area of land, a bounded hydrologic system, within which all living things are inextricably linked by their common water course and where, as humans settled, simple logic demanded that they become part of a community."

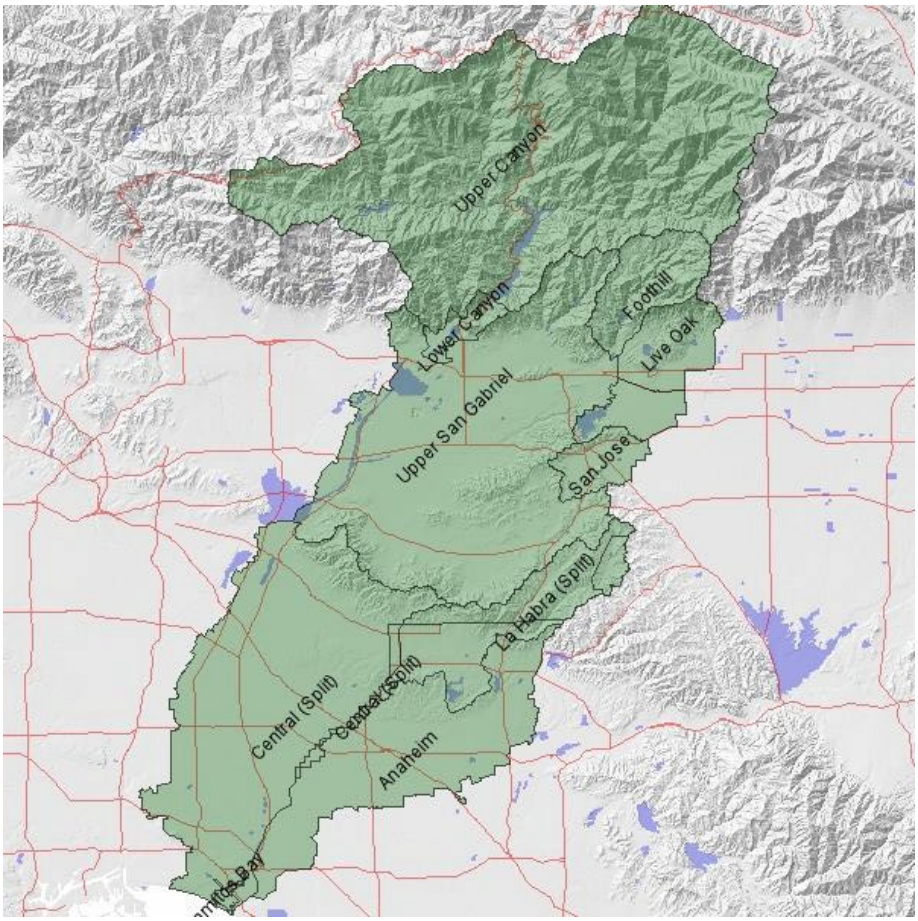
Watersheds come in all shapes and sizes. They cross county, state, and national boundaries. No matter where you are, you're in a watershed!



There are 6 water sheds serving Los Angeles County; Antelope-Fremont Valleys, Santa Clara, Los Angeles, San Gabriel, Santa Monica Bay, and San Pedro/Channel Islands (see map on next page). The map below shows the area of South Coast Water Sheds.

Watersheds in Los Angeles County

San Gabriel Water Shed


Upper Canyon
Lower Canyon
Foothill
Live Oak
Upper San Gabriel
San Jose
La Habra (Split)
Central (Split)
Anaheim

The Small Watershed Program in California - PL 83-566 and PL 73-534

The USDA's Small Watershed Program assists local organizations in conducting watershed surveys and investigations, and in planning and installing structural and land treatment measures for watershed protection and flood prevention. In California, the Watershed Planning and Engineering staffs are responsible for implementation of these programs.

The watershed is the unit of landscape and framework around which to think together about the land and its role in peoples' lives. The lessons learned through the implementation of PL 78-534 and PL 83-566 - the ability to work with private landowners and communities to plan and install conservation measures on a watershed scale - forms the foundation upon which locally-led conservation is built and supported by NRCS.

Background

USDA's Small Watershed Program was authorized by the Flood Control Act of 1944, Public Law 78-534, and the Watershed Protection and Flood Prevention Act of 1954, Public Law 83-566. The original program, PL 78-534, was established for 11 selected watersheds throughout the country, including the Los Angeles River and Santa Ynez River in California. The subsequent legislation, PL 83-566, was passed to expand the program to all of the nation's watersheds.

USDA's Small Watershed Program has three general purposes: 1) preventing damage from erosion, floodwater and sediment, 2) furthering the conservation development, utilization, and disposal of water, and 3) further the conservation and proper utilization of land.

The program applies to watersheds 250,000 acres and smaller. At least 20 percent of any project benefits must related directly to agriculture, including rural communities. A local sponsoring organization is needed to carry out, maintain, and operate works of improvement.

The program has two main components, each of which is funded separately: 1) watershed surveys and planning; and 2) watershed and flood prevention operations and construction.

Status of the Program in California

The Small Watershed Program in California has been used primarily for flood control, agricultural water management, and watershed protection work. There are 30 completed watershed projects in California and 15 operational projects. About 30 watersheds are currently receiving technical assistance for local planning activities.

From 1978 through 2002, over $100 million was spent in California under PL83-566 operations to install conservation measures. During this same time period, over $120 million was spent in 45 counties in California under Emergency Watershed Protection to provide emergency flood and fire repair work.

In fiscal year 2002, California received PL83-566 annual appropriations of $950,000 for watershed planning, $1,390,000 for technical assistance, and $3,351, 136 for installing practices.

Emergency Response Plans

All water systems serving a population of 3,300 or more (1,000 connections or more) must update their Emergency Response Plan (ERP) and send a completed certification form to EPA within 6 months of completing their Security Vulnerability Assessment (Security VA). All water systems

are required to have an Emergency Notification Plan (ENP). CRWA is putting on a series of FREE ERP classes, which will include a free manual and a free CD that will assist you in updating or creating an Emergency Response Plan for your water system. It also includes a special section on how to prepare a Drought Response Plan as a key component of your ERP. All systems no matter what size are invited to attend and will benefit from this class, and attendees will earn contact hours for Distribution and Water Treatment certification renewal.

Ground Water

Ground water is an important component of our nation's fresh water resources. The use of ground water is of fundamental importance to human life and is also significant to economic vitality. Inventories of ground water and surface water use patterns in the United States emphasize the importance of ground water. The United States Geological Survey (USGS) compiles national water use information every 5 years and publishes a report that summarizes this information.

Groundwater is a hidden resource. At one time, its purity and availability were taken for granted. Now contamination and availability are serious issues. The following should be considered:

- Scientists estimate groundwater accounts for more than 95% of all fresh water available for use.
- Approximately 50% of Americans obtain all or part of their drinking water from groundwater.
- Nearly 95% of rural residents rely on groundwater for their drinking supply.
- About half of irrigated cropland uses groundwater.
- Approximately one third of industrial water needs are fulfilled by using groundwater.
- About 40% of river flow nationwide (on average) depends on groundwater.

Thus, groundwater is a critical component of management plans developed by an increasing number of watershed partnerships.

Definition

Groundwater is the water that saturates the tiny spaces between alluvial material (sand, gravel, silt, clay) or the crevices or fractures in rocks.

Aeration zone: The zone above the water table is known as the zone of aeration (unsaturated or vadose zone). Water in the soil (in the ground but above the water table) is referred to as soil moisture. Spaces between soil, gravel and rock are filled with water (suspended) and air.

Capillary water: Just above the water table, in the aeration zone, is capillary water that moves upward from the water table by capillary action. This water can move slowly in any direction, from a wet particle to a dry one. While most plants rely on moisture from precipitation that is present in the unsaturated zone, their roots may also tap into capillary water or into the underlying saturated zone.

Aquifer: Most groundwater is found in aquifers-underground layers of porous rock that are saturated from above or from structures sloping toward it. Aquifer capacity is determined by the porosity of the subsurface material and its area. Under most of the United States, there are two major types of aquifers: confined and unconfined.

Confined aquifers (also known as artesian or pressure aquifers) exist where the groundwater system is between layers of clay, dense rock or other materials with very low permeability.

Water in confined aquifers may be very old, arriving millions of years ago. It's also under more pressure than unconfined aquifers. Thus, when tapped by a well, water is forced up, sometimes above the soil surface. This is how a flowing artesian well is formed.

Unconfined aquifers are more common and do not have a low-permeability deposit above it. Water in unconfined aquifers may have arrived recently by percolating through the land surface. This is why water in unconfined aquifers is often considered very young, in geologic time. The top layer of an unconfined aquifer is the water table. It's affected by atmospheric pressure and changing hydrologic conditions. Discharge and recharge rates depend on the hydrologic conditions above them.

Saturation zone: The portion that's saturated with water is called the zone of saturation. The upper surface of this zone, open to atmospheric pressure, is known as the water table (phreatic surface).

Water-bearing rocks: Several types of rocks can hold water, including:

- Sedimentary deposits (i.e. sand and gravel)
- Channels in carbonate rocks (i.e. limestone)
- Lava tubes or cooling fractures in igneous rocks
- Fractures in hard rocks

Groundwater and Surface Water Connection

Groundwater and surface water are fundamentally interconnected. It is often difficult to separate the two because they "feed" each other. This is why one can contaminate the other.

Hydrologic (water) Cycle

- As rain or snow falls to the earth's surface:
- Some water runs off the land to rivers, lakes, streams and oceans (surface water).
- Water also can move into those bodies by percolation below ground.

Water entering the soil can infiltrate deeper to reach groundwater which can discharge to surface water or return to the surface through wells, springs and marshes. Here it becomes surface water again. And, upon evaporation, it completes the cycle. This movement of water between the earth and the atmosphere through evaporation, precipitation, infiltration and runoff is continuous.

How Groundwater "Feeds" Surface Water.

One of the most commonly used forms of groundwater comes from unconfined shallow water table aquifers. These aquifers are major sources of drinking and irrigation water. They also interact closely with streams, sometimes flowing (discharging) water into a stream or lake and sometimes receiving water from the stream or lake.

An unconfined aquifer that feeds streams is said to provide the stream's baseflow. (This is called a gaining stream.) In fact, groundwater can be responsible for maintaining the hydrologic balance of surface streams, springs, lakes, wetlands and marshes.

This is why successful watershed partnerships with a special interest in a particular stream, lake or other surface waterbody always have a special interest in the unconfined aquifer, adjacent to the water body.

How Surface Water "Feeds" Groundwater

The source of groundwater (recharge) is through precipitation or surface water that percolates downward. Approximately 5-50% (depending on climate, land use, soil type, geology and many other factors) of annual precipitation results in groundwater recharge. In some areas, streams literally recharge the aquifer through stream bed infiltration, called losing streams. Left untouched, groundwater naturally arrives at a balance, discharging and recharging depending on hydrologic conditions.

Defining Combined Boundaries

Partnerships using the watershed approach to protect natural resources identify and understand the individual resources-water, soil, air, plants, animals and people-early in the process. This is why watershed partnerships select or define boundaries to address all natural resources - not just one. They realize that groundwater, surface water, air quality, and wildlife and human activities all affect each other.

Occasionally watershed partnerships run into difficulty combining boundaries of surface water (watersheds) and recharge areas (groundwater). If this occurs, consider combining surface and groundwater into a single, larger area. In other situations-for example if water is being transferred from one watershed or aquifer to distant users-there can be, and should be, two distinct areas. Thus, watershed partnerships' boundaries may combine the wellhead area, aquifer, watershed, or many other areas depending on the issue(s).

Common Boundaries

Aquifers are often difficult to delineate. It requires someone with an understanding of the aquifer, the geology, the surface above it, and the land that drains toward the surface.

An unconfined aquifer area often extends to the surface waterbody's (i.e. lake, river, estuary) watershed. When determining an aquifer protection area, pumping (working) wells are not considered. The biggest risk to an unconfined aquifer is contaminated water moving through the permeable materials directly above it. This area is known as the primary recharge area. Depending on the depth and overlying geologic characteristics, travel time from the surface to the aquifer can be relatively short.

Less permeable deposits located at higher elevations than the aquifer form a secondary recharge area. These areas also recharge the aquifer through both overland runoff and groundwater flow. Because they are less permeable and tend to be a greater distance from the aquifer, they often filter out contaminants.

Additional recharge areas to consider include an adjacent stream that potentially contributes to the aquifer through infiltration. When pumping wells are located near a stream or lake, infiltration

can be increased. Infiltrating streams typically provide an aquifer with large quantities of water and a pathway for bacteria, viruses and other contaminants.

A confined aquifer area may be limited to the outcrop of the aquifer unit and its immediate contributing area. This area may actually be isolated from the location of water supply wells within the aquifer.

Semi-confined aquifers may receive water from both outcrop areas and overlying aquifers. Delineating the aquifer protection area can be extensive and complex.

Sole-source aquifers are delineated based on aquifer type - confined, semi - confined or unconfined - and local geologic and hydrologic conditions. Defined as providing a minimum of 50% of the water for its users, sole-source aquifers usually exist only where there simply are no viable alternative water sources.

Wellhead protection areas (also known as zone of contribution and contributing areas) are the surface and subsurface areas surrounding a well or field of wells (wellfield) supplying a public water system.

The area is calculated by determining the distance contaminants are reasonably likely to move before reaching a well. Some common methods for determining the wellhead protection area include:

- Arbitrary fixed radius
- Calculated fixed radius
- Simplified variable shapes
- Analytical method
- Numerical method
- Hydro-geologic mapping

When selecting the best method, consider available funds and the level of concern. Other factors to consider include the cone of depression and drawdown.

Surface watersheds are defined by a simple process of identifying the highest elevations in land that drains to the surface waterbody (i.e. lake, pond, river, estuary, etc.). Watersheds are all shapes and sizes, ranging from just a few acres to several million acres ... many smaller watersheds "nested" inside a larger watershed.

Most successful watershed partnerships work with a manageable size yet encompass all the different, but integrated, areas. This enables faster measurable progress and stronger ties between stakeholders and the waterbody they affect.

Threats to Groundwater

Threats To Quantity

An increased quantity of groundwater is being withdrawn to meet the demands of a growing population. Some of the typical threats associated with this include overdraft, drawdown and subsidence.

Overdraft occurs when groundwater is removed faster than recharge can replace it. This can result in

- A permanent loss of a portion of its storage capacity
- A change that can cause water of unusable quality contaminate good water. In coastal basins, salt water intrusion can occur.

Generally, any withdrawal in excess of safe yield (the amount that can be withdrawn without producing an undesirable result) is an overdraft.

Drawdown differs significantly from overdraft. It results in a temporarily lowered water table generally caused by pumping. In this situation, the water table recovers when the supply is replenished.

Subsidence is one of the dramatic results from over-pumping. As the water table declines, water pressure is reduced. This causes the fine particles that held water to become compacted. In addition to permanently reducing storage capacity, the land above the aquifer can sink ... from a few inches to several feet ... causing a sinkhole. This can damage property and fields.

Inorganic compounds, pathogens and organic compounds can harm water quality, affecting the health of humans, fish and wildlife. Scientists continually learn more about contaminants, their sources and prevention practices.

Each state is responsible for designating uses for groundwater, surface waters, wetlands, etc. Designated uses include fishable, swim able, drinkable, recreational, agricultural, aquatic life, and more. Each state is also responsible for developing water quality standards for each use. For example, while most rivers are designated to be used for fishing, a few river sections are designated to be used for drinking water. The same is true for groundwater. Uses are defined and standards identified. A few groundwater uses and standards are:

- Drinking water
- Meet MCL* for pollutants
- Industrial process
- Quality & quantity criteria
- Stream baseflow
- Discharge quantity & quality

*MCL: Maximum Contaminant Level

Note that, for most groundwater uses, quality and quantity are important, while for surface water uses, generally quality is the primary concern (with the realization the quantity affects quality).

Inorganic Compounds include all compounds that do not contain carbon. Nutrients (nitrogen and phosphorus) and heavy metals are two examples.

- *Nitrates* can cause problems in drinking water or marine waters

- *Phosphorus* can reduce uses of fresh surface waters
- *Heavy metals* include selenium, arsenic, iron, manganese,
    - sulfur, cadmium and chromium and others. Some (iron,
    - manganese and arsenic) occur naturally

Pathogens, including bacteria and viruses, have been credited with causing more than 50% of the waterborne disease outbreaks in the U.S. *Cryptosporidium Parvum* and *Giardia* both commonly cause illnesses when consumed.

Organic Compounds include Volatile Organic Compounds (VOCs) like benzene, toluene, xylene; semi-volatile compounds like napthaline and phenol; PCBs and pesticides.

Potential Sources

Point sources are easily identified because they usually come out of a "pipe." Examples include sewage treatment plants, large injection wells, industrial plants, livestock facilities, landfills, and others. Regulated by the state water quality agency and the U.S. EPA, point sources are issued a National Pollutant Discharge Elimination System (NPDES) permit when they meet regulations.

Many point sources were established generations ago, before the threat they posed was understood. Some of these sources have been "grandfathered" into compliance with some regulations. Thus, you may find some point sources located in areas that would be considered inappropriate now.

Nonpoint sources refer to widespread, seemingly insignificant amounts of pollutants which, cumulatively, threaten water quality and natural systems. Examples of nonpoint sources include septic systems, agriculture, construction, grazing, forestry, recreational activities, careless household management, lawn care, and parking lot and other urban runoff.

Nonpoint sources are not required to have a permit. Individually, each may not be a serious threat, but together they may be a significant threat.

Other sources that aren't classified under point or nonpoint sources include underground petroleum storage systems and many large and small businesses like dry cleaners, restaurants, and automotive repair shops. Although a large number of underground storage tanks have been removed or upgraded, a significant number remain. Businesses can threaten groundwater with a wide variety of potentially contaminating substances.

Groundwater Contaminant Sources

Source	Contaminant
Salting practices & storage	Chlorides
Snow dumping	Chlorides
Agricultural fertilizers	Nitrates
Manure handling	Nitrates, pathogens
Home fertilizer	Nitrates
Septic systems	Nitrates, pathogens
Urban landscapes	Hydrocarbons, pesticides, pathogens
Agricultural dealers	Hydrocarbons, pesticides, nitrates
Agricultural feedlots	Nitrates, pathogens
Solid waste landfills	Hazardous materials
Industrial uses RCRA 'C'	Hazardous materials
Industrial uses RCRA 'D'	Hazardous materials
Small quantity generators	Hazardous materials
Households	Hazardous materials
Gas stations	Hydrocarbons
Auto repair shops	Hydrocarbons
Recycling facilities	Hydrocarbons
Auto salvage yards	Hydrocarbons
Underground storage tanks	Hydrocarbons
Industrial floor drains	Hydrocarbons
Injection wells	Hydrocarbons
Junkyards	Hydrocarbons

Mitigation

The Watershed Management Approach

A quick review of key components of the local, voluntary watershed approach to protecting natural resources will help you evaluate groundwater management approaches and how they may be used in your particular situation. The most critical component to the watershed management approach is the involvement and consensus of all key stakeholders (or organizations representing them) at each step in the process. Other key components include:

- Assess natural resources-soil, water (including groundwater), air, plants, animals, and people.
- Identify and prioritize problems.
- Develop measurable objectives-based on local environmental, economic and social goals.
- Identify and agree upon strategies for reaching objectives.
- Implement strategies and assess results.

Some of the activities, as they pertain to groundwater, are described in this guide. For example:

- Determining boundaries of the groundwater and watershed areas is typically part of assessment.

- Discussing existing and future uses of water is part of setting goals.
- Defining pollutants and sources is part of assessment, goal setting and solution identification.
- Understanding various tools is part of identifying and implementing solutions.

Existing Groundwater Programs

Over the past 20 years many federal and state programs have been developed to improve management of groundwater. Four of the most useful can also easily be incorporated into your watershed plan. These include:

- *Comprehensive State Groundwater Protection Program*
- *Sole Source Aquifer Program*
- *Source Water Protection Program*
- *Wellhead Protection Program*

These approaches can be used in a complementary fashion to manage all resources, including groundwater, for multiple uses-ranging from human consumption to industrial processes to maintaining ecological integrity within a wetland.

Comprehensive State Groundwater Protection Program is a statewide program that looks at groundwater's uses, including drinking water, and its role in sustaining the health of surface waterbodies (rivers, streams, wetlands, marshes).

The Sole Source Aquifer Program, Source Water Protection Program, and Wellhead Protection Program all are intended to protect a drinking water supply. The programs generally are compatible with the *Comprehensive State Groundwater Protection Program,* but are applied to very defined geographic areas:

- *The Sole Source Aquifer Program* applies to the aquifer boundaries.

- *The Source Water Protection Program* applies to water that drains into a reservoir (used as a drinking water source) or intake.

- *The Wellhead Protection Program* applies to defined wellhead areas.

Special Issues

Although groundwater programs are often used within the watershed framework, there are some issues that may arise as you attempt to integrate them. These issues have been listed to simply make you aware of them. Each is best addressed through cooperation and consensus. Water quality use designations often do not reflect the presence of groundwater intakes for drinking water. Water quality criteria and drinking water maximum contaminant levels (MCLs) often are not consistent in terms of chemical specific values and parameters.

Minor dischargers and permitted management measures under the NPDES program may not sufficiently reduce the risk to drinking water intakes. Where agriculture activities are reducing drinking water quality, changes in management practices may or may not take a long time to result in water quality improvements depending on weather, geography etc. Source water areas for groundwater drinking supplies (wellhead areas) generally do not coincide with surface water

drainage areas. Long-term drinking water treatment may be necessary for certain public water supply systems because of the nature of the contaminant sources and the size of the contributing area.

Mitigation & Management Tools

There are many, many tools that can be used to manage groundwater resources:

Zoning: Regulations are used to segregate different, and possibly conflicting, activities into different areas of a community. This approach can be limited in its ability to protect groundwater due to "grandfather" provisions.

Overlay Water Resource Protection Districts: Similar to zoning regulations in their goals of defining the resource, these ordinances and bylaws map zones of contributing boundaries and enact specific legislation for land uses and development within these boundaries.

Prohibition of Some Land Uses: These are not typically considered very creative tools. However, prohibition of land uses such as gas stations, sewage treatment plants, landfills, or the use/storage/transport of toxic materials is a first step towards the development of a comprehensive groundwater protection strategy.

Special Permitting: The special permitting process can be used to regulate uses and structures that may potentially degrade water and land quality.

Large Lot Zoning: Large lot zoning seeks to limit groundwater resource degradation by reducing the number of buildings and septic systems within a groundwater protection area.

Eliminating/Modifying Septic Systems: Septic system problems can be reduced or eliminated by extending or developing community sewage treatment systems. Other options include specifying minimum design requirements like mound systems.

Transfer of Development Rights: A government entity prepares a plan designating land parcels from which development rights can be transferred to other areas. This allows land uses to be protected (i.e. for a gas station) while assuring that these uses are outside sensitive areas.

Growth Control/Timing: Growth controls are used to slow or guide a community's growth, ideally in concert with its ability to support growth. One important consideration is the availability of groundwater.

Performance Standards: This assumes that any given resource has a threshold, beyond which it deteriorates to an unacceptable level. Performance standards assume that most uses are allowable in a designated area, provided that the use or uses do not and will not overload the resource. With performance standards, it is important to establish critical threshold limits as the bottom line for acceptability.

Underground Storage Tanks: Three additional protection measures are often adopted to enhance local water resource protection. They include:

- Prohibit new residential underground storage tanks
- Remove existing residential underground storage tanks

- Prohibit all new underground storage tank installation in groundwater and surface water management areas

Septic System Maintenance: Septic system maintenance is frequently overlooked. Many times the system will not function properly, causing "breakout" of solids at the surface, which can lead to bacterial contamination. In addition, when systems fail, any additives used can become contaminants.

Land Donations: Land owners are often in the position of being able to donate some land to the community or to a local land trust.

Conservation Easements: Conservation easements allow for a limited right to use the land. Easements can effectively protect critical lands from development.

Purchase Lands: Many communities purchase selected parcels of land that are deemed significant for resource protection.

Well Construction/Closure Standards: Wells are a direct conduit to groundwater. Standards for new well construction, as well as identification and closure of abandoned wells, can prevent groundwater from being contaminated.

Groundwater Protection Tools

Technique	Tool
Zoning Districts	Overlay Groundwater Protection
Prohibit Various Land Uses	Special Permitting
Large Lot Zoning	Transfer of Development Rights
Cluster/PUD Design	Growth Controls/Timing
Performance Standards	Geographic Information Systems
Overlay Wetlands	Identify Local Wellhead Protection Areas
Subdivision Control	Drainage Requirements
Growth Management in Sensitive Areas	Health Regulations
Underground Fuel Storage Systems	Small Sewage Treatment Plants
Septic Cleaner Bans	Septic System Upgrades
Toxic & Hazardous Material Regulations	Private Well Protection
Voluntary Restrictions	Sale, Donation or Trust
Conservation Easements	Limited Development
Other non-regulatory	Monitoring
Contingency Plans Hazardous Waste	
Collection Public Education Land Banking	

Groundwater Management Practices

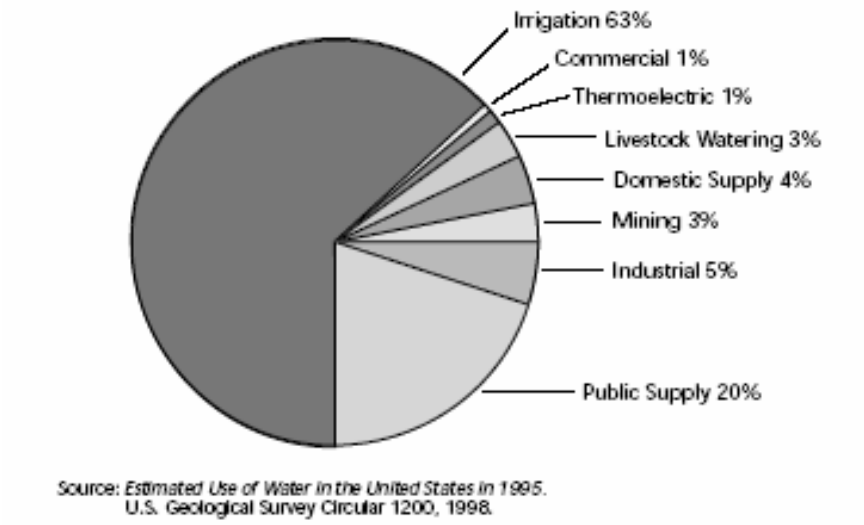
Zoning Districts	Practices
Groundwater recharge	Impervious area restriction
Artificial wetlands	Grass lined channels
Impoundment structures (ponds)	Subsurface drains (tiles)
Infiltration trenches	Native tree and shrub plantings
Pollutant reduction	Buffer strips
Filter strips	Riparian zones
Pollution prevention	Soil nitrate testing

Integrated pest management	Manure testing
Variable rate applications	Abandoned well closure

The latest USGS report was issued in October 1998 for the 1995 water year. The USGS report shows that ground water provides water for drinking and bathing, irrigation of crop lands, livestock watering, mining, industrial and commercial uses, and thermoelectric cooling applications.

Figure 1 illustrates how ground water use is proportioned among these categories. As shown, irrigation (63%) and public water supply (20%) are the largest uses of ground water. About 77,500 million gallons of ground water are withdrawn daily.

Figure 1



Source: *Estimated Use of Water in the United States in 1995.* U.S. Geological Survey Circular 1200, 1998.

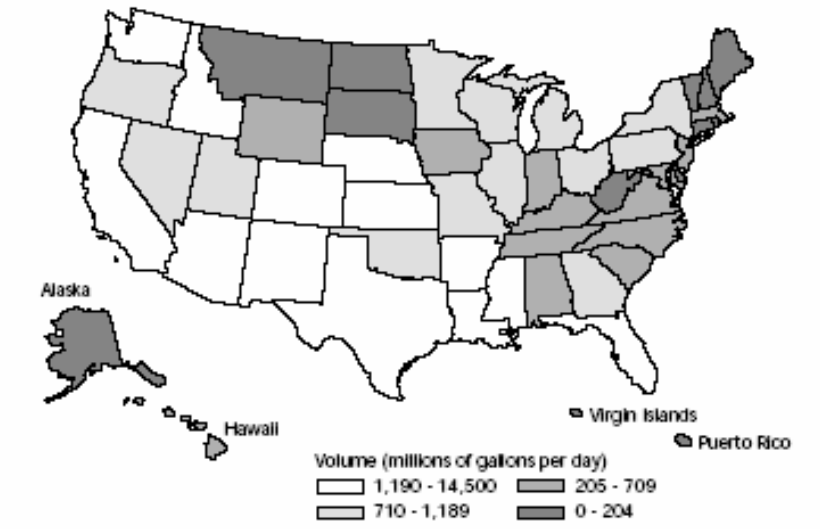
In 1995, the USGS reported that ground water supplied 46% of the nation's overall population and 99% of the population in rural areas with drinking water. Our nation's dependence on this valuable resource is clear.

Every state uses some amount of ground water. Nineteen states obtain more than 25% of their overall water supply from ground water. Ten states obtain more than 50% of their total water supply from ground water.

Each state uses its ground water differently. Ground water use in individual states is a result of numerous interrelated factors generally associated with geography and climate, the principal types of business activities occurring in the state, and population distribution. Fresh ground water withdrawals during 1995 were highest generally in the western states, primarily to supply an increasing population and to sustain important agricultural activities.

Figure 2 shows the volume of ground water withdrawn by states. The 13 states that have the greatest withdrawals account for 69% of all ground water that is withdrawn nationally.

Figure 2



Source: *Estimated Use of Water in the United States in 1995.* U.S. Geological Survey Circular 1200, 1998.

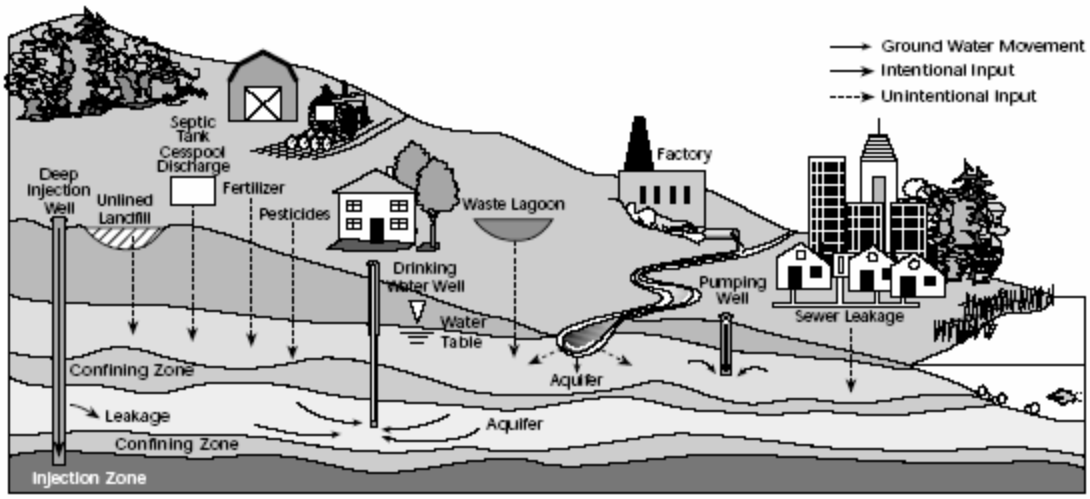
Sources of Ground Water Contamination

Ground water quality may be adversely impacted by a variety of potential contaminant sources. It can be difficult to identify which sources have the greatest impact on ground water quality because each source varies in the amount of ground water it contaminates. In addition, each source impacts water quality differently.

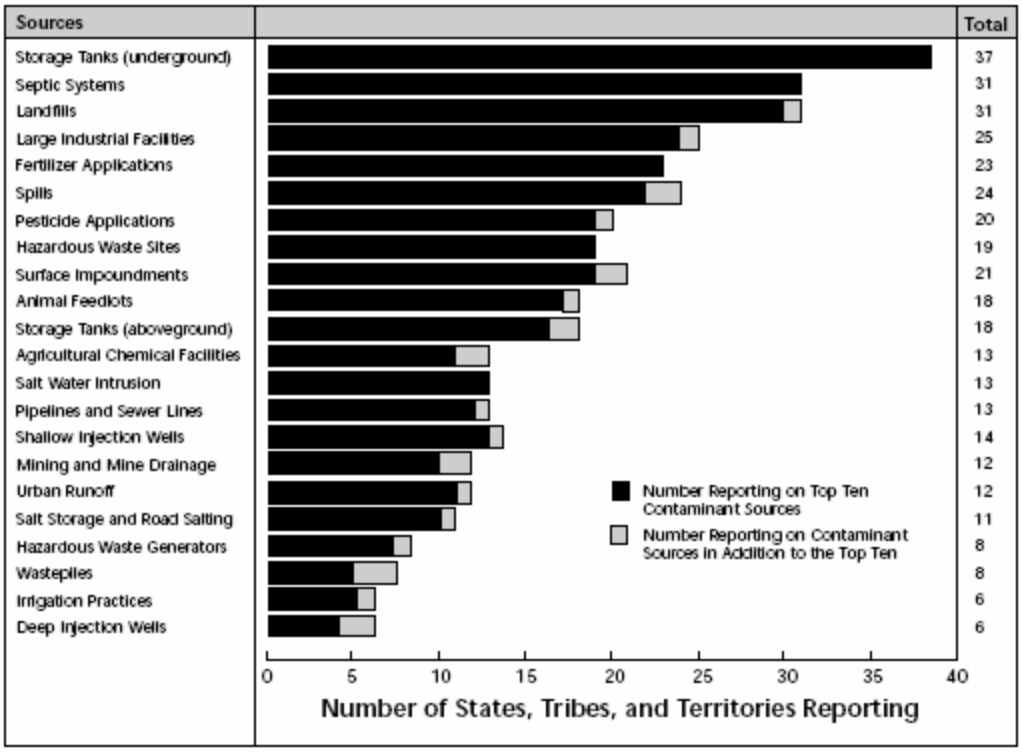
An EPA/state workgroup developed a list of potential contaminant sources and requested each state to indicate the 10 top sources that potentially threaten their ground water resources. States added sources as was necessary based on state-specific concerns. When selecting sources, states considered numerous factors, including the number of each type of contaminant source in the state

- The location relative to ground water sources used for drinking water purposes
- The size of the population at risk from contaminated drinking water
- The risk posed to human health and/or the environment from releases
- Hydrogeologic sensitivity (the ease with which contaminants enter and travel through soil and reach aquifers)
- The findings of the state's ground water assessments and/or related studies.

Sources of Ground Water Contamination



Major Sources of Ground Water Contamination



EPA,
"National Water Quality Inventory"

Methyl Tertiary Butyl Ether (MTBE)

Senate Bill 521 was introduced February 24, 1997 in response to a growing awareness of the possible environmental and health effects associated with the use of Methyl Tertiary Butyl Ether (MTBE) as an oxygenate blending agent in gasoline fuels throughout California (Appendix A). Since 1979, MTBE had been used in the State as a replacement for tetraethyl lead and as an octane booster. Although used in California since 1979 in volumes ranging from 0.5 to 3.5 percent, the volumes of MTBE in gasoline have increased to 11 percent since 1996. SB 521, which became effective January 1, 1998, called for the University of California to perform an assessment of the benefits and risks associated with the uses of MTBE in California.

This assessment report addresses: 1) the current impacts of MTBE to the state's groundwater used for drinking; 2) risks to the state's groundwater resources associated with MTBE leaking from storage tanks and other petroleum storage and conveyance facilities; and 3) potential future risks to the state's groundwater should MTBE continued to be used.

The general approach was to compile statewide data on the occurrence of MTBE groundwater contamination. The data consisted of MTBE detections and concentrations at leaking underground storage tank sites from Regional Water Quality Control Boards and MTBE detections and concentrations in water supply wells based on information from the Department of Health Services, Local Primacy Agencies, and Regional Water Quality Control Boards. We used various modeling approaches to then assess potential future impacts of MTBE on groundwater resources, focusing primarily on plume behavior in aquifer systems consisting of alluvial materials (i.e., sand, gravel, silt and clay). This report also includes specific information on MTBE impacts on groundwater in the Tahoe Basin.

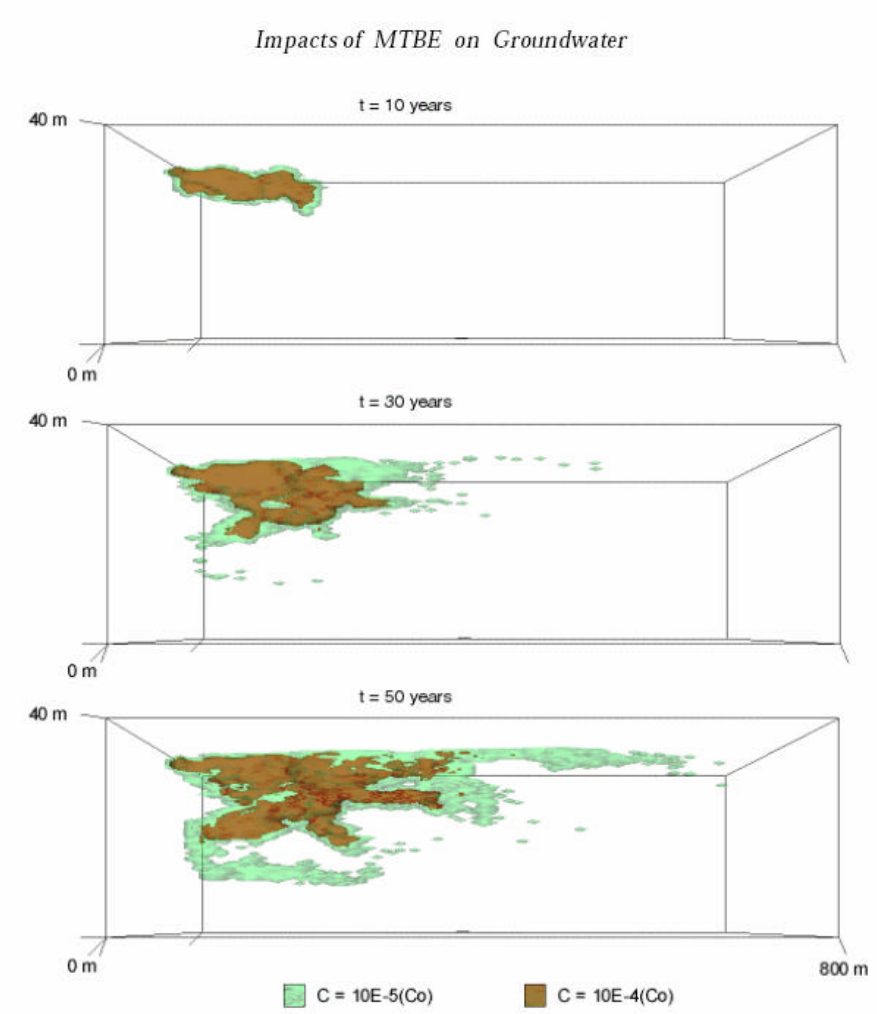
A recent investigation into the impacts of MTBE on California groundwater by Happel et al. (1998) provided an important foundation for this study. The analysis of groundwater impacts contained herein complements the work of Happel et al. (1998) by accumulating more recent statewide information with broader geographic coverage. Moreover, we use plume length statistics compiled by Happel et al. (1998) as a basis for calibrating models that simulate future MTBE plume growth.

The use of MTBE in gasoline has increased steadily since it was first approved for use in gasoline by the United States Environmental Protection Agency (USEPA) in 1979. MTBE is produced from isobutene, a waste product of the petroleum refining process. In 1994, MTBE was ranked as the eighteenth most produced chemical in the United States. By 1995 it was ranked twelfth, and by 1997 it was ranked second (OEHHA, 1998). MTBE was used in California's lead phase out program in 1979 at volumes up to 2 percent as a lead substitute and octane booster.

The US EPA approved use of MTBE in 1981 up to 10 percent and in 1988 approved its use up to 15 percent by volume (CAEPA, 1998). As early as 1988, MTBE use in southern California had begun to increase. In 1988, a refiner introduced an environmentally clean fuel in California that included 6 to 8 percent MTBE by volume. This refiner reportedly supplied 30 percent of the fuel in California of which approximately 20 percent of this refiner's sales was the environmentally clean fuel. This fuel was sold principally in southern California (D. Simeroth, personal communication, 1998).

The complete phase out of lead in fuel occurred in 1992, at which time the Winter Time Oxygenate Program began in California. There was an increased use of MTBE in the southern part of the state, with longer wintertime intervals and an earlier commencement of the year-round oxygenate program starting in 1995 rather than 1996. After March 1, 1996, all gasoline sold in

California was Phase 2 reformulated gas containing 11 percent by volume MTBE. Approximately, 92 billion gallons of MTBE was produced in 1997 (Zogorski et al., 1998). California is reportedly the third largest worldwide consumer of MTBE, second only to the rest of the United States and the former Soviet Union (OEHHA, 1998).



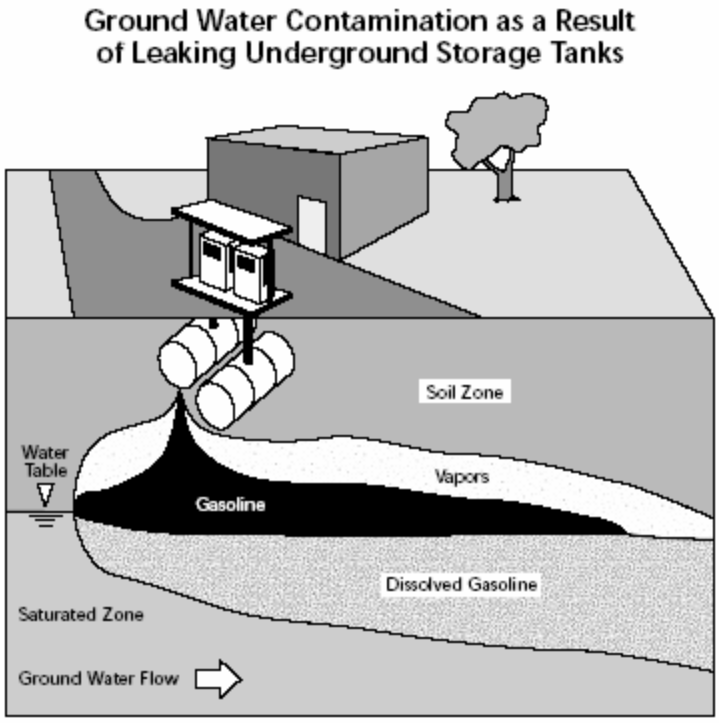
3-D simulated MTBE plume snap shots at (top to bottom) 10, 30, and 50 yr. Total thickness of the box is 40.5 m, and total length is 810 m. Regional flow is left to right. Screened interval of the pumping well is located in the center of the domain at a depth of 20 m.

University of California at Davis; "Impacts of MTBE on California Groundwater"

Sources of MTBE in Groundwater

MTBE sources of groundwater contamination include leaking underground fuel tanks (LUFT's), above ground storage tanks, farm tanks, leaking petroleum fuel pipelines, underground storage tanks containing fuels other than gasoline, surface spills due to automobile or tanker truck accidents, surface spills due to abandoned or parked vehicles, MTBE contaminated surface water, and precipitation. The LUFT sites are numerous, widely dispersed, proportional to the state's population, and involve enormous volumes of fuel products. As of June 30, 1998 there were 32,779 known sites where chemical compounds, including gasoline and non-gasoline products, were discharged to the environment from underground storage tanks. Ninety percent of these discharges involve petroleum products.

University of California at Davis; "Impacts of MTBE on California Groundwater"



Ground Water Protection

The responsibility for ground water protection collectively belongs to government agencies at the federal, state, and local levels. Federal and state governments regulate ground water through laws, regulations, and policies. In many cases, state and local laws are stricter versions of federal legislation, which serves as a valuable baseline on which state and local laws can build.

At the federal level, the Clean Water Act (CWA) ensures protection of surface waters designated, in part, for use as drinking water. Other environmental laws—the Safe Drinking Water Act (SDWA) (which includes the Wellhead Protection [WHP] Program, the Sole Source Aquifer [SSA] Program, and the Underground Injection Program); the Resource Conservation and Recovery Act (RCRA); the Comprehensive Environmental Response, Compensation, and Liability Act

(CERCLA); and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)—provide authorities, financial support, and technical assistance to protect sources of drinking water, especially ground water.

EPA is developing a regulation on ground water that specifies the appropriate use of disinfection and addresses other components of ground water systems to ensure public health protection. Various studies seem to indicate that the number of ground water sources with evidence of fecal contamination is significant. EPA is analyzing the data to determine if they represent public wells nationally. The proposed rule also encourages the use of alternative approaches, including best management practices and source control.

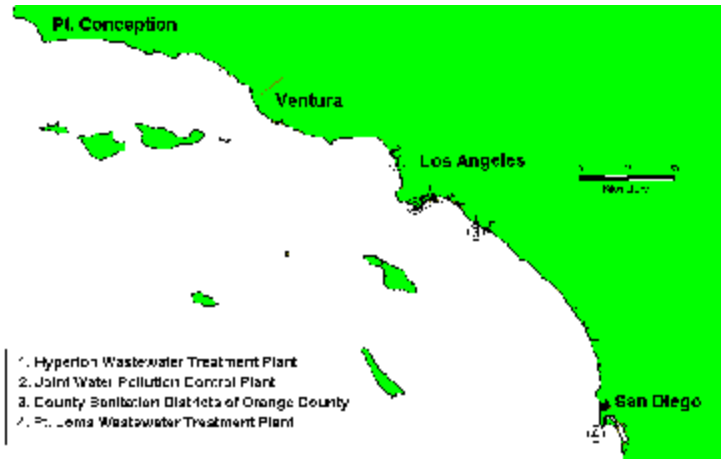
EPA, "National Water Quality Inventory"

Ground Water Protection

Waste Water

Characteristics Of Effluents From Large Municipal Wastewater Treatment Facilities

Effluents from the Hyperion Treatment Plant (HTP) of the City of Los Angeles, the Joint Water Pollution Control Plant (JWPCP) of County Sanitation Districts of Los Angeles County (CSDLAC), Wastewater Treatment Plants 1 and 2 of County Sanitation Districts of Orange County (CSDOC), and Point Loma Wastewater Treatment Plant (PLWTP) of the City of San Diego comprise 90% of municipal wastewater discharged directly to the Southern California Bight. These agencies have routinely measured the characteristics of their effluents for at least two decades. Each year during this period, the Southern California Coastal Water Research Project (SCCWRP) has summarized these measurements and reported on discharge and constituent trends. In this report, we summarize the concentrations of effluent constituents and estimate the mass emissions for these four agencies for 1993; we also discuss trends in the mass emissions of contaminants from 1971 to 1993.



Inherent Danger to Waste Water Systems

CALIFORNIA WASTEWATER TREATMENT OPERATOR ADMITS TO WATER TAMPERING

FOR RELEASE: FRIDAY, APRIL 9, 1999

CALIFORNIA WASTEWATER TREATMENT OPERATOR ADMITS TO WATER TAMPERING

Bernardino Lopez, former wastewater treatment plant operator for the Niland Sanitary District, pleaded guilty on March 29 in U.S. District Court for the Southern District of California in San Diego, to violating the Clean Water Act (CWA). Lopez admitted that in August and September of 1998, he repeatedly added chlorine to wastewater samples that were to be tested for E. coli. bacteria. The samples were used to develop monthly reports to the Regional Water Quality Control Board. Adding chlorine to the samples concealed the fact that both treatment plants were discharging wastewater with E. coli. levels that exceeded the limits allowed in their CWA National Point Discharge Elimination System permits. Human exposure to wastewater containing excessive levels of E. coli. can cause skin and intestinal infections. Wastewater from both plants flows into the Salton Sea. When sentenced, Lopez faces a maximum penalty of two years imprisonment and/or a $10,000 fine. This case was investigated by the Imperial County Environmental Task Force, which includes EPA's Criminal Investigation Division, and was prosecuted by the U.S. Department of Justice.

Economic Disruption

Economic Disruption was rated a HIGH PRIORITY HAZARD in Los Angeles County.

Los Angeles County is the most populous county in the nation. With approximately 10 million residents, it is home to about 30 percent of the state's population. The county has grown by nearly 2 million residents in the past 20 years, including more new immigrants than any other region of the country except the New York City area. Today, the county's population is 45 percent Latino, 31 percent non-Latino white, 12 percent Asian, and 10 percent black—similar to the racial/ethnic profile that state demographers predict for California by 2040. The county is also home to large numbers of low-income residents. Reflecting the size and diversity of the county, local government is large and complex, as are the problems of delivering local services to residents. In recent years, local governments in Los Angeles County have confronted difficult issues such as providing health care for the uninsured, reducing air pollution, improving low-performing schools, coping with racial/ethnic tensions involving police actions, and coming to terms with local efforts to secede from the city of Los Angeles. There are also housing, transportation, land use, and environmental issues relating to population growth and development. These factors tend to contribute negatively, on a large scale, to any economic downturn or disruption in the community.

"…Los Angeles County's suburban areas, like Orange County, are becoming so densely settled that they could be said to be urbanizing. Financial and social elites are withdrawing from civic leadership. "People think that most countries and cities and societies are moving away from industrialization," he says. "The notion of a postindustrial society is just wrong."

For example, the rise and decline of manufacturing jobs in American cities has taken a surprising twist in Los Angeles. The Chicago model of urban development assumed a growing industrial base. But in the 1960's and 70's, the traditional assembly-line factories that employed so many urban workers succumbed to cheaper labor overseas.

In the 1980's, the Pentagon's military buildup buoyed L.A.'s aerospace and defense companies and insulated the region from the industrial decline. After the cold war ended, however, cutbacks in defense spending hit Southern California particularly hard and deepened the recession of the early 1990's…."

"The New Urban Studies"; Los Angeles scholars use their region and their ideas to end the dominance of the 'Chicago School'; By D.W. MILLER.

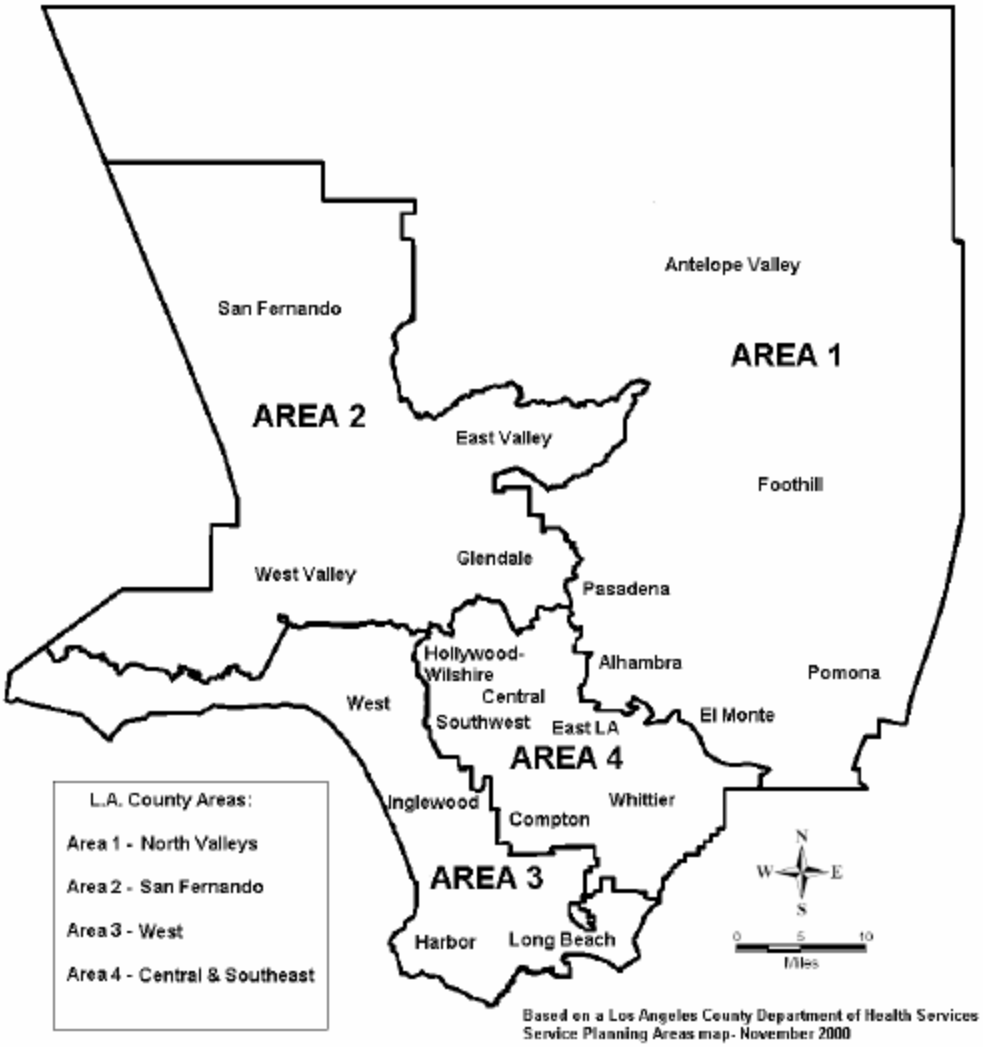
Recession

When asked to evaluate the LA County economy today, only 24 percent of residents rate it as excellent or good, while 48 percent say it is fair, and 27 percent poor. Half of county residents report that their area is in a mild (12%), moderate (25%), or serious (14%) recession, with Latinos (58%) and blacks (57%) more likely than whites (44%) to say their area is in recession. And far more residents today (67%) than just one year ago (52%) predict bad economic times for the state during the next 12 months. This economic angst is also taking its toll on residents' overall perception of the county:

- 40 percent of county residents say that the region is headed in the right direction, and 43 percent believe it is headed in the wrong direction, with whites, blacks, and San Fernando area residents more negative than others about the county's prospects.

- Residents are divided about whether the county will be a better or worse place to live in the future (32% each), with an equal percentage (31%) expecting little change.

Los Angeles County



Government Perceptions

Economic and social conditions — as well as the lingering effects of recent secession efforts — are also affecting attitudes about local government. Seventy-one percent of residents say that the county government is fair (49%) or poor (22%) at solving problems, while only 24 percent rate it as excellent or good. San Fernando area residents (28%) are more likely than others to view county government in a negative light. While more residents (39%) say their city governments are excellent or good at solving problems, a majority (54%) still gives them low ratings. Residents of LA City are far more critical than others. Given their disenchantment with government, LA residents are open to a number of proposals for reform.

Given the vast differences in attitudes among racial and ethnic groups in LA County, it is not surprising that many residents are concerned about the state of race relations in the region. A majority of residents (53%) believes race relations are not so good (39%) or poor (14%) in the county today. Blacks (65%) are more negative than Latinos (58%), whites (50%), or Asians (45%).

Percent seeing the issue as a big problem in their part of Los Angeles County	All Adults	County Area			
		North Valleys	San Fernando	West	Central / Southeast
Traffic congestion on freeways and major roads	67%	64%	69%	70%	63%
Availability of housing that you can afford	54	47	52	57	59
Crime	41	32	36	38	55
Lack of opportunities for well-paying jobs	40	37	35	36	49
Population growth and development	38	34	43	37	37
Air pollution	37	30	34	32	47

Overall Outlook

Los Angeles County residents are in a sour mood when it comes to the state of the economy in California, the county, and their local areas. Two in three county residents predict bad economic times for California during the next 12 months. This is a considerably higher percentage than we found in PPIC Statewide Surveys in 2000, 2001, and 2002. These pessimistic views are shared across geographic, racial/ethnic, demographic, and political groups.

"Turning to economic conditions in California, do you think that during the next 12 months we will have good times financially or bad times?

	Los Angeles County Adults			
	Feb 00	Jan 01	Feb 02	Mar 03
Good times	77%	50%	38%	25%
Bad times	16	39	52	67
Don't know	7	11	10	8

When asked to evaluate the Los Angeles County economy today, only 24 percent of the residents rate it as excellent or good—48 percent say it is fair, and 27 percent rate it as poor. The low ratings are consistent across geographic areas and demographic groups.

As for their parts of Los Angeles County, half of county residents report their areas are now in a mild (12%), moderate (25%) or serious (14%) recession. The Central/Southeast area has the highest percentage of residents (58%) who say their part of the county is in a recession. Higher percentages of Latinos (58%) and blacks (57%) than whites (44%) say their areas are in a recession. Residents with lower incomes and less education and immigrants are also more likely than others to share this view.

Residents are divided about their overall outlook for the county: Forty percent say that Los Angeles County is headed in the right direction, and 43 percent believe that it is headed in the wrong direction. As for the future, 32 percent think the county will be a better place to live than it is today, 32 percent think it will be a worse place to live, and 31 percent think it will be about the same as now. Whites, blacks, and San Fernando area residents are more negative than others about the county's overall outlook.

Concerning quality of life, 61 percent of Los Angeles County residents say things are going well, and 36 percent say they are not. More than one-third of residents in all four areas believe things are going badly. Although 51 percent see themselves living in the same neighborhood five years from now, 22 percent expect to be living elsewhere in the county, and 17 percent expect to be living outside the county. Younger and more educated residents are most likely to say they will move out of the county in the next five years.

"Do you think that things in Los Angeles County are generally going in the right direction or the wrong direction?

	All Adults	County Area			
		North Valleys	San Fernando	West	Central / Southeast
Right direction	40%	41%	37%	42%	41%
Wrong direction	43	40	49	42	42
Don't know	17	19	14	16	17

State Budget Deficit and Local Tax Increases

Only 3 percent of county residents identify the state budget deficit as the most important issue facing Los Angeles County. Nevertheless, 92 percent of county residents say they are very concerned (71%) or somewhat concerned (21%) that the state budget deficit will cause severe cuts in areas such as city and county government and local schools. This concern is shared across the county's major areas and racial/ethnic groups. Women tend to be more concerned than men that the deficit will cause severe cuts in local services: 77% are very concerned, compared to 64% of men. Majorities in all partisan groups are concerned about potential cuts. However, Democrats (78%) are more likely than independents (68%) and Republicans (66%) to be very concerned.

Los Angeles County residents are willing to raise certain new taxes to fund some local services in light of the large state budget deficit. For example, 64 percent of county residents favor new taxes on alcoholic beverages and cigarettes in order to fund county-level public health and medical emergency services. However, there are large partisan differences: 69 percent of Democrats, 60

percent of independents, and 52 percent of Republicans support new alcohol and cigarette taxes. Women (69%) are much more likely than men (60%) and those under age 35 (68%) are more likely than those ages 55 and older (57%), to favor these so-called "sin taxes." Some 6 in 10 residents in each of the four geographic areas would support this tax increase to fund county-level services.

Public Policy Institute of California; Special Survey of Los Angeles in collaboration with the University of Southern California; Mark Baldassare, Research Director & Survey Director

Data/Telecommunications Disruption

Data/Telecommunications Disruption was rated a HIGH PRIORITY HAZARD in Los Angeles County.

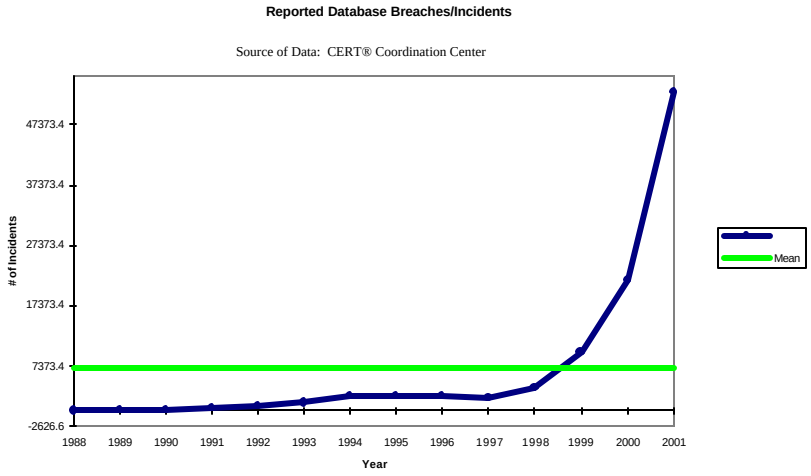
Los Angeles County depends upon information systems and communications networks to carry out nearly all aspects of day to day business. In this digital era, as we use automated information technology (IT) systems to process information for better support of our missions, risk management plays a critical role in protecting an our information assets, and therefore our missions, from IT-related risk.

An effective risk management process is an important component of a successful IT security program. The principal goal of an organization's risk management process should be to protect the *organization and its ability to perform their mission*, not just its IT assets. Therefore, the risk management process should not be treated primarily as a technical function carried out by the IT experts who operate and manage the IT system, but as an essential management function of the organization.

Computer Security Breaches

Computer breach incidents have risen sharply since the 1980s. These include viruses, worms, Trojan horses, break–ins, and other damaging breaches. Whereas only six incidents were reported in 1988, the number rose gradually during the late 1980s and 1990s, they made a sharp rise beginning in 1998, and have risen exponentially since. To date, there have been over 142, 500 computer breaches.

The 2002 Computer Security Institute (CSI) Computer Crime and Security Survey revealed that each year, over half of all databases have some kind of breach and that the average breach amounts to nearly $4 million in losses. This percentage is staggeringly high given that these are the security problems that companies are reporting. Organizations don't want to advertise the fact that their internal people have access to customer data, can steal that data, cover their tracks, give the data to anybody and stay undetected and employed while a crime is committed.



California recently enacted a law mandating the public disclosure of computer security breaches involving confidential information. The law covers not just state agencies but all private enterprises doing business in California. Starting July 1, 2003, any entity that fails to disclose that a breach has occurred could be liable for civil damages or face class action suits.

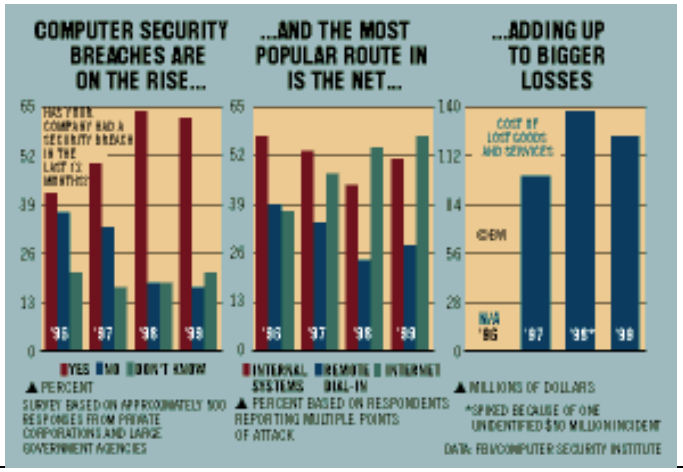
Cyber Crime

"…Cyber crime is becoming one of the Net's growth businesses. The recent spate of attacks that gummed up Web sites for hours--known as "denial of service"--is only one type. Today, criminals are doing everything from stealing intellectual property and committing fraud to unleashing viruses and committing acts of cyber terrorism in which political groups or unfriendly governments nab crucial information. Indeed, the tactic used to create mayhem in the past few days is actually one of the more innocuous ones. Cyber thieves have at their fingertips a dozen dangerous tools, from "scans" that ferret out weaknesses in Web site software programs to "sniffers" that snatch passwords. All told, the FBI estimates computer losses at up to $10 billion a year.

As grim as the security picture may appear today, it could actually get worse as broadband connections catch on. Then the Web will go from being the occasional dial-up service to being "always on," much as the phone is. That concept may be nirvana to e-tailers, but could pose a real danger to consumers if cyber crooks can come and go into their computer systems at will. Says Bruce Schneier, chief technical officer at Counterpane Internet Security Inc. in San Jose, Calif.: "They'll keep knocking on doors until they find computers that aren't protected."

Sadly, the biggest threat is from within. Law enforcement officials estimate that up to 60% of break-ins are from employees. Take the experience of William C. Boni, a digital detective for PricewaterhouseCoopers in Los Angeles. Last year, he was called in by an entertainment company that was suspicious about an employee. The employee, it turns out, was under some financial pressure and had installed a program called Back Orifice on three of the company's servers. The program, which is widely available on the Internet, allowed him to take over those machines, gaining passwords and all the company's financial data. The employee was terminated before any damage could be done.

The dirty little secret is that computer networks offer ready points of access for disgruntled employees, spies, thieves, sociopaths, and bored teens. Once they're in a corporate network, they can lift intellectual property, destroy data, sabotage operations, or even subvert a particular deal or career. "Any business on the Internet is a target as far as I'm concerned," says Paul Field, a reformed hacker who is now a security consultant.



It's point and click, then stick 'em up. Interested in a little mayhem? Security experts estimate that there are 1,900 Web sites that offer the digital tools--for free--that will let people snoop, crash computers, hijack control of a machine, or retrieve a copy of every keystroke. Steve O'Brien, vice-president for information operation assessments at Info-Ops.com, an Annapolis (Md.)-based company that provides intrusion detection services and security solutions, says the number of ways to hack into computers is rising fast. He tracks potential threats both from hacker groups and from the proliferation of programs. Once a rare find, he now discovers at least three new nasty software programs or vulnerabilities every day. And those tools aren't just for the intellectually curious. "Anyone can get them off the Internet--just point and click away," says Robert N. Weaver, a Secret Service agent in charge of the New York Area Electronic Crimes Task Force.

Experts say the first step for companies is to secure their systems by searching for hacker programs that might be used in such attacks. They also suggest formal security policies that can be distributed to employees letting them know how often to change passwords or what to do in case of an attack. An added help: Constantly updating software with the latest versions and security patches. Down the road, techniques that can filter and trace malicious software sent over the Web may make it harder to knock businesses off the Net. Says Novell Inc. CEO Eric Schmidt: "Security is a race between the lock makers and the lock pickers." Regulators say that cybercrime thrives because people accord the Internet far more credibility than it deserves. "You can get a lot of good information from the Internet--95% of what you do there is bona fide," says G. Philip Rutledge, deputy chief counsel of the Pennsylvania Securities Commission. "Unfortunately, that creates openings for fraud."…"

Excerpts from "Business Week Online, Ira Sager in New York, with Steve Hamm and Neil Gross in New York, John Carey in Washington, D.C., and Robert D. Hof in San Mateo, Calif.

Top Ten Computer Security Breaches

Systems affected: All system and network devices

BIND weaknesses: The Berkeley Internet Name Domain (BIND) package is the most widely used implementation of Domain Name Service (DNS) by which we locate systems on the Internet by name, without having to know specific IP addresses. In a typical example of a BIND attack, intruders erase system logs, and install tools to gain administrative access. They then compile and install IRC utilities and network scanning tools, which are used to scan more than a dozen class-B networks in search of additional systems running vulnerable versions of BIND. In a matter of minutes, they can use the compromised system to attack hundreds of remote systems.

Systems affected: Multiple UNIX and Linux systems

Vulnerable CGI (Common Gateway Interface) programs and application extensions (e.g., ColdFusion) installed on Web servers: Most Web servers support CGI for data collection and verification. Intruders are known to have exploited vulnerable CGI programs to vandalize Web pages, steal credit card information, and set up back doors to enable future intrusions, even if the CGI programs are secured. As a general rule, sample programs should always be removed from production systems.

Systems affected: All Web servers

Remote procedure call (RPC) weaknesses: Remote procedure calls (RPC) allow programs on one computer to execute programs on a second computer. They are widely used to access

network services such as shared files in NFS. There is compelling evidence that the vast majority of distributed denial of service attacks launched during 1999 and early 2000 were executed by systems that had been victimized because they had RPC vulnerabilities. The broadly successful attack on US military systems during the Solar Sunrise incident also exploited an RPC flaw found on hundreds of Department of Defense systems.

Systems affected: Multiple UNIX and Linux systems

RDS security hole in Microsoft Internet Information Server (IIS): Programming flaws in Microsoft's Internet Information Server (IIS) used to host websites deployed on Microsoft Windows NT and Windows 2000 are employed by malicious users to run remote commands with administrator privileges. Some participants who developed the "Top Ten" list believe that exploits of other IIS flaws, such as .HTR files, are at least as common as exploits of RDS.

Systems affected: Microsoft Windows NT systems using Internet Information Server

Sendmail: Sendmail is the program that handles most e-mail on the Internet. It's widespread use makes it a prime target. In one of the most common exploits, the attacker sends a crafted mail message to the machine running Sendmail, and Sendmail reads the message as instructions requiring the victim machine to send its password file to the attacker's machine (or to another victim) where the passwords can be cracked.

Systems affected: Multiple UNIX and Linux systems

Sadmind and mountd: Sadmind allows remote administration access to Solaris systems, providing graphical access to system administration functions. Mountd controls and arbitrates access to NFS mounts on UNIX hosts. Buffer overflows in these applications can be exploited, allowing attackers to gain control with root access.

Systems affected: Multiple UNIX and Linux systems; Sadmind: Solaris machines only

Global file sharing and inappropriate information sharing via NetBIOS and Windows NT ports: These services allow file sharing over networks. When improperly configured, they can expose critical system files or give full file system access to hostile parties.

Systems affected: UNIX, Windows and Macintosh systems.

User IDs, especially root/administrator with no passwords or weak passwords: Some systems come with "demo" or "guest" accounts with no passwords or with widely-known default passwords. Service workers often leave maintenance accounts with no passwords, while some database management systems install administration accounts with default passwords. In addition, busy system administrators often select system passwords that are easily guessable ("love," "money," "wizard" are common) or just use a blank password. Many attackers try default passwords and then try to guess passwords before resorting to more sophisticated methods.

Systems affected: All systems.

IMAP and POP buffer overflow vulnerabilities or incorrect configuration: IMAP and POP are popular remote access mail protocols, allowing users to access their e-mail accounts. The "open access" nature of these services makes them especially vulnerable to exploitation because

openings are frequently left in firewalls to allow for external e-mail access. Attackers who exploit flaws in IMAP or POP often gain instant root-level control.

Systems affected: Multiple UNIX and Linux systems

Default SNMP community strings set to 'public' and 'private': The Simple Network Management Protocol (SNMP) is widely used by network administrators to monitor and administer all types of network-connected devices, ranging from routers to printers to computers. SNMP uses an unencrypted "community string" as its only authentication mechanism. Lack of encryption is bad enough, but the default community string used by the vast majority of SNMP devices is "public", with a few clever network equipment vendors changing the string to "private". Attackers can use this vulnerability in SNMP to reconfigure or shut down devices remotely.

Express Computer Business Weekly

Information Technology Security Practices

Computer Security Policy

The term *computer security policy* has more than one meaning. Policy is senior management's directives to create a computer security program, establish its goals, and assign responsibilities. The term policy is also used to refer to the specific security rules for particular systems. Additionally, policy may refer to entirely different matters, such as the specific managerial decisions setting an organization's e-mail privacy policy or fax security policy.

Program Management

Managing computer security at multiple levels brings many benefits. Each level contributes to the overall computer security program with different types of expertise, authority, and resources. In general, executive managers (such as those at the headquarters level) better understand the organization as a whole and have more authority. On the other hand, front-line managers (at the computer facility and applications levels) are more familiar with the specific requirements, both technical and procedural, and problems of the systems and the users. The levels of computer security program management should be complementary; each can help the other be more effective. Many organizations have at least two levels of computer security management; the *central* level and the *system* level.

Risk Management

Risk is the possibility of something adverse happening. Risk management is the process of assessing risk, taking steps to reduce risk to an acceptable level and maintaining that level of risk. Risk management requires the analysis of risk, relative to potential benefits, consideration of alternatives, and, finally, implementation of what management determines to be the best course of action. Risk management consists of two primary and one underlying activity; risk assessment and risk mitigation are the primary activities and uncertainty analysis is the underlying one. An organization should consider the following when assessing risks.

Life Cycle Planning

Security, like other aspects of an IT system, is best managed if planned for *throughout* the IT system life cycle. There are many models for the IT system life cycle but most contain five basic phases: initiation, development/acquisition, implementation, operation, and disposal.

Personnel/User Issues

Many important issues in computer security involve users, designers, implementers, and managers. A broad range of security issues relate to how these individuals interact with computers and the access and authorities they need to do their job. No IT system can be secured without properly addressing these security issues.

Preparing for Contingencies and Disasters

Contingency planning directly supports an organization's goal of continued operations. Organizations should practice contingency planning because it makes good business sense. Contingency planning addresses how to keep an organization's critical functions operating in the event of disruptions, both large and small. This broad perspective on contingency planning is based on the distribution of computer support throughout an organization. The following six steps describe the basic functions an organization should employ when developing contingency plans.

Computer Security Incident Handling

A computer security incident can result from a computer virus, other malicious code, or a system intruder, either an insider or an outsider. The definition of a computer security incident is somewhat flexible and may vary by organization and computing environment. An incident handling capability may be viewed as a component of contingency planning, because it provides the ability to react quickly and efficiently to disruptions in normal processing. Incident handling can be considered that portion of contingency planning that responds to malicious technical threats.

Awareness and Training

An effective computer security awareness and training program requires proper planning, implementation, maintenance, and periodic evaluation.

Security Considerations in Computer Support and Operations

Computer support and operations refers to system administration and tasks external to the system that support its operation (e.g., maintaining documentation). Failure to consider security as part of the support and operations of IT systems is, for many organizations, a significant weakness. Computer security system literature includes many examples of how organizations undermined their often expensive security measures because of poor documentation, no control of maintenance accounts, or other shoddy practices.

Physical and Environmental Security

Physical and environmental security controls are implemented to protect the facility housing system resources, the system resources themselves, and the facilities used to support their operation. An organization's physical and environmental security program should address the following seven topics. In doing so, it can help prevent interruptions in computer services, physical damage, unauthorized disclosure of information, loss of control over system integrity, and theft.

Identification and Authentication

Identification and Authentication is a critical building block of computer security since it is the basis for most types of access control and for establishing user accountability. Identification [6] and Authentication is a technical measure that prevents unauthorized people (or unauthorized processes) from entering an IT system. Access control usually requires that the system be able to identify and differentiate among users. For example, access control is often based on *least privilege*, which refers to the granting to users of only those accesses minimally required to perform their duties. User accountability requires the linking of activities on an IT system to specific individuals and, therefore, requires the system to identify users.

Logical Access Control

Access is the ability to do something with a computer resource (e.g., use, change, or view). Logical access controls are the system-based means by which the ability is explicitly enabled or restricted in some way. Logical access controls can prescribe not only who or what (e.g., in the case of a process) is to have access to a specific system resource but also the type of access that is permitted.

Audit Trails

Audit trails maintain a record of system activity by system or application processes and by user activity. In conjunction with appropriate tools and procedures, audit trails can provide a means to help accomplish *several* security-related objectives, including individual accountability, reconstruction of events, intrusion detection, and problem identification.

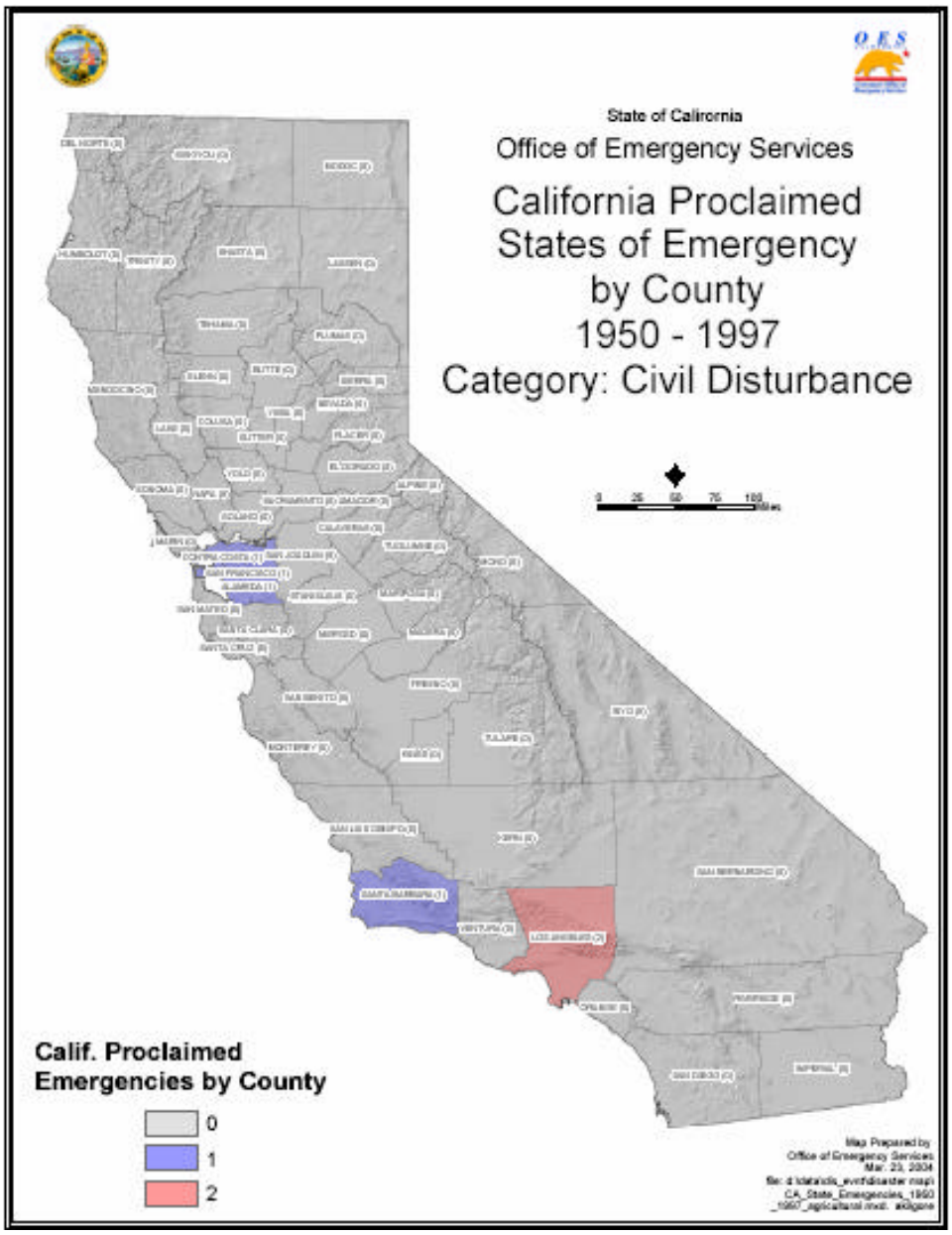
Cryptography

Cryptography is a branch of mathematics based on the transformation of data. It provides an important tool for protecting information and is used in many aspects of computer security. Cryptography is traditionally associated only with keeping data secret. However, modern cryptography can be used to provide many security services, such as electronic signatures and ensuring that data has not been modified. Several important issues should be considered when designing, implementing, and integrating cryptography in an IT system.

Civil Unrest

Civil Unrest was rated a HIGH PRIORITY HAZARD in Los Angeles County.

Civil disturbances can occur almost anywhere. However, the most significant ones in California have historically taken place in large urban centers. Deaths and injuries occurred to individuals who were in or around the disturbances while they were happening. Damage was caused by thrown objects, fires, and looting.



History of Civil Unrest in Los Angeles County

Los Angeles Chinese Massacre

October 24, 2001 represent(ed) the 130th Anniversary of the infamous Chinese Massacre, which resulted in the murder of 19 Chinese men and boys in the first Los Angeles Chinatown. Some ten percent of the town's population of 5,000 participated in what might have been the City's first race riot, one that would regrettably be followed by others. Historically, this event was one of the worst occurrences of anti-Chinese violence in the United States during an era of virulent discrimination against the Chinese.

The incident was triggered by an internal dispute in the community between two Chinese men arguing over a Chinese girl, which led to the accidental slaying of a Caucasian man caught in the crossfire. The social conflagration that followed was fueled by the growing movement of anti-Chinese discrimination in California, which would climax in the passage of the Chinese Exclusion Act in 1882. At the base of the unrest was the uncertain and unstable economy in the West following the Civil War, leading to high unemployment, especially among veterans. This historical development led to a growing resentment of a growing group of industrious immigrants, many deliberately imported to build the transcontinental railroad, who undertook, at a minimal wage, jobs and tasks too menial, harsh, or difficult for settlers and citizens to care to take. Originally, the Chinese newcomers were welcomed. Then, this willing work force of differing cultures and religions was perceived by the body politic to be usurping jobs and resources intended for those deemed more worthy. The all-too-familiar attitude of growing resentment and discrimination set the stage for a day and a half eruption of rampant looting and burning, in a town already known for its lawlessness.

In defense of a great majority of good citizens, descendants of eyewitnesses are today bringing to light many stories about the protection of Chinese families by their forefathers-from neighborhood vendors to family servants. Others acted out of a sense of righteousness and of fair play.

This 1871 nadir of Chinese American history in Southern California also casts a light on the resilience and resourcefulness of immigrants as well as their earnest perseverance and optimism in quest of that better life that America can offer:

After the Massacre, few Chinese of Los Angeles left;

Chinese continued to operate their laundries in the City, with the industry peaking in the 1880's and yielding to the French, Italians and other Southern Europeans;

Chinese continued as farm hands and ranch hands, comprising over 50% of the work force at one time, helping to build the great Southern California citrus industry

Within five years, Chinese became the principal truck gardeners and vegetable vendors of Los Angeles, controlling over 90% of the industry for the next 25 years, later transitioning to Italian-, Japanese-, and Mexican-American growers and wholesalers;

Within 15 years, Chinese units were participating in the festive parades of Los Angeles

The growing integration of the Chinese into the region's economy was followed by a gradual acculturation, which fostered the development of settlement and family life: first in Old Chinatown, at today's El Pueblo de Los Angeles Historical Monument and Union Station, and later in the Chinese American neighborhoods of Southern California. Much of this progress took place under

heavy pressure of discrimination, during a period of political and social isolation. But this evolution, with its increasing interdependence among all communities, took place nonetheless, demonstrating the major role Chinese Americans have played in establishing the rich diversity and proud heritage of Southern California.

Today's descendants of these Chinese American pioneers find themselves in all types of professions and businesses, in every neighborhood, at all social strata, and in all economic levels. Chinese Americans are now scientists and athletes, CEOs and teachers, artists and policemen, actors and producers, to name a few varied careers. Many have served America in its wars and other external conflicts, a proudly fulfilled responsibility of citizenship long denied the Chinese immigrant and once so difficult to achieve. In many households, the semi-annual ritual of voting in all government elections for officials and on questions of public policy is still viewed as a sacred duty, a verification of the privilege of citizenship. In many ways, the hopes of these first pioneers in achieving the American dream have been fulfilled by their posterity.

Looking back at the achievements, against all odds, of those Chinese immigrants who endured 1871, we proclaim that American history tells us that immigrants have always been valuable in developing and building our Southern California community and our American civilization. We further declare that immigrants will always bring new talents, and boundless energy, and that they will succeed even when given less-than-an-even-chance because they believe in America and the possible access to its opportunities. We observe that they and their descendants do acculturate in time, and moreover, they serve to shape the unique diversity of America.

On this 130th Anniversary, we further proclaim that the 1871 lesson of the Chinese Massacre holds truths for us today: that immigrants have proven to be a most valuable and important segment of our society. And because their influx insures a continued healthy, prosperous America, the process of immigration should and must continue. The opportunities America offers should never be closed to anyone residing in this country seeking to better themselves and their families.

The occurrence of the riot of 1871 was indeed a major hate crime in American history. It manifested the worst in human behavior and racial intolerance during an era of strong anti-Chinese sentiments. On the other hand, those who moved to aid and protect Chinese people during the occurrence, and the subsequent steady but measurable progress of the community's leadership toward healing and harmony over the years that have since followed were among the most noble of decent human reactions.

One can hardly avoid noticing the positive lessons from 1871 that also help us to cope with the recent tragedies of September 11, 2001. The combined events of that day now rank as the worst hate crimes ever perpetrated on American soil. Application of the moral principles, fundamental American ideals, and ready compassion that marked the collective reaction to both incidents, 130 years apart, were once again an affirmation of our American character. We realize that tolerance of others, compassionate understanding of their ways, customs, and beliefs, and the continual goal of community harmony are essential for furthering the progress and growth of our communities. Commitment to the practice of these ideas is a profound demonstration of the truth, vitality, and success of our American way of life.

Munson Kwok, Ph.D.
Board Member
Friends of the Chinese American Museum

Zoot Suit Riot (1943)

Citizens of early 1940s Los Angeles lived in an atmosphere of tension that ultimately exploded in the Zoot Suit Riots. But what caused the unrest?

Census information tells part of the story. In the decades leading up to the rioting, Los Angeles experienced an unprecedented population explosion. Along with Midwesterners who flocked to Los Angeles, thousands of Mexican refugees fleeing the Mexican Revolution made their way there. So too did landless white laborers escaping the Dust Bowl of the drought-plagued Southern Plains, and African Americans seeking more opportunity than they'd found in the South.

The coming of war in 1941 further complicated the city's social dynamics. White men went off to fight in a segregated military, and women and people of color filled the jobs in the defense industry previously reserved for white males. Rather than embrace such events as social advances, many whites accepted the changing social realities only as the lesser of two evils -- the greater being German and Japanese militarism. While wartime conditions reconfigured gender and racial boundaries, segregation was emphatically reinforced in other areas. Civilian and military leaders in Los Angeles all too easily saw cultural and racial difference among Japanese Americans as subversion and betrayal, and actively supported the forced relocation of Japanese Americans into camps set up in the rural West.

Many Angelenos saw themselves on the frontline of the battle with Japan and felt vulnerable to a West Coast attack. Civilian patrols were established throughout the city and Los Angeles beaches were fortified with anti-aircraft guns. Southern California also served as a key military location with bases located in and between San Diego and Los Angeles. Consequently, up to 50,000 servicemen could be found in L.A. on any given weekend.

Independent of these social tensions, young people were growing fascinated with jazz. It was a musical, cultural, and even ideological expression that was far removed from the Hit Parade music commonly played on mainstream radio. Jazz music and dance were sensual, expressive, joyous, and raucous. Jazz musicians openly defied segregation by mixing on and off the stage, and jazz enthusiasts also mixed on and off the dance floor.

The zoot suit was one part of the jazz world that visually defied the norms of segregation. Unwritten rules demanded that people of color remain unseen and unheard in public spaces, but the zoot suit, with broad shoulders, narrow waist, and ballooned pants, was loud and bold. Zoot-suited young men (and some young women) held themselves upright and walked with a confident swagger that seemed to flow from the very fashion itself. As the Sleepy Lagoon murder trial of 1942, involving mostly Mexican American young men, proved, this particular demographic, zoot-suited or not, came to be singled out and associated with criminality and gangsterism by Los Angeles authorities. In a time of war, when social boundaries were rapidly changing, questions of allegiance and conformity became invested with particular significance. Many Angelenos objected to the zoot suiters -- including, incidentally, older generations of Mexican Americans, whose communities were traditional, conservative, and self-contained. Critics saw Mexican American youths as cultural rebels and delinquents who openly defied cherished American values and customs.

Tensions between servicemen and civilians were on the rise as thousands of military men on leave poured into Los Angeles, seeing the city as a playground for booze, women, and fights. While many civilians tolerated them because of the war effort, others did not. Particularly in the segregated, ethnic enclaves of Los Angeles, unruly servicemen met stiff opposition from young men and women who refused to defer to the presumed prerogatives of white privilege. While

white military men and civilian youth of all colors clashed in the streets, confrontations occurred most frequently between white servicemen and Mexican Americans, because they were the largest minority group in Los Angeles.

Drunken military men on their way back to base after a night of carousing were often "rolled" by civilian minority youth hoping to teach them proper respect. With equal animosity the sailors would often insult Mexican Americans as they traveled through their neighborhood. In the barrios, rumors spread about sailors searching out Mexican American girls. On the military bases, stories circulated about the violent reprisals suffered by sailors who dared to date Mexican American females. Sailors complained bitterly about their wives or girlfriends being subjected to the sexual taunts of young Mexican Americans. The tension continued to escalate until a street fight between sailors and Mexican American boys sparked more than a week of fighting in June of 1943 known as the Zoot Suit Riots.

On the evening of Monday, May 30, 1943 about a dozen sailors and soldiers were walking on a downtown street. After spotting a group of young Mexican American women on the opposite side of the street, the sailors and soldiers changed direction and headed their way. Between the military men and the young women stood a group of young men in zoot suits. As the two groups passed each other, Sailor Joe Dacy Coleman, fearing he was about to be attacked, grabbed the arm of one of the zoot-suited young men. Coleman's move proved to be a big mistake. Coleman was almost immediately struck on the head from behind and fell to the ground, unconscious. Other young civilians pounced on the sailors with rocks, bottles and fists. After the ferocious attack, the sailors managed to escape and carry Coleman to the safety of the Naval Armory. "The fracas lasted little more than a few minutes, but the shock reverberated for days," wrote historian Eduardo Pagán, "The details of the fight grew larger and more distorted in each re-telling of the story." It wasn't long before sailors organized a retaliatory strike against zoot-suiters.

About fifty sailors left the Armory on the night of Thursday, June 3, armed with makeshift weapons. The attack on Seaman Coleman was still fresh in their minds and rumors of new attacks were swirling through the base. Their first stop was the nearby neighborhood of Alpine Street -- scene of many previous confrontations. Unable to find any zoot-suiters at Alpine, they proceeded toward downtown and stopped at the Carmen Theater. After turning on the house lights, the sailors roamed the aisles looking for zoot-suiters. The first victims of the zoot suit riots -- 12 and 13-year-old boys -- were guilty of little more than being in the wrong place at the wrong time. Ignoring the protests of the patrons, the sailors tore the suits off their bodies and beat and clubbed the boys. The remains of their suits were then set ablaze.

As the mob of sailors moved on, reports began to reach the Armory's watch commander. Executive Officer Lieutenant Charles Bacon was sent to investigate. After failing to find any evidence of wrongdoing at numerous spots, Bacon came upon the Shore Patrol marching a group of sixty men to the Central Police Station, where they were to be placed in jail. Bacon assumed control of the situation and saw to it that no charges were recorded by the Shore Patrol.

As the second night of rioting began, Mexican American young men drove back and forth in front of the Armory, hurling epithets at the guards. Later that night sailors once again headed out in search of trouble. When the sailors could not find enough zoot-suiters, they decided to take the fight into the Mexican American neighborhoods of East Los Angeles and Boyle Heights. It was a new twist on the violence: instead of focusing their attacks in areas where sailors and civilian youth had clashed, the sailors moved into the Mexican American neighborhoods. Thus their retaliatory strike became an assault on the Mexican American community itself. The sailors cruised the barrio, storming into bars, cafes and theaters.

Los Angeles police were unwilling to step in and protect civilians. One policeman was quoted after the riots as saying: "You can say that the cops had a 'hands-off' policy during the riots. Well, we represented public opinion. Many of us were in the First World War, and we're not going to pick on kids in the service."

The violence continued during subsequent nights, enveloping even those who had no connection to jazz or the zoot suit. When a group of Mexican musicians exited the Aztec Recording Company after a recording session, they too were attacked. The musicians were all adults, and none of them wore a zoot suit. Military commander Clarence Flogg reported that there were "hundreds of servicemen prowling downtown Los Angeles mostly on foot -- disorderly -- apparently on the prowl for Mexicans." The Navy reported that "Groups vary in size from 10 - 150 men and scatter immediately when Shore Patrol approaches. Men found carrying hammock cues [clubs], belts, knives and tire irons..."

Although groups of armed servicemen roamed the streets attacking civilians, the military seemed more concerned with regaining control over their men than with the violence they were committing. Leery of the negative press that would result from mass arrests, Admiral Bagley, the commanding officer, appealed to his sailors' "common sense."

Mexican American kids organized and fought back. Rudy Leyvas and his friends set traps for the sailors and civilians who were pursuing them, using decoys to lure their attackers in to a trap. "And they let out a cry: There they are! There they are! And they came in. As they came in, once they got all the way in, we all came out Š I, myself, had a bat. And I used it."

The worst violence occurred on Monday, June 7. One Los Angeles paper printed a guide on how to "de-zoot" a zoot suiter: "Grab a zooter. Take off his pants and frock coat and tear them up or burn them." That night a crowd of 5,000 civilians gathered downtown. By this time the mob was no longer made up of only sailors from the Armory. Soldiers, Marines, and sailors from other installations as far away as Las Vegas eagerly joined in the assaults. Part of the mob headed south for the predominately African American section of Watts and another group headed east for Mexican American East Los Angeles.

Al Waxman, editor of the *Eastside Journal*, a small Jewish newspaper, witnessed the chaos. He describes a "mass of humanity locked in violent struggle, arms swinging, legs kicking, shrieking with anger." The police were arresting dozens of young Mexican Americans. "Why am I being arrested?" one of them asked. The response was a savage clubbing with a nightstick. Although the boy fell to the sidewalk unconscious, he was kicked in the face by police.

By Tuesday morning the rioting was finally under a measure of control. Senior military officials declared Los Angeles off limits to all sailors, soldiers and Marines. The Shore Patrol gave orders to arrest disorderly personnel. The following day the city council adopted a resolution that banned the wearing of zoot suits on Los Angeles streets, punishable by a thirty-day jail term.

As the riots subsided, the governor ordered the creation of a citizens' committee. Its charge was to investigate and determine the cause of the riots. In 1943 the committee issued its report; it determined racism to be a central cause of the riots. At the same time, Mayor Fletcher Bowron came to his own conclusion. The riots, he said, were caused by juvenile delinquents and by white Southerners. Racial prejudice was not a factor.

PBS Online

Watts Riot (1965)

The **Watts Riot** began on August 11, 1965 in Los Angeles, California when the Los Angeles Police pulled over Marquette Frye, whom they suspected of driving drunk. While police questioned Frye and his brother, a group of people began to gather around the scene. A struggle ensued shortly after Frye's mother Rena arrived on the scene, resulting in the arrest of all three family members. Police used their batons to subdue Frye and his brother, angering the growing crowd. Shortly after police left, tensions boiled over and the rioting began. What followed was six days of rioting that claimed the lives of 34 people, injured 1,100 and caused an estimated $100 million dollars damage.

One of the few structures in Watts that remained untouched by the damage was the Watts Towers, a group of tall steel sculptures constructed by Italian immigrant Sam Rodia (often erroneously called Simon Rodia).

Rodney King Riot (1992)

On April 29, 1992, following the not guilty verdicts of four Los Angeles Police Officers accused of beating motorist Rodney King, violence erupted at the intersection of Florence and Normandie in South Los Angeles. At the same time, individuals at the corner of 67th Street and 11th Avenue were revolting against passer-bys and motorists. Black residents were outraged that four LAPD officers received not guilty verdicts from an all white jury in Simi Valley, despite the videotape evidence of the beating of Rodney King, and the testimonial by veteran police officers on behalf of the prosecution. From April 29, 1992 at approximately 3:30 p.m. until May 1st, the violence raged on. The National Guard were called in to bring calm to the city, and by Friday afternoon the violence and looting were subdued. The most violent urban revolt that the United States had ever experienced in the twentieth century resulted in 52 deaths, 2,499 injuries, 6,559 arrests, 1,120 building damaged, 2,314 stores damaged and close to 1 billion in damages.

If we go back to 1992 and examine the precipitating factor of the riot, economics actually played a small role influencing the revolt. Yes, there was a recession in Los Angeles and around the country, unemployment was at an all time high, high levels of poverty probably exacerbated the riots that took place, but the critical events and underlying factors to the revolt were the beating of Rodney King in 1991, the probation sentence handed down on Sun Ja Doo, a Korean store clerk that shot Latasha Harlins, a 15 year old black girl, in the back of the head after a dispute over orange juice, and the acquittal of the four LAPD officers. In the Sun Ja Doo incident the jury came back with a second-degree murder conviction, but Judge Joyce Karlin, a white woman, did the unheard of when she sentenced Doo to five years probation. This is what I believe paved the way for the worst urban riot in contemporary history and the fact that over 50% of the damaged or destroyed property was Korean owned was no accident, and is the reason why many characterize this event as an uprising or a revolt. Although many of the images captured certainly show those acting as opportunists taking advantage of an unfortunate situation, at the same time there was an organized attack against Korean establishments within South LA and outside of the black community along Vermont and Western Avenues, north of the black community. Relations between blacks and Koreans in Los Angeles have often been full of tension and there is housing evidence that suggests that those tensions are still present in 2002.

The critical factors that influenced the events of April 29, 1992 all took place within the criminal justice sector of society with the police department central to the events. This is where he must look to address the question of a potential third Los Angeles riot. Chief Daryl Gates was held accountable for the type of relationship that was created between the police and minority communities in South LA and his response to the first day of the riot was considered dismal. Also

let us not forget history, when in 1965 people took to the streets of Los Angeles in protest the day following alleged police abuses after the arrest of a Marquette Frye on 116th Street and Avalon. Chief William Parker was also highly criticized for the sharp divide that was created between the black community and the militaristic police, and resentment towards the police grew worse every year since Parker took over as Chief in 1950 up until the violence erupted in 1965. One indication of the increasing tension between the police and the community was the number of complaints that blacks filed between 1950 and 1965. Parker claimed no responsibility during a commission and when asked what sparked the riot he replied "someone threw a rock, and like monkeys in a zoo, they all started throwing rocks."

All of the seven race riots of 1964 were also sparked by an incident of police misconduct. The Otto Kerner Commission of 1968 stated that police actions led to outbreaks in half of the cases studied and those that believe that another revolt will take place will need to examine law enforcement and the criminal justice system. If the LAPD of LASD engage in any inappropriate activity such as excessive force or unlawful officer involved shootings, an outbreak of violence is definitely possible. Let us not forget what happened in Cincinnati in April 2001 when the shooting death of Timothy Thomas, 19, whose death touched off three days of riots. Cincinnati police officer Steven Roach was later found not guilty of negligent homicide in the shooting, but these are the types of events that will determine if Los Angeles will see part three. Under Bernard Parks inappropriate activity from the rank and file was highly unlikely with the disciplinary system that he had in place, but the actions of the next police chief may determine if what happened in 1965 and 1992 will occur again.

Alejandro A. Alonso, Los Angeles Riots 10 Years Later and the Likelyhood of Another Revolt, April 29, 2002 (et sec)

Chronology of the 1992 Los Angeles Riots		
29 April	1515	Acquittal verdicts announced in the trial of police officers accused of beating Rodney King.
	1850	Rioters beat and nearly kill truck driver Reginald Denny as a television crew captures both the horror of the incident and the absence of Los Angeles Police Department (LAPD) officers. Hundreds of arson and looting incidents begin.
	2100	The California governor's office informs the adjutant general that the governor has decided to mobilize (call to state active duty) 2000 California National Guard (CANG) troops at the request of the LA mayor.
30 April	-	A dusk-to-dawn curfew is imposed in large portions of the city of LA and the surrounding county.
	0400	Approximately 2000 CANG soldiers have reported to armories.
	1100	Los Angeles County requests 2000 more CANG personnel; the governor approves the request.
	1350	Ammunition from Camp Roberts (in central California) arrives in LA area via CH-47 helicopter.
	1435	The first CANG elements (two military police companies) deploy in support of the LAPD and the LA Sheriff's Department (LASD).
	2000	About 1000 CANG troops are currently deployed "on the street," with more than 1000 more prepared to deploy and awaiting mission requests from law enforcement agencies.
	2356	LAPD and LASD request 2000 additional CANG troops, for a total of 6000.
1 May	0100	Perceiving the CANG deployment to be too slow, the governor requests federal troops.
	0515	The President agrees to deploy 4000 federal troops to LA.

Chronology of the 1992 Los Angeles Riots		
	0630	Approximately 1220 CANG soldiers are deployed in support of LAPD; 1600 are deployed in support of LASD; and 2700 are in reserve awaiting missions.
	1430	Active component Marines from Camp Pendleton, California, begin arriving in the LA area via convoy.
	1630	Commander, Joint Task Force-Los Angeles (JTF-LA) arrives in LA area.
	1730	Active component soldiers from Ft. Ord, California, begin arriving in the LA area via C-141 aircraft.
	1800	The President announces that the CANG will be federalized.
2 May	0400	Final plane with active component soldiers arrives.
	1100	Approximately 6150 CANG troops are deployed on the street, with 1000 more in reserve; 1850 soldiers from the 7th Infantry Division are in staging areas; Marines prepare for deployment.
	1900	First active component troops deploy on the street; a battalion of Marines replaces 600 CANG soldiers.
	2359	More than 6900 CANG soldiers are deployed, with 2700 more in reserve. Approximately 600 Marines are deployed, but most active component Army and Marine Corps personnel remain in staging areas.
9 May	1200	CANG reverts to state status, ending federalization; active component forces begin redeploying home.
13-27 May	-	CANG releases troops from state active duty, returning them to "part-time" status.
Source: Compiled from Harrison (1992), Delk (1995), and various CANG after-action reports.		

Gangs in Los Angeles County

There are **88 incorporated cities** and dozens of other unincorporated places in Los Angeles County (LAC). In doing this research on the proliferation of gangs within Los Angeles, each of these places were visited in an attempt to not just identify gangs active in Los Angeles, but to determine their territories too.

Through several weeks of field work and research there were a total of 274 Black gangs in 17 cities and five unincorporated areas in Los Angeles County. In this research, both the cities and unincorporated areas are identified as "places," a term that the U.S. Census uses.

All Blood Gangs in Los Angeles County

Athens | Carson | Compton | Duarte | Florence | Gardena | Hawthorne | Inglewood | Lakewood | Long Beach | Los Angeles | Lynwood | Paramount | Pasadena | Pomona | Rosewood | Santa Monica

- 135 Piru
- 456 Island
- 64 Brims (defunct)
- 706 Blood
- 92 Bishops
- Athens Park Boys
- Aliso Village Brim (defunct)
- East Compton Piru
- East Side Piru
- Elm Street Piru
- Family Swan Blood 89/92
- Fruit Town Brims
- Fruit Town Pirus
- Ghost Town/ES Pain
- Pacoima Pirus
- Parke Nine Bloods
- Pasadena Denver Lane
- ProJect Gangster Blood
- Pueblo Bishops 52
- Queen Street Blood
- Queen Street Blood 76

- Avenue Piru Gang
- Be-Bopp Watts Bishops
- Black P Stones-City
- Black P Stones-Jungles
- Blood Stone Pirus
- Blood Stone Villian
- Bounty Hunters
- Campenella Park Piru
- Cedar Block Piru
- Center Park Blood
- Center View Piru
- Centinela Park Family
- Circle City Piru
- Crenshaw Mafia Gang
- Cross Atlantic Piru
- Dalton Gangster Blood (defunct)
- DBCP
- Denver Lane Blood
- Doty Block Gang
- Down Hood Mob
- Harvard Park Brim
- Hawthorne Piru
- Holly Hood Pirus
- Hoover Family (defunct)
- Inglewood Family Gang
- Kabbage Patch Piru
- Kalas Park Loks
- Leuders Park Piru
- Lime Hood Piru
- Lynwood Mob Piru
- Mad Swan Blood
- Miller Gangster Bloods
- Mob Piru
- Neighbor Hood Pirus
- Neighborhood Pirus 145
- Rollin 20s NeighborHood Blood
- Original Block Piru 151
- Outlaw 20s
- Samoan Warriors Bounty Hunters
- Scott Park Blood
- ScottsDale Piru
- Squiggly Lane Gangster
- Summit Street Bloods
- Tree Top Piru
- Ujima Village Bloods
- Van Ness Gangster
- Village Town Piru
- Water Front Piru
- Weirdoz Blood
- West Covina Mob
- West Side Piru - Compton
- West Side Piru - West Covina
- Hacienda Village Blood

All Crip Gangs in Los Angeles County

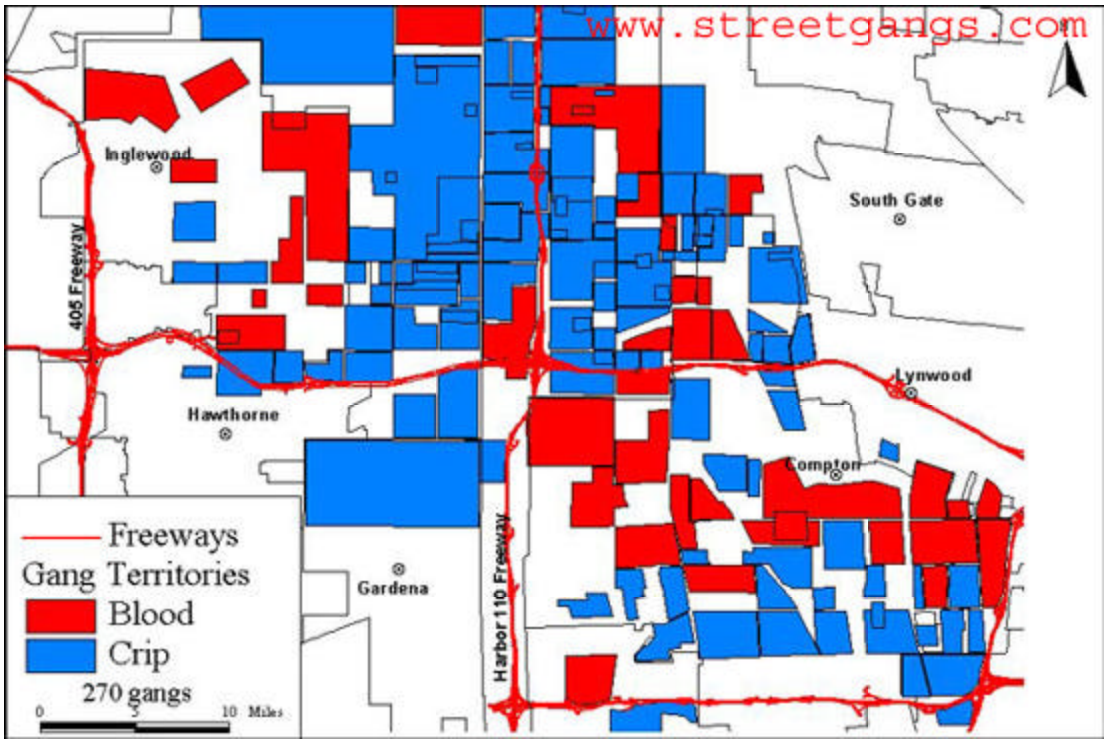
Altadena | Athens | Carson | Compton | Duarte | Florence | Gardena | Hawthorne | Inglewood | Lakewood | Long Beach | Los Angeles | Lynwood | Paramount | Pasadena | Pomona | Rosewood | Santa Monica | Torrance | West Covina | Willowbrook

- 101 Crip Gang
- 7th Street Watts Crip
- Acacia Block Compton Crip
- Altadena Block Crip
- Angelo Mafia Crip
- Anzac Grape Compton Crip
- Atlantic Drive Compton Crips
- Avalon 40's Crip
- Avalon Gangster Crips 53
- Avalon Ganster Crip 116
- Avalon Garden Crips 88
- Back Street Crip
- Beach Town Mafia Crip
- Big Daddyz (BDZ)
- Blunt Smoking Only Gang
- BOGC
- Gangster, Hoover 52
- Gardena Pay Back Crip
- Geer Gang Crip
- Ghost Town Crips
- Grape Street Watts
- Grave Yard Crip
- Gundry Blocc Paramount Crip
- Harbor City Crips
- Hard Time Hustler Crip, 88, 93
- Hard Time Hustler Crip, 103, 104
- Hard Time Hustler Crip, 78
- Harvard Gangster Crip, 127
- Hat Gang Watts Crip
- Hickery Street Watts Crip
- Holmes Town Crip
- Home Boys Crimino
- PlayBoy Huster Crip
- PlayBoy Style Crip 82
- PlayBoy Style Crip 101,106
- Pocket Hood Compton Crip
- Raymond Ave Crip 102
- Raymond Ave Crip 120
- Raymond Ave Crip Pasadena
- RHG
- Rollin' 130's
- Rollin 20s Long Beach
- Rollin 30s
- Rollin 40s
- Rollin 50s
- Rollin 60s
- Rollin 80's West Coast Crip
- Rollin 90s NHC
- Rollin 90s Westcoast

- Born To Jacc Crip 73rd st
- Boulevard Mafia Crips
- Bricc Block Crip
- Broadway Gangster Crip 112
- Broadway Gangster Crip 52
- BudLong Crip Gang 102
- Burnside Avenue Crip Gang
- Butler Blocc Compton Crips
- By Yourself Hustler Crips
- Carver Park Compton Crips
- Chester Street Compton Crips
- Compton Avenue Crip, 95
- DAWGS
- Dirty Old Man Gang
- Dodge City Crips
- Don't Give a Fuck
- Down Ass Pimp Gang, 109
- Dragnet
- DSHC 91st
- Du Rocc Crip
- Ducky Hood Compton Crip
- East Coast Blocc Crip, 190
- East Coast Blocc Crip, 118
- East Coast Crip, Q102
- East Coast Crip, 200
- East Coast Crip, 59
- East Coast Crip, 62 NHC
- East Coast Crip, 66
- East Coast Crip, 68
- East Coast Crip, 69 Shacc Boys
- East Coast Crip, 76
- East Coast Crip, 89 NHC
- East Coast Crip, 97
- East Side DAWGS
- East Side Hustler Crip 104, 108
- East Side Hustler Crip 115,118
- East Side Players, 97 Gang
- Hoover, 107
- Hoover, 112
- Hoover, 59
- Hoover, 74
- Hoover, 83
- Hoover, 92
- Hoover, 94
- HSHG
- Inglewood Village Crip
- Insane Crip
- Kelly Park Compton Crip
- Kitchen Crip Gang, 87
- Kitchen Crip Gang, 95
- Kitchen Crip, 116
- Latana Blocc Compton Crip
- LDH 73
- Lettin Niggas Have It
- Osage Legend Crip, 102
- Mack Mafia Crip
- Mafia Crip, 99
- Main Street Crip
- Main Street Mafia Crip
- Mansfield Gangster Crip
- Marvin Gangster
- Mayo Ave Compton Crip
- Menlo Gangster Crip, 103
- Menlo Gangster Crip, 65
- McKinley Avenue Crips
- Mona Park Compton Crips
- Most Valuable Pimp Gangster Crip
- NBGC
- Neighbor Hood 90 Crip
- Neighbor Hood Compton Crips
- Neighbor Hood Crip 106, 102
- Neighbor Hood Crip 115
- Neighbor Hood Crip 67
- Neighbor Hood Crip, 111, 112 (w/s)
- Neighbor Hood Crip, 111, 112 (e/s)
- Neighbor Hood Crip, 46
- Neighbor Hood Crip, 55
- Neighbor Hood Crip, 57
- Neighbor Hood Crip, 59
- Neighbor Hood Crip,
- RSH Compton Crip
- Santa Fe Mafia Crip
- Santana Blocc Compton Crip
- School Yard Crips
- Sex Symbols
- Shotgun Crip
- Sin Town Crip 357
- Six Hood Compton Crip
- Sons of Samoa
- South Side Compton Crips
- South Side Village Crips
- Stevenson Village Crip (Cold Village Dog)
- Straight Ballers Society
- T Zone Crip 110
- Ten Line Ganster Crip
- Tiny Hoodsta Crip
- TMHG
- Tonga Crip Gang
- Tragniew Park Compton Crip
- Twilight Zone Compton Crip 157
- UCPS 1400 Block
- Under Ground Crip
- Venice Shore Line
- Victoria Park Crips
- Ward Lane Compton Crip
- WaterGate Crip
- Watts Mafia Crip Gang
- Watts Playground Crip 115
- We Dont Care Crip
- West Boulevard Crip 28
- West Boulevard Crip 64
- West Covina NH Crip
- West Side Mafia
- Young Ass Playas

- East Side Ridas, 64
- East Side Ridaz, 59
- Farm Dog Comton Crip
- Four Corner Block Crip
- Four Duece Crip Gang(w/s)
- Four Line Drive Crip
- Front Street Crip
- Fudge Town Mafia Crip 105, 107
- Gangster Crip, 105
- Gangster Crip, 118
- Gangster Crip, 42(e/s)
- Gangster Crip, 43
- Gangster Crip, 43 SS
- Gangster Crip, 47 S
- Gangster Crip, 48
- Gangster Crip, 83
- Gangster Crip, 87
- Gangster Crip, 96
- Gangster Crip, 97
- Gangster Crip, 98
- Lynwood
- Neighborhood Watts Crip
- Nestor Ave Compton Crip
- Nothing But Trouble Halldale Crip
- NSG Senyo Gang
- Nutty Blocc Compton Crip
- Original Blocc Crip Gang
- Original Hood Crip
- Original Swamp Compton Crip
- Palm & Oak Gangster
- Palmer Blocc Compton Crips
- Park Village Compton Crips
- Perverts
- Pimp Town Murder Squad
- PJ Watts Crip
- Play Boy Gangster Crip

Black Gang Territories of South Los Angeles



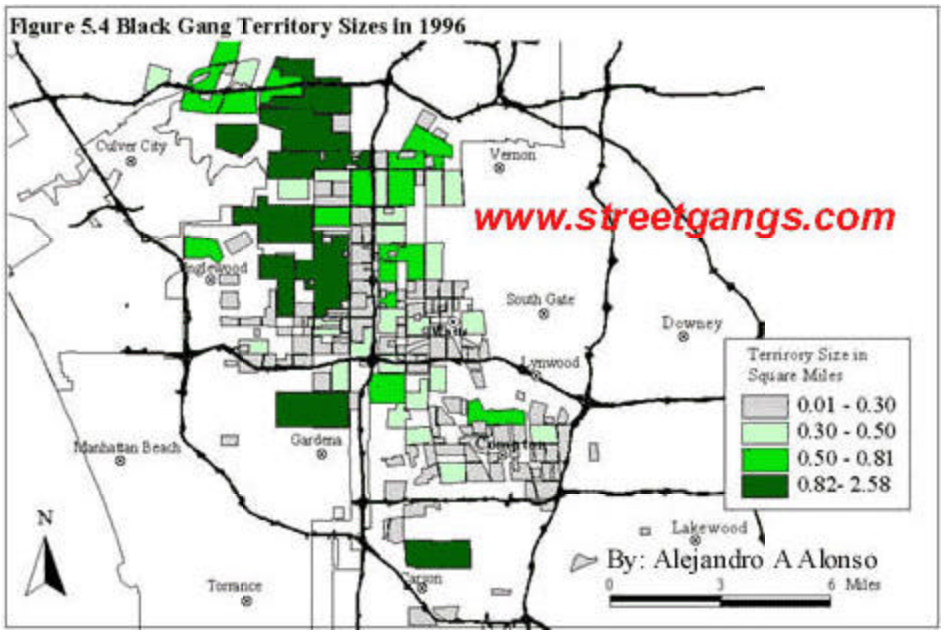
The above map shows south Los Angeles, Inglewood, Gardena, Compton and gang territories in Hawthorne. There are more Crip gangs than Blood, but in Inglewood there are more Bloods and in Compton it is about even between the two.

Gang Regions in South Los Angeles

In South Los Angeles I divided the area into 13 areas from the Mid City/West LA area to Long Beach. The Mid City/West LA, Westside, and Eastside, are within the City of Los Angeles.

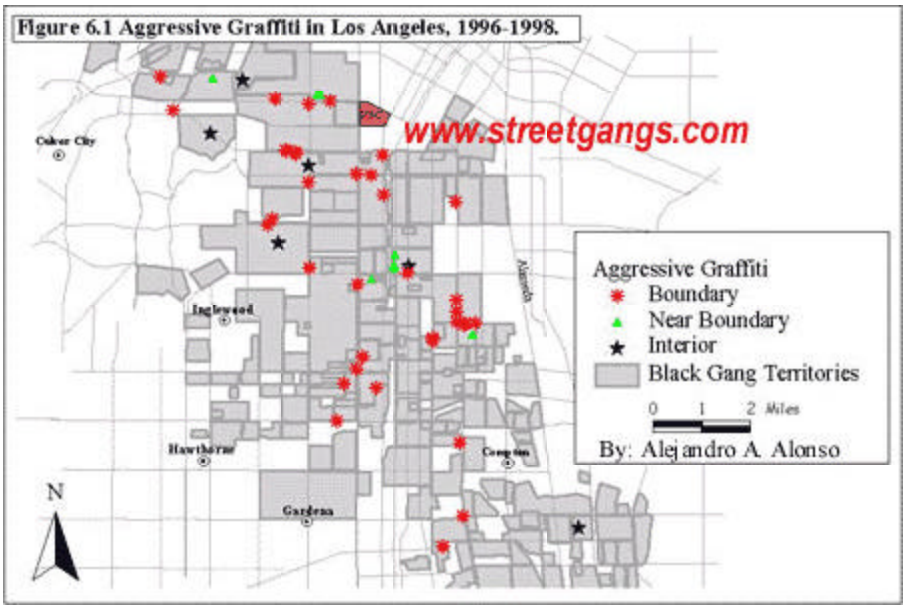
Athens, Florence, Rosewood, and Willowbrook are unincorporated places policed by the Los Angeles Sherrif's Department.

Territory Size Variation Among South Los Angeles Gangs



This map reveals that gangs with significant territories are concentrated on the Westside portion of the city. On the Eastside, which consists of Watts, and the City of Compton have significantly smaller territories. I determined that the size variation had little to do with population density, but more to do with the temporal aspect of gangs in a particular area. The older more original gang territories were smaller and those gangs that developed in the newer "unclaimed" areas, where able to develop larger territories. This notion is very similar to how the United States developed individual states over time. The older original colonies are significantly smaller than the West coast states that joined the union later.

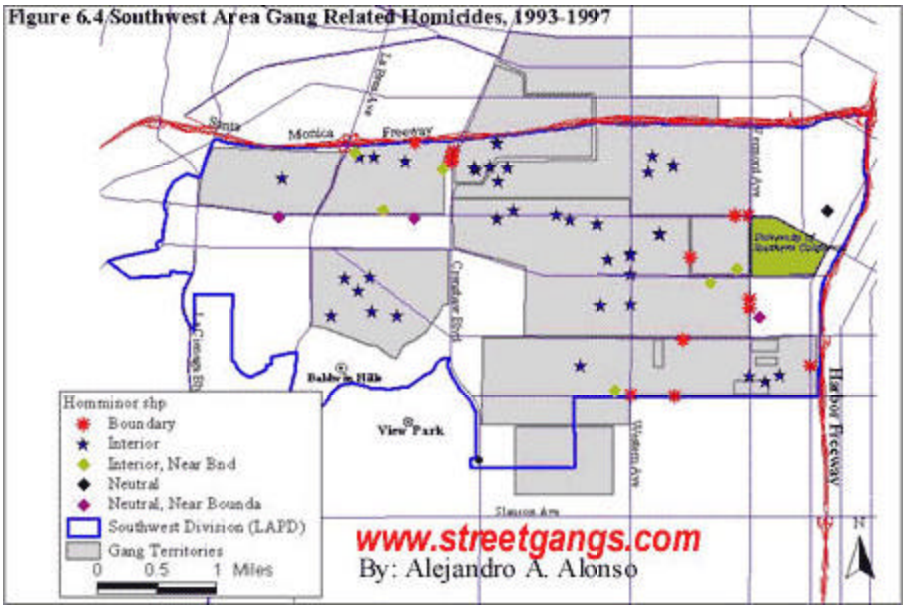
Aggressive Graffiti in Los Angeles



I surveyed all the gang graffiti and identified the places where aggressive graffiti was the most prevalent. I designated an address for each occurrence and matched it to a street file of South Los Angeles. I categorized each location as either **boundary**, **near boundary**, or **interior**.

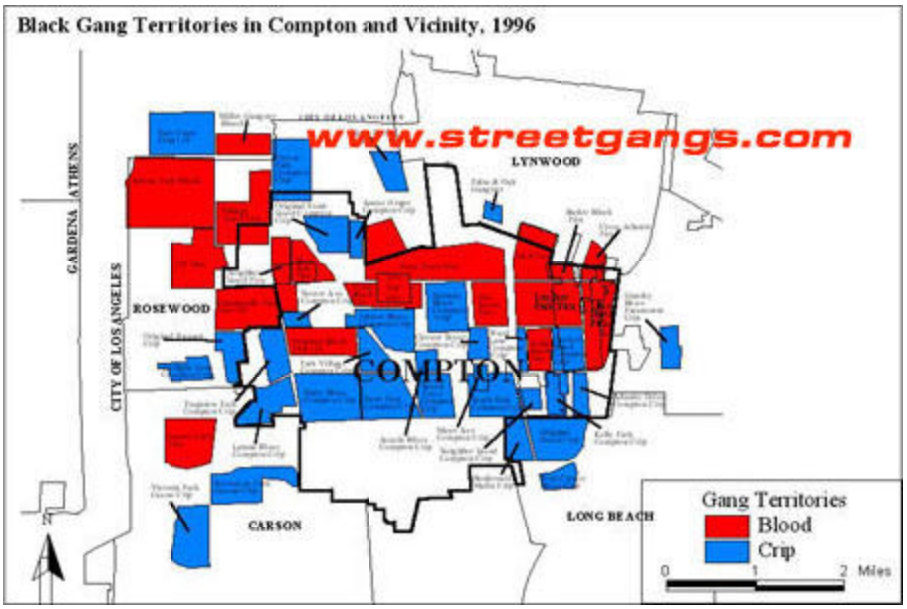
This analysis explored the extent to which aggressive graffiti messages are found on the boundaries of gang territories more so than the interior. Special attention was given to the hypothesis put forth by geographers David Ley and Roman Cybriwsky stating that the most aggressive graffiti is found at the boundaries of gang territories (1974). This map reveals that the same pattern was found among Los Angeles gang graffiti written by Black gangs.

Homicides in the Southwest Division of Los Angeles



I was trying to determine if Black aggressive gang graffiti, which was more prevalent on the boundaries of gang territories, would coincide with the places of Black gang homicides by examining a section of Los Angeles. As the map reveals, a significant number of gang related homicides actually occurred in the interior areas of gang territories, an area that is nearly absent of the most aggressive type of gang graffiti.

Blood and Crip Compton Gang Territories



Blood and Crip gang territories of Compton and surrounding unincorporated areas of Willowbrook, Athens, Rosewood and the areas of Carson, Lynwood and N. Long Beach. Notice how the northern part of

Compton is dominated by Blood gangs while the southern portion of Compton has a greater Crip presence.

Asian Gangs in Los Angeles County

There are approximately 20,000 Asian gang members in Los Angeles County and represent a diverse array of backgrounds and affiliations. There are Asian gangs that down with the Surenos, some affiliated with Bloods and Crips and several independent entities such as the Chinese Wah Chings, Philipino, Cambodian and Vietnamese gangs. Below is a preliminary list of cities and places within Los Angeles County where Asian gangs are active:

- Antelope Valley
- Arcadia
- Carson
- Cerritos
- Glendale
- Hawthorne
- Los Angeles
- LA - San Fernando Valley
- Long Beach
- Monterey Park
- Pomona
- San Gabriel Valley Area
- Torrance
- West Covina

Other Southern California Areas

- Garden Grove
- Fullerton
- Santa Ana

Hispanic Gangs in Los Angeles County

There are over 600 Latino gangs in Los Angeles County representing over 50% of the gang membership in the area and they are more geographically distributed throughout the region than Black, Asian and White gangs. They are found in great numbers in the San Fernando Valley, San Gabriel Valley, the beach communities, Long Beach, Compton and South Central Los Angeles.

Below is a preliminary list of cities within Los Angeles County where Hispanic gangs are active.

- Alhambra
- Antelope Valley
- Artesia
- Atwater
- Azusa
- Baldwin Park
- Bell
- Bell Gardens
- Bellflower
- Burbank
- Carson
- City of Commerce
- City of Industry
- Claremont
- Compton
- Covina
- Cudahy
- Culver City
- Downey
- Duarte
- El Monte
- El Sereno
- Gardena
- Glendale
- Hacienda Heights
- Hawaiian Gardens
- Hawthorne
- Huntington Park
- Inglewood
- Irwindale
- La Mirada
- La Puente
- Lakewood
- Lancaster
- Lawndale
- Lomita
- Long Beach
- Los Angeles County
- Los Angeles
- Lynwood
- Maywood
- Monrovia
- Montebello
- Monterey Park
- Newhall
- Norwalk
- Paramount
- Pasadena
- Pico Rivera
- Pomona
- Redondo Beach
- Rosemead
- San Dimas
- San Fernando
- Santa Clarita
- Santa Fe Springs
- Santa Monica
- South Gate
- Temple
- Torrance
- Walnut
- West Covina
- West Whittier
- Whittier

Maravilla Gangs

All Hispanic Gangs in Los Angeles County

Gang Legislation

Since the 1980s many states have adopted legislation and laws specifically drafted to combat street gangs and to make it easier to prosecute their offenses. California has led the nation in laws written to prosecute gangs, but many US states have their own laws. This section will focus on California, City of Los Angeles, and the County of Los Angeles' laws related to gang activity.

CALIFORNIA

California 186.20, also known as the "California Street Terrorism Enforcement and Prevention Act" or STEP Act.

California 186.22(a)

California 186.22(b)(c)(d) , gang participation

California 186.22(e)(f), gang definitions

California 186.22(b)(4) , gang enhancement

California 189, Drive-by Shootings; Murder; Carjacking

California 190.2(a)(22), Shooting from a Motor Vehicle

California 213, Robbery

California 246, discharging a weapon from a car.

California Code 666.7, sentence enhancement

California 12022.55, Shooting from a Motor Vehicle

California 12034, Driver's responsibilities

City of Los Angeles Municipal Code

Graffiti

City of Los Angeles Municipal Code - 03/31/99 CHAPTER IX - Building Regulations

ARTICLE 1 - Buildings [Building Code] (Article I, Chapter IX, Amended by Ordinance No. 170,953, Eff. 3/17/96, Oper. 1/1/96, incorporating by reference portions of the 1994 Edition of the Uniform Building Code and the 1995 Edition of the California Building Code).

SEC. 91.8904. SPECIAL PROVISIONS FOR VACANT PROPERTY GRAFFITI REMOVAL.
91.8904.1. Duties of the Owner of Vacant Property. (Title and Section Amended by Ord. No. 171,175, Eff. 7/25/96.)

91.8904.1.1. Procedure for Securing Vacant Property and Removing Graffiti - Notification. (Amended by Ord. No. 171,175, Eff. 7/25/96.)
91.8904.1.2 Abatement by the City., (Amended by Ord. No. 171,400, Eff. 12/20/96.)

County of Los Angeles

Title 13 PUBLIC PEACE, MORALS AND WELFARE Chapter 13.12 GRAFFITI PREVENTION, PROHIBITION AND REMOVAL 13.12.020. Definitions.

13.12.030. Unlawful to apply graffiti -- Prohibition of defacement

13.12.040. Possession of graffiti implements by minors prohibited

13.12.050. Possession of graffiti implements prohibited in designated public places

13.12.060. Limiting access to graffiti implements -- Furnishing to minors prohibited

13.12.060. Limiting access to graffiti implements -- Furnishing to minors prohibited

13.12.070. Display for sale -- Requirements

13.12.090. Graffiti declared public nuisance

13.12.100. Removal of graffiti by perpetrator

13.12.110. Removal provisions

13.12.120. Rewards for information

13.12.130. Penalties and civil liability of parents

13.12.140. Violations--Civil remedies available

13.12.150. Severability

A. Alonso, PO Box 18238, Los Angeles, California 90018, 1-800-249-1324, mraaalonso @ yahoo . com]

MODERATE PRIORITY Technological & Human-caused Hazards

Large Venue Fires (Conflagrations)

Large Venue Fires were rated a MODERATE PRIORITY HAZARD in Los Angeles County

A conflagration is a fire occurring primarily in cities or towns with the potential to rapidly spread to adjoining structures. These fires have the potential to damage and destroy homes, schools, commercial buildings and vehicles. Conflagrations are rare in modern developed cities, but could happen after an earthquake or during civil unrest. Ignitions could occur throughout the city simultaneously. Studies estimate that 100-200 fires could follow a large earthquake in the Los Angeles County area. Such a large number of fires would easily overwhelm the capabilities of the Fire Department. Fires in the County's power distribution network can create large power outages.

Large Venue Fires Secondary to Urban Structure Fires

A large percentage of structure fires in Los Angeles County occur in places where people live. The leading cause of these fires is heat from electrical equipment, matches and lighters, electrical short-circuit or arc, and heat from wood or paper fueled equipment. Such equipment includes electric stoves, portable space heaters and electric heaters.

Most cities in Los Angeles County have hotels, businesses and educational buildings, the second leading type of buildings in which fires occur. In the core of the population centers, buildings are situated closely together. At times, fire separation walls have been modified in such a way that fire walls could be breached, so the spread of fire due to the lack of firewalls could be a problem. Most of Los Angeles County's population centers consist of closely-situated multiple office buildings, small businesses, warehouses, and restaurants. In these areas, there is a moderate risk of a fast-spreading multiple-structure fire. Other parts of the County are spread out enough so that the chances of a large structural fire traveling from one building to another, or to multiple other buildings, is relatively low.

Large Venue Fires Secondary to Wild Land-Urban Interface Fires

Although new emphasis has been placed on the problem of structure loss and damage associated with wildland fires, the problem is an old one. During the last 30 years, frequent conflagrations in California have resulted in losses of structures, primarily homes. After major California fires, reports that identified the fire problem and provided guidance for mitigation were generated (California Department of Conservation 1972; California Department of Forestry 1980; County Supervisors Association of California 1965; Howard and others 1973; Moore 1981; Radtke 1983). Generally, these reports were commissioned by State and local government agencies. With some exceptions (Dell [n.d.]; Radtke 1982), the target audiences were public officials and fire professionals. Many of these wildland/urban fire reports were comprehensive, providing recommendations, including technical specifications, for urban planning, fire suppression capabilities, vegetation management, and building construction. However, despite the production of these reports, the wildland/urban interface fire problem has continued with little abatement.

Structure survivability is the probability that a building will not suffer major structural damage during a fire. A structure's survivability depends on the structure's resistance to ignition and on the ability to suppress any ignitions that might occur. Thus, theoretically, for a given likelihood of structure survival, a variety of ignition resistance levels can he balanced by compensating suppression capabilities. This introduces the idea of trade-offs--in this case, ignition resistance for suppression capabilities, and vice versa.

Structure survival can be examined in greater detail. The ignition aspect of structure survival can be further defined in terms of the structural fire performance, the fire exposure, and the fire severity conditions. Similarly, the suppression aspect can be defined in terms of suppression availability, safe access to the structure, and fire severity conditions.

Some areas of the United States, especially the western states, must contend with annual "fire seasons," when weather and the abundance of combustible vegetation combine to create serious threats to life and property. In Southern California, in and around Los Angeles County, there is a unique mix of critical factors that makes almost any vegetation fire a significant challenge for fire fighters.

Recognizing this challenge, the Los Angeles County Fire Department has undertaken numerous programs and implemented many strategic and tactical policies to meet it. This wildland firefighting effort is in addition to a mission that includes protecting 57 incorporated cities and all of the unincorporated areas of the County, with emergency medical service, structural fire protection, fire prevention services, and public education provided to more than 3.5 million residents. This effort runs the full range of pre-fire, actual fire suppression, and post-fire activities aimed at life, property, and environmental protection. Wildland fires in the past have been ignited by vehicle fires, lightning strikes, heavy equipment operating in brush areas, illegal open fires, wires blown down or shorted out by high winds, and arson.

Wildland fires fueled by plentiful and volatile vegetation in Southern California have always been as much a part of the landscape as the mountains, hills, and beautiful vistas. Over time, left unchecked, Southern California chaparral can grow to accumulate up to 400 tons to the acre. In fact, the periodic burning of the native fuels is an important part of the local ecosystem, according to scientific experts. With nothing of value in its way, such a fire cleanses the area and rejuvenates subsequent, new growth.

Through decades of building, though, many of the wildland hillsides and ridges are now covered with residential developments accessed by narrow, winding roads used by tens of thousands of people who reside there. Far too many times, past fires have caused staggering structure losses. Wildland fire, once just a natural phenomenon, has become a major challenge for the fire service because lives and property are now increasingly at risk.

In 1993, more than 400 homes were destroyed, as Santa Ana wind-driven fires swept across Los Angeles County. Even at that, a Rand Institute study commissioned by the Los Angeles County Fire Department found that, although 388 structures were lost in the "Old Topanga" Fire of 1993, 89% of the threatened houses and buildings were saved. That fire burned 16,516 acres of mountainous terrain, had a perimeter of 48 miles, and required more than 7,000 firefighters to contain.

Wildland firefighting in Southern California and Los Angeles County is a major endeavor for the Los Angeles County Fire Department. Ongoing programs and efforts seek to meet the challenges of the wildland fire when lives and property are at risk in the pre-fire, fire suppression, and post-fire phases.

Transportation Incidents

Transportation Incidents were rated a MODERATE PRIORITY HAZARD in Los Angeles County.

Because of the tremendous volume of transportation (commercial and private) into and out of LA County, the potential for a disastrous transportation-related event exists. Generally, transportation accidents are incidents that are handled by local jurisdictions or by jurisdictional mutual aid responses. A transportation accident, combined with a volatile hazardous substance or a large number of people, has the potential for becoming an event that requires a major mobilization of local, county, state and federal agencies.

According to the Department of Transportation, from 1994 to 2000 there were more than 1,800 fatal tractor-trailer accidents in the state, and from 1990 to 2001 more than 4,200 train accidents.

Aircraft Incidents

Airline crashes are listed as a less significant hazard because individually they are less likely to result in a state or federal disaster declaration. However, State OES recognizes the severity of these incidents as they often lead to deaths and injuries.

Airline(s)/Flight	Location	Airline(s)/Flight	Location
South West 1455	Burbank	Swift Air Lines, Inc.	Marina Del Rey
Phoenix Air 35A	Fresno	Pacific Southwest Airlines	San Diego
USAIR 1493/Skywest 5569	Los Angeles	Continental Airlines	Los Angeles
Bell	Alamo	Jet Aviation, Ltd.	Palm Springs
North Star/Cessna	Oakland	Mercer Airlines	Van Nuys
Aero naves De Mexico/Piper	Cerritos	Golden West Airlines	Whittier
China Airlines	San Francisco	Sierra Pacific Airlines	Bishop
Western Helicopters	Valencia	Trans World Airlines	Los Angeles
McDonell Douglas Corp.	Edwards AFB	Spectrum Air, Inc.	Sacramento
Air California 336	Orange County	Trans World Airlines	San Francisco

Most Recent Accident

On March 5, 2000, about 1811 Pacific standard time (PST),[1] Southwest Airlines, Inc., flight 1455, a Boeing 737-300 (737), N668SW, overran the departure end of runway 8 after landing at Burbank-Glendale-Pasadena Airport (BUR), Burbank, California. The airplane touched down at approximately 182 knots, and about 20 seconds later, at approximately 32 knots, collided with a metal blast fence and an airport perimeter wall. The airplane came to rest on a city street near a gas station off of the airport property. Of the 142 persons on board, 2 passengers sustained serious injuries; 41 passengers and the captain sustained minor injuries; and 94 passengers, 3 flight attendants, and the first officer sustained no injuries. The airplane sustained extensive exterior damage and some internal damage to the passenger cabin. During the accident sequence, the forward service door (1R) escape slide inflated inside the airplane; the nose gear collapsed; and the forward dual flight attendant jump seat, which was occupied by two flight attendants, partially collapsed.

The National Transportation Safety Board determines that the probable cause of this accident was the flight crew's excessive airspeed and flight path angle during the approach and landing

and its failure to abort the approach when stabilized approach criteria were not met. Contributing to the accident was the controller's positioning of the airplane in such a manner as to leave no safe options for the flight crew other than a go-around maneuver.

Rail Incidents

Train derailments are so localized that the incidents themselves would not constitute a disaster. However, if there are volatile or flammable substances on the train and the train is in a highly populated or densely forested area, death, injuries, damage to homes, or wild fires could occur.

There have been 14 MAJOR train accidents in California since 1950.

Incident	Location
Metrolink collision	Glendale
Southern Pacific collision	Beaumont
Union Pacific derailment	Kelso
Freight train derailment	Cajon
Atchison, Topeka, & Santa Fe/Union Pacific collision	Cajon
Atchison, Topeka, & Santa Fe/ATSF collision	Corona
Amtrak passenger train collision	Stockton
Southern Pacific derailment	San Bernardino
Southern Pacific derailment	West Surf
Union Pacific collision	Kelso
Western Pacific derailment	Hayward
Southern Pacific collision	Thousand Palms
Southern Pacific collision	Tracy
Two Southern Pacific trains collision	Indio

In Los Angeles County, there were a total of 148 train accidents from January 2000 to June 2004. The following statistics append this figure:

- Deaths – 0
- Injuries – 13
- Loss - $7,978,342

TYPE OF ACCIDENT

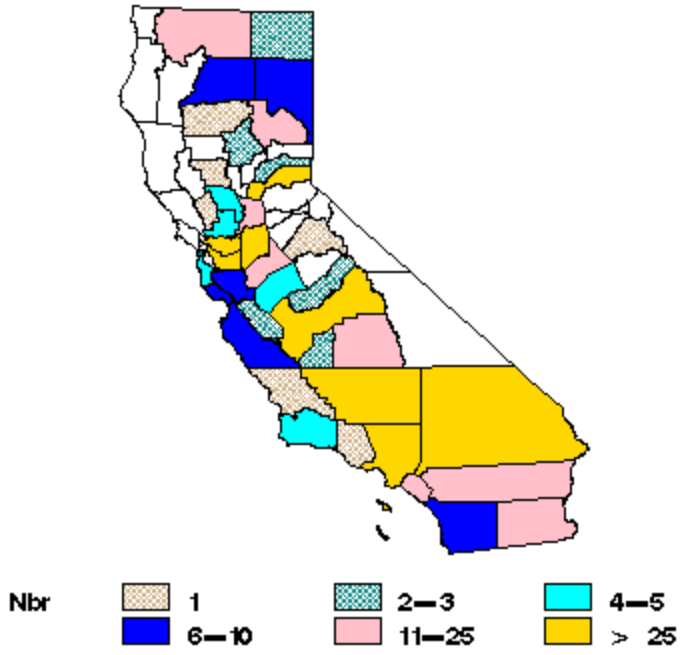
- Collisions – 9
- Derailments – 112
- Other – 27

CAUSE OF ACCIDENT

- Equipment – 1
- Human Error – 84
- Other – 13
- Signal Malfunction – 1
- Track Faulty – 49

TRAIN ACCIDENTS FOR CALIFORNIA, January 2000 TO June 2004

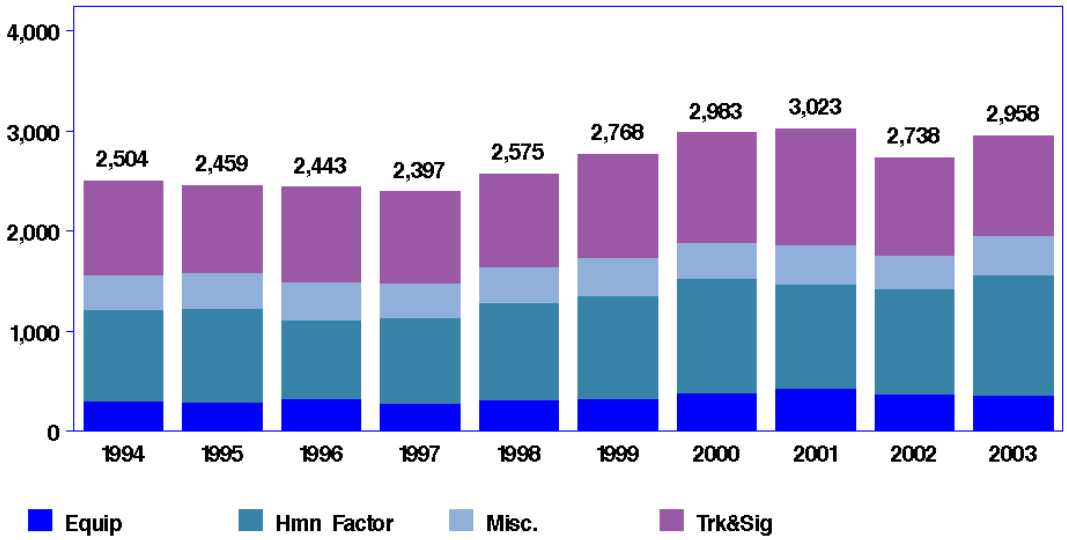
RAILROAD: ALL TYPE OF TRACK: All



Excludes Highway Rail Incidents

Federal Railroad Administration, Office of Safety Analysis

8 — TRAIN ACCIDENTS BY PRIMARY CAUSE, JAN — DEC (2003 preliminary)



Date of run: Wed, Sep 1, 2004

Highway Incidents

On any given day, Los Angeles County highways have thousands of large trucks carrying all sorts of cargos (including hazardous materials). The potential for a highway accident involving one or more trucks carrying volatile cargo is great. Generally, these accidents are handled as incidents by the appropriate jurisdiction; however, because of the dense population and shear volume of vehicular traffic, the risk of a crash becoming a catastrophic event grows.

In 2001, 429,000 large trucks (gross vehicle weight rating greater than 10,000 lbs.) were involved in traffic crashes in the United States: 4,793 were involved in fatal crashes. A total of 5,082 people died (12 percent of all the traffic fatalities reported in 2001) and an additional 131,000 were injured in those crashes.

In 2000, large trucks accounted for 4 percent of all registered vehicles and 7 percent of total vehicle miles traveled (2001 registered vehicle and vehicle miles traveled data not available). In 2001, large trucks accounted for 8 percent of all vehicles involved in fatal crashes and 4 percent of all vehicles involved in injury and property-damage-only crashes.

According to a 1999 study performed by the FMCSA (*Cost of Large Truck- and Bus-Involved Crashes*), the average cost per crash involving a large truck is $75,637. With 429,000 large truck-related crashes in 2001, the total monetary expense for 2001 is minimally $32,448,273,000.00 using 1999 cost estimates.

Chain reaction accidents on crowded interstate highways that intertwine Los Angeles County are also another consideration. These events can quickly grow into localized disasters that overstrain local responders. Potentially, they could expand into catastrophic incidents involving hazardous materials, mass casualties, fire, and transportation disruption. Depending on the occurrence, the response could involve mass evacuation, mutual aid and other aspects of managing a disaster.

Maritime Incidents

There is ever-present danger of boat collisions and crashes in the crowded waters off Los Angeles County. There is also the constant potential for plane crashes in the ocean. A recent development was enforcement of FAA policy mandating disaster response plans for planes taking off over the ocean from L.A. International Airport. The U.S. Coast Guard, L.A. County Lifeguards, County Fire Department, L.A. City Fire Department, L.A. County Sheriffs, and other allied agencies have developed a response plan for airliner crashes in the Santa Monica Bay.

Part of the plan calls for personnel from L.A. County Fire Station 110, USAR1, and the Air Operations Section to fly rescue swimmers to the crash site, deploy them from helicopters with inflatable life boats, and to begin rescue operations while other agencies respond with boats and helicopters to remove people from the water. These "Blue Water Rescue" teams may also be dispatched to boating accidents in the open ocean.

U.S. ports are foreign flag vessels. Operators of shallow-draft vessels are more likely to be U.S. corporations. In many ports, there are more shallow-draft vessel movements than deep-draft arrivals. In 1993, nearly 5,200 towing vessels, 26,800 dry cargo barges, and 4,000 tank barges traveled through U.S. waterways (U.S. Army Corps of Engineers, 1993), most of them stopping at coastal ports while on canal or river voyages.

Many commercial vessels carry passengers, heightening the need for attention to safety. Ferries and specialty vessels, such as casino ships and sport fishing boats, number in the thousands and

may carry several hundred passengers at once (National Research Council, 1995). The cruise industry is a growing maritime presence, with single ships carrying as many as 3,300 persons and many of the leading cruise markets in or adjacent to U.S. waters (National Research Council, 1995).

Public reaction to major ship accidents and resulting catastrophic oil spills have been the driving force behind major government initiatives to develop new or improved VTS systems in U.S. ports. In 1971, two tankers collided in the fog near the Golden Gate Bridge in San Francisco spilling about 3,000 tons of heavy oil and setting in motion legislation that led to the VTS systems now installed in San Francisco, Puget Sound, New York, and Houston. A subsequent report stated that the overriding cause of the accident was the lack of Coast Guard authority to control traffic, a situation that allowed vessels to forgo communications with traffic advisers (Office of Technology Assessment, 1975). Instead of counting on radar and radio technologies, the ships used only foghorns, which went unheard (Office of Technology Assessment, 1975).

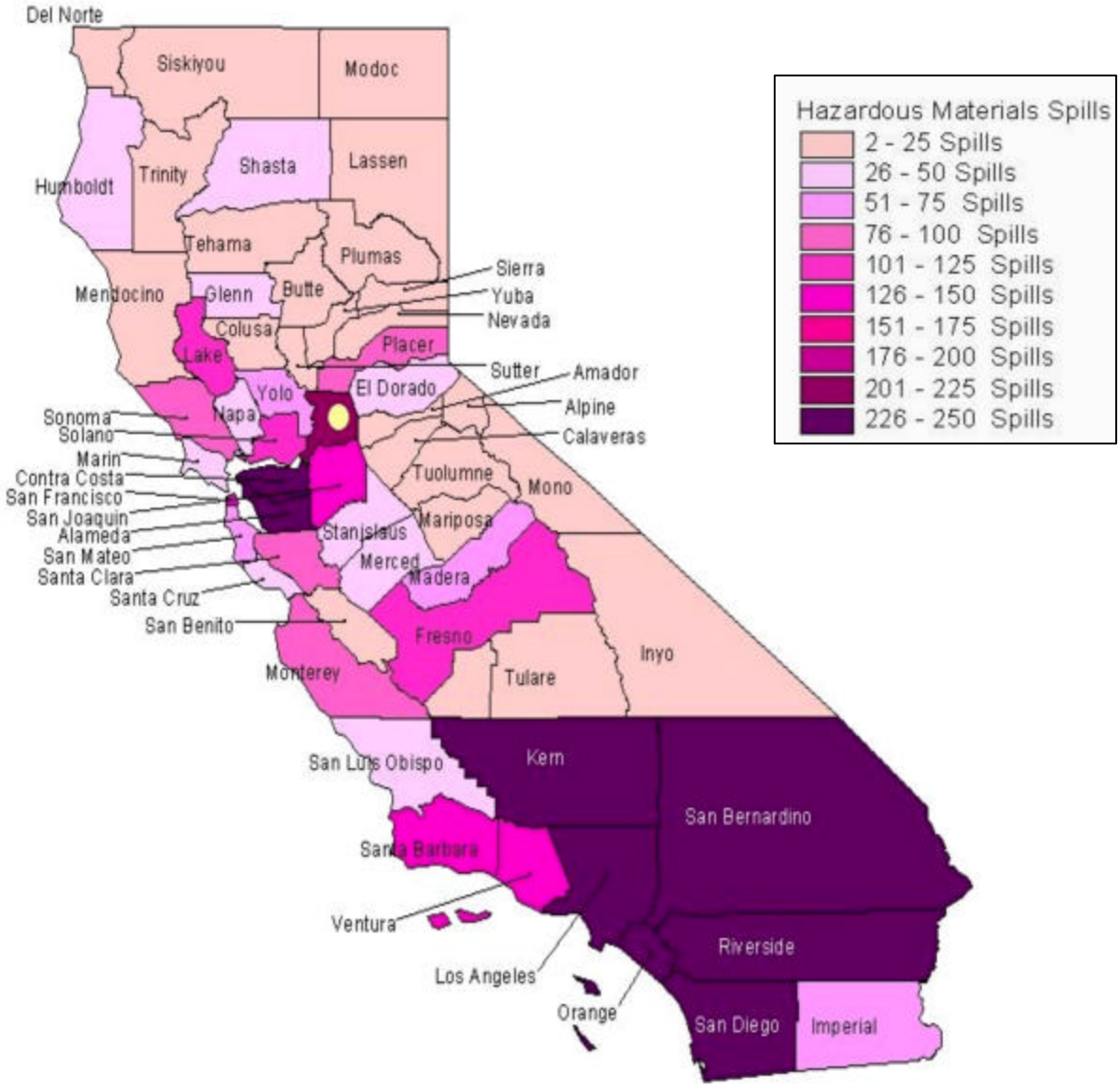
The years following that accident were marked by many maritime safety initiatives, including improvements in navigation information technologies and the deployment of VTS systems. But in 1989, when the Exxon Valdez ran aground outside the Prince William Sound VTS surveillance area and spilled 35,000 tons of Alaskan crude oil, the resulting damage and clean-up costs totaled several billion dollars (Office of Technology Assessment, 1990) and provoked enduring public distrust of assurances about tanker safety. This accident and its aftermath led to the congressional legislation that, in turn, resulted in the VTS-2000 program.

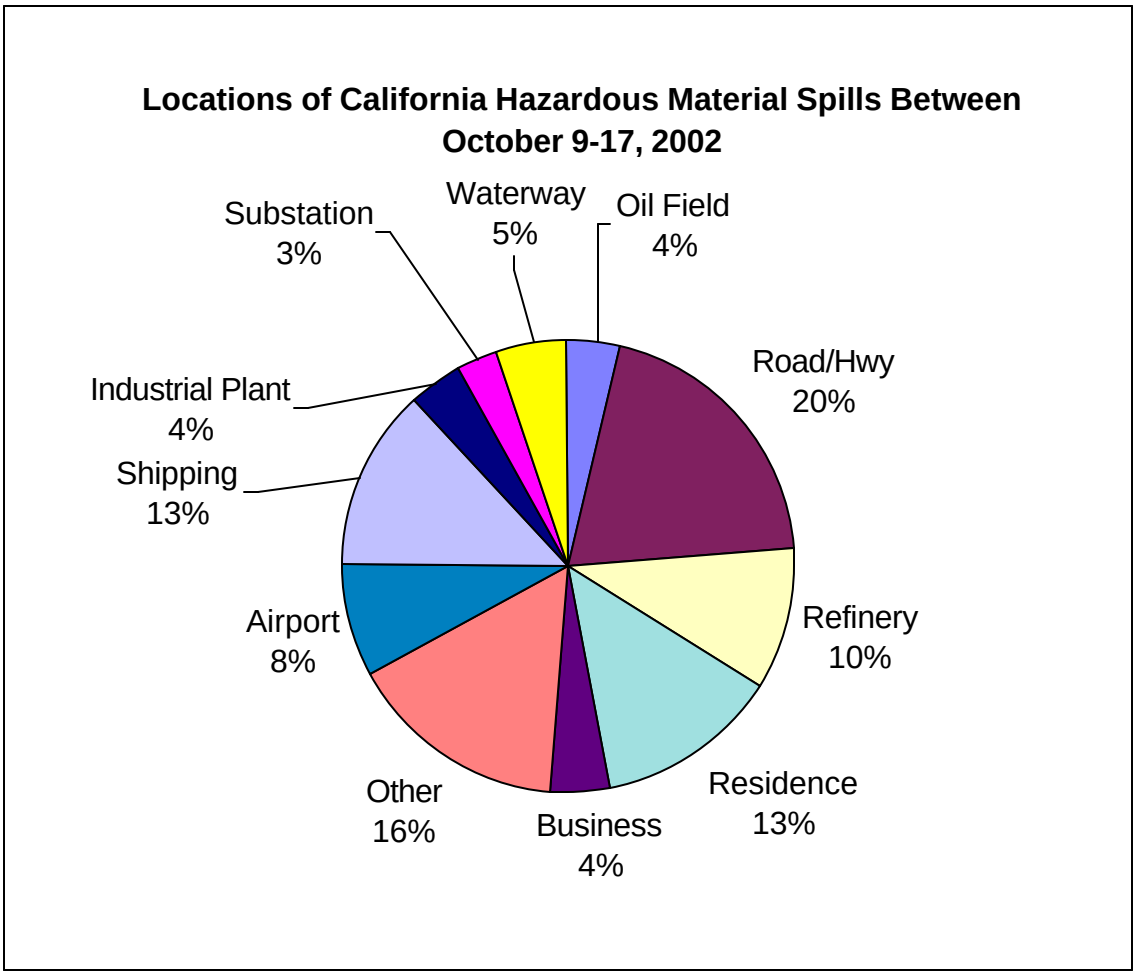
The public outcry over maritime safety tends to run in cycles, reaching a peak just after major accidents and then appearing to diminish with time. However, with major oil spills occurring around the world and spills reported regularly in the United States, the safety of U.S. ports and waterways is likely to remain a continuing concern.

Hazardous Materials

Hazardous Materials Incidents were rated a MODERATE PRIORITY HAZARD in Los Angeles County.

Hazardous materials are everywhere and are accidentally released or spilled many times during any given day. The attached chart lists the most common sites for spills in California based on an analysis of 173 reports for spills occurring between October 9 and October 17, 2002.





Regulatory Programs

Hazard analysis and risk assessments are performed by businesses at individual facilities. They are also conducted by specific industries or organizations for processes common to all operators in that industry. Transporters of hazardous materials also conduct these activities, whether the materials are moved by road, rail, water, air, or pipeline.

There are a number of legally mandated programs requiring businesses to conduct hazard analysis and risk assessment. Some of the existing requirements include:

California Accidental Release Prevention Program (Ca1ARP) required pursuant to H&SC 25531, et seq. implements the federal Accidental Release Prevention program with additional California-specific requirements. This program requires any business with more than a threshold quantity of a regulated substance in a process, unless exempted, to implement an accidental release prevention program. There are three levels for the program with businesses subject to levels two and three required to conduct a hazard assessment. Businesses may be required to prepare and implement a Risk Management Plan (RMP). A map of facilities that have prepared a Risk Management Plan or Ca1ARP Document follows this section of the Emergency Plan. This map was developed through the Environmental Protection Agency (EPA) for facilities that submitted RMP documents to EPA by June 21, 1999. A map is provided in attachment 10,

along with a list of Certified Unified Program Agency (CUPA) & Participating Agencys (PA's) in LEPC Region 1.

Air Toxics "Hot Spots" Information and Assessment Act required pursuant to H&SC 44300, et seq. requires emitters of hazardous air contaminants to conduct health risk assessments to evaluate those emissions. This program is designed to identify, assess, and control ambient levels of hazardous air pollutants. It seeks to collect and evaluate information concerning the amounts, exposures, and short- and long-term health effects of hazardous substances released into the atmosphere.

California Refinery and Chemical Plant Worker Safety Act required pursuant to California Labor Code § 7850 et. seq. Evaluates chemical process safety when dealing with the risks associated with handling or working near hazardous chemicals. It is intended to prevent or minimize the consequences of catastrophic releases of acutely hazardous, flammable, or explosive chemicals. The law requires the employer to conduct a hazard analysis for identifying, evaluating, and controlling hazards involved in a process. While focused on employee protection, a successful program will have the effect of also protecting the surrounding community.

Worker Health and Safety Regulations [federal (29 CFR 1910.120) and state (8 CCR 5192)] require employers to identify, evaluate, and control hazards employees may encounter during hazardous waste operations and emergency response.

Hazardous Materials Transportation

Federal emergency planning requirements include the formation of local emergency planning committees (LEPCs). The LEPC is required to evaluate facilities using threshold quantities of extremely hazardous substances (EHS), and determine which facilities are at risk of a release or subject to additional risk due to their proximity to another facility using EHS. The LEPC is also required to identify hazardous materials transportation routes. This requirement has led Region I LEPC to develop a specific transportation element to its plan. The following represents the Region I transportation element:

Transportation of hazardous materials by air, land, or water poses a significant need to plan and coordinate emergency resources necessary to respond to hazardous materials spills and releases. These types of incidents could affect several million Californians and are potentially hazardous to both the local community, and those traveling near the incident site. First, we will discuss the different modes of transportation and the unique challenges presented for planners and emergency responders.

Air

The southern California region has several major air transportation facilities. In some instances, there may be hazardous materials incidents involving air cargo either on the aircraft or on the ground. Initial response to these incidents would be provided by airport emergency response personnel. The need may arise for additional resources to respond. Response efforts must be coordinated to ensure all personnel are made aware of the material involved and of the potential hazards. In the event of a crash of an aircraft, the major hazardous materials concerns will be fuel from the aircraft, hydraulic fluid, and oxygen systems. The threat posed by onboard hazardous cargo will be minimal. Regulations on hazardous materials shipments by air are found in 49 CFR section 175.

Water

Two major ports serve the southern California region. These are the Port of Los Angeles and the Port of Long Beach. The prime concern for these two major ports would be releases of petroleum products from both oil tankers and other large ocean going vessels. Not only is there a significant potential from fire and explosion, the environmental effects could be catastrophic. Additionally many other types of hazardous materials may be shipped by bulk or containerized cargo. Planners must recognize potential risks associated with vessels and port facilities in their hazard assessment. Response to water related incidents is coordinated through the Coast Guard and the California Department of Fish and Game. Regulations governing transportation of hazardous materials by vessel are found in 49 CFR section 176.

Ground

Ground transportation provides the largest movement of hazardous materials and will generate the majority of incidents which will be confronted by local emergency response personnel. The three modes of ground transportation are rail, highway, and pipeline.

Rail is unique in both the quantity and types of hazardous materials which can be involved in one incident. Collisions, derailments, and mechanical failure, as well as loading and unloading, can all result in very serious hazardous materials incidents. A critical consideration for planners is a careful evaluation of the rail traffic in their jurisdiction. Rail companies as well as product manufacturers have emergency response teams available to assist local emergency responders. The United States Department of Transportation governs the transportation of hazardous materials by rail. The regulations are found in 49 CFR section 174. Additional oversight is provided in California by the Public Utilities Commission.

Highway-related hazardous materials incidents account for the vast majority of situations faced by local responders. Highway incidents range from minor releases of diesel fuel, to multiple vehicle accidents involving large quantities of multiple types of hazardous materials. A concern for planners is the fact that these incidents can occur anyplace throughout the region. Multiple agency coordination is essential for successful control and mitigation of these incidents. Section 2454 of the California Vehicle Code mandates authority for incident command at the scene of an on-highway hazardous substance incident in the appropriate law enforcement agency having primary traffic investigative authority on the highway where the incident occurs. The local governing body of the city may assign the authority to the local fire protection agency.

Pipeline incidents will typically involve compressed natural gas, or petroleum products. An important aspect for planners to consider is that pipelines are frequently out of sight and out of mind. Southern California region is honeycombed with underground pipelines ranging from a few inches to several feet in diameter. Pipelines transport products from as far away as Texas for use by local consumers. An important source of information on underground pipelines is Dig Alert. Regulation of pipeline activity is governed by the U.S. Department of Transportation and the California Public Utilities Commission.

Potential Effects of a Hazardous Materials Incident

As previously mentioned, highway accidents and incidents will constitute the majority of emergency response situations. There are two distinct facets which must be addressed in a local emergency action plan. Planners must consider the local community with fixed facilities and those individuals in transit. The following is illustrative of typical concerns which planners will encounter in addressing hazardous material occurrences.

Residential and Business Community

Chemical spills on streets and highways can impact the public in one or more of the following ways:

- Shelter-in-place
- Evacuations
- Restriction or detour of local traffic
- Damage to homes and businesses
- Injury, illness or death

Because of these potentially dangerous situations, it is necessary for emergency responders to be familiar with requirements for hazmat spill notification and to obtain and direct the resources necessary to protect public health and the environment. The following requirements address immediate spill notification:

California Health and Safety Code Section 25507 2. California Vehicle Code2453 3. California Government Code 8574.17 4. 42 U.S.C. 9602

In addition, provisions for response recovery are provided if the National Response Center is contacted (refer 40 CFR Part 310). All agencies within LEPC Region I are encouraged to report all spills and releases to the Office of Emergency Services and National Response Center when there is any significant or potential threat to the public. Additionally, public information through the news media to the public is a priority of California OES and Region I Local Emergency Planning Committee.

Commuter/Delivery Traffic

In addition to the surrounding locale, travelers going through or near transportation incidents may be impacted in several ways:

- Exposure to harmful or flammable chemicals resulting in injury or illness
- Delayed travel
- Accidents
- Vehicle damage due to chemical contact

Agencies with on highway responsibility in LEPC Region I should become familiar with shipping corridors and traffic patterns. Hazardous material transporters are also required to report incidents involving hazardous materials or wastes pursuant to the following regulations:

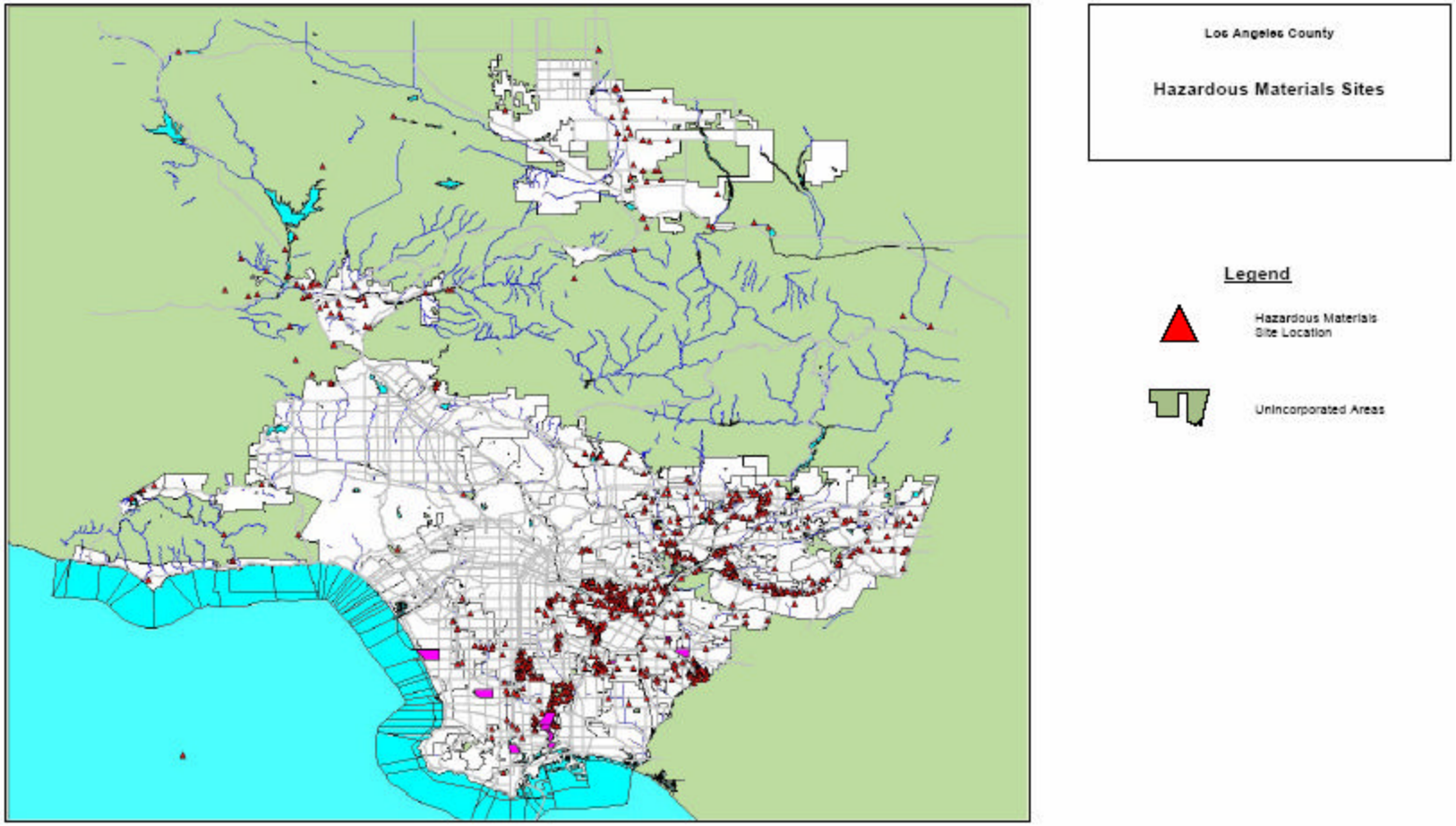
- Title 13 California Code of Regulations, Section 1166 2. Title 49 Code of Federal Regulations, Part 17

Region I Transportation Needs

Research has indicated that the majority of hazardous materials incidents occur in the transportation arena. This fact strongly suggests that the region make the following recommendations for further transportation planning assessment:

- Identify various surface transporters within the region
- Determine level of training as it relates to transportation routes and notification requirements
- Evaluate emergency response resources for both public and private hazardous materials response teams
- Prioritize response resources in areas unable to respond to proportionally higher number of incidents.
- Develop standard guidelines for evacuation of populations impacted by transportation related incidents.
- Evaluate the need to perform Transportation Risk Assessment for selected high priority areas.

Emergency planning principles and practices indicate that emergency plans include all the hazards existing within a jurisdiction. California OES has developed the Emergency Planning Guidance for Local Government to assist local government in conducting emergency planning. Information on hazard analysis is also included in this guidance document.


Los Angeles County
Hazardous Materials Sites
Legend
Hazardous Materials Site Location
Unincorporated Areas

Hazardous Materials Sites in Los Angeles County

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
TRUFLEX RUBBER PRODS. CO.	1667 N. MAIN ST., LOS ANGELES, CA 90012	TRICHLOROETHYLENE	3300	34.066639	-118.227400
JERSEYMAID MILK PRODS. VONS COS. INC.	3361 S. BOXFORD AVE., CITY OF COMMERCE, CA 90040	NITRIC ACID	3900	33.987020	-118.149600
CLOUGHERTY PACKING CO.	3049 E. VERNON AVE., VERNON, CA 90058	AMMONIA	100	34.005419	-118.219080
PUNCH PRESS PRODS. INC.	1911 E. 51ST ST., VERNON, CA 90058	TETRACHLOROETHYLENE	100	33.996619	-118.236779
CASTROL INDL. N.A. INC.	4857 W. 147TH ST., HAWTHORNE, CA 90250	ZINC COMPOUNDS	2600	33.898279	-118.336690
DV INDS. INC.	2605 INDUSTRY WAY, LYNWOOD, CA 90262	NITRIC ACID	6100	33.924049	-118.225909
DV INDS. INC.	2605 INDUSTRY WAY, LYNWOOD, CA 90262	CHROMIUM	6100	33.924049	-118.225909
HARWICK STANDARD DISTRIBUTION	7225 PARAMOUNT BLVD., PICO RIVERA, CA 906603794	DI(2-ETHYLHEXYL) PHT	4100	33.983899	-118.106710
HARWICK STANDARD DISTRIBUTION	7225 PARAMOUNT BLVD., PICO RIVERA, CA 906603794	DIBUTYL PHTHALATE	4100	33.983899	-118.106710
FINE LINE PAINT CORP.	12200 LOS NIETOS RD., SANTA FE SPRINGS, CA 90670	ETHYLENE GLYCOL	7200	33.953670	-118.066060
SIKA CORP.	12767 E. IMPERIAL HWY., SANTA FE SPRINGS, CA	FORMALDEHYDE	100	33.916919	-118.058890
SIKA CORP.	12767 E. IMPERIAL HWY., SANTA FE SPRINGS, CA	NITRATE COMPOUNDS	100	33.916919	-118.058890
PEBBLY BEACH GENERATING STATION	1 PEBBLY BEACH RD., AVALON, CA 90704	N-HEXANE	100	33.381989	-118.432210
PEBBLY BEACH GENERATING STATION	1 PEBBLY BEACH RD., AVALON, CA 90704	"1,2,4-TRIMETHYLBENZ	100	33.381989	-118.432210
EQUILON MORMON ISLAND	BERTH 167-168-169, WILMINGTON, CA 90744	BENZENE	3900	33.783579	-118.258990
EQUILON MORMON ISLAND	BERTH 167-168-169, WILMINGTON, CA 90744	ETHYLBENZENE	3900	33.783579	-118.258990

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
EQUILON MORMON ISLAND	BERTH 167-168-169, WILMINGTON, CA 90744	N-HEXANE	3900	33.783579	-118.258990
EQUILON MORMON ISLAND	BERTH 167-168-169, WILMINGTON, CA 90744	METHYL TERT-BUTYL ET	3900	33.783579	-118.258990
EQUILON MORMON ISLAND	BERTH 167-168-169, WILMINGTON, CA 90744	TOLUENE	3900	33.783579	-118.258990
EQUILON MORMON ISLAND	BERTH 167-168-169, WILMINGTON, CA 90744	"1,2,4-TRIMET HYLBENZ	3900	33.783579	-118.258990
EQUILON MORMON ISLAND	BERTH 167-168-169, WILMINGTON, CA 90744	XYLENE (MIXED ISOMER	3900	33.783579	-118.258990
EQUILON MORMON ISLAND	BERTH 167-168-169, WILMINGTON, CA 90744	TERT-BUTYL ALCOHOL	3900	33.783579	-118.258990
PEPSI-COLA BOTTLING CO.	19700 FIGUEROA, CARSON, CA 90745	AMMONIA	7800	33.841679	-118.350360
EQUILON ENTERPRISES LLC; LONG	"PIER B, BERTH 84", LONG BEACH, CA 90813	"1,2,4-TRIMET HYLBENZ	100	33.778080	-118.218300
EQUILON ENTERPRISES LLC; LONG	"PIER B, BERTH 84", LONG BEACH, CA 90813	BENZENE	100	33.778080	-118.218300
EQUILON ENTERPRISES LLC; LONG	"PIER B, BERTH 84", LONG BEACH, CA 90813	ETHYLBENZE NE	100	33.778080	-118.218300
EQUILON ENTERPRISES LLC; LONG	"PIER B, BERTH 84", LONG BEACH, CA 90813	M-XYLENE	100	33.778080	-118.218300
EQUILON ENTERPRISES LLC; LONG	"PIER B, BERTH 84", LONG BEACH, CA 90813	N-HEXANE	100	33.778080	-118.218300
EQUILON ENTERPRISES LLC; LONG	"PIER B, BERTH 84", LONG BEACH, CA 90813	METHYL TERT-BUTYL ET	100	33.778080	-118.218300
EQUILON ENTERPRISES LLC; LONG	"PIER B, BERTH 84", LONG BEACH, CA 90813	O-XYLENE	100	33.778080	-118.218300
EQUILON ENTERPRISES LLC; LONG	"PIER B, BERTH 84", LONG BEACH, CA 90813	P-XYLENE	100	33.778080	-118.218300
EQUILON ENTERPRISES LLC; LONG	"PIER B, BERTH 84", LONG BEACH, CA 90813	TOLUENE	100	33.778080	-118.218300

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
LINDBERG HEAT TREATING CO. ALUMATHERM	7474 GARDEN GROVE BLVD., WESTMINSTER, CA	NITRATE COMPOUNDS	4300	33.892359	-118.171140
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	N-BUTYL ALCOHOL	100	34.014680	-118.208699
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	SEC-BUTYL ALCOHOL	100	34.014680	-118.208699
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	ETHYLENE GLYCOL	100	34.014680	-118.208699
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	FORMIC ACID	100	34.014680	-118.208699
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	METHANOL	100	34.014680	-118.208699
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	DICHLOROMETHANE	100	34.014680	-118.208699
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	METHYL ETHYL KETONE	100	34.014680	-118.208699
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	METHYL ISOBUTYL KETO	100	34.014680	-118.208699
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	TETRACHLOROETHYLENE	100	34.014680	-118.208699
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	N-HEXANE	100	34.014680	-118.208699
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	TOLUENE	100	34.014680	-118.208699
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	XYLENE (MIXED ISOMER	100	34.014680	-118.208699
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	AMMONIA	100	34.014680	-118.208699
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	FORMALDEHYDE	100	34.014680	-118.208699
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	N-METHYL-2-PYRROLIDO	100	34.014680	-118.208699

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	CERTAIN GLYCOL ETHER	100	34.014680	-118.208699
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	DIETHANOLAMINE	100	34.014680	-118.208699
SOCO-LYNCH CORP.	3270 E. WASHINGTON BLVD., LOS ANGELES, CA 90023	NITRIC ACID	100	34.014680	-118.208699
GNB TECHS. INC.	5909 E. RANDOLPH ST., COMMERCE, CA 90040	LEAD COMPOUNDS	3900	33.978849	-118.156960
VALLEY PLATING WORKS INC.	2107 N. SAN FERNENDO RD., LOS ANGELES, CA 90065	NITRIC ACID	5800	34.109379	-118.241790
VALLEY PLATING WORKS INC.	2107 N. SAN FERNENDO RD., LOS ANGELES, CA 90065	NICKEL	5800	34.109379	-118.241790
VALLEY PLATING WORKS INC.	2107 N. SAN FERNENDO RD., LOS ANGELES, CA 90065	CHROMIUM COMPOUNDS	5800	34.109379	-118.241790
R & S PROCESSING CO. INC.	15712 ILLINOIS AVE., PARAMOUNT, CA 907238037	DI(2-ETHYLHEXYL) PHT	4300	33.890750	-118.164330
FABRI COTE	724 E. 60TH ST., LOS ANGELES, CA 90001	TOLUENE	6500	33.985559	-118.261390
D.A. STUART CO.	6715 MCKINLEY AVE., LOS ANGELES, CA 90001	DIETHANOLAMINE	6400	33.974720	-118.255560
D.A. STUART CO.	6715 MCKINLEY AVE., LOS ANGELES, CA 90001	SODIUM NITRITE	6400	33.974720	-118.255560
ALLOYS CLEANING INC.	1960 E. GAGE AVE., LOS ANGELES, CA 900012103	NITRIC ACID	4400	33.983889	-118.254440
ALLOYS CLEANING INC.	1960 E. GAGE AVE., LOS ANGELES, CA 900012103	HYDROGEN FLUORIDE	4400	33.983889	-118.254440
ALLOYS CLEANING INC.	1960 E. GAGE AVE., LOS ANGELES, CA 900012103	NITRATE COMPOUNDS	4400	33.983889	-118.254440
ALLOYS CLEANING INC.	1960 E. GAGE AVE., LOS ANGELES, CA 900012103	CHROMIUM COMPOUNDS	4400	33.983889	-118.254440
ALLOYS CLEANING INC.	1960 E. GAGE AVE., LOS ANGELES, CA 900012103	COPPER COMPOUNDS	4400	33.983889	-118.254440

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
ALLOYS CLEANING INC.	1960 E. GAGE AVE., LOS ANGELES, CA 900012103	NICKEL COMPOUNDS	4400	33.983889	-118.254440
ALLOYS CLEANING INC.	1960 E. GAGE AVE., LOS ANGELES, CA 900012103	ZINC COMPOUNDS	4400	33.983889	-118.254440
MODINE AFTERMARKET HOLDINGS INC.	6309 S. CENTRAL AVE., LOS ANGELES, CA 90001	COPPER	4400	33.983329	-118.256110
EDEY MFG. CO. INC.	2159 E. 92ND ST., LOS ANGELES, CA 90002	URETHANE	3000	33.953330	-118.232780
JOHN BOYD DESIGNS	8711 METTLER ST., LOS ANGELES, CA 90003	XYLENE (MIXED ISOMER	1000	34.049999	-118.233329
U.S. RADIATOR CORP.	6710 S. AVALON BLVD., LOS ANGELES, CA 90003	COPPER	2700	33.978610	-118.263890
U.S. RADIATOR CORP.	6710 S. AVALON BLVD., LOS ANGELES, CA 90003	LEAD	2700	33.978610	-118.263890
TEXTURED COATINGS OF AMERICA	5950 S. AVALON BLVD., LOS ANGELES, CA 90003	ZINC COMPOUNDS	6500	33.985000	-118.264440
TEXTURED COATINGS OF AMERICA	5950 S. AVALON BLVD., LOS ANGELES, CA 90003	ETHYLENE GLYCOL	6500	33.985000	-118.264440
PALACE PLATING	710 E. 29TH ST., LOS ANGELES, CA 90011	TETRACHLOROETHYLENE	6500	34.018609	-118.261670
SANTEE DAIRIES INC.	17851 E. RAILROAD ST., CITY OF INDUSTRY, CA	NITRIC ACID	5900	33.997219	-117.913610
SANTEE DAIRIES INC.	17851 E. RAILROAD ST., CITY OF INDUSTRY, CA	AMMONIA	5900	33.997219	-117.913610
SANTEE DAIRIES INC.	17851 E. RAILROAD ST., CITY OF INDUSTRY, CA	NITRATE COMPOUNDS	5900	33.997219	-117.913610
WESTERN BRASS WORKS	1440 N. SPRING ST., LOS ANGELES, CA 90012	LEAD	10900	34.061669	-118.233060
WESTERN BRASS WORKS	1440 N. SPRING ST., LOS ANGELES, CA 90012	COPPER	10900	34.061669	-118.233060
WESTERN BRASS WORKS	1440 N. SPRING ST., LOS ANGELES, CA 90012	ZINC (FUME OR DUST)	10900	34.061669	-118.233060

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
SPRAYLAT CORP. - LOS ANGELES DIV.	3465 S. LA CIENAGA BLVD., LOS ANGELES, CA 900164409	CERTAIN GLYCOL ETHER	2400	34.024999	-118.369440
SPRAYLAT CORP. - LOS ANGELES DIV.	3465 S. LA CIENAGA BLVD., LOS ANGELES, CA 900164409	N-BUTYL ALCOHOL	2400	34.024999	-118.369440
STUTZMAN PLATING INC.	5025 EXPOSITION BLVD., LOS ANGELES, CA 90016	NICKEL	3200	34.024999	-118.352220
ACE PLATING CO.	719 S. TOWNE AVE., LOS ANGELES, CA 90021	NICKEL	5000	34.039440	-118.244440
ALCO CAD-NICKEL PLATING CORP.	1400 LONG BEACH AVE., LOS ANGELES, CA 90021	CHROMIUM COMPOUNDS	4200	34.023059	-118.240280
ALCO CAD-NICKEL PLATING CORP.	1400 LONG BEACH AVE., LOS ANGELES, CA 90021	NICKEL COMPOUNDS	4200	34.023059	-118.240280
"POLYONE CORP., LOS ANGELES"	5701 E. UNION PACIFIC AVE., LOS ANGELES, CA 90022	DIISOCYANATES	4500	34.000000	-118.150000
"OLDCASTLE GLASS INC., DBA DOWNEY	5631 FERGUSON DR., LOS ANGELES, CA 90022	COBALT COMPOUNDS	4500	34.010829	-118.150280
U.S. CAN CO. - PLANT #26 COMMERCE	5650 E. GRACE PL., COMMERCE, CA 90022	METHYL ISOBUTYL KETO	4500	34.016670	-118.150280
U.S. CAN CO. - PLANT #26 COMMERCE	5650 E. GRACE PL., COMMERCE, CA 90022	XYLENE (MIXED ISOMER	4500	34.016670	-118.150280
U.S. CAN CO. - PLANT #26 COMMERCE	5650 E. GRACE PL., COMMERCE, CA 90022	CERTAIN GLYCOL ETHER	4500	34.016670	-118.150280
U.S. CAN CO. - PLANT #26 COMMERCE	5650 E. GRACE PL., COMMERCE, CA 90022	N-BUTYL ALCOHOL	4500	34.016670	-118.150280
BAUCHET INTL. INC.	3110 E. 12TH ST., LOS ANGELES, CA 90023	STYRENE	2600	34.019440	-118.200000
BERG LACQUER CO.	3150 E. PICO BLVD., LOS ANGELES, CA 90023	METHYL ETHYL KETONE	100	34.004440	-118.192220
BERG LACQUER CO.	3150 E. PICO BLVD., LOS ANGELES, CA 90023	XYLENE (MIXED ISOMER	100	34.004440	-118.192220
BERG LACQUER CO.	3150 E. PICO BLVD., LOS ANGELES, CA 90023	TOLUENE	100	34.004440	-118.192220

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
BERG LACQUER CO.	3150 E. PICO BLVD., LOS ANGELES, CA 90023	STYRENE	100	34.004440	-118.192220
BERG LACQUER CO.	3150 E. PICO BLVD., LOS ANGELES, CA 90023	METHYL ISOBUTYL KETO	100	34.004440	-118.192220
BRITE PLATING INC.	1313 MIRASOL, LOS ANGELES, CA 90023	NICKEL COMPOUNDS	2600	34.018330	-118.199440
CERTIFIED ENAMELING INC.	3342 EMERY ST., LOS ANGELES, CA 90023	TOLUENE	2600	34.013890	-118.201390
CERTIFIED ENAMELING INC.	3342 EMERY ST., LOS ANGELES, CA 90023	METHYL ETHYL KETONE	2600	34.013890	-118.201390
CERTIFIED ENAMELING INC.	3342 EMERY ST., LOS ANGELES, CA 90023	XYLENE (MIXED ISOMER	2600	34.013890	-118.201390
DK ENVIRONMENTAL INC.	3650 E. 26TH ST., VERNON, CA 90023	CHROMIUM COMPOUNDS	100	34.011109	-118.205560
DK ENVIRONMENTAL INC.	3650 E. 26TH ST., VERNON, CA 90023	COPPER COMPOUNDS	100	34.011109	-118.205560
DK ENVIRONMENTAL INC.	3650 E. 26TH ST., VERNON, CA 90023	NICKEL COMPOUNDS	100	34.011109	-118.205560
DK ENVIRONMENTAL INC.	3650 E. 26TH ST., VERNON, CA 90023	NITRIC ACID	100	34.011109	-118.205560
DK ENVIRONMENTAL INC.	3650 E. 26TH ST., VERNON, CA 90023	HYDROGEN FLUORIDE	100	34.011109	-118.205560
DK ENVIRONMENTAL INC.	3650 E. 26TH ST., VERNON, CA 90023	NITRATE COMPOUNDS	100	34.011109	-118.205560
DK ENVIRONMENTAL INC.	3650 E. 26TH ST., VERNON, CA 90023	ETHYLENE GLYCOL	100	34.011109	-118.205560
DK ENVIRONMENTAL INC.	3650 E. 26TH ST., VERNON, CA 90023	CERTAIN GLYCOL ETHER	100	34.011109	-118.205560
DK ENVIRONMENTAL INC.	3650 E. 26TH ST., VERNON, CA 90023	SODIUM DIMETHYLDITHI	100	34.011109	-118.205560
LAPORTE PIGMENTS	3700 E. OLYMPIC BLVD., LOS ANGELES, CA 900233123	ZINC COMPOUNDS	5700	33.950000	-118.200000

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
LAPORTE PIGMENTS	3700 E. OLYMPIC BLVD., LOS ANGELES, CA 900233123	CHROMIUM COMPOUNDS	5700	33.950000	-118.200000
LAPORTE PIGMENTS	3700 E. OLYMPIC BLVD., LOS ANGELES, CA 900233123	LEAD COMPOUNDS	5700	33.950000	-118.200000
LAPORTE PIGMENTS	3700 E. OLYMPIC BLVD., LOS ANGELES, CA 900233123	ETHYLENE GLYCOL	5700	33.950000	-118.200000
FOUR STAR CHEMICAL	3137 E. 26TH ST., LOS ANGELES, CA 90023	DICHLOROMETHANE	100	34.014170	-118.216940
FOUR STAR CHEMICAL	3137 E. 26TH ST., LOS ANGELES, CA 90023	N-HEXANE	100	34.014170	-118.216940
FOUR STAR CHEMICAL	3137 E. 26TH ST., LOS ANGELES, CA 90023	TETRACHLOROETHYLENE	100	34.014170	-118.216940
FOUR STAR CHEMICAL	3137 E. 26TH ST., LOS ANGELES, CA 90023	TOLUENE	100	34.014170	-118.216940
GENE'S PLATING WORKS	3498 E. 14TH ST., LOS ANGELES, CA 90023	COPPER COMPOUNDS	2600	34.017499	-118.201670
GENE'S PLATING WORKS	3498 E. 14TH ST., LOS ANGELES, CA 90023	CHROMIUM COMPOUNDS	2600	34.017499	-118.201670
GENE'S PLATING WORKS	3498 E. 14TH ST., LOS ANGELES, CA 90023	NICKEL COMPOUNDS	2600	34.017499	-118.201670
GENE'S PLATING WORKS	3498 E. 14TH ST., LOS ANGELES, CA 90023	NITRATE COMPOUNDS	2600	34.017499	-118.201670
GENE'S PLATING WORKS	3498 E. 14TH ST., LOS ANGELES, CA 90023	NITRIC ACID	2600	34.017499	-118.201670
GROVER PRODS. CO.	3424 E. OLYMPIC BLVD., LOS ANGELES, CA 90023	NICKEL	3900	34.018330	-118.203060
GROVER PRODS. CO.	3424 E. OLYMPIC BLVD., LOS ANGELES, CA 90023	TETRACHLOROETHYLENE	3900	34.018330	-118.203060
HICKORY SPRINGS OF CAL. INC.	4542 E. DUNHAM ST., COMMERCE, CA 90023	TOLUENE DIISOCYANATE	4600	34.012500	-118.174170
HONEYWELL	4037 BANDINI BLVD., VERNON, CA 90023	ZINC (FUME OR DUST)	5400	33.958060	-118.320000

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
HONEYWELL	4037 BANDINI BLVD., VERNON, CA 90023	LEAD	5400	33.858060	-118.320000
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	QUINTOZENE	4600	34.009169	-118.187500
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	HEXACHLOROBENZENE	4600	34.009169	-118.187500
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	CHLORINE	4600	34.009169	-118.187500
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	"N,N-DIMETHYLFORMAMI	4600	34.009169	-118.187500
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	NAPHTHALENE	4600	34.009169	-118.187500
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	XYLENE (MIXED ISOMER	4600	34.009169	-118.187500
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	METHAM SODIUM	4600	34.009169	-118.187500
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	CHLOROMETHANE	4600	34.009169	-118.187500
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	DICHLORVOS	4600	34.009169	-118.187500
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	MEVINPHOS	4600	34.009169	-118.187500
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	NALED	4600	34.009169	-118.187500
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	BROMINE	4600	34.009169	-118.187500
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	CARBON DISULFIDE	4600	34.009169	-118.187500
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	DIMETHYLAMINE	4600	34.009169	-118.187500
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	DICHLOROMETHANE	4600	34.009169	-118.187500

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	ETHYLBENZENE	4600	34.009169	-118.187500
AMVAC CHEMICAL CORP.	4100 E. WASHINGTON BLVD., LOS ANGELES, CA 900234406	N-BUTYL ALCOHOL	4600	34.009169	-118.187500
AIR PRODS. & CHEMICALS INC.	3305 E. 26TH ST., LOS ANGELES, CA 90023	O-XYLENE	6600	34.048609	-118.208329
AIR PRODS. & CHEMICALS INC.	3305 E. 26TH ST., LOS ANGELES, CA 90023	"4,4'-METHYLENEDIANI	6600	34.048609	-118.208329
AIR PRODS. & CHEMICALS INC.	3305 E. 26TH ST., LOS ANGELES, CA 90023	METHYL ISOBUTYL KETO	6600	34.048609	-118.208329
AIR PRODS. & CHEMICALS INC.	3305 E. 26TH ST., LOS ANGELES, CA 90023	METHANOL	6600	34.048609	-118.208329
AIR PRODS. & CHEMICALS INC.	3305 E. 26TH ST., LOS ANGELES, CA 90023	PHENOL	6600	34.048609	-118.208329
AIR PRODS. & CHEMICALS INC.	3305 E. 26TH ST., LOS ANGELES, CA 90023	DIMETHYLAMINE	6600	34.048609	-118.208329
AIR PRODS. & CHEMICALS INC.	3305 E. 26TH ST., LOS ANGELES, CA 90023	FORMALDEHYDE	6600	34.048609	-118.208329
AIR PRODS. & CHEMICALS INC.	3305 E. 26TH ST., LOS ANGELES, CA 90023	SEC-BUTYL ALCOHOL	6600	34.048609	-118.208329
AIR PRODS. & CHEMICALS INC.	3305 E. 26TH ST., LOS ANGELES, CA 90023	"1,3-PHENYLENEDIAMIN	6600	34.048609	-118.208329
AIR PRODS. & CHEMICALS INC.	3305 E. 26TH ST., LOS ANGELES, CA 90023	"4,4'-ISOPROPYLIDENE	6600	34.048609	-118.208329
AIR PRODS. & CHEMICALS INC.	3305 E. 26TH ST., LOS ANGELES, CA 90023	N-BUTYL ALCOHOL	6600	34.048609	-118.208329
AIR PRODS. & CHEMICALS INC.	3305 E. 26TH ST., LOS ANGELES, CA 90023	DIBUTYL PHTHALATE	6600	34.048609	-118.208329
PENNZOIL-QUAKER STATE CO.	3430 E. 26TH ST., VERNON, CA 900234527	ZINC COMPOUNDS	100	34.012500	-118.222220
PURSELL INDS. INC.	4139 BANDINI BLVD., LOS ANGELES, CA 90023	"2,4-D"	100	34.005559	-118.188889

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
PURSELL INDS. INC.	4139 BANDINI BLVD., LOS ANGELES, CA 90023	MECOPROP	100	34.005559	-118.188889
PURSELL INDS. INC.	4139 BANDINI BLVD., LOS ANGELES, CA 90023	DICAMBA	100	34.005559	-118.188889
PURSELL INDS. INC.	4139 BANDINI BLVD., LOS ANGELES, CA 90023	BENFLURALIN	100	34.005559	-118.188889
PURSELL INDS. INC.	4139 BANDINI BLVD., LOS ANGELES, CA 90023	TRIFLURALIN	100	34.005559	-118.188889
PURSELL INDS. INC.	4139 BANDINI BLVD., LOS ANGELES, CA 90023	ACETALDEHYDE	100	34.005559	-118.188889
"ARCADIA, INC."	3225 E. WASHINGTON BLVD., VERNON, CA 90023	"SULFURIC ACID (1994	3900	34.016670	-118.208329
CLOROX PROD. MFG. CO.	4333 BANDINI BLVD., LOS ANGELES, CA 90023	CHLORINE	100	34.001669	-118.183890
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	METHANOL	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	"N,N-DIMETHYLFORMAMI	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	METHYL ETHYL KETONE	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	TOLUENE	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	XYLENE (MIXED ISOMER	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	CERTAIN GLYCOL ETHER	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	ETHYLENE GLYCOL	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	FORMIC ACID	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	NITRIC ACID	6600	34.013610	-118.181110

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	STYRENE	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	DI(2-ETHYLHEXYL) PHT	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	METHYL ISOBUTYL KETO	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	DIBUTYL PHTHALATE	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	TRICHLOROETHYLENE	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	"1,2,4-TRIMETHYLBENZ	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	NAPHTHALENE	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	ETHYLBENZENE	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	DIETHANOLAMINE	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	TETRACHLOROETHYLENE	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	SODIUM NITRITE	6600	34.013610	-118.181110
VAN WATERS & ROGERS INC.	1363 S. BONNIE BEACH PL., LOS ANGELES, CA	SEC-BUTYL ALCOHOL	6600	34.013610	-118.181110
SURFACE PROTECTION INDS. INC.	3411 E. 15TH ST., LOS ANGELES, CA 900233822	XYLENE (MIXED ISOMER	3900	34.016670	-118.205000
SURFACE PROTECTION INDS. INC.	3411 E. 15TH ST., LOS ANGELES, CA 900233822	CERTAIN GLYCOL ETHER	3900	34.016670	-118.205000
SURFACE PROTECTION INDS. INC.	3411 E. 15TH ST., LOS ANGELES, CA 900233822	METHYL ETHYL KETONE	3900	34.016670	-118.205000
SURFACE PROTECTION INDS. INC.	3411 E. 15TH ST., LOS ANGELES, CA 900233822	"1,2,4-TRIMETHYLBENZ	3900	34.016670	-118.205000

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
SURFACE PROTECTION INDS. INC.	3411 E. 15TH ST., LOS ANGELES, CA 900233822	TOLUENE	3900	34.016670	-118.205000
METROMEDIA TECHS. INC.	1320 N. WILTON PL., LOS ANGELES, CA 90028	METHYL ISOBUTYL KETO	4900	34.084720	-118.305000
MISSION KLEENSWEEP PRODUCTS INC.	2434 BIRKDALE ST., LOS ANGELES, CA 90031	CERTAIN GLYCOL ETHER	5000	34.093609	-118.236670
MISSION KLEENSWEEP PRODUCTS INC.	2434 BIRKDALE ST., LOS ANGELES, CA 90031	CERTAIN GLYCOL ETHER	5000	34.093609	-118.236670
SMILAND PAINT CO.	620 LAMAR ST., LOS ANGELES, CA 900312500	"1,2,4-TRIMET HYLBENZ	3300	34.065280	-118.220830
SMILAND PAINT CO.	620 LAMAR ST., LOS ANGELES, CA 900312500	XYLENE (MIXED ISOMER	3300	34.065280	-118.220830
SMILAND PAINT CO.	620 LAMAR ST., LOS ANGELES, CA 900312500	ETHYLENE GLYCOL	3300	34.065280	-118.220830
SMILAND PAINT CO.	620 LAMAR ST., LOS ANGELES, CA 900312500	CERTAIN GLYCOL ETHER	3300	34.065280	-118.220830
SMILAND PAINT CO.	620 LAMAR ST., LOS ANGELES, CA 900312500	VINYL ACETATE	3300	34.065280	-118.220830
ALPHA THERAPEUTIC CORP.	5555 VALLEY BLVD., LOS ANGELES, CA 900323520	ETHYLENE GLYCOL	6700	34.073889	-118.160560
ALPHA THERAPEUTIC CORP.	5555 VALLEY BLVD., LOS ANGELES, CA 900323520	AMMONIA	6700	34.073889	-118.160560
ALPHA THERAPEUTIC CORP.	5555 VALLEY BLVD., LOS ANGELES, CA 900323520	METHANOL	6700	34.073889	-118.160560
ARROWHEAD BRASS PRODS. INC.	5142 ALHAMBRA AVE., LOS ANGELES, CA 900323409	COPPER	5100	34.072780	-118.172780
ARROWHEAD BRASS PRODS. INC.	5142 ALHAMBRA AVE., LOS ANGELES, CA 900323409	LEAD	5100	34.072780	-118.172780
ARROWHEAD BRASS PRODS. INC.	5142 ALHAMBRA AVE., LOS ANGELES, CA 900323409	ZINC (FUME OR DUST)	5100	34.072780	-118.172780
ARROWHEAD BRASS PRODS. INC.	5142 ALHAMBRA AVE., LOS ANGELES, CA 900323409	NICKEL	5100	34.072780	-118.172780

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
TMT PATHWAY L.L.C.	1021 N. MISSION RD., LOS ANGELES, CA 90033	TOLUENE	3600	34.080280	-118.215560
TMT PATHWAY L.L.C.	1021 N. MISSION RD., LOS ANGELES, CA 90033	METHYL ETHYL KETONE	3600	34.080280	-118.215560
TMT PATHWAY L.L.C.	1021 N. MISSION RD., LOS ANGELES, CA 90033	XYLENE (MIXED ISOMER	3600	34.080280	-118.215560
TMT PATHWAY L.L.C.	1021 N. MISSION RD., LOS ANGELES, CA 90033	METHANOL	3600	34.080280	-118.215560
TMT PATHWAY L.L.C.	1021 N. MISSION RD., LOS ANGELES, CA 90033	CERTAIN GLYCOL ETHER	3600	34.080280	-118.215560
TMT PATHWAY L.L.C.	1021 N. MISSION RD., LOS ANGELES, CA 90033	AMMONIA	3600	34.080280	-118.215560
TMT PATHWAY L.L.C.	1021 N. MISSION RD., LOS ANGELES, CA 90033	LEAD COMPOUNDS	3600	34.080280	-118.215560
TMT PATHWAY L.L.C.	1021 N. MISSION RD., LOS ANGELES, CA 90033	ZINC COMPOUNDS	3600	34.080280	-118.215560
BAXTER HYLAND IMMUNO	4501 COLORADO BLVD., LOS ANGELES, CA 90039	ETHYLENE GLYCOL	4300	34.143060	-118.270829
A.G. LAYNE INC.	4578 BRAZIL ST., LOS ANGELES, CA 90039	N-BUTYL ALCOHOL	6200	34.248330	-118.461939
A.G. LAYNE INC.	4578 BRAZIL ST., LOS ANGELES, CA 90039	METHYL ETHYL KETONE	6200	34.248330	-118.461939
A.G. LAYNE INC.	4578 BRAZIL ST., LOS ANGELES, CA 90039	METHYL ISOBUTYL KETO	6200	34.248330	-118.461939
A.G. LAYNE INC.	4578 BRAZIL ST., LOS ANGELES, CA 90039	TOLUENE	6200	34.248330	-118.461939
A.G. LAYNE INC.	4578 BRAZIL ST., LOS ANGELES, CA 90039	XYLENE (MIXED ISOMER	6200	34.248330	-118.461939
A.G. LAYNE INC.	4578 BRAZIL ST., LOS ANGELES, CA 90039	METHANOL	6200	34.248330	-118.461939
A.G. LAYNE INC.	4578 BRAZIL ST., LOS ANGELES, CA 90039	TETRACHLOROETHYLENE	6200	34.248330	-118.461939

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
A.G. LAYNE INC.	4578 BRAZIL ST., LOS ANGELES, CA 90039	DICHLOROMETHANE	6200	34.248330	-118.461939
MCCANN'S ENGINEERING & MFG. CO.	4570 W. COLORADO BLVD., LOS ANGELES, CA 900391198	"1,1,1-TRICHLOROETHA	4300	34.141390	-118.271110
BENJAMIN MOORE & CO. LOS ANGELES	3325 S. GARFIELD AVE., COMMERCE, CA 90040	ZINC COMPOUNDS	3900	33.985000	-118.139999
BENJAMIN MOORE & CO. LOS ANGELES	3325 S. GARFIELD AVE., COMMERCE, CA 90040	ETHYLENE GLYCOL	3900	33.985000	-118.139999
GLOBE IRON FNDY. INC.	5649 E. RANDOLPH ST., COMMERCE, CA 90040	NICKEL	3700	33.983329	-118.183330
GLOBE IRON FNDY. INC.	5649 E. RANDOLPH ST., COMMERCE, CA 90040	CHROMIUM	3700	33.983329	-118.183330
GLOBE IRON FNDY. INC.	5649 E. RANDOLPH ST., COMMERCE, CA 90040	MANGANESE	3700	33.983329	-118.183330
GLOBE IRON FNDY. INC.	5649 E. RANDOLPH ST., COMMERCE, CA 90040	COPPER	3700	33.983329	-118.183330
KOP-COAT INC.	5431 DISTRICT BLVD., VERNON, CA 90040	XYLENE (MIXED ISOMER	3900	33.986109	-118.182779
KOP-COAT INC.	5431 DISTRICT BLVD., VERNON, CA 90040	COPPER COMPOUNDS	3900	33.986109	-118.182779
KAISER ALUMINUM & CHEMICAL	6250 E. BANDINI BLVD., LOS ANGELES, CA 90040	LEAD	3900	33.987779	-118.147220
SOLVAY DRAKA INC.	6900 ELM ST., COMMERCE, CA 90040	DI(2-ETHYLHEXYL) PHT	3500	34.001389	-118.115000
MGF INDS. L.L.C.	6440 E. CANNING ST., COMMERCE, CA 90040	NITRIC ACID	4500	34.000830	-118.163060
COGNIS CORP. LOS ANGELES FACILITY	5568 E. 61ST ST., COMMERCE, CA 90040	NICKEL	3900	33.980560	-118.163890
COGNIS CORP. LOS ANGELES FACILITY	5568 E. 61ST ST., COMMERCE, CA 90040	METHANOL	3900	33.980560	-118.163890
ASHLAND SPECIALTY CHEMICAL CO.	6608 E. 26TH ST., LOS ANGELES, CA 90040	STYRENE	3900	33.987499	-118.138890

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
ASHLAND SPECIALTY CHEMICAL CO.	6608 E. 26TH ST., LOS ANGELES, CA 90040	DICYCLOPENTADIENE	3900	33.987499	-118.138890
ASHLAND SPECIALTY CHEMICAL CO.	6608 E. 26TH ST., LOS ANGELES, CA 90040	ETHYLENE GLYCOL	3900	33.987499	-118.138890
ASHLAND SPECIALTY CHEMICAL CO.	6608 E. 26TH ST., LOS ANGELES, CA 90040	MALEIC ANHYDRIDE	3900	33.987499	-118.138890
ASHLAND SPECIALTY CHEMICAL CO.	6608 E. 26TH ST., LOS ANGELES, CA 90040	PHTHALIC ANHYDRIDE	3900	33.987499	-118.138890
ASHLAND SPECIALTY CHEMICAL CO.	6608 E. 26TH ST., LOS ANGELES, CA 90040	N-BUTYL ALCOHOL	3900	33.987499	-118.138890
ASHLAND SPECIALTY CHEMICAL CO.	6608 E. 26TH ST., LOS ANGELES, CA 90040	METHYL METHACRYLATE	3900	33.987499	-118.138890
ASHLAND SPECIALTY CHEMICAL CO.	6608 E. 26TH ST., LOS ANGELES, CA 90040	TOLUENE DIISOCYANATE	3900	33.987499	-118.138890
ASHLAND SPECIALTY CHEMICAL CO.	6608 E. 26TH ST., LOS ANGELES, CA 90040	DIISOCYANATES	3900	33.987499	-118.138890
ASHLAND SPECIALTY CHEMICAL CO.	6608 E. 26TH ST., LOS ANGELES, CA 90040	COBALT COMPOUNDS	3900	33.987499	-118.138890
ICI PAINTS	6100 S. GARFIELD AVE., LOS ANGELES, CA 90040	"1,2,4-TRIMETHYLBENZ	3900	33.979170	-118.140560
ICI PAINTS	6100 S. GARFIELD AVE., LOS ANGELES, CA 90040	N-BUTYL ALCOHOL	3900	33.979170	-118.140560
ICI PAINTS	6100 S. GARFIELD AVE., LOS ANGELES, CA 90040	ZINC COMPOUNDS	3900	33.979170	-118.140560
ICI PAINTS	6100 S. GARFIELD AVE., LOS ANGELES, CA 90040	CERTAIN GLYCOL ETHER	3900	33.979170	-118.140560
ICI PAINTS	6100 S. GARFIELD AVE., LOS ANGELES, CA 90040	3-IODO-2-PROPYNYL BU	3900	33.979170	-118.140560
ICI PAINTS	6100 S. GARFIELD AVE., LOS ANGELES, CA 90040	"1-(3-CHLOROALLYL)-3	3900	33.979170	-118.140560
ICI PAINTS	6100 S. GARFIELD AVE., LOS ANGELES, CA 90040	XYLENE (MIXED ISOMER	3900	33.979170	-118.140560

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
ICI PAINTS	6100 S. GARFIELD AVE., LOS ANGELES, CA 90040	TOLUENE	3900	33.979170	-118.140560
ICI PAINTS	6100 S. GARFIELD AVE., LOS ANGELES, CA 90040	ETHYLENE GLYCOL	3900	33.979170	-118.140560
ICI PAINTS	6100 S. GARFIELD AVE., LOS ANGELES, CA 90040	ETHYLBENZENE	3900	33.979170	-118.140560
RAMCAR BATTERIES INC.	2700 CARRIER AVE., CITY OF COMMERCE, CA 900402502	LEAD COMPOUNDS	4500	34.000830	-118.163060
RAMCAR BATTERIES INC.	2700 CARRIER AVE., CITY OF COMMERCE, CA 900402502	ANTIMONY COMPOUNDS	4500	34.000830	-118.163060
EPS INC. - LOS ANGELES	5501 E. SLAUSON AVE., CITY OF COMMERCE, CA 90040	SEC-BUTYL ALCOHOL	3900	33.991669	-118.166670
EPS INC. - LOS ANGELES	5501 E. SLAUSON AVE., CITY OF COMMERCE, CA 90040	METHYL METHACRYLATE	3900	33.991669	-118.166670
EPS INC. - LOS ANGELES	5501 E. SLAUSON AVE., CITY OF COMMERCE, CA 90040	NAPHTHALENE	3900	33.991669	-118.166670
EPS INC. - LOS ANGELES	5501 E. SLAUSON AVE., CITY OF COMMERCE, CA 90040	ETHYLBENZENE	3900	33.991669	-118.166670
EPS INC. - LOS ANGELES	5501 E. SLAUSON AVE., CITY OF COMMERCE, CA 90040	STYRENE	3900	33.991669	-118.166670
EPS INC. - LOS ANGELES	5501 E. SLAUSON AVE., CITY OF COMMERCE, CA 90040	VINYL ACETATE	3900	33.991669	-118.166670
EPS INC. - LOS ANGELES	5501 E. SLAUSON AVE., CITY OF COMMERCE, CA 90040	TOLUENE	3900	33.991669	-118.166670
EPS INC. - LOS ANGELES	5501 E. SLAUSON AVE., CITY OF COMMERCE, CA 90040	BUTYL ACRYLATE	3900	33.991669	-118.166670
EPS INC. - LOS ANGELES	5501 E. SLAUSON AVE., CITY OF COMMERCE, CA 90040	"TOLUENE-2,4 -DIISOCY	3900	33.991669	-118.166670
EPS INC. - LOS ANGELES	5501 E. SLAUSON AVE., CITY OF COMMERCE, CA 90040	XYLENE (MIXED ISOMER	3900	33.991669	-118.166670
EPS INC. - LOS ANGELES	5501 E. SLAUSON AVE., CITY OF COMMERCE, CA 90040	CERTAIN GLYCOL ETHER	3900	33.991669	-118.166670

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
EPS INC. - LOS ANGELES	5501 E. SLAUSON AVE., CITY OF COMMERCE, CA 90040	"1,2,4-TRIMETHYLBENZ	3900	33.991669	-118.166670
EPS INC. - LOS ANGELES	5501 E. SLAUSON AVE., CITY OF COMMERCE, CA 90040	PHTHALIC ANHYDRIDE	3900	33.991669	-118.166670
EPS INC. - LOS ANGELES	5501 E. SLAUSON AVE., CITY OF COMMERCE, CA 90040	ETHYLENE GLYCOL	3900	33.991669	-118.166670
EPS INC. - LOS ANGELES	5501 E. SLAUSON AVE., CITY OF COMMERCE, CA 90040	MALEIC ANHYDRIDE	3900	33.991669	-118.166670
W.R. GRACE & CO. CONN. - GRACE	7237 E. GAGE AVE., LOS ANGELES, CA 90040	NITRATE COMPOUNDS	3900	33.975280	-118.126109
W.R. GRACE & CO. CONN. - GRACE	7237 E. GAGE AVE., LOS ANGELES, CA 90040	SODIUM O-PHENYLPHENO	3900	33.975280	-118.126109
W.R. GRACE & CO. CONN. - GRACE	7237 E. GAGE AVE., LOS ANGELES, CA 90040	FORMIC ACID	3900	33.975280	-118.126109
W.R. GRACE & CO. CONN. - GRACE	7237 E. GAGE AVE., LOS ANGELES, CA 90040	DIETHANOLAMINE	3900	33.975280	-118.126109
CASTROL INDL. N.A. INC.	5511 DISTRICT BLVD., LOS ANGELES, CA 90040	ZINC COMPOUNDS	3900	33.990560	-118.176110
CASTROL INDL. N.A. INC.	5511 DISTRICT BLVD., LOS ANGELES, CA 90040	BARIUM COMPOUNDS	3900	33.990560	-118.176110
CASTROL INDL. N.A. INC.	5511 DISTRICT BLVD., LOS ANGELES, CA 90040	POLYCHLORINATED ALKA	3900	33.990560	-118.176110
NEUTROGENA CORP.	5760 W. 96TH ST., LOS ANGELES, CA 90045	DIETHANOLAMINE	4800	33.946669	-118.375000
AIRGAS WEST INC.	11711 S. ALAMEDA ST., LOS ANGELES, CA 90059	CHLORODIFLUOROMETHAN	2100	33.930560	-118.227779
AIRGAS WEST INC.	11711 S. ALAMEDA ST., LOS ANGELES, CA 90059	PROPYLENE	2100	33.930560	-118.227779
A BRASS FNDY. INC.	2052 E. VERNON AVE., VERNON, CA 90058	COPPER	100	34.003329	-118.233890
FILTROL CORP.	3305 E. BANDINI BLVD., LOS ANGELES, CA 90023	AMMONIA	1100	34.566109	-118.207500

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
FILTROL CORP.	3305 E. BANDINI BLVD., LOS ANGELES, CA 90023	FORMIC ACID	1100	34.566109	-118.207500
FLOWSERVE CORP.	2300 E. VERNON AVE., VERNON, CA 90058	CHROMIUM	100	34.003890	-118.230560
GNB TECHS. INC.	2700 S. INDIANA ST., VERNON, CA 90058	LEAD COMPOUNDS	100	34.006110	-118.196669
GNB TECHS. INC.	2700 S. INDIANA ST., VERNON, CA 90058	ANTIMONY	100	34.006110	-118.196669
GNB TECHS. INC.	2700 S. INDIANA ST., VERNON, CA 90058	ARSENIC	100	34.006110	-118.196669
GRIFFITH MICRO SCIENCE INC.	4801 E. 50TH ST., LOS ANGELES, CA 90058	ETHYLENE OXIDE	100	34.001389	-118.221110
GRIFFITH MICRO SCIENCE INC.	4801 E. 50TH ST., LOS ANGELES, CA 90058	ETHYLENE GLYCOL	100	34.001389	-118.221110
GRIFFITH MICRO SCIENCE INC.	4900 GIFFORD AVE., LOS ANGELES, CA 900582785	ETHYLENE OXIDE	100	33.996670	-118.205000
GRIFFITH MICRO SCIENCE INC.	4900 GIFFORD AVE., LOS ANGELES, CA 900582785	ETHYLENE GLYCOL	100	33.996670	-118.205000
GASSER/OLDS CO. INC.	2618 FRUITLAND AVE., VERNON, CA 90058	COPPER	6400	33.825000	-118.075000
PECHINEY CAST PLATE	3200 FRUITLAND AVE., VERNON, CA 900583732	ZINC COMPOUNDS	3400	33.983329	-118.200000
MOBIL OIL CORP. VERNON LUBE PLANT	2619 E 37TH ST., VERNON, CA 90058	ZINC COMPOUNDS	100	34.008889	-118.221390
NORMAN FOX & CO.	5511 S. BOYLE AVE., VERNON, CA 900580727	METHANOL	100	33.993060	-118.212500
NORMAN FOX & CO.	5511 S. BOYLE AVE., VERNON, CA 900580727	DIETHANOLAMINE	100	33.993060	-118.212500
P. KAY METAL SUPPLY INC.	2448 E. 25TH ST., LOS ANGELES, CA 90058	LEAD	100	34.000000	-118.220280
EQUILON LOS ANGELES TERMINAL	2015 LONG BEACH AVE., LOS ANGELES, CA 90058	BENZENE	4300	34.017780	-118.243610

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
EQUILON LOS ANGELES TERMINAL	2015 LONG BEACH AVE., LOS ANGELES, CA 90058	ETHYLBENZENE	4300	34.017780	-118.243610
EQUILON LOS ANGELES TERMINAL	2015 LONG BEACH AVE., LOS ANGELES, CA 90058	METHYL TERT-BUTYL ET	4300	34.017780	-118.243610
EQUILON LOS ANGELES TERMINAL	2015 LONG BEACH AVE., LOS ANGELES, CA 90058	N-HEXANE	4300	34.017780	-118.243610
EQUILON LOS ANGELES TERMINAL	2015 LONG BEACH AVE., LOS ANGELES, CA 90058	TOLUENE	4300	34.017780	-118.243610
EQUILON LOS ANGELES TERMINAL	2015 LONG BEACH AVE., LOS ANGELES, CA 90058	"1,2,4-TRIMETHYLBENZ	4300	34.017780	-118.243610
EQUILON LOS ANGELES TERMINAL	2015 LONG BEACH AVE., LOS ANGELES, CA 90058	XYLENE (MIXED ISOMER	4300	34.017780	-118.243610
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"1,1,1,2-TETRACHLORO	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"1,1,1-TRICHLOROETHA	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"1,1,2-TRICHLOROETHA	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"1,2,4-TRICHLOROBENZ	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"1,2-DICHLOROBENZENE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"1,2-DICHLOROETHANE"	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"1,2-DICHLOROPROPANE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"1,2-DIPHENYLHYDRAZI	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"1,3-DICHLOROBENZENE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"1,4-DICHLOROBENZENE	100	33.994440	-118.212500

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"2,4,6-TRICHLOROPHEN	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"2,4-DINITROPHENOL"	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"2,4-DINITROTOLUENE"	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"2,6-DINITROTOLUENE"	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	2-NITROPHENOL	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"3,3'-DICHLOROBENZID	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	4-NITROPHENOL	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	AMMONIA	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	ANTHRACENE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	BARIUM	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	BENZENE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	BENZIDINE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	BROMOFORM	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	BROMOMETHANE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	CADMIUM	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	CARBON TETRACHLORIDE	100	33.994440	-118.212500

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	CHLOROBENZENE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	CHLOROETHANE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	CHLOROFORM	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	CHLOROMETHANE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	CHROMIUM	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	COPPER	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	CYANIDE COMPOUNDS	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	DIBENZOFURAN	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	DIBUTYL PHTHALATE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	DICHLOROBROMOMETHANE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	DICHLOROFLUOROMETHAN	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	DICHLOROMETHANE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	ETHYLBENZENE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	ETHYLIDENE DICHLORID	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	HEXACHLOROCYCLOPENTA	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"HEXACHLORO-1,3-BUTA	100	33.994440	-118.212500

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	HEXACHLOROBENZENE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	HEXACHLOROETHANE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	LEAD	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	NAPHTHALENE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	NICKEL	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	NITRIC ACID	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	NITROBENZENE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	N-NITROSODI-N-PROPYL	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	N-NITROSODIPHENYLAMI	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	PENTACHLOROPHENOL	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	PHENANTHRENE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	SODIUM NITRITE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	TETRACHLOROETHYLENE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	TOLUENE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	"TRANS-1,3-DICHLOROP	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	TRICHLOROETHYLENE	100	33.994440	-118.212500

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	TRICHLOROFLUOROMETHA	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	VINYL CHLORIDE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	VINYLIDENE CHLORIDE	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	XYLENE (MIXED ISOMER	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	N-NITROSODIMETHYLAMI	100	33.994440	-118.212500
U.S. FILTER RECOVERY SERVICES (CA)	5375 S. BOYLE AVE., VERNON, CA 90058	O-XYLENE	100	33.994440	-118.212500
"SAFETY-KLEEN (LOS ANGELES),INC."	5756 ALBA ST., LOS ANGELES, CA 90058	HYDROGEN FLUORIDE	3100	33.990280	-118.238890
"SAFETY-KLEEN (LOS ANGELES),INC."	5756 ALBA ST., LOS ANGELES, CA 90058	NITRIC ACID	3100	33.990280	-118.238890
"SAFETY-KLEEN (LOS ANGELES),INC."	5756 ALBA ST., LOS ANGELES, CA 90058	NITRATE COMPOUNDS	3100	33.990280	-118.238890
ATLAS GALVANIZING CO.	2639 LEONIS BLVD., LOS ANGELES, CA 90058	"SULFURIC ACID (1994	100	34.000000	-118.223060
OWENS-BROCKWAY GLASS CONTAINER	2901 FRUITLAND AVE., VERNON, CA 90058	AMMONIA	4300	33.991669	-118.225000
WEST COAST STAINLESS PRODS.	2450 E. 53RD ST., HUNTINGTON PARK, CA 90058	NICKEL	7200	33.919439	-118.174999
CLAYTON CHEMICAL CO.	13310 S. FIGUEROA ST., LOS ANGELES, CA 900611100	HYDROQUINONE	4400	33.911109	-118.281390
LITHOGRAPHIX INC.	13500 S. FIGUREOA ST., LOS ANGELES, CA 900611035	"1,1,1-TRICHLOROETHA	4400	33.913889	-118.277500
SANICHEM MFG. DIV. OF UNISOURCE	13101 S. MAIN ST., LOS ANGELES, CA 90061	CERTAIN GLYCOL ETHER	1400	33.753609	-118.256279
TOSCO LOS ANGELES TERMINAL	13500 S. BROADWAY, LOS ANGELES, CA 90061	BENZENE	4400	33.906109	-118.279170

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
TOSCO LOS ANGELES TERMINAL	13500 S. BROADWAY, LOS ANGELES, CA 90061	TOLUENE	4400	33.906109	-118.279170
TOSCO LOS ANGELES TERMINAL	13500 S. BROADWAY, LOS ANGELES, CA 90061	XYLENE (MIXED ISOMER	4400	33.906109	-118.279170
TOSCO LOS ANGELES TERMINAL	13500 S. BROADWAY, LOS ANGELES, CA 90061	ETHYLBENZENE	4400	33.906109	-118.279170
TOSCO LOS ANGELES TERMINAL	13500 S. BROADWAY, LOS ANGELES, CA 90061	"1,2,4-TRIMETHYLBENZ	4400	33.906109	-118.279170
TOSCO LOS ANGELES TERMINAL	13500 S. BROADWAY, LOS ANGELES, CA 90061	METHYL TERT-BUTYL ET	4400	33.906109	-118.279170
TOSCO LOS ANGELES TERMINAL	13500 S. BROADWAY, LOS ANGELES, CA 90061	CYCLOHEXANE	4400	33.906109	-118.279170
TOSCO LOS ANGELES TERMINAL	13500 S. BROADWAY, LOS ANGELES, CA 90061	N-HEXANE	4400	33.906109	-118.279170
TOSCO LOS ANGELES TERMINAL	13500 S. BROADWAY, LOS ANGELES, CA 90061	CUMENE	4400	33.906109	-118.279170
TOSCO LOS ANGELES TERMINAL	13500 S. BROADWAY, LOS ANGELES, CA 90061	ZINC COMPOUNDS	4400	33.906109	-118.279170
TOSCO LOS ANGELES TERMINAL	13500 S. BROADWAY, LOS ANGELES, CA 90061	ETHYLENE GLYCOL	4400	33.906109	-118.279170
GEORGE INDS.	4116 WHITESIDE ST., LOS ANGELES, CA 900630219	NITRIC ACID	2100	34.059719	-118.176390
GEORGE INDS.	4116 WHITESIDE ST., LOS ANGELES, CA 900630219	NITRATE COMPOUNDS	2100	34.059719	-118.176390
PRECISION SPECIALTY METALS INC.	3301 MEDFORD ST., LOS ANGELES, CA 90063	HYDROGEN FLUORIDE	4500	34.061939	-118.191670
PRECISION SPECIALTY METALS INC.	3301 MEDFORD ST., LOS ANGELES, CA 90063	NITRIC ACID	4500	34.061939	-118.191670
PRECISION SPECIALTY METALS INC.	3301 MEDFORD ST., LOS ANGELES, CA 90063	CHROMIUM COMPOUNDS	4500	34.061939	-118.191670
PRECISION SPECIALTY METALS INC.	3301 MEDFORD ST., LOS ANGELES, CA 90063	NICKEL COMPOUNDS	4500	34.061939	-118.191670

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
PRECISION SPECIALTY METALS INC.	3301 MEDFORD ST., LOS ANGELES, CA 90063	MANGANESE COMPOUNDS	4500	34.061939	-118.191670
PRECISION SPECIALTY METALS INC.	3301 MEDFORD ST., LOS ANGELES, CA 90063	NITRATE COMPOUNDS	4500	34.061939	-118.191670
BARRY AVE. PLATING CO. INC.	2210 BARRY AVE., LOS ANGELES, CA 900641488	NITRIC ACID	1600	34.034719	-118.445280
CUSTOM BUILDING PRODS.	6511 SALT LAKE AVE., BELL, CA 902012126	DIBUTYL PHTHALATE	4200	33.982780	-118.169440
CUSTOM BUILDING PRODS.	6511 SALT LAKE AVE., BELL, CA 902012126	ETHYLENE GLYCOL	4200	33.982780	-118.169440
DAYGLO COLOR CORP.	4615 ARDINE ST., CUDAHY, CA 90201	ZINC COMPOUNDS	4500	33.957500	-118.185560
J.P.TURGEON & SONS INC.	7758 SCOUT AVE., BELL GARDENS, CA 90201	"1,1,1-TRICHLOROETHA	8400	33.942499	-118.153329
METAL SURFACES INC.	6060 SHULL ST., BELL GARDENS, CA 90201	TETRACHLOROETHYLENE	6700	33.950559	-118.152780
METAL SURFACES INC.	6060 SHULL ST., BELL GARDENS, CA 90201	NICKEL COMPOUNDS	6700	33.950559	-118.152780
METAL SURFACES INC.	6060 SHULL ST., BELL GARDENS, CA 90201	NITRIC ACID	6700	33.950559	-118.152780
METAL SURFACES INC.	6060 SHULL ST., BELL GARDENS, CA 90201	NITRATE COMPOUNDS	6700	33.950559	-118.152780
FIBERNETICS MOLDED PRODS. L.L.C.	1418 S. ALAMEDA ST., COMPTON, CA 90220	STYRENE	3100	33.881939	-118.216670
BUTCHER CO. INC.	335 W. ARTESIA BLVD., COMPTON, CA 90220	CERTAIN GLYCOL ETHER	100	34.483329	-118.400000
BUTCHER CO. INC.	335 W. ARTESIA BLVD., COMPTON, CA 90220	DIBUTYL PHTHALATE	100	34.483329	-118.400000
BUTCHER CO. INC.	335 W. ARTESIA BLVD., COMPTON, CA 90220	"ISOPROPYL ALCOHOL (	100	34.483329	-118.400000
CONTINENTAL ACRYLICS INC.	2225 E. DEL AMO BLVD., COMPTON, CA 902206303	METHYL METHACRYLATE	3300	33.783330	-118.286109

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
CONTINENTAL ACRYLICS INC.	2225 E. DEL AMO BLVD., COMPTON, CA 902206303	ETHYL ACRYLATE	3300	33.783330	-118.286109
ABLESTIK LABS.	20021 SUSANA RD., COMPTON, CA 90221	METHANOL	6100	33.848609	-118.205560
ABLESTIK LABS.	20021 SUSANA RD., COMPTON, CA 90221	METHYL ETHYL KETONE	6100	33.848609	-118.205560
ABLESTIK LABS.	20021 SUSANA RD., COMPTON, CA 90221	SILVER	6100	33.848609	-118.205560
CENTURY PLASTICS INC. DURAFORM DIV.	1435 S. SANTA FE AVE., COMPTON, CA 90221	STYRENE	4900	33.895560	-118.213890
COASTCAST CORP.	3025 E. VICTORIA ST., RANCHO DOMINGUEZ, CA 90221	CHROMIUM	2400	33.864719	-118.207780
COASTCAST CORP.	3025 E. VICTORIA ST., RANCHO DOMINGUEZ, CA 90221	COPPER	2400	33.864719	-118.207780
COASTCAST CORP.	3025 E. VICTORIA ST., RANCHO DOMINGUEZ, CA 90221	NICKEL	2400	33.864719	-118.207780
COASTCAST CORP.	3025 E. VICTORIA ST., RANCHO DOMINGUEZ, CA 90221	COBALT	2400	33.864719	-118.207780
COASTCAST CORP.	3025 E. VICTORIA ST., RANCHO DOMINGUEZ, CA 90221	MANGANESE	2400	33.864719	-118.207780
DAMERON ALLOY FOUNDRIES	927 S. SANTA FE AVE., COMPTON, CA 90224	CHROMIUM	3300	33.922220	-118.147220
DAMERON ALLOY FOUNDRIES	927 S. SANTA FE AVE., COMPTON, CA 90224	NICKEL	3300	33.922220	-118.147220
FLO-KEM INC.	19402 SUSANA RD., COMPTON, CA 90221	"HYDROCHLORIC ACID (	2400	33.854719	-118.205000
FLO-KEM INC.	19402 SUSANA RD., COMPTON, CA 90221	HYDROGEN FLUORIDE	2400	33.854719	-118.205000
FLO-KEM INC.	19402 SUSANA RD., COMPTON, CA 90221	"SULFURIC ACID (1994	2400	33.854719	-118.205000
FLO-KEM INC.	19402 SUSANA RD., COMPTON, CA 90221	NITRIC ACID	2400	33.854719	-118.205000

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
FLO-KEM INC.	19402 SUSANA RD., COMPTON, CA 90221	AMMONIA	2400	33.854719	-118.205000
FLO-KEM INC.	19402 SUSANA RD., COMPTON, CA 90221	ETHYLENE GLYCOL	2400	33.854719	-118.205000
FLO-KEM INC.	19402 SUSANA RD., COMPTON, CA 90221	SODIUM NITRITE	2400	33.854719	-118.205000
EAGLEWARE MFG. CO. INC.	2835 E. ANA ST., RANCHO DOMINGUEZ, CA 90211	COPPER	2400	33.859169	-118.212500
"J.B.I., INC."	18521-18601 S. SANTA FE, COMPTON, CA 90221	STYRENE	2400	33.867220	-118.213890
ALFLEX CORP. DISTRIBUTION CENTER	20250 S. ALAMEDA ST., RANCHO DOMINGUEZ, CA	COPPER	2400	33.847780	-118.220280
ALFLEX CORP. DISTRIBUTION CENTER	20250 S. ALAMEDA ST., RANCHO DOMINGUEZ, CA	ANTIMONY COMPOUNDS	2400	33.847780	-118.220280
ALFLEX CORP. DISTRIBUTION CENTER	20250 S. ALAMEDA ST., RANCHO DOMINGUEZ, CA	DI(2-ETHYLHEXYL) PHT	2400	33.847780	-118.220280
ALFLEX CORP. DISTRIBUTION CENTER	20250 S. ALAMEDA ST., RANCHO DOMINGUEZ, CA	LEAD COMPOUNDS	2400	33.847780	-118.220280
ALFLEX CORP. DISTRIBUTION CENTER	20250 S. ALAMEDA ST., RANCHO DOMINGUEZ, CA	MANGANESE	2400	33.847780	-118.220280
AMBIENCE LIGHTING	2640 E. DEL AMO BLVD., COMPTON, CA 90221	DIISOCYANATES	5200	33.856669	-118.178610
EME INC.	431 E. OAKS ST., COMPTON, CA 90221	NITRIC ACID	6800	33.875000	-118.250000
MANNER PLASTIC MATERIALS INC.	3121 E. ANA ST., RANCHO DOMINGUEZ, CA 902215606	LEAD COMPOUNDS	2400	33.862779	-118.205000
MANNER PLASTIC MATERIALS INC.	3121 E. ANA ST., RANCHO DOMINGUEZ, CA 902215606	ANTIMONY COMPOUNDS	2400	33.862779	-118.205000
IMC PLASTICS INC.	18601 SUSANA RD., RANCHO DOMINGUEZ, CA 90221	ANTIMONY COMPOUNDS	7100	33.827779	-118.230560
IMC PLASTICS INC.	18601 SUSANA RD., RANCHO DOMINGUEZ, CA 90221	DECABROMO DIPHENYL OX	7100	33.827779	-118.230560

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
PENNZOIL-QUAKER STATE CO.	19501 SANTA FE AVE., RANCHO DOMINGUEZ, CA 902215913	ZINC COMPOUNDS	4900	34.118609	-118.203330
RBC INDL. TECTONICS BEARINGS	18301 S. SANTA FE AVE., RANCHO DOMINGUEZ, CA	CHROMIUM	2400	33.857500	-118.206389
EXXONMOBIL LUBRICANTS & PETROCHEMICA	19530 S. ALAMEDA ST., RANCHO DOMINGUEZ, CA	ZINC COMPOUNDS	2400	33.853329	-118.215829
COMPU DIE CASTING	421 E. WEBER ST., COMPTON, CA 90222	COPPER	3400	33.886109	-118.231390
DEMENNO / KERDOON	2000 N. ALAMEDA ST., COMPTON, CA 90222	ETHYLENE GLYCOL	5000	33.907779	-118.198609
THOROCK METALS CO. INC.	431 E. WEBER AVE., COMPTON, CA 90222	COPPER	2900	33.920280	-118.220830
FOAMEX L.P.	19201 S. REYES, COMPTON, CA 902215807	DIISOCYANATES	2400	33.865830	-118.208329
FOAMEX L.P.	19201 S. REYES, COMPTON, CA 902215807	TOLUENE DIISOCYANATE	2400	33.865830	-118.208329
FOAMEX L.P.	19201 S. REYES, COMPTON, CA 902215807	ALUMINUM OXIDE (FIBR	2400	33.865830	-118.208329
FOAMEX L.P.	19201 S. REYES, COMPTON, CA 902215807	DIETHANOLAMINE	2400	33.865830	-118.208329
MERIT ABRASIVE PRODS. INC.	201 W. MANVILLE ST., COMPTON, CA 902245447	METHANOL	2400	33.870279	-118.221110
CYTEC - FIBERITE INC.	8590 NATIONAL BLVD., CULVER CITY, CA 90232	METHANOL	4200	34.016939	-118.372780
CYTEC - FIBERITE INC.	8590 NATIONAL BLVD., CULVER CITY, CA 90232	METHYL ETHYL KETONE	4200	34.016939	-118.372780
CYTEC - FIBERITE INC.	8590 NATIONAL BLVD., CULVER CITY, CA 90232	FORMALDEHYDE	4200	34.016939	-118.372780
CYTEC - FIBERITE INC.	8590 NATIONAL BLVD., CULVER CITY, CA 90232	PHENOL	4200	34.016939	-118.372780
KF FIBERGLASS INC.	8247 PHLOX ST., DOWNEY, CA 90241	STYRENE	8400	33.945830	-118.150000

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	ETHYLBENZENE	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	"1,3-BUTADIENE"	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	TOLUENE	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	PHENOL	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	N-HEXANE	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	CYCLOHEXANE	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	DIETHANOLAMINE	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	PROPYLENE	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	XYLENE (MIXED ISOMER	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	METHYL TERT-BUTYL ET	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	METHANOL	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	BENZENE	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	ETHYLENE	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	NICKEL COMPOUNDS	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	ZINC COMPOUNDS	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	TERT-BUTYL ALCOHOL	4600	33.765830	-118.418060

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	AMMONIA	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	N-METHYL-2-PYRROLIDO	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	NAPHTHALENE	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	"1,2,4-TRIMETHYLBENZ	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	NITRATE COMPOUNDS	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	COPPER COMPOUNDS	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	MOLYBDENUM TRIOXIDE	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	"HYDROCHLORIC ACID (	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	"2,4-DIMETHYLPHENOL"	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	CHROMIUM COMPOUNDS	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	CRESOL (MIXED ISOMER	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	HYDROGEN CYANIDE	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	POLYCYCLIC AROMATIC	4600	33.765830	-118.418060
CHEVRON USA PRODS. CO.	324 W. EL SEGUNDO BLVD., EL SEGUNDO, CA 90245	TETRACHLOROETHYLENE	4600	33.765830	-118.418060
HONEYWELL INTL.	850 SO. SEPULVEDA BLVD., EL SEGUNDO, CA 90245	"1,1-DICHLORO-1-FLUO	100	33.904169	-118.394440
HONEYWELL INTL.	850 SO. SEPULVEDA BLVD., EL SEGUNDO, CA 90245	"1-CHLORO-1,1-DIFLUO	100	33.904169	-118.394440

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
HONEYWELL INTL.	850 SO. SEPULVEDA BLVD., EL SEGUNDO, CA 90245	"1,1,1-TRICHLOROETHA	100	33.904169	-118.394440
HONEYWELL INTL.	850 SO. SEPULVEDA BLVD., EL SEGUNDO, CA 90245	HYDROGEN FLUORIDE	100	33.904169	-118.394440
HONEYWELL INTL.	850 SO. SEPULVEDA BLVD., EL SEGUNDO, CA 90245	FREON 113	100	33.904169	-118.394440
HONEYWELL INTL.	850 SO. SEPULVEDA BLVD., EL SEGUNDO, CA 90245	CHLORINE	100	33.904169	-118.394440
HONEYWELL INTL.	850 SO. SEPULVEDA BLVD., EL SEGUNDO, CA 90245	METHANOL	100	33.904169	-118.394440
NORTHROP GRUMMAN CORP.	800 DOUGLAS ST., EL SEGUNDO, CA 902452804	TOLUENE	2400	33.933329	-118.375000
INTERNATIONAL RECTIFIER	233 KANSAS ST., EL SEGUNDO, CA 902454382	NITRATE COMPOUNDS	6500	33.950000	-118.350000
INTERNATIONAL RECTIFIER	233 KANSAS ST., EL SEGUNDO, CA 902454382	NITRIC ACID	6500	33.950000	-118.350000
INTERNATIONAL RECTIFIER	233 KANSAS ST., EL SEGUNDO, CA 902454382	HYDROGEN FLUORIDE	6500	33.950000	-118.350000
INTERNATIONAL RECTIFIER	233 KANSAS ST., EL SEGUNDO, CA 902454382	AMMONIA	6500	33.950000	-118.350000
INTERNATIONAL RECTIFIER	233 KANSAS ST., EL SEGUNDO, CA 902454382	XYLENE (MIXED ISOMER	6500	33.950000	-118.350000
INTERNATIONAL RECTIFIER	233 KANSAS ST., EL SEGUNDO, CA 902454382	N-METHYL-2-PYRROLIDO	6500	33.950000	-118.350000
CORONET MFG. CO. INC.	16210 S. AVALON, GARDENA, CA 902482908	TETRACHLOROETHYLENE	400	34.490560	-118.444720
PACIFIC ELECTRICORD CO.	747 W. REDONDO BEACH BLVD., GARDENA, CA 90247	COPPER	2600	33.901669	-118.335830
SUPERIOR METAL FINISHING	1733 W. 134TH, GARDENA, CA 90247	NITRIC ACID	5000	33.899999	-118.170000
SUPERIOR METAL FINISHING	1733 W. 134TH, GARDENA, CA 90247	NITRATE COMPOUNDS	5000	33.899999	-118.170000

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
FCI ELECTRONICS INC. I/O CABLE	14500 S. BROADWAY, GARDENA, CA 90248	LEAD COMPOUNDS	1200	33.900830	-118.276669
FCI ELECTRONICS INC. I/O CABLE	14500 S. BROADWAY, GARDENA, CA 90248	COPPER	1200	33.900830	-118.276669
CASTE RITE CORP.	515 E. AIRLINE WAY, GARDENA, CA 90248	COPPER	3300	33.877780	-118.265280
PACE INDS. DIE CAST PRODS. INC.	621 W. ROSECRANS AVE., GARDENA, CA 90248	COPPER	4700	33.909439	-118.167219
PACE INDS. DIE CAST PRODS. INC.	621 W. ROSECRANS AVE., GARDENA, CA 90248	MANGANESE	4700	33.909439	-118.167219
PACE INDS. DIE CAST PRODS. INC.	621 W. ROSECRANS AVE., GARDENA, CA 90248	NICKEL	4700	33.909439	-118.167219
DEUTSCH METAL COMPONENTS	14800 S. FIGUEROA, GARDENA, CA 90248	CHROMIUM	4400	33.905559	-118.280559
DEUTSCH METAL COMPONENTS	14800 S. FIGUEROA, GARDENA, CA 90248	NICKEL	4400	33.905559	-118.280559
DEUTSCH METAL COMPONENTS	14800 S. FIGUEROA, GARDENA, CA 90248	COPPER	4400	33.905559	-118.280559
DEUTSCH METAL COMPONENTS	14800 S. FIGUEROA, GARDENA, CA 90248	MANGANESE	4400	33.905559	-118.280559
DIETZGEN CORP.	235 E. 157TH ST., GARDENA, CA 90248	ZINC COMPOUNDS	100	33.899999	-118.034170
DIETZGEN CORP.	235 E. 157TH ST., GARDENA, CA 90248	THIOUREA	100	33.899999	-118.034170
GROW MORE INC.	15600 NEW CENTURY DR., GARDENA, CA 90248	COPPER COMPOUNDS	5500	34.000000	-118.000000
GROW MORE INC.	15600 NEW CENTURY DR., GARDENA, CA 90248	MANGANESE COMPOUNDS	5500	34.000000	-118.000000
GROW MORE INC.	15600 NEW CENTURY DR., GARDENA, CA 90248	ZINC COMPOUNDS	5500	34.000000	-118.000000
MECHANICAL METAL FINISHING	15220 S. BROADWAY, GARDENA, CA 90248	NITRIC ACID	1200	33.893330	-118.279440

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
MECHANICAL METAL FINISHING	15220 S. BROADWAY, GARDENA, CA 90248	NITRATE COMPOUNDS	1200	33.893330	-118.279440
MECHANICAL METAL FINISHING	15220 S. BROADWAY, GARDENA, CA 90248	TETRACHLOROETHYLENE	1200	33.893330	-118.279440
POWER MAGNETICS L3 COMMUNICATIO	711 W. KNOX ST., GARDENA, CA 902484410	COPPER	4400	33.851389	-118.270829
MAJOR BRASS FNDY. INC.	16206 S. MAIN ST., GARDENA, CA 90248	COPPER	3300	33.872219	-118.269440
MAJOR BRASS FNDY. INC.	16206 S. MAIN ST., GARDENA, CA 90248	LEAD	3300	33.872219	-118.269440
AMERICAN RACING CUSTOM	17006 S. FIGUEROA ST., GARDENA, CA 90248	NITRIC ACID	3300	33.876669	-118.278329
AMERICAN RACING CUSTOM	17006 S. FIGUEROA ST., GARDENA, CA 90248	NITRATE COMPOUNDS	3300	33.876669	-118.278329
AMERICAN RACING CUSTOM	17006 S. FIGUEROA ST., GARDENA, CA 90248	COPPER COMPOUNDS	3300	33.876669	-118.278329
AMERICAN RACING CUSTOM	17006 S. FIGUEROA ST., GARDENA, CA 90248	NICKEL COMPOUNDS	3300	33.876669	-118.278329
AMERICAN RACING CUSTOM	17006 S. FIGUEROA ST., GARDENA, CA 90248	CHROMIUM COMPOUNDS	3300	33.876669	-118.278329
INDEPENDENT INK INC.	14705 S. AVALON BLVD., GARDENA, CA 902482009	METHANOL	3200	33.898610	-118.264440
INDEPENDENT INK INC.	14705 S. AVALON BLVD., GARDENA, CA 902482009	METHYL ETHYL KETONE	3200	33.898610	-118.264440
INDEPENDENT INK INC.	14705 S. AVALON BLVD., GARDENA, CA 902482009	CERTAIN GLYCOL ETHER	3200	33.898610	-118.264440
LILLY INDS. INC.	210 E. ALONDRA BLVD., GARDENA, CA 90248	METHYL METHACRYLATE	3000	33.900830	-118.249440
LILLY INDS. INC.	210 E. ALONDRA BLVD., GARDENA, CA 90248	STYRENE	3000	33.900830	-118.249440
PERMALITE REPROMEDIA CORP.	230 E. ALONDRA BLVD., GARDENA, CA 90248	TOLUENE	1200	33.898059	-118.271110

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
PERMALITE REPROMEDIA CORP.	230 E. ALONDRA BLVD., GARDENA, CA 90248	XYLENE (MIXED ISOMER	1200	33.898059	-118.271110
PERMALITE REPROMEDIA CORP.	230 E. ALONDRA BLVD., GARDENA, CA 90248	METHANOL	1200	33.898059	-118.271110
GARDENA PLATING	12901 S. WESTERN, GARDENA, CA 90249	COPPER	5000	33.899999	-118.166670
GARDENA PLATING	12901 S. WESTERN, GARDENA, CA 90249	NITRIC ACID	5000	33.899999	-118.166670
GARDENA PLATING	12901 S. WESTERN, GARDENA, CA 90249	CHROMIUM COMPOUNDS	5000	33.899999	-118.166670
HITCO CARBON COMPOSITES INC.	1600 W. 135TH ST., GARDENA, CA 902492506	N-HEXANE	4200	33.915000	-118.305000
PB FASTENERS	1700 W. 132ND ST., GARDENA, CA 90249	CHROMIUM	4200	33.912220	-118.307500
PB FASTENERS	1700 W. 132ND ST., GARDENA, CA 90249	MANGANESE	4200	33.912220	-118.307500
PB FASTENERS	1700 W. 132ND ST., GARDENA, CA 90249	NICKEL	4200	33.912220	-118.307500
STABOND CORP.	14010 S. WESTERN AVE., GARDENA, CA 902493008	DICHLOROMETHANE	6700	33.902780	-118.299999
STABOND CORP.	14010 S. WESTERN AVE., GARDENA, CA 902493008	METHYL ETHYL KETONE	6700	33.902780	-118.299999
STABOND CORP.	14010 S. WESTERN AVE., GARDENA, CA 902493008	TOLUENE	6700	33.902780	-118.299999
STABOND CORP.	14010 S. WESTERN AVE., GARDENA, CA 902493008	N-HEXANE	6700	33.902780	-118.299999
STABOND CORP.	14010 S. WESTERN AVE., GARDENA, CA 902493008	"1,1,1-TRICHLOROETHA	6700	33.902780	-118.299999
STABOND CORP.	14010 S. WESTERN AVE., GARDENA, CA 902493008	DIISOCYANATES	6700	33.902780	-118.299999
EWC CO.	1812 W. 135TH ST., GARDENA, CA 90249	STYRENE	8200	33.916110	-118.326110

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
EXPANDED RUBBER & PLASTICS	14000 S. WESTERN AVE., GARDENA, CA 90249	DIISOCYANATES	4200	33.903889	-118.308059
AZON CORP.	13771 S. GRAMERCY PL., GARDENA, CA 90249	THIOUREA	2300	33.869440	-118.305560
AZON CORP.	13771 S. GRAMERCY PL., GARDENA, CA 90249	ZINC COMPOUNDS	2300	33.869440	-118.305560
INTERPLASTIC CORP.	12335 S. VAN NESS AVE., HAWTHORNE, CA 90250	STYRENE	10800	33.923059	-118.333329
INTERPLASTIC CORP.	12335 S. VAN NESS AVE., HAWTHORNE, CA 90250	PHTHALIC ANHYDRIDE	10800	33.923059	-118.333329
INTERPLASTIC CORP.	12335 S. VAN NESS AVE., HAWTHORNE, CA 90250	MALEIC ANHYDRIDE	10800	33.923059	-118.333329
INTERPLASTIC CORP.	12335 S. VAN NESS AVE., HAWTHORNE, CA 90250	ETHYLENE GLYCOL	10800	33.923059	-118.333329
INTERPLASTIC CORP.	12335 S. VAN NESS AVE., HAWTHORNE, CA 90250	METHYL METHACRYLATE	10800	33.923059	-118.333329
NORTHROP GRUMMAN CORP. EC	ONE NORTHROP AVE. MAIL STOP: 110P/51, HAWTHORNE, CA	TETRACHLOROETHYLENE	3200	33.916670	-118.325000
NORTHROP GRUMMAN CORP. EC	ONE NORTHROP AVE. MAIL STOP: 110P/51, HAWTHORNE, CA	NITRIC ACID	3200	33.916670	-118.325000
LONZA INC.	2031 E. 65TH ST., LOS ANGELES, CA 90001	METHANOL	2800	33.980560	-118.235559
LONZA INC.	2031 E. 65TH ST., LOS ANGELES, CA 90001	TOLUENE	2800	33.980560	-118.235559
LONZA INC.	2031 E. 65TH ST., LOS ANGELES, CA 90001	"HYDROCHLORIC ACID (	2800	33.980560	-118.235559
LONZA INC.	2031 E. 65TH ST., LOS ANGELES, CA 90001	SODIUM NITRITE	2800	33.980560	-118.235559
LONZA INC.	2031 E. 65TH ST., LOS ANGELES, CA 90001	THIOUREA	2800	33.980560	-118.235559
INGERSOLL DRESSER PUMP CO.	5715 BICKETT ST., HUNTINGTON PARK, CA 90255	CHROMIUM COMPOUNDS	100	33.991669	-118.214720

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
INGERSOLL DRESSER PUMP CO.	5715 BICKETT ST., HUNTINGTON PARK, CA 90255	NICKEL COMPOUNDS	100	33.991669	-118.214720
HENRY CO.	5731 BICKETT ST., HUNTINGTON PARK, CA 902553135	ASBESTOS (FRIABLE)	4300	33.989719	-118.216109
HENRY CO.	5731 BICKETT ST., HUNTINGTON PARK, CA 902553135	"1,2,4-TRIMETHYLBENZ	4300	33.989719	-118.216109
HENRY CO.	5731 BICKETT ST., HUNTINGTON PARK, CA 902553135	XYLENE (MIXED ISOMER	4300	33.989719	-118.216109
HENRY CO.	5731 BICKETT ST., HUNTINGTON PARK, CA 902553135	NAPHTHALENE	4300	33.989719	-118.216109
HENRY CO.	5731 BICKETT ST., HUNTINGTON PARK, CA 902553135	PHENANTHRENE	4300	33.989719	-118.216109
HENRY CO.	5731 BICKETT ST., HUNTINGTON PARK, CA 902553135	POLYCYCLIC AROMATIC	4300	33.989719	-118.216109
HENRY CO.	5731 BICKETT ST., HUNTINGTON PARK, CA 902553135	ANTHRACENE	4300	33.989719	-118.216109
LOS ANGELES GALVANIZING CO.	2524 E. 52ND ST., HUNTINGTON PARK, CA 90255	ZINC COMPOUNDS	1000	34.049999	-118.233329
LOS ANGELES BRASS PRODS.	2529 E. 55TH ST., HUNTINGTON PARK, CA 90255	COPPER	100	33.994440	-118.233329
MYERS CONTAINER CORP.	5820 BICKETT ST., HUNTINGTON PARK, CA 90255	CERTAIN GLYCOL ETHER	100	33.993609	-118.215280
AIRCRAFT X RAY LABS. INC.	5216 PACIFIC BLVD., HUNTINGTON PARK, CA 90255	NITRIC ACID	4300	33.995000	-118.224440
MCWHORTER TECHS. INC. LYNWOOD	2801 LYNWOOD RD., LYNWOOD, CA 90262	DICYCLOPENTADIENE	6100	33.930280	-118.222220
MCWHORTER TECHS. INC. LYNWOOD	2801 LYNWOOD RD., LYNWOOD, CA 90262	ETHYLBENZENE	6100	33.930280	-118.222220
MCWHORTER TECHS. INC. LYNWOOD	2801 LYNWOOD RD., LYNWOOD, CA 90262	ETHYLENE GLYCOL	6100	33.930280	-118.222220
MCWHORTER TECHS. INC. LYNWOOD	2801 LYNWOOD RD., LYNWOOD, CA 90262	MALEIC ANHYDRIDE	6100	33.930280	-118.222220

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
MCWHORTER TECHS. INC. LYNWOOD	2801 LYNWOOD RD., LYNWOOD, CA 90262	PHTHALIC ANHYDRIDE	6100	33.930280	-118.222220
MCWHORTER TECHS. INC. LYNWOOD	2801 LYNWOOD RD., LYNWOOD, CA 90262	STYRENE	6100	33.930280	-118.222220
MCWHORTER TECHS. INC. LYNWOOD	2801 LYNWOOD RD., LYNWOOD, CA 90262	TOLUENE	6100	33.930280	-118.222220
MCWHORTER TECHS. INC. LYNWOOD	2801 LYNWOOD RD., LYNWOOD, CA 90262	XYLENE (MIXED ISOMER	6100	33.930280	-118.222220
MCWHORTER TECHS. INC. LYNWOOD	2801 LYNWOOD RD., LYNWOOD, CA 90262	SEC-BUTYL ALCOHOL	6100	33.930280	-118.222220
MCWHORTER TECHS. INC. LYNWOOD	2801 LYNWOOD RD., LYNWOOD, CA 90262	CHLORENDIC ACID	6100	33.930280	-118.222220
MCWHORTER TECHS. INC. LYNWOOD	2801 LYNWOOD RD., LYNWOOD, CA 90262	COBALT COMPOUNDS	6100	33.930280	-118.222220
MCWHORTER TECHS. INC. LYNWOOD	2801 LYNWOOD RD., LYNWOOD, CA 90262	CERTAIN GLYCOL ETHER	6100	33.930280	-118.222220
MCWHORTER TECHS. INC. LYNWOOD	2801 LYNWOOD RD., LYNWOOD, CA 90262	TOLUENE DIISOCYANATE	6100	33.930280	-118.222220
MCWHORTER TECHS. INC. LYNWOOD	2801 LYNWOOD RD., LYNWOOD, CA 90262	"1,2,4-TRIMETHYLBENZ	6100	33.930280	-118.222220
CUSTOM INDL. RACK INC.	2990 M. L. KING BLVD., LYNWOOD, CA 90262	COPPER	7300	33.933329	-118.200000
PROCESSES BY MARTIN INC.	12150 S. ALAMEDA ST., LYNWOOD, CA 902624005	TOLUENE	6100	33.922500	-118.217780
PROCESSES BY MARTIN INC.	12150 S. ALAMEDA ST., LYNWOOD, CA 902624005	METHYL ETHYL KETONE	6100	33.922500	-118.217780
PROCESSES BY MARTIN INC.	12150 S. ALAMEDA ST., LYNWOOD, CA 902624005	CERTAIN GLYCOL ETHER	6100	33.922500	-118.217780
"TRW, INC. SPACE & ELECTRONICS	3001 AVIATION BLVD., MANHATTAN BEACH, CA 902661099	METHANOL	2900	33.894440	-118.377780
"TRW, INC. SPACE & ELECTRONICS	3001 AVIATION BLVD., MANHATTAN BEACH, CA 902661099	N-METHYL-2-PYRROLIDO	2900	33.894440	-118.377780

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
"TRW, INC. SPACE & ELECTRONICS	3001 AVIATION BLVD., MANHATTAN BEACH, CA 902661099	"1,2,4-TRICHLOROBENZ	2900	33.894440	-118.377780
"TRW, INC. SPACE & ELECTRONICS	3001 AVIATION BLVD., MANHATTAN BEACH, CA 902661099	PHENOL	2900	33.894440	-118.377780
"TRW, INC. SPACE & ELECTRONICS	3001 AVIATION BLVD., MANHATTAN BEACH, CA 902661099	TRICHLOROETHYLENE	2900	33.894440	-118.377780
EDSON INDS.	9480 BURTIS ST., SOUTH GATE, CA 90280	NITRIC ACID	3000	33.950000	-118.166670
DIATEC ENVIRONMENTAL	4445 ARDINE ST., SOUTH GATE, CA 90280	FORMALDEHYDE	6100	33.958329	-118.208329
DIATEC ENVIRONMENTAL	4445 ARDINE ST., SOUTH GATE, CA 90280	ACRYLAMIDE	6100	33.958329	-118.208329
DIATEC ENVIRONMENTAL	4445 ARDINE ST., SOUTH GATE, CA 90280	DIMETHYLAMINE	6100	33.958329	-118.208329
SAPUTO CHEESE USA INC.	5611 E. IMPERIAL HWY., SOUTH GATE, CA 90280	NITRATE COMPOUNDS	3000	33.946939	-118.171940
SAPUTO CHEESE USA INC.	5611 E. IMPERIAL HWY., SOUTH GATE, CA 90280	NITRIC ACID	3000	33.946939	-118.171940
PACIFIC ALLOY CASTINGS	5900 E. FIRESTONE BLVD., SOUTH GATE, CA 902803797	NICKEL	4500	33.899439	-118.147779
PACIFIC ALLOY CASTINGS	5900 E. FIRESTONE BLVD., SOUTH GATE, CA 902803797	CHROMIUM	4500	33.899439	-118.147779
ARCO PRODS. CO. VINVALE TERMINAL	8601 S. GARFIELD AVE., SOUTH GATE, CA 90280	BENZENE	4600	33.954439	-118.165000
ARCO PRODS. CO. VINVALE TERMINAL	8601 S. GARFIELD AVE., SOUTH GATE, CA 90280	CYCLOHEXANE	4600	33.954439	-118.165000
ARCO PRODS. CO. VINVALE TERMINAL	8601 S. GARFIELD AVE., SOUTH GATE, CA 90280	ETHYLBENZENE	4600	33.954439	-118.165000
ARCO PRODS. CO. VINVALE TERMINAL	8601 S. GARFIELD AVE., SOUTH GATE, CA 90280	N-HEXANE	4600	33.954439	-118.165000
ARCO PRODS. CO. VINVALE TERMINAL	8601 S. GARFIELD AVE., SOUTH GATE, CA 90280	METHYL TERT-BUTYL ET	4600	33.954439	-118.165000

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
ARCO PRODS. CO. VINVALE TERMINAL	8601 S. GARFIELD AVE., SOUTH GATE, CA 90280	TOLUENE	4600	33.954439	-118.165000
ARCO PRODS. CO. VINVALE TERMINAL	8601 S. GARFIELD AVE., SOUTH GATE, CA 90280	"1,2,4-TRIMETHYLBENZ	4600	33.954439	-118.165000
ARCO PRODS. CO. VINVALE TERMINAL	8601 S. GARFIELD AVE., SOUTH GATE, CA 90280	XYLENE (MIXED ISOMER	4600	33.954439	-118.165000
ARMSTRONG WORLD INDS. INC.	5037 PATATA ST., SOUTH GATE, CA 902803555	ZINC COMPOUNDS	5400	33.936669	-118.131670
ARNCO	5141 FIRESTONE PL., SOUTH GATE, CA 90280	TOLUENE DIISOCYANATE	3000	33.951670	-118.166670
ROYAL FLOORMATS	5951 E. FIRESTONE BLVD., SOUTH GATE, CA 90280	DIISOCYANATES	7200	33.950000	-118.083329
"SHULTZ STEEL CO. (""SSC"")"	5321 FIRESTONE BLVD., SOUTH GATE, CA 902803629	COPPER	10000	33.950829	-118.173610
"SHULTZ STEEL CO. (""SSC"")"	5321 FIRESTONE BLVD., SOUTH GATE, CA 902803629	CHROMIUM	10000	33.950829	-118.173610
"SHULTZ STEEL CO. (""SSC"")"	5321 FIRESTONE BLVD., SOUTH GATE, CA 902803629	MANGANESE	10000	33.950829	-118.173610
"SHULTZ STEEL CO. (""SSC"")"	5321 FIRESTONE BLVD., SOUTH GATE, CA 902803629	NICKEL	10000	33.950829	-118.173610
TECHNI-CAST CORP.	11220 S. GARFIELD AVE., SOUTH GATE, CA 90280	NICKEL	7000	33.925279	-118.183890
TECHNI-CAST CORP.	11220 S. GARFIELD AVE., SOUTH GATE, CA 90280	ZINC (FUME OR DUST)	7000	33.925279	-118.183890
TECHNI-CAST CORP.	11220 S. GARFIELD AVE., SOUTH GATE, CA 90280	COPPER	7000	33.925279	-118.183890
TECHNI-CAST CORP.	11220 S. GARFIELD AVE., SOUTH GATE, CA 90280	COBALT	7000	33.925279	-118.183890
TECHNI-CAST CORP.	11220 S. GARFIELD AVE., SOUTH GATE, CA 90280	MANGANESE	7000	33.925279	-118.183890
TECHNI-CAST CORP.	11220 S. GARFIELD AVE., SOUTH GATE, CA 90280	CHROMIUM	7000	33.925279	-118.183890

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EKA CHEMICALS INC. NYACOL	8401 B. QUARTZ AVE., SOUTH GATE, CA 90280	"SULFURIC ACID (1994	3900	33.960279	-118.194439
TYCO PRINTED CIRCUIT GROUP INC.	8636 AVIATION BLVD., INGLEWOOD, CA 90301	COPPER	5000	33.958329	-118.375000
TYCO PRINTED CIRCUIT GROUP INC.	8636 AVIATION BLVD., INGLEWOOD, CA 90301	AMMONIA	5000	33.958329	-118.375000
TYCO PRINTED CIRCUIT GROUP INC.	8636 AVIATION BLVD., INGLEWOOD, CA 90301	NITRIC ACID	5000	33.958329	-118.375000
TYCO PRINTED CIRCUIT GROUP INC.	8636 AVIATION BLVD., INGLEWOOD, CA 90301	NITRATE COMPOUNDS	5000	33.958329	-118.375000
TYCO PRINTED CIRCUIT GROUP INC.	8636 AVIATION BLVD., INGLEWOOD, CA 90301	FORMALDEHYDE	5000	33.958329	-118.375000
RHO-CHEM CORP.	425 ISIS AVE., INGLEWOOD, CA 90301	METHYL ETHYL KETONE	5000	33.958329	-118.375000
RHO-CHEM CORP.	425 ISIS AVE., INGLEWOOD, CA 90301	N-BUTYL ALCOHOL	5000	33.958329	-118.375000
RHO-CHEM CORP.	425 ISIS AVE., INGLEWOOD, CA 90301	METHANOL	5000	33.958329	-118.375000
RHO-CHEM CORP.	425 ISIS AVE., INGLEWOOD, CA 90301	TRICHLOROETHYLENE	5000	33.958329	-118.375000
RHO-CHEM CORP.	425 ISIS AVE., INGLEWOOD, CA 90301	"1,1,1-TRICHLOROETHA	5000	33.958329	-118.375000
RHO-CHEM CORP.	425 ISIS AVE., INGLEWOOD, CA 90301	TETRACHLOROETHYLENE	5000	33.958329	-118.375000
RHO-CHEM CORP.	425 ISIS AVE., INGLEWOOD, CA 90301	DICHLOROMETHANE	5000	33.958329	-118.375000
RHO-CHEM CORP.	425 ISIS AVE., INGLEWOOD, CA 90301	TOLUENE	5000	33.958329	-118.375000
RHO-CHEM CORP.	425 ISIS AVE., INGLEWOOD, CA 90301	XYLENE (MIXED ISOMER	5000	33.958329	-118.375000
RHO-CHEM CORP.	425 ISIS AVE., INGLEWOOD, CA 90301	FREON 113	5000	33.958329	-118.375000

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
GILLETTE CO. STATIONERY PRODS. GROUP	1681 26TH ST., SANTA MONICA, CA 90404	ETHYLENE GLYCOL	5600	34.027780	-118.465560
GILLETTE CO. STATIONERY PRODS. GROUP	1681 26TH ST., SANTA MONICA, CA 90404	TETRACHLOROETHYLENE	5600	34.027780	-118.465560
GILLETTE CO. STATIONERY PRODS. GROUP	1681 26TH ST., SANTA MONICA, CA 90404	COPPER	5600	34.027780	-118.465560
GILLETTE CO. STATIONERY PRODS. GROUP	1681 26TH ST., SANTA MONICA, CA 90404	METHYL ETHYL KETONE	5600	34.027780	-118.465560
COMMONWEALTH ALUMINUM - TORRANCE	2303 JEFFERSON ST., TORRANCE, CA 90501	XYLENE (MIXED ISOMER	5400	33.826670	-118.311669
COMMONWEALTH ALUMINUM - TORRANCE	2303 JEFFERSON ST., TORRANCE, CA 90501	N-BUTYL ALCOHOL	5400	33.826670	-118.311669
COMMONWEALTH ALUMINUM - TORRANCE	2303 JEFFERSON ST., TORRANCE, CA 90501	NAPHTHALENE	5400	33.826670	-118.311669
COMMONWEALTH ALUMINUM - TORRANCE	2303 JEFFERSON ST., TORRANCE, CA 90501	CERTAIN GLYCOL ETHER	5400	33.826670	-118.311669
COMMONWEALTH ALUMINUM - TORRANCE	2303 JEFFERSON ST., TORRANCE, CA 90501	"1,2,4-TRIMETHYLBENZ	5400	33.826670	-118.311669
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	CERTAIN GLYCOL ETHER	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	METHYL ETHYL KETONE	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	CUMENE HYDROPEROXIDE	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	MIXTURE	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	TOLUENE	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	ZINC COMPOUNDS	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	CYCLOHEXANE	5400	33.844440	-118.318060

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	N-HEXANE	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	ALUMINUM (FUME OR DU	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	"4,4'-ISOPROPYLIDENE	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	COPPER	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	ZINC (FUME OR DUST)	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	DIISOCYANATES	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	METHANOL	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	XYLENE (MIXED ISOMER	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	SODIUM NITRITE	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	MIXTURE	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	ETHYLENE GLYCOL	5400	33.844440	-118.318060
VIRCO MFG. CORP.	2027 HARPERS WAY, TORRANCE, CA 905011524	PROPYLENE	5400	33.844440	-118.318060
MARTIN BRASS FNDY.	2341 JEFFERSON ST., TORRANCE, CA 90501	COPPER	5100	33.816940	-118.316670
MARTIN BRASS FNDY.	2341 JEFFERSON ST., TORRANCE, CA 90501	LEAD	5100	33.816940	-118.316670
U.S. GYPSUM CO.	401 VAN NESS AVE., TORRANCE, CA 905011422	VINYL ACETATE	5400	33.844719	-118.317779
U.S. GYPSUM CO.	401 VAN NESS AVE., TORRANCE, CA 905011422	ZINC COMPOUNDS	5400	33.844719	-118.317779

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
U.S. GYPSUM CO.	401 VAN NESS AVE., TORRANCE, CA 905011422	METHANOL	5400	33.844719	-118.317779
U.S. GYPSUM CO.	401 VAN NESS AVE., TORRANCE, CA 905011422	N-METHYL-2-PYRROLIDO	5400	33.844719	-118.317779
U.S. GYPSUM CO.	401 VAN NESS AVE., TORRANCE, CA 905011422	CHLOROFORM	5400	33.844719	-118.317779
GERON FURNITURE INC.	19808 S. NORMANDIE AVE., TORRANCE, CA 90502	XYLENE (MIXED ISOMER	4100	33.842780	-118.298330
GERON FURNITURE INC.	19808 S. NORMANDIE AVE., TORRANCE, CA 90502	METHANOL	4100	33.842780	-118.298330
AMERICAN POLYSTYRENE CORP.	1225 W. 196TH ST., TORRANCE, CA 90503	STYRENE	6600	33.846670	-118.295280
R. R. DONNELLEY & SONS CO.	19681 PACIFIC GATEWAY DR., TORRANCE, CA	CERTAIN GLYCOL ETHER	4100	33.844999	-118.294169
R. R. DONNELLEY & SONS CO.	19681 PACIFIC GATEWAY DR., TORRANCE, CA	METHANOL	4100	33.844999	-118.294169
STEWART FILMSCREEN CORP.	1161 W. SEPULVEDA BLVD., TORRANCE, CA 90502	METHYL ISOBUTYL KETO	7200	33.812500	-118.296390
STEWART FILMSCREEN CORP.	1161 W. SEPULVEDA BLVD., TORRANCE, CA 90502	TOLUENE	7200	33.812500	-118.296390
STEWART FILMSCREEN CORP.	1161 W. SEPULVEDA BLVD., TORRANCE, CA 90502	XYLENE (MIXED ISOMER	7200	33.812500	-118.296390
DOW CHEMICAL CO. - TORRANCE	305 CRENSHAW BLVD., TORRANCE, CA 90503	CHLOROETHANE	5400	33.846670	-118.328610
DOW CHEMICAL CO. - TORRANCE	305 CRENSHAW BLVD., TORRANCE, CA 90503	"1-CHLORO-1, 1-DIFLUO	5400	33.846670	-118.328610
DOW CHEMICAL CO. - TORRANCE	305 CRENSHAW BLVD., TORRANCE, CA 90503	ZINC COMPOUNDS	5400	33.846670	-118.328610
DOW CHEMICAL CO. - TORRANCE	305 CRENSHAW BLVD., TORRANCE, CA 90503	DECABROMO DIPHENYL OX	5400	33.846670	-118.328610
DOW CHEMICAL CO. - TORRANCE	305 CRENSHAW BLVD., TORRANCE, CA 90503	ANTIMONY COMPOUNDS	5400	33.846670	-118.328610

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
DOW CHEMICAL CO. - TORRANCE	305 CRENSHAW BLVD., TORRANCE, CA 90503	ETHYLENE GLYCOL	5400	33.846670	-118.328610
DOW CHEMICAL CO. - TORRANCE	305 CRENSHAW BLVD., TORRANCE, CA 90503	CUMENE	5400	33.846670	-118.328610
DOW CHEMICAL CO. - TORRANCE	305 CRENSHAW BLVD., TORRANCE, CA 90503	ACRYLONITRILE	5400	33.846670	-118.328610
DOW CHEMICAL CO. - TORRANCE	305 CRENSHAW BLVD., TORRANCE, CA 90503	STYRENE	5400	33.846670	-118.328610
DOW CHEMICAL CO. - TORRANCE	305 CRENSHAW BLVD., TORRANCE, CA 90503	ETHYLBENZENE	5400	33.846670	-118.328610
PRESTONE PRODS. CORP.	19500 MARINER AVE., TORRANCE, CA 90503	ETHYLENE GLYCOL	4000	33.855279	-118.350000
PRESTONE PRODS. CORP.	19500 MARINER AVE., TORRANCE, CA 90503	METHANOL	4000	33.855279	-118.350000
PRESTONE PRODS. CORP.	19500 MARINER AVE., TORRANCE, CA 90503	NITRATE COMPOUNDS	4000	33.855279	-118.350000
PRAXAIR DISTRIBUTION INC.	19200 HAWTHORNE BLVD., TORRANCE, CA 905031505	PROPYLENE	4000	33.856110	-118.352779
UNION CARBIDE CORP.	19206 HAWTHORNE BLVD., TORRANCE, CA 90503	ACRYLONITRILE	4000	33.856110	-118.352779
UNION CARBIDE CORP.	19206 HAWTHORNE BLVD., TORRANCE, CA 90503	ETHYL ACRYLATE	4000	33.856110	-118.352779
UNION CARBIDE CORP.	19206 HAWTHORNE BLVD., TORRANCE, CA 90503	METHYL METHACRYLATE	4000	33.856110	-118.352779
UNION CARBIDE CORP.	19206 HAWTHORNE BLVD., TORRANCE, CA 90503	STYRENE	4000	33.856110	-118.352779
UNION CARBIDE CORP.	19206 HAWTHORNE BLVD., TORRANCE, CA 90503	VINYL ACETATE	4000	33.856110	-118.352779
UNION CARBIDE CORP.	19206 HAWTHORNE BLVD., TORRANCE, CA 90503	BUTYL ACRYLATE	4000	33.856110	-118.352779
UNION CARBIDE CORP.	19206 HAWTHORNE BLVD., TORRANCE, CA 90503	ACRYLIC ACID	4000	33.856110	-118.352779

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
"UNION CARBIDE CORP.,	19500 MARINER AVE., TORRANCE, CA 90503	DIETHANOLAMINE	4000	33.855279	-118.350000
"UNION CARBIDE CORP.,	19500 MARINER AVE., TORRANCE, CA 90503	METHANOL	4000	33.855279	-118.350000
"UNION CARBIDE CORP.,	19500 MARINER AVE., TORRANCE, CA 90503	VINYL ACETATE	4000	33.855279	-118.350000
"UNION CARBIDE CORP.,	19500 MARINER AVE., TORRANCE, CA 90503	BUTYL ACRYLATE	4000	33.855279	-118.350000
"UNION CARBIDE CORP.,	19500 MARINER AVE., TORRANCE, CA 90503	CERTAIN GLYCOL ETHER	4000	33.855279	-118.350000
"UNION CARBIDE CORP.,	19500 MARINER AVE., TORRANCE, CA 90503	METHYL ISOBUTYL KETO	4000	33.855279	-118.350000
"UNION CARBIDE CORP.,	19500 MARINER AVE., TORRANCE, CA 90503	N-BUTYL ALCOHOL	4000	33.855279	-118.350000
"UNION CARBIDE CORP.,	19500 MARINER AVE., TORRANCE, CA 90503	ETHYLENE GLYCOL	4000	33.855279	-118.350000
PPG INDS. INC.-TORRANCE	465 CRENSHAW BLVD., TORRANCE, CA 90503	N-BUTYL ALCOHOL	5400	33.850560	-118.328330
PPG INDS. INC.-TORRANCE	465 CRENSHAW BLVD., TORRANCE, CA 90503	METHYL ISOBUTYL KETO	5400	33.850560	-118.328330
PPG INDS. INC.-TORRANCE	465 CRENSHAW BLVD., TORRANCE, CA 90503	TOLUENE	5400	33.850560	-118.328330
PPG INDS. INC.-TORRANCE	465 CRENSHAW BLVD., TORRANCE, CA 90503	XYLENE (MIXED ISOMER	5400	33.850560	-118.328330
PPG INDS. INC.-TORRANCE	465 CRENSHAW BLVD., TORRANCE, CA 90503	CERTAIN GLYCOL ETHER	5400	33.850560	-118.328330
BOC GASES	2535 DEL AMO BLVD., TORRANCE, CA 90503	AMMONIA	5400	33.847780	-118.321110
BALL METAL BEVERAGE CONTAINER	500 CRENSHAW BLVD., TORRANCE, CA 905033129	CERTAIN GLYCOL ETHER	3200	33.925830	-118.317779
BALL METAL BEVERAGE CONTAINER	500 CRENSHAW BLVD., TORRANCE, CA 905033129	N-BUTYL ALCOHOL	3200	33.925830	-118.317779

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
BALL METAL BEVERAGE CONTAINER	500 CRENSHAW BLVD., TORRANCE, CA 905033129	HYDROGEN FLUORIDE	3200	33.925830	-118.317779
BALL METAL BEVERAGE CONTAINER	500 CRENSHAW BLVD., TORRANCE, CA 905033129	"SULFURIC ACID (1994	3200	33.925830	-118.317779
BALL METAL BEVERAGE CONTAINER	500 CRENSHAW BLVD., TORRANCE, CA 905033129	MANGANESE	3200	33.925830	-118.317779
"BACHEM, INC."	3132 KASHIWA ST., TORRANCE, CA 90505	ACETONITRIL E	5000	33.801390	-118.337500
"BACHEM, INC."	3132 KASHIWA ST., TORRANCE, CA 90505	DICHLOROME THANE	5000	33.801390	-118.337500
"BACHEM, INC."	3132 KASHIWA ST., TORRANCE, CA 90505	METHANOL	5000	33.801390	-118.337500
"BACHEM, INC."	3132 KASHIWA ST., TORRANCE, CA 90505	"N,N-DIMETH YLFORMAMI	5000	33.801390	-118.337500
GARRETT ENGINE BOOSTING SYS.	3201 W. LOMITA BLVD., TORRANCE, CA 90505	COPPER	5800	33.825000	-118.338890
GARRETT ENGINE BOOSTING SYS.	3201 W. LOMITA BLVD., TORRANCE, CA 90505	CHROMIUM	5800	33.825000	-118.338890
GARRETT ENGINE BOOSTING SYS.	3201 W. LOMITA BLVD., TORRANCE, CA 90505	LEAD	5800	33.825000	-118.338890
GARRETT ENGINE BOOSTING SYS.	3201 W. LOMITA BLVD., TORRANCE, CA 90505	NICKEL	5800	33.825000	-118.338890
GARRETT ENGINE BOOSTING SYS.	3201 W. LOMITA BLVD., TORRANCE, CA 90505	ZINC (FUME OR DUST)	5800	33.825000	-118.338890
FAIRCHILD FASTENERS - SOUTH BAY	3000 W. LOMITA BLVD., TORRANCE, CA 90505	NITRIC ACID	5000	33.808329	-118.333329
JCI JONES CHEMICALS INC.	1401 W. DEL AMO BLVD., TORRANCE, CA 90501	CHLORINE	6600	33.848060	-118.302220
JCI JONES CHEMICALS INC.	1401 W. DEL AMO BLVD., TORRANCE, CA 90501	NITRIC ACID	6600	33.848060	-118.302220
FARMER BROS CO.	20333 S. NORMANDIE AVE., TORRANCE, CA 90509	PROPYLENE OXIDE	6600	33.844999	-118.301670

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
HI-SHEAR CORP.	2600 SKYPARK DR., TORRANCE, CA 905055314	NITRIC ACID	4500	33.813330	-118.321940
HI-SHEAR CORP.	2600 SKYPARK DR., TORRANCE, CA 905055314	METHYL ETHYL KETONE	4500	33.813330	-118.321940
HI-SHEAR CORP.	2600 SKYPARK DR., TORRANCE, CA 905055314	NITRATE COMPOUNDS	4500	33.813330	-118.321940
HONEYWELL	2525 W. 190TH ST. MAIL STOP 23-1-62030, TORRANCE, CA	NICKEL	5400	33.858060	-118.320000
HONEYWELL	2525 W. 190TH ST. MAIL STOP 23-1-62030, TORRANCE, CA	NITRIC ACID	5400	33.858060	-118.320000
HONEYWELL	2525 W. 190TH ST. MAIL STOP 23-1-62030, TORRANCE, CA	TOLUENE	5400	33.858060	-118.320000
HONEYWELL	2525 W. 190TH ST. MAIL STOP 23-1-62030, TORRANCE, CA	NITRATE COMPOUNDS	5400	33.858060	-118.320000
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	ETHYLBENZENE	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	"1,3-BUTADIENE"	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	TOLUENE	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	PHENOL	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	N-HEXANE	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	CYCLOHEXANE	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	DIETHANOLAMINE	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	PROPYLENE	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	MOLYBDENUM TRIOXIDE	5400	33.847219	-118.316940

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	XYLENE (MIXED ISOMER	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	METHYL TERT-BUTYL ET	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	METHANOL	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	BENZENE	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	ETHYLENE	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	HYDROGEN FLUORIDE	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	AMMONIA	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	NAPHTHALEN E	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	"1,2,4-TRIMET HYLBENZ	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	NICKEL COMPOUNDS	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	ZINC COMPOUNDS	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	POLYCYCLIC AROMATIC	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	CHROMIUM COMPOUNDS	5400	33.847219	-118.316940
MOBIL TORRANCE REFY.	3700 W. 190TH ST., TORRANCE, CA 905092929	COPPER COMPOUNDS	5400	33.847219	-118.316940
QUAKER CITY PLATING & SILVERSMITH	11729 E. WASHINGTON BLVD., WHITTIER, CA	NICKEL COMPOUNDS	5900	33.969719	-118.060560
QUAKER CITY PLATING & SILVERSMITH	11729 E. WASHINGTON BLVD., WHITTIER, CA	NITRIC ACID	5900	33.969719	-118.060560

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
ULTRA WHEEL CO.	6300 VALLEY VIEW ST., BUENA PARK, CA 90620	COPPER	5300	33.869720	-118.028890
ULTRA WHEEL CO.	6300 VALLEY VIEW ST., BUENA PARK, CA 90620	LEAD	5300	33.869720	-118.028890
ULTRA WHEEL CO.	6300 VALLEY VIEW ST., BUENA PARK, CA 90620	NICKEL COMPOUNDS	5300	33.869720	-118.028890
ULTRA WHEEL CO.	6300 VALLEY VIEW ST., BUENA PARK, CA 90620	NITRATE COMPOUNDS	5300	33.869720	-118.028890
ULTRA WHEEL CO.	6300 VALLEY VIEW ST., BUENA PARK, CA 90620	NITRIC ACID	5300	33.869720	-118.028890
SOUTHERN CALIFORNIA EDISON	2500 E. VICTORIA ST., CYPRESS, CA 90630	N-HEXANE	2400	33.864719	-118.219440
SOUTHERN CALIFORNIA EDISON	2500 E. VICTORIA ST., CYPRESS, CA 90630	BENZENE	2400	33.864719	-118.219440
SOUTHERN CALIFORNIA EDISON	2500 E. VICTORIA ST., CYPRESS, CA 90630	DIISOCYANATES	2400	33.864719	-118.219440
U.S. GYPSUM CO.	14370 GANNET ST., LA MIRADA, CA 90638	ETHYLENE GLYCOL	4500	33.894720	-118.023890
WOODS EQUIPMENT CO.	14821 ARTESIA BLVD., LA MIRADA, CA 90638	MANGANESE	5600	34.091669	-118.405000
ROHM & HAAS CO.	14445 E. ALONDRA BLVD., LA MIRADA, CA 90638	BUTYL ACRYLATE	4500	33.888329	-118.021940
ROHM & HAAS CO.	14445 E. ALONDRA BLVD., LA MIRADA, CA 90638	METHYL METHACRYLATE	4500	33.888329	-118.021940
ROHM & HAAS CO.	14445 E. ALONDRA BLVD., LA MIRADA, CA 90638	STYRENE	4500	33.888329	-118.021940
ROHM & HAAS CO.	14445 E. ALONDRA BLVD., LA MIRADA, CA 90638	VINYL ACETATE	4500	33.888329	-118.021940
ROHM & HAAS CO.	14445 E. ALONDRA BLVD., LA MIRADA, CA 90638	N-METHYLOL ACRYLAMIDE	4500	33.888329	-118.021940
ROHM & HAAS CO.	14445 E. ALONDRA BLVD., LA MIRADA, CA 90638	ACRYLIC ACID	4500	33.888329	-118.021940

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
ROHM & HAAS CO.	14445 E. ALONDRA BLVD., LA MIRADA, CA 90638	CERTAIN GLYCOL ETHER	4500	33.888329	-118.021940
ROHM & HAAS CO.	14445 E. ALONDRA BLVD., LA MIRADA, CA 90638	FORMALDEHYDE	4500	33.888329	-118.021940
ROHM & HAAS CO.	14445 E. ALONDRA BLVD., LA MIRADA, CA 90638	ETHYLENE GLYCOL	4500	33.888329	-118.021940
SPARTECH PLASTICS	14263 GANNET ST., LA MIRADA, CA 906385287	STYRENE	4500	33.894169	-118.027220
E. T. HORN	16141 HERON AVE., LA MIRADA, CA 90638	BIS(2-CHLOROETHYL) E	4100	33.918890	-118.010829
HAYES-LEMMERZ INTL. INC.	14500 FIRESTONE BLVD., LA MIRADA, CA 906385913	ETHYLENE GLYCOL	4000	33.880279	-118.091670
HAYES-LEMMERZ INTL. INC.	14500 FIRESTONE BLVD., LA MIRADA, CA 906385913	ALUMINUM (FUME OR DU	4000	33.880279	-118.091670
CHEVRON PRODS. CO. MONTEBELLO	601 S. VAIL AVE., MONTEBELLO, CA 90640	BENZENE	3200	34.005830	-118.122499
CHEVRON PRODS. CO. MONTEBELLO	601 S. VAIL AVE., MONTEBELLO, CA 90640	TOLUENE	3200	34.005830	-118.122499
CHEVRON PRODS. CO. MONTEBELLO	601 S. VAIL AVE., MONTEBELLO, CA 90640	XYLENE (MIXED ISOMER	3200	34.005830	-118.122499
CHEVRON PRODS. CO. MONTEBELLO	601 S. VAIL AVE., MONTEBELLO, CA 90640	ETHYLBENZENE	3200	34.005830	-118.122499
CHEVRON PRODS. CO. MONTEBELLO	601 S. VAIL AVE., MONTEBELLO, CA 90640	N-HEXANE	3200	34.005830	-118.122499
CHEVRON PRODS. CO. MONTEBELLO	601 S. VAIL AVE., MONTEBELLO, CA 90640	"1,2,4-TRIMETHYLBENZ	3200	34.005830	-118.122499
CHEVRON PRODS. CO. MONTEBELLO	601 S. VAIL AVE., MONTEBELLO, CA 90640	METHYL TERT-BUTYL ET	3200	34.005830	-118.122499
LILLY INDS. INC.	901 W. UNION ST., MONTEBELLO, CA 90640	N-BUTYL ALCOHOL	6800	33.979999	-118.122219
LILLY INDS. INC.	901 W. UNION ST., MONTEBELLO, CA 90640	ETHYLBENZENE	6800	33.979999	-118.122219

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
LILLY INDS. INC.	901 W. UNION ST., MONTEBELLO, CA 90640	CERTAIN GLYCOL ETHER	6800	33.979999	-118.122219
LILLY INDS. INC.	901 W. UNION ST., MONTEBELLO, CA 90640	N-HEXANE	6800	33.979999	-118.122219
LILLY INDS. INC.	901 W. UNION ST., MONTEBELLO, CA 90640	METHANOL	6800	33.979999	-118.122219
LILLY INDS. INC.	901 W. UNION ST., MONTEBELLO, CA 90640	METHYL ETHYL KETONE	6800	33.979999	-118.122219
LILLY INDS. INC.	901 W. UNION ST., MONTEBELLO, CA 90640	METHYL ISOBUTYL KETO	6800	33.979999	-118.122219
LILLY INDS. INC.	901 W. UNION ST., MONTEBELLO, CA 90640	"1,2,4-TRIMET HYLBENZ	6800	33.979999	-118.122219
LILLY INDS. INC.	901 W. UNION ST., MONTEBELLO, CA 90640	TOLUENE	6800	33.979999	-118.122219
LILLY INDS. INC.	901 W. UNION ST., MONTEBELLO, CA 90640	XYLENE (MIXED ISOMER	6800	33.979999	-118.122219
CS INTEGRATED L.L.C.	13034 EXCELSIOR DR., NORWALK, CA 90650	AMMONIA	100	33.895829	-118.054169
TRANS WESTERN CHEMICALS	7766 INDUSTRY AVE., PICO RIVERA, CA 90660	BARIUM COMPOUNDS	4100	33.978059	-118.111940
TRANS WESTERN CHEMICALS	7766 INDUSTRY AVE., PICO RIVERA, CA 90660	CHROMIUM COMPOUNDS	4100	33.978059	-118.111940
TRANS WESTERN CHEMICALS	7766 INDUSTRY AVE., PICO RIVERA, CA 90660	LEAD COMPOUNDS	4100	33.978059	-118.111940
TRANS WESTERN CHEMICALS	7766 INDUSTRY AVE., PICO RIVERA, CA 90660	ANTIMONY COMPOUNDS	4100	33.978059	-118.111940
TRANS WESTERN CHEMICALS	7766 INDUSTRY AVE., PICO RIVERA, CA 90660	ZINC COMPOUNDS	4100	33.978059	-118.111940
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	TOLUENE	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	XYLENE (MIXED ISOMER	100	33.905000	-118.046109

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	METHANOL	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	N-HEXANE	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	DICHLOROMETHANE	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	CERTAIN GLYCOL ETHER	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	ETHYLENE GLYCOL	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	METHYL ETHYL KETONE	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	METHYL ISOBUTYL KETO	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	"1,2,4-TRIMETHYLBENZ	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	N-BUTYL ALCOHOL	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	SEC-BUTYL ALCOHOL	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	ETHYLBENZENE	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	NAPHTHALENE	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	CYCLOHEXANE	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	CUMENE	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	TRICHLOROETHYLENE	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	TETRACHLOROETHYLENE	100	33.905000	-118.046109

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	STYRENE	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	DIBUTYL PHTHALATE	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	DI(2-ETHYLHEXYL) PHT	100	33.905000	-118.046109
CHEMCENTRAL/ LOS ANGELES	13900 CARMENITA RD., SANTA FE SPRINGS, CA	DIETHANOLAMINE	100	33.905000	-118.046109
ITW CIP STAMPINGS	11525 S. SHOEMAKER AVE., SANTA FE SPRINGS, CA	NITRIC ACID	100	33.916670	-118.049999
ITW CIP STAMPINGS	11525 S. SHOEMAKER AVE., SANTA FE SPRINGS, CA	SODIUM NITRITE	100	33.916670	-118.049999
ITW CIP STAMPINGS	11525 S. SHOEMAKER AVE., SANTA FE SPRINGS, CA	NITRATE COMPOUNDS	100	33.916670	-118.049999
ITW CIP STAMPINGS	11525 S. SHOEMAKER AVE., SANTA FE SPRINGS, CA	ZINC COMPOUNDS	100	33.916670	-118.049999
CS INTEGRATED L.L.C.	13033 ARTIC CIRCLE, SANTA FE SPRINGS, CA 90670	AMMONIA	3700	33.854170	-118.073609
CUSTOM CHEMICAL FORMULATORS	8707 MILLERGROVE DR., SANTA FE SPRINGS, CA	CERTAIN GLYCOL ETHER	5400	33.966669	-118.079170
CUSTOM CHEMICAL FORMULATORS	8707 MILLERGROVE DR., SANTA FE SPRINGS, CA	CHROMIUM COMPOUNDS	5400	33.966669	-118.079170
CUSTOM CHEMICAL FORMULATORS	8707 MILLERGROVE DR., SANTA FE SPRINGS, CA	NITRATE COMPOUNDS	5400	33.966669	-118.079170
CUSTOM CHEMICAL FORMULATORS	8707 MILLERGROVE DR., SANTA FE SPRINGS, CA	NITRIC ACID	5400	33.966669	-118.079170
CUSTOM CHEMICAL FORMULATORS	8707 MILLERGROVE DR., SANTA FE SPRINGS, CA	"1,2,4-TRIMETHYLBENZ	5400	33.966669	-118.079170
CUSTOM CHEMICAL FORMULATORS	8707 MILLERGROVE DR., SANTA FE SPRINGS, CA	METHANOL	5400	33.966669	-118.079170
GRAPHIC DIES INC.	12335 FLORENCE AVE., SANTA FE SPRINGS, CA 90670	COPPER COMPOUNDS	8600	33.935279	-118.067779

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
GRAPHIC DIES INC.	12335 FLORENCE AVE., SANTA FE SPRINGS, CA 90670	DICHLOROMETHANE	8600	33.935279	-118.067779
GRAPHIC DIES INC.	12335 FLORENCE AVE., SANTA FE SPRINGS, CA 90670	"N,N-DIMETHYLFORMAMI	8600	33.935279	-118.067779
GRAPHIC DIES INC.	12335 FLORENCE AVE., SANTA FE SPRINGS, CA 90670	NITRIC ACID	8600	33.935279	-118.067779
GRAPHIC DIES INC.	12335 FLORENCE AVE., SANTA FE SPRINGS, CA 90670	AMMONIA	8600	33.935279	-118.067779
FOSS PLATING CO. INC.	8140 SECURA WAY, SANTA FE SPRINGS, CA 90670	NICKEL	7200	33.966669	-118.056940
M. A. HANNA RUBBER COMPOUNDING	11831 WAKEMAN ST., SANTA FE SPRINGS, CA 90670	DI(2-ETHYLHEXYL) PHT	6500	33.975000	-118.068060
M. A. HANNA RUBBER COMPOUNDING	11831 WAKEMAN ST., SANTA FE SPRINGS, CA 90670	ZINC COMPOUNDS	6500	33.975000	-118.068060
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	TOLUENE	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	PHENOL	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	AMMONIA	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	ASBESTOS (FRIABLE)	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	LEAD	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	ETHYLBENZENE	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	ETHYLENE	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	PROPYLENE	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	"1,3-BUTADIENE"	100	33.904169	-118.041670

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	ARSENIC	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	ZINC (FUME OR DUST)	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	CHROMIUM	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	NAPHTHALENE	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	O-XYLENE	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	NITRIC ACID	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	MERCURY	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	BENZENE	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	XYLENE (MIXED ISOMER	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	CUMENE	100	33.904169	-118.041670
GOLDEN WEST REFINING CO.	13539 E. FOSTER RD., SANTA FE SPRINGS, CA 90670	"1,2,4-TRIMETHYLBENZ	100	33.904169	-118.041670
CARROLL CO.	11641 PIKE ST., SANTA FE SPRINGS, CA 90670	CERTAIN GLYCOL ETHER	7200	33.954170	-118.070830
LEFIELL MFG. CO.	13700 FIRESTONE BLVD., SANTA FE SPRINGS, CA 90670	TETRACHLOROETHYLENE	6400	33.869440	-118.049720
ALL BLACK CO.	13090 PARK ST., SANTA FE SPRINGS, CA 90670	NITRATE COMPOUNDS	100	33.903060	-118.042780
PIONEER AMERICAS INC. SANTA FE	11600 PIKE ST., SANTA FE SPRINGS, CA 90670	CHLORINE	7200	33.956109	-118.074440
AIR LIQUIDE AMERICA CORP.	8832 DICE RD., SANTA FE SPRINGS, CA 90670	PROPYLENE	3800	33.931940	-118.051939

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
AMERICAN POLYMERS CORP.	14722 SPRING AVE., SANTA FE SPRINGS, CA 906705108	TOLUENE DIISOCYANATE	100	33.896389	-118.040000
AMERICAN POLYMERS CORP.	14722 SPRING AVE., SANTA FE SPRINGS, CA 906705108	DIISOCYANATES	100	33.896389	-118.040000
AMERICAN POLYMERS CORP.	14722 SPRING AVE., SANTA FE SPRINGS, CA 906705108	"1,2,4-TRIMETHYLBENZ	100	33.896389	-118.040000
AMERICAN POLYMERS CORP.	14722 SPRING AVE., SANTA FE SPRINGS, CA 906705108	ZINC (FUME OR DUST)	100	33.896389	-118.040000
ANGELES CHEMICAL CO. INC.	8915 SORENSON AVE., SANTA FE SPRINGS, CA 90670	METHYL ETHYL KETONE	7200	33.958609	-118.062500
ANGELES CHEMICAL CO. INC.	8915 SORENSON AVE., SANTA FE SPRINGS, CA 90670	DICHLOROMETHANE	7200	33.958609	-118.062500
ANGELES CHEMICAL CO. INC.	8915 SORENSON AVE., SANTA FE SPRINGS, CA 90670	XYLENE (MIXED ISOMER	7200	33.958609	-118.062500
ANGELES CHEMICAL CO. INC.	8915 SORENSON AVE., SANTA FE SPRINGS, CA 90670	TOLUENE	7200	33.958609	-118.062500
ANGELES CHEMICAL CO. INC.	8915 SORENSON AVE., SANTA FE SPRINGS, CA 90670	METHANOL	7200	33.958609	-118.062500
INSITUFORM TECHS. INC.	9445 ANN ST., SANTA FE SPRINGS, CA 906703797	STYRENE	7200	33.954999	-118.056390
U.S. INK CORP.	13710 BORATE ST., SANTA FE SPRINGS, CA 90670	BARIUM COMPOUNDS	100	33.899999	-118.033330
"P.F.I., INC."	9215 SANTA FE SPRINGS RD., SANTA FE SPRINGS, CA	METHYL ETHYL KETONE	7000	33.958329	-118.041670
"P.F.I., INC."	9215 SANTA FE SPRINGS RD., SANTA FE SPRINGS, CA	XYLENE (MIXED ISOMER	7000	33.958329	-118.041670
"P.F.I., INC."	9215 SANTA FE SPRINGS RD., SANTA FE SPRINGS, CA	CERTAIN GLYCOL ETHER	7000	33.958329	-118.041670
HERAEUS METAL PROCESSING	13429 ALONDRA BLVD., SANTA FE SPRINGS, CA	"SULFURIC ACID (1994	100	33.888610	-118.045280
HERAEUS METAL PROCESSING	13429 ALONDRA BLVD., SANTA FE SPRINGS, CA	ZINC COMPOUNDS	100	33.888610	-118.045280

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
HERAEUS METAL PROCESSING	13429 ALONDRA BLVD., SANTA FE SPRINGS, CA	AMMONIA	100	33.888610	-118.045280
HERAEUS METAL PROCESSING	13429 ALONDRA BLVD., SANTA FE SPRINGS, CA	FORMIC ACID	100	33.888610	-118.045280
HERAEUS METAL PROCESSING	13429 ALONDRA BLVD., SANTA FE SPRINGS, CA	HYDRAZINE	100	33.888610	-118.045280
HERAEUS METAL PROCESSING	13429 ALONDRA BLVD., SANTA FE SPRINGS, CA	NITRATE COMPOUNDS	100	33.888610	-118.045280
HERAEUS METAL PROCESSING	13429 ALONDRA BLVD., SANTA FE SPRINGS, CA	SILVER COMPOUNDS	100	33.888610	-118.045280
HERAEUS METAL PROCESSING	13429 ALONDRA BLVD., SANTA FE SPRINGS, CA	NITRIC ACID	100	33.888610	-118.045280
HERAEUS METAL PROCESSING	13429 ALONDRA BLVD., SANTA FE SPRINGS, CA	"HYDROCHLORIC ACID (	100	33.888610	-118.045280
PLASTICS RESEARCH CORP.	13538 EXCELSIOR DR., SANTA FE SPRINGS, CA	STYRENE	100	33.898059	-118.033890
PRESSURE VESSEL SERVICE INC.	12522 LOS NIETOS RD., SANTA FE SPRINGS, CA 90670	NITRIC ACID	3800	33.945830	-118.058330
SONIC PLATING CO. INC.	13002 LOS NIETOS RD., SANTA FE SPRINGS, CA	ZINC (FUME OR DUST)	3800	33.944439	-118.047220
ASSOCIATED PLATING ACQUISITION	9636 ANN ST., SANTA FE SPRINGS, CA 90670	TETRACHLOROETHYLENE	7200	33.952499	-118.058610
PHIBRO-TECH INC.	8851 DICE RD., SANTA FE SPRINGS, CA 90670	CHLORINE	7200	33.962499	-118.062500
PHIBRO-TECH INC.	8851 DICE RD., SANTA FE SPRINGS, CA 90670	AMMONIA	7200	33.962499	-118.062500
PHIBRO-TECH INC.	8851 DICE RD., SANTA FE SPRINGS, CA 90670	COPPER COMPOUNDS	7200	33.962499	-118.062500
PHIBRO-TECH INC.	8851 DICE RD., SANTA FE SPRINGS, CA 90670	NITRATE COMPOUNDS	7200	33.962499	-118.062500
T-CHEM PROD.INC.	9028 DICE RD., SANTA FE SPRINGS, CA 906702520	CHLORINE	7200	33.957220	-118.066559

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
T-CHEM PROD.INC.	9028 DICE RD., SANTA FE SPRINGS, CA 906702520	AMMONIA	7200	33.957220	-118.066559
TROJAN BATTERY	12380 CLARK ST., SANTA FE SPRINGS, CA 90670	LEAD COMPOUNDS	8600	33.938609	-118.067779
TROJAN BATTERY	12380 CLARK ST., SANTA FE SPRINGS, CA 90670	ANTIMONY COMPOUNDS	8600	33.938609	-118.067779
TROJAN BATTERY	12380 CLARK ST., SANTA FE SPRINGS, CA 90670	"SULFURIC ACID (1994	8600	33.938609	-118.067779
TROJAN BATTERY CO.	9440 ANN ST., SANTA FE SPRINGS, CA 90670	LEAD COMPOUNDS	7200	33.954719	-118.055280
TROJAN BATTERY CO.	9440 ANN ST., SANTA FE SPRINGS, CA 90670	ARSENIC COMPOUNDS	7200	33.954719	-118.055280
TROJAN BATTERY CO.	9440 ANN ST., SANTA FE SPRINGS, CA 90670	ANTIMONY COMPOUNDS	7200	33.954719	-118.055280
TROJAN BATTERY CO.	9440 ANN ST., SANTA FE SPRINGS, CA 90670	BARIUM COMPOUNDS	7200	33.954719	-118.055280
TROJAN BATTERY CO.	9440 ANN ST., SANTA FE SPRINGS, CA 90670	"SULFURIC ACID (1994	7200	33.954719	-118.055280
THE VALVOLINE CO.	9520 JOHN ST., SANTA FE SPRINGS, CA 90670	ZINC COMPOUNDS	3800	33.954719	-118.052220
CALIFORNIA DAIRIES INC.	11709 E. ARTESIA BLVD., ARTESIA, CA 907016210	NITRIC ACID	3700	33.875000	-118.083329
CALIFORNIA DAIRIES INC.	11709 E. ARTESIA BLVD., ARTESIA, CA 907016210	NITRATE COMPOUNDS	3700	33.875000	-118.083329
FOAM MOLDERS & SPECIALTIES	20004 STATE RD., CERRITOS, CA 90703	DIISOCYANATES	1200	33.765279	-118.093890
FREDRICK RAMOND INC.	16121 CARMENITA RD., CERRITOS, CA 90703	COPPER	4300	33.879170	-118.045829
INTERNATIONAL COATINGS CO. INC.	13929 E. 166TH ST., CERRITOS, CA 90702	TOLUENE	4300	33.879170	-118.037500
INTERNATIONAL COATINGS CO. INC.	13929 E. 166TH ST., CERRITOS, CA 90702	DI(2-ETHYLHEXYL) PHT	4300	33.879170	-118.037500

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
INTERNATIONAL COATINGS CO. INC.	13929 E. 166TH ST., CERRITOS, CA 90702	METHYL ETHYL KETONE	4300	33.879170	-118.037500
FOAM SPECIALTIES	11110 BUSINESS CIRCLE, CERRITOS, CA 90703	TOLUENE	6100	33.870000	-118.096939
FOAM SPECIALTIES	11110 BUSINESS CIRCLE, CERRITOS, CA 90703	XYLENE (MIXED ISOMER	6100	33.870000	-118.096939
VARIAN SAMPLE PREPARATION PRODS.	24201 FRAMPTON AVE., HARBOR CITY, CA 907102105	TOLUENE	4300	33.805000	-118.299440
VARIAN SAMPLE PREPARATION PRODS.	24201 FRAMPTON AVE., HARBOR CITY, CA 907102105	METHANOL	4300	33.805000	-118.299440
PRIME WHEEL CORP.	24000 S. VERMONT AVE., HARBOR CITY, CA 90710	CHROMIUM COMPOUNDS	5000	33.799440	-118.366940
CARLTON FORGE WORKS	7743 E. ADAMS ST., PARAMOUNT, CA 907234200	NICKEL	5000	33.896670	-118.163329
CARLTON FORGE WORKS	7743 E. ADAMS ST., PARAMOUNT, CA 907234200	CHROMIUM	5000	33.896670	-118.163329
CARLTON FORGE WORKS	7743 E. ADAMS ST., PARAMOUNT, CA 907234200	COBALT	5000	33.896670	-118.163329
CARLTON FORGE WORKS	7743 E. ADAMS ST., PARAMOUNT, CA 907234200	COPPER	5000	33.896670	-118.163329
CARLTON FORGE WORKS	7743 E. ADAMS ST., PARAMOUNT, CA 907234200	ALUMINUM (FUME OR DU	5000	33.896670	-118.163329
CARLTON FORGE WORKS	7743 E. ADAMS ST., PARAMOUNT, CA 907234200	MANGANESE	5000	33.896670	-118.163329
CERRO METAL PRODS. CO.	14900 GARFIELD AVE., PARAMOUNT, CA 90723	COPPER	5000	33.899719	-118.165559
CERRO METAL PRODS. CO.	14900 GARFIELD AVE., PARAMOUNT, CA 90723	LEAD	5000	33.899719	-118.165559
CERRO METAL PRODS. CO.	14900 GARFIELD AVE., PARAMOUNT, CA 90723	ZINC (FUME OR DUST)	5000	33.899719	-118.165559
CERRO METAL PRODS. CO.	14900 GARFIELD AVE., PARAMOUNT, CA 90723	"SULFURIC ACID (1994	5000	33.899719	-118.165559

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
LOCKHART IND.	15707 TEXACO ST., PARAMOUNT, CA 907233921	TETRACHLOROETHYLENE	4100	33.896940	-118.175279
ANAPLEX CORP.	15547 GARFIELD AVE., PARAMOUNT, CA 90723	TETRACHLOROETHYLENE	4300	33.891390	-118.165559
PARAMOUNT PETROLEUM CORP.	14700 DOWNEY AVE., PARAMOUNT, CA 907234018	BENZENE	5000	33.902219	-118.162500
PARAMOUNT PETROLEUM CORP.	14700 DOWNEY AVE., PARAMOUNT, CA 907234018	AMMONIA	5000	33.902219	-118.162500
PARAMOUNT PETROLEUM CORP.	14700 DOWNEY AVE., PARAMOUNT, CA 907234018	CYCLOHEXANE	5000	33.902219	-118.162500
PARAMOUNT PETROLEUM CORP.	14700 DOWNEY AVE., PARAMOUNT, CA 907234018	ETHYLBENZENE	5000	33.902219	-118.162500
PARAMOUNT PETROLEUM CORP.	14700 DOWNEY AVE., PARAMOUNT, CA 907234018	TOLUENE	5000	33.902219	-118.162500
PARAMOUNT PETROLEUM CORP.	14700 DOWNEY AVE., PARAMOUNT, CA 907234018	"1,2,4-TRIMETHYLBENZ	5000	33.902219	-118.162500
PARAMOUNT PETROLEUM CORP.	14700 DOWNEY AVE., PARAMOUNT, CA 907234018	XYLENE (MIXED ISOMER	5000	33.902219	-118.162500
PARAMOUNT PETROLEUM CORP.	14700 DOWNEY AVE., PARAMOUNT, CA 907234018	ASBESTOS (FRIABLE)	5000	33.902219	-118.162500
PARAMOUNT PETROLEUM CORP.	14700 DOWNEY AVE., PARAMOUNT, CA 907234018	CUMENE	5000	33.902219	-118.162500
PARAMOUNT PETROLEUM CORP.	14700 DOWNEY AVE., PARAMOUNT, CA 907234018	NAPHTHALENE	5000	33.902219	-118.162500
PARAMOUNT PETROLEUM CORP.	14700 DOWNEY AVE., PARAMOUNT, CA 907234018	COBALT COMPOUNDS	5000	33.902219	-118.162500
PARAMOUNT PETROLEUM CORP.	14700 DOWNEY AVE., PARAMOUNT, CA 907234018	MOLYBDENUM TRIOXIDE	5000	33.902219	-118.162500
PARAMOUNT PETROLEUM CORP.	14700 DOWNEY AVE., PARAMOUNT, CA 907234018	NICKEL COMPOUNDS	5000	33.902219	-118.162500
LINDBERG HEAT TREATING CO. ALUMATHERM	15535 TEXACO ST., PARAMOUNT, CA 90723	NITRATE COMPOUNDS	7600	33.875000	-118.125000

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
SURFACE TREATMENT & INSPECTION	7517 JEFFERSON ST., PARAMOUNT, CA 907234027	NITRATE COMPOUNDS	4300	33.892780	-118.169440
SURFACE TREATMENT & INSPECTION	7517 JEFFERSON ST., PARAMOUNT, CA 907234027	NITRIC ACID	4300	33.892780	-118.169440
SURFACE TREATMENT & INSPECTION	7517 JEFFERSON ST., PARAMOUNT, CA 907234027	HYDROGEN FLUORIDE	4300	33.892780	-118.169440
WEBER METALS INC.	16706 GARFIELD AVE., PARAMOUNT, CA 907235315	NITRIC ACID	6200	33.883060	-118.169440
WEBER METALS INC.	16706 GARFIELD AVE., PARAMOUNT, CA 907235315	NITRATE COMPOUNDS	6200	33.883060	-118.169440
JANKOVICH CO. PARAMOUNT FACILITY	14066 GARFIELD AVE., PARAMOUNT, CA 90723	BENZENE	5000	33.905000	-118.166670
JANKOVICH CO. PARAMOUNT FACILITY	14066 GARFIELD AVE., PARAMOUNT, CA 90723	ETHYLBENZENE	5000	33.905000	-118.166670
JANKOVICH CO. PARAMOUNT FACILITY	14066 GARFIELD AVE., PARAMOUNT, CA 90723	N-HEXANE	5000	33.905000	-118.166670
JANKOVICH CO. PARAMOUNT FACILITY	14066 GARFIELD AVE., PARAMOUNT, CA 90723	METHYL TERT-BUTYL ET	5000	33.905000	-118.166670
JANKOVICH CO. PARAMOUNT FACILITY	14066 GARFIELD AVE., PARAMOUNT, CA 90723	TOLUENE	5000	33.905000	-118.166670
JANKOVICH CO. PARAMOUNT FACILITY	14066 GARFIELD AVE., PARAMOUNT, CA 90723	XYLENE (MIXED ISOMER	5000	33.905000	-118.166670
JANKOVICH CO. PARAMOUNT FACILITY	14066 GARFIELD AVE., PARAMOUNT, CA 90723	ZINC COMPOUNDS	5000	33.905000	-118.166670
HEINZ PET PRODS.	1054 WAYS ST., TERMINAL ISLAND, CA 90731	ZINC COMPOUNDS	1400	33.736390	-118.263890
HEINZ PET PRODS.	1054 WAYS ST., TERMINAL ISLAND, CA 90731	XYLENE (MIXED ISOMER	1400	33.736390	-118.263890
HEINZ PET PRODS.	1054 WAYS ST., TERMINAL ISLAND, CA 90731	TOLUENE	1400	33.736390	-118.263890
HEINZ PET PRODS.	1054 WAYS ST., TERMINAL ISLAND, CA 90731	METHYL ISOBUTYL KETO	1400	33.736390	-118.263890

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
HEINZ PET PRODS.	1054 WAYS ST., TERMINAL ISLAND, CA 90731	CERTAIN GLYCOL ETHER	1400	33.736390	-118.263890
HEINZ PET PRODS.	1054 WAYS ST., TERMINAL ISLAND, CA 90731	ETHYLBENZENE	1400	33.736390	-118.263890
HEINZ PET PRODS.	1054 WAYS ST., TERMINAL ISLAND, CA 90731	N-BUTYL ALCOHOL	1400	33.736390	-118.263890
JANKOVICH CO. - SAN PEDRO MARINE	BERTH 74, SAN PEDRO, CA 90731	XYLENE (MIXED ISOMER	1400	33.738330	-118.267220
JANKOVICH CO. - SAN PEDRO MARINE	BERTH 74, SAN PEDRO, CA 90731	METHYL TERT-BUTYL ET	1400	33.738330	-118.267220
JANKOVICH CO. - SAN PEDRO MARINE	BERTH 74, SAN PEDRO, CA 90731	TOLUENE	1400	33.738330	-118.267220
MOBIL OIL SOUTHWESTERN TERMINAL	799 S SEASIDE AVE., SAN PEDRO, CA 90731	BENZENE	1400	33.735000	-118.264440
MOBIL OIL SOUTHWESTERN TERMINAL	799 S SEASIDE AVE., SAN PEDRO, CA 90731	ETHYLBENZENE	1400	33.735000	-118.264440
MOBIL OIL SOUTHWESTERN TERMINAL	799 S SEASIDE AVE., SAN PEDRO, CA 90731	METHYL TERT-BUTYL ET	1400	33.735000	-118.264440
MOBIL OIL SOUTHWESTERN TERMINAL	799 S SEASIDE AVE., SAN PEDRO, CA 90731	N-HEXANE	1400	33.735000	-118.264440
MOBIL OIL SOUTHWESTERN TERMINAL	799 S SEASIDE AVE., SAN PEDRO, CA 90731	TOLUENE	1400	33.735000	-118.264440
MOBIL OIL SOUTHWESTERN TERMINAL	799 S SEASIDE AVE., SAN PEDRO, CA 90731	XYLENE (MIXED ISOMER	1400	33.735000	-118.264440
HUNTWAY REFINING CO.	1651 ALAMEDA ST., WILMINGTON, CA 90744	N-HEXANE	2500	33.791670	-118.241669
HUNTWAY REFINING CO.	1651 ALAMEDA ST., WILMINGTON, CA 90744	BENZENE	2500	33.791670	-118.241669
HUNTWAY REFINING CO.	1651 ALAMEDA ST., WILMINGTON, CA 90744	XYLENE (MIXED ISOMER	2500	33.791670	-118.241669
HUNTWAY REFINING CO.	1651 ALAMEDA ST., WILMINGTON, CA 90744	NAPHTHALENE	2500	33.791670	-118.241669

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
HUNTWAY REFINING CO.	1651 ALAMEDA ST., WILMINGTON, CA 90744	TOLUENE	2500	33.791670	-118.241669
HUNTWAY REFINING CO.	1651 ALAMEDA ST., WILMINGTON, CA 90744	CYCLOHEXANE	2500	33.791670	-118.241669
HUNTWAY REFINING CO.	1651 ALAMEDA ST., WILMINGTON, CA 90744	ETHYLBENZENE	2500	33.791670	-118.241669
ULTRAMAR MARINE TERMINAL	961 LA PALOMA ST., WILMINGTON, CA 90744	BENZENE	3300	33.759439	-118.266670
ULTRAMAR MARINE TERMINAL	961 LA PALOMA ST., WILMINGTON, CA 90744	CYCLOHEXANE	3300	33.759439	-118.266670
ULTRAMAR MARINE TERMINAL	961 LA PALOMA ST., WILMINGTON, CA 90744	N-HEXANE	3300	33.759439	-118.266670
ULTRAMAR MARINE TERMINAL	961 LA PALOMA ST., WILMINGTON, CA 90744	TOLUENE	3300	33.759439	-118.266670
ULTRAMAR MARINE TERMINAL	961 LA PALOMA ST., WILMINGTON, CA 90744	XYLENE (MIXED ISOMER	3300	33.759439	-118.266670
PRAXAIR INC.	2300 E. PACIFIC COAST HWY., WILMINGTON, CA	AMMONIA	2500	33.790279	-118.227779
U.S. BORAX INC. WILMINGTON FACILITY	300 FALCON ST., WILMINGTON, CA 90744	ZINC COMPOUNDS	3300	33.757779	-118.267220
AIR PRODS. & CHEMICALS INC.	700 HENRY FORD AVE., WILMINGTON, CA 90744	METHANOL	3300	33.780000	-118.238060
AIR PRODS. & CHEMICALS INC.	700 HENRY FORD AVE., WILMINGTON, CA 90744	AMMONIA	3300	33.780000	-118.238060
TOSCO REFINING CO. MARINE	150 PIER A ST. PORT OF LOS ANGELES, WILMINGTON, CA	BENZENE	3600	33.800559	-118.267220
TOSCO REFINING CO. MARINE	150 PIER A ST. PORT OF LOS ANGELES, WILMINGTON, CA	CYCLOHEXANE	3600	33.800559	-118.267220
TOSCO REFINING CO. MARINE	150 PIER A ST. PORT OF LOS ANGELES, WILMINGTON, CA	ETHYLBENZENE	3600	33.800559	-118.267220
TOSCO REFINING CO. MARINE	150 PIER A ST. PORT OF LOS ANGELES, WILMINGTON, CA	N-HEXANE	3600	33.800559	-118.267220

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
TOSCO REFINING CO. MARINE	150 PIER A ST. PORT OF LOS ANGELES, WILMINGTON, CA	METHYL TERT-BUTYL ET	3600	33.800559	-118.267220
TOSCO REFINING CO. MARINE	150 PIER A ST. PORT OF LOS ANGELES, WILMINGTON, CA	NAPHTHALEN E	3600	33.800559	-118.267220
TOSCO REFINING CO. MARINE	150 PIER A ST. PORT OF LOS ANGELES, WILMINGTON, CA	TOLUENE	3600	33.800559	-118.267220
TOSCO REFINING CO. MARINE	150 PIER A ST. PORT OF LOS ANGELES, WILMINGTON, CA	"1,2,4-TRIMET HYLBENZ	3600	33.800559	-118.267220
TOSCO REFINING CO. MARINE	150 PIER A ST. PORT OF LOS ANGELES, WILMINGTON, CA	XYLENE (MIXED ISOMER	3600	33.800559	-118.267220
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	BENZENE	2500	33.791670	-118.235559
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	ETHYLBENZE NE	2500	33.791670	-118.235559
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	METHYL TERT-BUTYL ET	2500	33.791670	-118.235559
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	N-HEXANE	2500	33.791670	-118.235559
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	TOLUENE	2500	33.791670	-118.235559
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	"1,2,4-TRIMET HYLBENZ	2500	33.791670	-118.235559
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	XYLENE (MIXED ISOMER	2500	33.791670	-118.235559
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	ZINC COMPOUNDS	2500	33.791670	-118.235559
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	NICKEL COMPOUNDS	2500	33.791670	-118.235559
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	CUMENE	2500	33.791670	-118.235559
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	CYCLOHEXAN E	2500	33.791670	-118.235559

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	METHANOL	2500	33.791670	-118.235559
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	NAPHTHALENE	2500	33.791670	-118.235559
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	PHENOL	2500	33.791670	-118.235559
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	STYRENE	2500	33.791670	-118.235559
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	CRESOL (MIXED ISOMER	2500	33.791670	-118.235559
EQUILON WILMINGTON TERMINAL	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	PROPYLENE	2500	33.791670	-118.235559
EQUILON LOS ANGELES LUBRICANTS	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	ZINC COMPOUNDS	2500	33.791670	-118.235559
EQUILON LOS ANGELES LUBRICANTS	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	XYLENE (MIXED ISOMER	2500	33.791670	-118.235559
EQUILON LOS ANGELES LUBRICANTS	1926 E. PACIFIC COAST HWY., WILMINGTON, CA	ETHYLBENZENE	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	"1,2,4-TRIMETHYLBENZ	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	"1,3-BUTADIENE"	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	AMMONIA	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	BENZENE	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	CRESOL (MIXED ISOMER	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	CYCLOHEXANE	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	DIETHANOLAMINE	2500	33.791670	-118.235559

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	ETHYLBENZENE	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	ETHYLENE	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	N-HEXANE	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	M-XYLENE	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	METHANOL	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	METHYL TERT-BUTYL ET	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	MOLYBDENUM TRIOXIDE	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	NAPHTHALENE	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	NICKEL COMPOUNDS	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	O-XYLENE	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	P-XYLENE	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	PHENOL	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	POLYCYCLIC AROMATIC	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	PROPYLENE	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	TOLUENE	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	ZINC COMPOUNDS	2500	33.791670	-118.235559

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	CUMENE	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	PHENANTHRENE	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	STYRENE	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	XYLENE (MIXED ISOMER	2500	33.791670	-118.235559
EQUILON ENTERPRISES LLC; LOS	2101 E. PACIFIC COAST HWY., WILMINGTON, CA	COPPER COMPOUNDS	2500	33.791670	-118.235559
GEON CO.	2104 E. 223RD ST., CARSON, CA 90745	BARIUM COMPOUNDS	4400	33.824169	-118.235559
GEON CO.	2104 E. 223RD ST., CARSON, CA 90745	CHROMIUM COMPOUNDS	4400	33.824169	-118.235559
GEON CO.	2104 E. 223RD ST., CARSON, CA 90745	LEAD COMPOUNDS	4400	33.824169	-118.235559
GEON CO.	2104 E. 223RD ST., CARSON, CA 90745	DI(2-ETHYLHEXYL) PHT	4400	33.824169	-118.235559
GEON CO.	2104 E. 223RD ST., CARSON, CA 90745	ANTIMONY COMPOUNDS	4400	33.824169	-118.235559
HUCK INTL. INC.	900 WATSONCENTER RD., CARSON, CA 90745	NITRATE COMPOUNDS	4400	33.819439	-118.256670
HUCK INTL. INC.	900 WATSONCENTER RD., CARSON, CA 90745	NITRIC ACID	4400	33.819439	-118.256670
SHERWIN-WILLIAMS CO. (VICTORVILLE)	12401 INDUSTRIAL BLVD., VICTORVILLE, CA 92392	ETHYLENE GLYCOL	5200	33.835559	-118.263890
SHERWIN-WILLIAMS CO. (VICTORVILLE)	12401 INDUSTRIAL BLVD., VICTORVILLE, CA 92392	XYLENE (MIXED ISOMER	5200	33.835559	-118.263890
SHERWIN-WILLIAMS CO. (VICTORVILLE)	12401 INDUSTRIAL BLVD., VICTORVILLE, CA 92392	CERTAIN GLYCOL ETHER	5200	33.835559	-118.263890
SHERWIN-WILLIAMS CO. (VICTORVILLE)	12401 INDUSTRIAL BLVD., VICTORVILLE, CA 92392	"1,2,4-TRIMETHYLBENZ	5200	33.835559	-118.263890

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
SHERWIN-WILLIAMS CO. (VICTORVILLE)	12401 INDUSTRIAL BLVD., VICTORVILLE, CA 92392	TOLUENE	5200	33.835559	-118.263890
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	CYCLOHEXANE	4400	33.804439	-118.235000
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	AMMONIA	4400	33.804439	-118.235000
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	DIETHANOLAMINE	4400	33.804439	-118.235000
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	N-HEXANE	4400	33.804439	-118.235000
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	BENZENE	4400	33.804439	-118.235000
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	ETHYLBENZENE	4400	33.804439	-118.235000
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	METHANOL	4400	33.804439	-118.235000
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	NICKEL COMPOUNDS	4400	33.804439	-118.235000
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	PHENOL	4400	33.804439	-118.235000
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	PROPYLENE	4400	33.804439	-118.235000
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	TOLUENE	4400	33.804439	-118.235000
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	XYLENE (MIXED ISOMER	4400	33.804439	-118.235000
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	"1,2,4-TRIMETHYLBENZ	4400	33.804439	-118.235000
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	ETHYLENE	4400	33.804439	-118.235000
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	CHLORINE	4400	33.804439	-118.235000

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	NAPHTHALENE	4400	33.804439	-118.235000
TOSCO REFINING CO. LOS ANGELES	1520 E. SEPULVEDA BLVD., CARSON, CA 90745	"1,3-BUTADIENE"	4400	33.804439	-118.235000
NALCO CHEMICAL CO.	2111 E. DOMINGUEZ ST., CARSON, CA 90810	NAPHTHALENE	7100	33.840829	-118.229439
NALCO CHEMICAL CO.	2111 E. DOMINGUEZ ST., CARSON, CA 90810	METHANOL	7100	33.840829	-118.229439
NALCO CHEMICAL CO.	2111 E. DOMINGUEZ ST., CARSON, CA 90810	XYLENE (MIXED ISOMER	7100	33.840829	-118.229439
NALCO CHEMICAL CO.	2111 E. DOMINGUEZ ST., CARSON, CA 90810	ETHYLENE GLYCOL	7100	33.840829	-118.229439
NALCO CHEMICAL CO.	2111 E. DOMINGUEZ ST., CARSON, CA 90810	SODIUM NITRITE	7100	33.840829	-118.229439
ARCO PRODS. CO. CARSON PRODS.	2149 E. SEPULVEDA BLVD., CARSON, CA 90745	CYCLOHEXANE	4400	33.808329	-118.231940
ARCO PRODS. CO. CARSON PRODS.	2149 E. SEPULVEDA BLVD., CARSON, CA 90745	ETHYLBENZENE	4400	33.808329	-118.231940
ARCO PRODS. CO. CARSON PRODS.	2149 E. SEPULVEDA BLVD., CARSON, CA 90745	N-HEXANE	4400	33.808329	-118.231940
ARCO PRODS. CO. CARSON PRODS.	2149 E. SEPULVEDA BLVD., CARSON, CA 90745	METHYL TERT-BUTYL ET	4400	33.808329	-118.231940
ARCO PRODS. CO. CARSON PRODS.	2149 E. SEPULVEDA BLVD., CARSON, CA 90745	TOLUENE	4400	33.808329	-118.231940
ARCO PRODS. CO. CARSON PRODS.	2149 E. SEPULVEDA BLVD., CARSON, CA 90745	"1,2,4-TRIMETHYLBENZ	4400	33.808329	-118.231940
ARCO PRODS. CO. CARSON PRODS.	2149 E. SEPULVEDA BLVD., CARSON, CA 90745	XYLENE (MIXED ISOMER	4400	33.808329	-118.231940
ARCO PRODS. CO. CARSON PRODS.	2149 E. SEPULVEDA BLVD., CARSON, CA 90745	BENZENE	4400	33.808329	-118.231940
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	BENZENE	7100	33.840280	-118.241669

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	ETHYLBENZENE	7100	33.840280	-118.241669
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	METHYL TERT-BUTYL ET	7100	33.840280	-118.241669
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	N-HEXANE	7100	33.840280	-118.241669
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	TOLUENE	7100	33.840280	-118.241669
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	"1,2,4-TRIMETHYLBENZ	7100	33.840280	-118.241669
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	XYLENE (MIXED ISOMER	7100	33.840280	-118.241669
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	N-BUTYL ALCOHOL	7100	33.840280	-118.241669
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	SEC-BUTYL ALCOHOL	7100	33.840280	-118.241669
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	CUMENE	7100	33.840280	-118.241669
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	CYCLOHEXANE	7100	33.840280	-118.241669
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	CERTAIN GLYCOL ETHER	7100	33.840280	-118.241669
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	"N,N-DIMETHYLFORMAMI	7100	33.840280	-118.241669
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	ETHYLENE GLYCOL	7100	33.840280	-118.241669
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	METHANOL	7100	33.840280	-118.241669
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	METHYL ETHYL KETONE	7100	33.840280	-118.241669
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	METHYL ISOBUTYL KETO	7100	33.840280	-118.241669

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	NAPHTHALENE	7100	33.840280	-118.241669
EQUILON CARSON TERMINAL	20945 S. WILMINGTON AVE., CARSON, CA 908101039	TERT-BUTYL ALCOHOL	7100	33.840280	-118.241669
JOHNSON LAMINATING & COATING INC.	20631 ANNALEE AVE., CARSON, CA 90746	METHYL ETHYL KETONE	7100	33.842780	-118.253059
JOHNSON LAMINATING & COATING INC.	20631 ANNALEE AVE., CARSON, CA 90746	TOLUENE	7100	33.842780	-118.253059
OLDE TYME PRODS. INC.	1253 E. ARTESIA BLVD., CARSON, CA 90746	CERTAIN GLYCOL ETHER	3300	33.881110	-118.271110
LEGGETT SOUTHWEST CARPET	18631 S. AVALON, CARSON, CA 90746	DIISOCYANATES	3300	33.879440	-118.265560
RHODIA INC.	20720 S. WILMINGTON AVE., CARSON, CA 90746	"SULFURIC ACID (1994	7100	33.843329	-118.231940
YOPLAIT USA	1055 E. SANDHILL AVE., CARSON, CA 907461332	NITRIC ACID	6800	33.875830	-118.250560
YOPLAIT USA	1055 E. SANDHILL AVE., CARSON, CA 907461332	NITRATE COMPOUNDS	6800	33.875830	-118.250560
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	AMMONIA	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	BENZENE	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	CYCLOHEXANE	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	N-HEXANE	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	METHANOL	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	METHYL TERT-BUTYL ET	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	NAPHTHALENE	5200	33.774999	-118.291670

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	PROPYLENE	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	"SULFURIC ACID (1994	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	"1,2,4-TRIMETHYLBENZ	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	ETHYLBENZENE	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	MOLYBDENUM TRIOXIDE	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	NICKEL COMPOUNDS	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	TOLUENE	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	XYLENE (MIXED ISOMER	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	ZINC COMPOUNDS	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	ETHYLENE	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	CUMENE	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	TETRACHLOROETHYLENE	5200	33.774999	-118.291670
TOSCO REFINING CO. LOS ANGELES	1660 W. ANAHEIM ST., WILMINGTON, CA 90744	"1,3-BUTADIENE"	5200	33.774999	-118.291670
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	AMMONIA	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	ETHYLENE	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	PHENOL	100	33.770829	-118.233329

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	PROPYLENE	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	NICKEL	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	METHYL TERT-BUTYL ET	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	HYDROGEN FLUORIDE	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	BENZENE	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	"1,3-BUTADIE NE"	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	CYCLOHEXAN E	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	ETHYLBENZE NE	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	N-HEXANE	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	NAPHTHALEN E	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	STYRENE	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	TOLUENE	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	XYLENE (MIXED ISOMER	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	CHROMIUM	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	TETRACHLOR OETHYLENE	100	33.770829	-118.233329
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	MOLYBDENU M TRIOXIDE	100	33.770829	-118.233329

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
ULTRAMAR WILMINGTON REFY.	2402 E. ANAHEIM ST., WILMINGTON, CA 90744	"1,2,4-TRIMETHYLBENZ	100	33.770829	-118.233329
ZYNOLYTE PRODS. CO.	2320 E. DOMINGUEZ ST., CARSON, CA 90810	TOLUENE	7100	33.836110	-118.229170
ZYNOLYTE PRODS. CO.	2320 E. DOMINGUEZ ST., CARSON, CA 90810	XYLENE (MIXED ISOMER	7100	33.836110	-118.229170
NORTHROP GRUMMAN CORP. D5	250 W. APRA ST., COMPTON, CA 90220	TETRACHLOROETHYLENE	2400	33.866669	-118.225000
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	AMMONIA	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	BENZENE	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	"1,3-BUTADIENE"	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	CYCLOHEXANE	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	DIETHANOLAMINE	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	ETHYLBENZENE	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	ETHYLENE	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	METHANOL	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	METHYL TERT-BUTYL ET	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	MOLYBDENUM TRIOXIDE	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	N-HEXANE	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	NAPHTHALENE	4400	33.809719	-118.238890

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	NICKEL COMPOUNDS	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	POLYCYCLIC AROMATIC	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	PHENOL	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	PROPYLENE	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	"SULFURIC ACID (1994	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	TOLUENE	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	"1,2,4-TRIMETHYLBENZ	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	XYLENE (MIXED ISOMER	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	ZINC COMPOUNDS	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	TETRACHLOROETHYLENE	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	"HYDROCHLORIC ACID (	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	CARBON DISULFIDE	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	CARBONYL SULFIDE	4400	33.809719	-118.238890
ARCO PRODS. CO. LOS ANGELES REFY.	1801 E. SEPULVEDA BLVD., CARSON, CA 90749	COBALT COMPOUNDS	4400	33.809719	-118.238890
CERTIFIED ALLOY PRODS. INC.	3245 CHERRY AVE., LONG BEACH, CA 90807	CHROMIUM	100	33.815280	-118.166939
CERTIFIED ALLOY PRODS. INC.	3245 CHERRY AVE., LONG BEACH, CA 90807	NICKEL	100	33.815280	-118.166939

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
CERTIFIED ALLOY PRODS. INC.	3245 CHERRY AVE., LONG BEACH, CA 90807	COBALT	100	33.815280	-118.166939
MARCHEM TECHS.	20851 S. SANTA FE AVE., LONG BEACH, CA 90810	ETHYLENE OXIDE	7700	33.843890	-118.218330
MARCHEM TECHS.	20851 S. SANTA FE AVE., LONG BEACH, CA 90810	NAPHTHALENE	7700	33.843890	-118.218330
MARCHEM TECHS.	20851 S. SANTA FE AVE., LONG BEACH, CA 90810	CERTAIN GLYCOL ETHER	7700	33.843890	-118.218330
MARCHEM TECHS.	20851 S. SANTA FE AVE., LONG BEACH, CA 90810	DIMETHYL SULFATE	7700	33.843890	-118.218330
MARCHEM TECHS.	20851 S. SANTA FE AVE., LONG BEACH, CA 90810	PROPYLENE OXIDE	7700	33.843890	-118.218330
DOW CHEMICAL CO. LONG BEACH	305 HENRY FORD AVE., LONG BEACH, CA 90802	DICHLOROMETHANE	100	33.763610	-118.240560
DOW CHEMICAL CO. LONG BEACH	305 HENRY FORD AVE., LONG BEACH, CA 90802	STYRENE	100	33.763610	-118.240560
DOW CHEMICAL CO. LONG BEACH	305 HENRY FORD AVE., LONG BEACH, CA 90802	TETRACHLOROETHYLENE	100	33.763610	-118.240560
DOW CHEMICAL CO. LONG BEACH	305 HENRY FORD AVE., LONG BEACH, CA 90802	DIISOCYANATES	100	33.763610	-118.240560
DOW CHEMICAL CO. LONG BEACH	305 HENRY FORD AVE., LONG BEACH, CA 90802	TRICHLOROETHYLENE	100	33.763610	-118.240560
DOW CHEMICAL CO. LONG BEACH	305 HENRY FORD AVE., LONG BEACH, CA 90802	"1,1-DICHLORO-1-FLUO	100	33.763610	-118.240560
DOW CHEMICAL CO. LONG BEACH	305 HENRY FORD AVE., LONG BEACH, CA 90802	DIETHANOLAMINE	100	33.763610	-118.240560
DOW CHEMICAL CO. LONG BEACH	305 HENRY FORD AVE., LONG BEACH, CA 90802	CERTAIN GLYCOL ETHER	100	33.763610	-118.240560
DOW CHEMICAL CO. LONG BEACH	305 HENRY FORD AVE., LONG BEACH, CA 90802	"1,3-DICHLOROPROPYLE	100	33.763610	-118.240560
DOW CHEMICAL CO. LONG BEACH	305 HENRY FORD AVE., LONG BEACH, CA 90802	ETHYLENE GLYCOL	100	33.763610	-118.240560

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LONG BEACH MARINE TERMINAL	1004 PIER F AVE., LONG BEACH, CA 90802	POLYCYCLIC AROMATIC	100	33.751389	-118.208329
LONG BEACH MARINE TERMINAL	1004 PIER F AVE., LONG BEACH, CA 90802	N-HEXANE	100	33.751389	-118.208329
LONG BEACH MARINE TERMINAL	1004 PIER F AVE., LONG BEACH, CA 90802	"1,2,4-TRIMETHYLBENZ	100	33.751389	-118.208329
LONG BEACH MARINE TERMINAL	1004 PIER F AVE., LONG BEACH, CA 90802	ARSENIC	100	33.751389	-118.208329
LONG BEACH MARINE TERMINAL	1004 PIER F AVE., LONG BEACH, CA 90802	BERYLLIUM	100	33.751389	-118.208329
LONG BEACH MARINE TERMINAL	1004 PIER F AVE., LONG BEACH, CA 90802	CADMIUM	100	33.751389	-118.208329
LONG BEACH MARINE TERMINAL	1004 PIER F AVE., LONG BEACH, CA 90802	CHROMIUM	100	33.751389	-118.208329
EDGINGTON OIL CO.	2400 E. ARTESIA BLVD., LONG BEACH, CA 90805	XYLENE (MIXED ISOMER	4000	33.873059	-118.159170
EDGINGTON OIL CO.	2400 E. ARTESIA BLVD., LONG BEACH, CA 90805	NAPHTHALENE	4000	33.873059	-118.159170
EDGINGTON OIL CO.	2400 E. ARTESIA BLVD., LONG BEACH, CA 90805	ETHYLBENZENE	4000	33.873059	-118.159170
EDGINGTON OIL CO.	2400 E. ARTESIA BLVD., LONG BEACH, CA 90805	PHENOL	4000	33.873059	-118.159170
EDGINGTON OIL CO.	2400 E. ARTESIA BLVD., LONG BEACH, CA 90805	BENZENE	4000	33.873059	-118.159170
EDGINGTON OIL CO.	2400 E. ARTESIA BLVD., LONG BEACH, CA 90805	TOLUENE	4000	33.873059	-118.159170
BANDAG LICENSING CORP.	2500 THOMPSON ST., LONG BEACH, CA 90805	ZINC COMPOUNDS	4100	33.880279	-118.162500
BANDAG LICENSING CORP.	2500 THOMPSON ST., LONG BEACH, CA 90805	2-MERCAPTOBENZOTHIAZ	4100	33.880279	-118.162500
ROBERTSHAW CONTROLS CO.	100 W. VICTORIA ST., LONG BEACH, CA 908052199	TETRACHLOROETHYLENE	2400	33.858329	-118.208329

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
ROBERTSHAW CONTROLS CO.	100 W. VICTORIA ST., LONG BEACH, CA 908052199	COPPER	2400	33.858329	-118.208329
ARCO PRODS. CO. EAST HYNES	5905 PARAMOUNT BLVD., LONG BEACH, CA 90805	BENZENE	6300	33.862779	-118.162780
ARCO PRODS. CO. EAST HYNES	5905 PARAMOUNT BLVD., LONG BEACH, CA 90805	CYCLOHEXANE	6300	33.862779	-118.162780
ARCO PRODS. CO. EAST HYNES	5905 PARAMOUNT BLVD., LONG BEACH, CA 90805	ETHYLBENZENE	6300	33.862779	-118.162780
ARCO PRODS. CO. EAST HYNES	5905 PARAMOUNT BLVD., LONG BEACH, CA 90805	N-HEXANE	6300	33.862779	-118.162780
ARCO PRODS. CO. EAST HYNES	5905 PARAMOUNT BLVD., LONG BEACH, CA 90805	METHYL TERT-BUTYL ET	6300	33.862779	-118.162780
ARCO PRODS. CO. EAST HYNES	5905 PARAMOUNT BLVD., LONG BEACH, CA 90805	NAPHTHALENE	6300	33.862779	-118.162780
ARCO PRODS. CO. EAST HYNES	5905 PARAMOUNT BLVD., LONG BEACH, CA 90805	TOLUENE	6300	33.862779	-118.162780
ARCO PRODS. CO. EAST HYNES	5905 PARAMOUNT BLVD., LONG BEACH, CA 90805	"1,2,4-TRIMETHYLBENZ	6300	33.862779	-118.162780
ARCO PRODS. CO. EAST HYNES	5905 PARAMOUNT BLVD., LONG BEACH, CA 90805	XYLENE (MIXED ISOMER	6300	33.862779	-118.162780
TABC INC.	6375 PARAMOUNT BLVD., LONG BEACH, CA 90805	CERTAIN GLYCOL ETHER	4100	33.877780	-118.161670
TABC INC.	6375 PARAMOUNT BLVD., LONG BEACH, CA 90805	XYLENE (MIXED ISOMER	4100	33.877780	-118.161670
TABC INC.	6375 PARAMOUNT BLVD., LONG BEACH, CA 90805	NITRIC ACID	4100	33.877780	-118.161670
TABC INC.	6375 PARAMOUNT BLVD., LONG BEACH, CA 90805	SODIUM NITRITE	4100	33.877780	-118.161670
HIGH TECH WEST INC.	2750 RAYMOND AVE., SIGNAL HILL, CA 90806	ALUMINUM (FUME OR DU	2100	33.801390	-118.145280
EQUILON SIGNAL HILL TERMINAL	2457 REDONDO AVE., LONG BEACH, CA 90806	BENZENE	1700	33.799170	-118.152220

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
EQUILON SIGNAL HILL TERMINAL	2457 REDONDO AVE., LONG BEACH, CA 90806	ETHYLBENZENE	1700	33.799170	-118.152220
EQUILON SIGNAL HILL TERMINAL	2457 REDONDO AVE., LONG BEACH, CA 90806	METHYL TERT-BUTYL ET	1700	33.799170	-118.152220
EQUILON SIGNAL HILL TERMINAL	2457 REDONDO AVE., LONG BEACH, CA 90806	N-HEXANE	1700	33.799170	-118.152220
EQUILON SIGNAL HILL TERMINAL	2457 REDONDO AVE., LONG BEACH, CA 90806	TOLUENE	1700	33.799170	-118.152220
EQUILON SIGNAL HILL TERMINAL	2457 REDONDO AVE., LONG BEACH, CA 90806	"1,2,4-TRIMETHYLBENZ	1700	33.799170	-118.152220
EQUILON SIGNAL HILL TERMINAL	2457 REDONDO AVE., LONG BEACH, CA 90806	XYLENE (MIXED ISOMER	1700	33.799170	-118.152220
ASPHALT PRODS. OIL CORP.	5903 PARAMOUNT BLVD., LONG BEACH, CA 90805	ASBESTOS (FRIABLE)	7100	33.877220	-118.147779
EDOCO	22039 S. WESTWARD AVE., LONG BEACH, CA 908101681	XYLENE (MIXED ISOMER	2500	33.826110	-118.226390
EDOCO	22039 S. WESTWARD AVE., LONG BEACH, CA 908101681	"1,2,4-TRIMETHYLBENZ	2500	33.826110	-118.226390
COMMONWEALTH ALUMINUM CONCAST -	2211 E. CARSON ST., LONG BEACH, CA 90810	MANGANESE COMPOUNDS	7700	33.830560	-118.219440
COMMONWEALTH ALUMINUM CONCAST -	2211 E. CARSON ST., LONG BEACH, CA 90810	"HYDROCHLORIC ACID (	7700	33.830560	-118.219440
VALMONT COATINGS-CAL WEST	2226 E. DOMINGUEZ ST., LONG BEACH, CA 908101086	ZINC COMPOUNDS	7100	33.836110	-118.229170
CARSON TANK FARM	2365 E. SEPULVEDA BLVD., CARSON, CA 908101944	N-HEXANE	5100	33.806940	-118.208329
CARSON TANK FARM	2365 E. SEPULVEDA BLVD., CARSON, CA 908101944	"1,2,4-TRIMETHYLBENZ	5100	33.806940	-118.208329
CARSON TANK FARM	2365 E. SEPULVEDA BLVD., CARSON, CA 908101944	ARSENIC	5100	33.806940	-118.208329
CARSON TANK FARM	2365 E. SEPULVEDA BLVD., CARSON, CA 908101944	BERYLLIUM	5100	33.806940	-118.208329

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
CARSON TANK FARM	2365 E. SEPULVEDA BLVD., CARSON, CA 908101944	CADMIUM	5100	33.806940	-118.208329
CARSON TANK FARM	2365 E. SEPULVEDA BLVD., CARSON, CA 908101944	CHROMIUM	5100	33.806940	-118.208329
CARSON TANK FARM	2365 E. SEPULVEDA BLVD., CARSON, CA 908101944	BENZENE	5100	33.806940	-118.208329
CARSON TANK FARM	2365 E. SEPULVEDA BLVD., CARSON, CA 908101944	ETHYLBENZENE	5100	33.806940	-118.208329
CARSON TANK FARM	2365 E. SEPULVEDA BLVD., CARSON, CA 908101944	TOLUENE	5100	33.806940	-118.208329
CARSON TANK FARM	2365 E. SEPULVEDA BLVD., CARSON, CA 908101944	XYLENE (MIXED ISOMER	5100	33.806940	-118.208329
CARSON TANK FARM	2365 E. SEPULVEDA BLVD., CARSON, CA 908101944	POLYCYCLIC AROMATIC	5100	33.806940	-118.208329
CUSTOM FIBREGLASS MFG. CO.	1711 HARBOR AVE., LONG BEACH, CA 90813	STYRENE	300	33.788889	-118.210830
ALFLEX CORP.	2630 EL PRESIDIO ST., LONG BEACH, CA 90810	ANTIMONY COMPOUNDS	7700	33.841669	-118.216670
ALFLEX CORP.	2630 EL PRESIDIO ST., LONG BEACH, CA 90810	DI(2-ETHYLHEXYL) PHT	7700	33.841669	-118.216670
ALFLEX CORP.	2630 EL PRESIDIO ST., LONG BEACH, CA 90810	COPPER	7700	33.841669	-118.216670
ALFLEX CORP.	2630 EL PRESIDIO ST., LONG BEACH, CA 90810	LEAD COMPOUNDS	7700	33.841669	-118.216670
ALFLEX CORP.	2630 EL PRESIDIO ST., LONG BEACH, CA 90810	MANGANESE	7700	33.841669	-118.216670
PRAXAIR INC.	2006 E. 223RD. ST., CARSON, CA 90810	AMMONIA	4400	33.824169	-118.241940
NIKLOR CHEMICAL CO. INC.	2060 E. 220TH ST., CARSON, CA 90745	BROMOMETHANE	7100	33.827779	-118.237220
NIKLOR CHEMICAL CO. INC.	2060 E. 220TH ST., CARSON, CA 90745	CHLORINE	7100	33.827779	-118.237220

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
NIKLOR CHEMICAL CO. INC.	2060 E. 220TH ST., CARSON, CA 90745	CHLOROPICRIN	7100	33.827779	-118.237220
ARCO PRODS. CO. POLYPROPYLEN	2384 E. 223RD. ST., LONG BEACH, CA 90810	PROPYLENE	6400	33.816670	-118.266670
AIR PRODS. & CHEMICALS INC.	23300 S. ALAMEDA ST., CARSON, CA 90810	ZINC COMPOUNDS	6400	33.811939	-118.266390
AIR PRODS. & CHEMICALS INC.	23300 S. ALAMEDA ST., CARSON, CA 90810	NICKEL COMPOUNDS	6400	33.811939	-118.266390
AIR PRODS. & CHEMICALS INC.	23300 S. ALAMEDA ST., CARSON, CA 90810	NICKEL	6400	33.811939	-118.266390
AIR PRODS. & CHEMICALS INC.	23300 S. ALAMEDA ST., CARSON, CA 90810	CHROMIUM COMPOUNDS	6400	33.811939	-118.266390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	"1,2,4-TRIMETHYLBENZ	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	"N,N-DIMETHYLFORMAMI	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	ETHYLENE GLYCOL	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	CERTAIN GLYCOL ETHER	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	N-HEXANE	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	METHANOL	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	METHYL ETHYL KETONE	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	STYRENE	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	XYLENE (MIXED ISOMER	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	2-ETHOXYETHANOL	7100	33.843329	-118.236390

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	N-BUTYL ALCOHOL	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	SEC-BUTYL ALCOHOL	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	CUMENE	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	DIBUTYL PHTHALATE	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	DI(2-ETHYLHEXYL) PHT	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	NAPHTHALENE	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	METHYL ISOBUTYL KETO	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	TOLUENE	7100	33.843329	-118.236390
ASHLAND DISTRIBUTION CO.	20915 S. WILLMINGTON AVE., CARSON, CA 90810	ETHYLBENZENE	7100	33.843329	-118.236390
EQUILON ENTERPRISES LLC; SULFUR	23208 S. ALAMEDA ST., CARSON, CA 90810	DIETHANOLAMINE	4400	33.813609	-118.228890
EQUILON ENTERPRISES LLC; SULFUR	23208 S. ALAMEDA ST., CARSON, CA 90810	AMMONIA	4400	33.813609	-118.228890
EQUILON ENTERPRISES LLC; SULFUR	23208 S. ALAMEDA ST., CARSON, CA 90810	CARBONYL SULFIDE	4400	33.813609	-118.228890
EQUILON ENTERPRISES LLC; SULFUR	23208 S. ALAMEDA ST., CARSON, CA 90810	CARBON DISULFIDE	4400	33.813609	-118.228890
WESTERN TUBE & CONDUIT CORP.	2001 E. DOMINGUEZ ST., LONG BEACH, CA 90810	METHANOL	7100	33.840280	-118.232220
WESTERN TUBE & CONDUIT CORP.	2001 E. DOMINGUEZ ST., LONG BEACH, CA 90810	"1,2,4-TRIMETHYLBENZ	7100	33.840280	-118.232220
WESTERN TUBE & CONDUIT CORP.	2001 E. DOMINGUEZ ST., LONG BEACH, CA 90810	"HYDROCHLORIC ACID (	7100	33.840280	-118.232220

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
WESTERN TUBE & CONDUIT CORP.	2001 E. DOMINGUEZ ST., LONG BEACH, CA 90810	CERTAIN GLYCOL ETHER	7100	33.840280	-118.232220
WESTERN TUBE & CONDUIT CORP.	2001 E. DOMINGUEZ ST., LONG BEACH, CA 90810	ZINC (FUME OR DUST)	7100	33.840280	-118.232220
WESTERN TUBE & CONDUIT CORP.	2001 E. DOMINGUEZ ST., LONG BEACH, CA 90810	TOLUENE	7100	33.840280	-118.232220
WESTERN TUBE & CONDUIT CORP.	2001 E. DOMINGUEZ ST., LONG BEACH, CA 90810	N-BUTYL ALCOHOL	7100	33.840280	-118.232220
WESTERN TUBE & CONDUIT CORP.	2001 E. DOMINGUEZ ST., LONG BEACH, CA 90810	ZINC COMPOUNDS	7100	33.840280	-118.232220
J. H. BAXTER & CO.	1710 PIER B ST., LONG BEACH, CA 90813	CREOSOTE	100	33.776390	-118.215280
J. H. BAXTER & CO.	1710 PIER B ST., LONG BEACH, CA 90813	AMMONIA	100	33.776390	-118.215280
J. H. BAXTER & CO.	1710 PIER B ST., LONG BEACH, CA 90813	PENTACHLOROPHENOL	100	33.776390	-118.215280
J. H. BAXTER & CO.	1710 PIER B ST., LONG BEACH, CA 90813	ARSENIC COMPOUNDS	100	33.776390	-118.215280
J. H. BAXTER & CO.	1710 PIER B ST., LONG BEACH, CA 90813	COPPER COMPOUNDS	100	33.776390	-118.215280
J. H. BAXTER & CO.	1710 PIER B ST., LONG BEACH, CA 90813	ZINC COMPOUNDS	100	33.776390	-118.215280
PETRO DIAMOND TERMINAL CO.	1920 LUGGER WAY, LONG BEACH, CA 90813	METHYL TERT-BUTYL ET	100	33.776390	-118.219999
PETRO DIAMOND TERMINAL CO.	1920 LUGGER WAY, LONG BEACH, CA 90813	N-HEXANE	100	33.776390	-118.219999
PETRO DIAMOND TERMINAL CO.	1920 LUGGER WAY, LONG BEACH, CA 90813	BENZENE	100	33.776390	-118.219999
PETRO DIAMOND TERMINAL CO.	1920 LUGGER WAY, LONG BEACH, CA 90813	TOLUENE	100	33.776390	-118.219999
PETRO DIAMOND TERMINAL CO.	1920 LUGGER WAY, LONG BEACH, CA 90813	XYLENE (MIXED ISOMER	100	33.776390	-118.219999

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
PETRO DIAMOND TERMINAL CO.	1920 LUGGER WAY, LONG BEACH, CA 90813	NAPHTHALENE	100	33.776390	-118.219999
PETRO DIAMOND TERMINAL CO.	1920 LUGGER WAY, LONG BEACH, CA 90813	CYCLOHEXANE	100	33.776390	-118.219999
PETRO DIAMOND TERMINAL CO.	1920 LUGGER WAY, LONG BEACH, CA 90813	ETHYLBENZENE	100	33.776390	-118.219999
PETRO DIAMOND TERMINAL CO.	1920 LUGGER WAY, LONG BEACH, CA 90813	"1,2,4-TRIMETHYLBENZ	100	33.776390	-118.219999
ARCO PRODS. CO. MARINE TERMINAL 2	1300 PIER B ST., LONG BEACH, CA 90813	BENZENE	3800	33.771389	-118.203330
ARCO PRODS. CO. MARINE TERMINAL 2	1300 PIER B ST., LONG BEACH, CA 90813	N-HEXANE	3800	33.771389	-118.203330
ARCO PRODS. CO. MARINE TERMINAL 2	1300 PIER B ST., LONG BEACH, CA 90813	XYLENE (MIXED ISOMER	3800	33.771389	-118.203330
ARCO PRODS. CO. MARINE TERMINAL 2	1300 PIER B ST., LONG BEACH, CA 90813	TOLUENE	3800	33.771389	-118.203330
ARCO PRODS. CO. MARINE TERMINAL 2	1300 PIER B ST., LONG BEACH, CA 90813	ETHYLBENZENE	3800	33.771389	-118.203330
ARCO PRODS. CO. MARINE TERMINAL 2	1300 PIER B ST., LONG BEACH, CA 90813	CYCLOHEXANE	3800	33.771389	-118.203330
ARCO PRODS. CO. MARINE TERMINAL 2	1300 PIER B ST., LONG BEACH, CA 90813	"1,2,4-TRIMETHYLBENZ	3800	33.771389	-118.203330
ARCO PRODS. CO. MARINE TERMINAL 2	1300 PIER B ST., LONG BEACH, CA 90813	METHYL TERT-BUTYL ET	3800	33.771389	-118.203330
ARCO PRODS. CO. MARINE TERMINAL 2	1300 PIER B ST., LONG BEACH, CA 90813	METHANOL	3800	33.771389	-118.203330
ARCO PRODS. CO. MARINE TERMINAL 2	1300 PIER B ST., LONG BEACH, CA 90813	NAPHTHALENE	3800	33.771389	-118.203330
ARCO PRODS. CO. MARINE TERMINAL 2	1300 PIER B ST., LONG BEACH, CA 90813	POLYCYCLIC AROMATIC	3800	33.771389	-118.203330
ARCO PRODS. CO. MARINE TERMINAL 3	1400 PIER C ST., LONG BEACH, CA 90813	POLYCYCLIC AROMATIC	3800	33.771389	-118.203330

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
ARCO PRODS. CO. MARINE TERMINAL 3	1400 PIER C ST., LONG BEACH, CA 90813	"1,2,4-TRIMETHYLBENZ	3800	33.771389	-118.203330
ARCO PRODS. CO. MARINE TERMINAL 3	1400 PIER C ST., LONG BEACH, CA 90813	XYLENE (MIXED ISOMER	3800	33.771389	-118.203330
ARCO PRODS. CO. MARINE TERMINAL 3	1400 PIER C ST., LONG BEACH, CA 90813	TOLUENE	3800	33.771389	-118.203330
BOEING CO. - LONG BEACH DIV.	3855 LAKEWOOD BLVD. M/C: D009-0020, LONG BEACH, CA	METHYL ISOBUTYL KETO	100	33.828610	-118.145829
BOEING CO. - LONG BEACH DIV.	3855 LAKEWOOD BLVD. M/C: D009-0020, LONG BEACH, CA	METHYL ETHYL KETONE	100	33.828610	-118.145829
BOEING CO. - LONG BEACH DIV.	3855 LAKEWOOD BLVD. M/C: D009-0020, LONG BEACH, CA	TOLUENE	100	33.828610	-118.145829
BOEING CO. - LONG BEACH DIV.	3855 LAKEWOOD BLVD. M/C: D009-0020, LONG BEACH, CA	AMMONIA	100	33.828610	-118.145829
BOEING CO. - LONG BEACH DIV.	3855 LAKEWOOD BLVD. M/C: D009-0020, LONG BEACH, CA	NITRIC ACID	100	33.828610	-118.145829
BOEING CO. - LONG BEACH DIV.	3855 LAKEWOOD BLVD. M/C: D009-0020, LONG BEACH, CA	CHROMIUM	100	33.828610	-118.145829
BOEING CO. - LONG BEACH DIV.	3855 LAKEWOOD BLVD. M/C: D009-0020, LONG BEACH, CA	COPPER	100	33.828610	-118.145829
BOEING CO. - LONG BEACH DIV.	3855 LAKEWOOD BLVD. M/C: D009-0020, LONG BEACH, CA	HYDROGEN FLUORIDE	100	33.828610	-118.145829
MARBLE MAKERS INC.	2310 E. CENTRAL AVE. 1-4, DUARTE, CA 91010	STYRENE	7100	34.135829	-117.955280
DOWTY AEROSPACE LOS ANGELES	1700 BUSINESS CENTER DR., DUARTE, CA 91010	COPPER	7100	34.134439	-117.960560
DOWTY AEROSPACE LOS ANGELES	1700 BUSINESS CENTER DR., DUARTE, CA 91010	NICKEL	7100	34.134439	-117.960560
DOWTY AEROSPACE LOS ANGELES	1700 BUSINESS CENTER DR., DUARTE, CA 91010	CHROMIUM	7100	34.134439	-117.960560
DOWTY AEROSPACE LOS ANGELES	1700 BUSINESS CENTER DR., DUARTE, CA 91010	MANGANESE	7100	34.134439	-117.960560

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PACIFIC SCIENTIFIC HTL/KINTECH	1800 HIGHLAND AVE., DUARTE, CA 910102837	BROMOTRIFLUOROMETHAN	7100	34.141670	-117.966670
AIRGAS WEST - DUARTE	2250 BUENA VISTA ST., DUARTE, CA 910103318	PROPYLENE	4700	34.139440	-117.976390
COMPOSITE STRUCTURES L.L.C.	801 ROYAL OAK DR., MONROVIA, CA 910163630	METHYL ETHYL KETONE	1300	34.154169	-117.977220
3M	1601 S. SHAMROCK AVE., MONROVIA, CA 910164248	METHYL ETHYL KETONE	7000	34.133330	-117.990560
3M	1601 S. SHAMROCK AVE., MONROVIA, CA 910164248	TOLUENE	7000	34.133330	-117.990560
3M	1601 S. SHAMROCK AVE., MONROVIA, CA 910164248	XYLENE (MIXED ISOMER	7000	34.133330	-117.990560
MASK-OFF CO. INC.	345 W. MAPLE AVE., MONROVIA, CA 91016	TOLUENE	9000	34.141390	-118.005279
MASK-OFF CO. INC.	345 W. MAPLE AVE., MONROVIA, CA 91016	METHYL ETHYL KETONE	9000	34.141390	-118.005279
MASK-OFF CO. INC.	345 W. MAPLE AVE., MONROVIA, CA 91016	DI(2-ETHYLHEXYL) PHT	9000	34.141390	-118.005279
MASK-OFF CO. INC.	345 W. MAPLE AVE., MONROVIA, CA 91016	AMMONIA	9000	34.141390	-118.005279
L.A. STEELCRAFT PRODS. INC.	1974 LINCOLN AVE., PASADENA, CA 91103	STYRENE	7000	34.174999	-118.158330
RELTON CORP.	317 ROLYN PL., ARCADIA, CA 91006	"1,1,1-TRICHLOROETHA	3200	34.146109	-118.033890
K. C. PHOTOENGRAVING CO.	2666 E. NINA ST., PASADENA, CA 911073711	NITRIC ACID	3700	34.147220	-118.094440
AUTOMATION PLATING CORP.	927 THOMPSON AVE., GLENDALE, CA 91201	NITRIC ACID	7000	34.169439	-118.293890
AUTOMATION PLATING CORP.	927 THOMPSON AVE., GLENDALE, CA 91201	"HYDROCHLORIC ACID (	7000	34.169439	-118.293890
PRC-DESOTO INTL. INC.	5430 SAN FERNANDO RD., GLENDALE, CA 91203	MANGANESE COMPOUNDS	7900	34.125000	-118.250000

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
PRC-DESOTO INTL. INC.	5430 SAN FERNANDO RD., GLENDALE, CA 91203	METHYL ETHYL KETONE	7900	34.125000	-118.250000
PRC-DESOTO INTL. INC.	5430 SAN FERNANDO RD., GLENDALE, CA 91203	TOLUENE	7900	34.125000	-118.250000
PRC-DESOTO INTL. INC.	5430 SAN FERNANDO RD., GLENDALE, CA 91203	CHROMIUM COMPOUNDS	7900	34.125000	-118.250000
DRILUBE CO.	711 W. BROADWAY, GLENDALE, CA 912041009	TETRACHLOROETHYLENE	7800	34.148330	-118.256390
C & D DIE CASTING CO. INC.	9649 OWENSMOUTH AVE., CHATSWORTH, CA 91311	COPPER	3900	34.225560	-118.622780
CHEF AMERICA WEST INC.	9601 CANOGA AVE., CHATSWORTH, CA 91311	AMMONIA	3100	34.259439	-118.604719
GRAPHIC RESEARCH LLC.	9334 MASON AVE., CHATSWORTH, CA 913115201	AMMONIA	3900	34.239999	-118.578610
GRAPHIC RESEARCH LLC.	9334 MASON AVE., CHATSWORTH, CA 913115201	COPPER	3900	34.239999	-118.578610
FADAL MACHINING CENTERS OF	20701 PLUMMER ST., CHATSWORTH, CA 91311	CHROMIUM COMPOUNDS	100	34.760280	-118.721390
FADAL MACHINING CENTERS OF	20701 PLUMMER ST., CHATSWORTH, CA 91311	NICKEL COMPOUNDS	100	34.760280	-118.721390
FADAL MACHINING CENTERS OF	20701 PLUMMER ST., CHATSWORTH, CA 91311	MANGANESE COMPOUNDS	100	34.760280	-118.721390
FADAL MACHINING CENTERS OF	20701 PLUMMER ST., CHATSWORTH, CA 91311	PROPYLENE	100	34.760280	-118.721390
FIBER RESIN CORP.	20701 NORDHOFF ST., CHATSWORTH, CA 91311	DIISOCYANATES	5700	34.235829	-118.583610
FIBER RESIN CORP.	20701 NORDHOFF ST., CHATSWORTH, CA 91311	"TOLUENE-2,4-DIISOCY	5700	34.235829	-118.583610
FIBER RESIN CORP.	20701 NORDHOFF ST., CHATSWORTH, CA 91311	SODIUM NITRITE	5700	34.235829	-118.583610
FIBER RESIN CORP.	20701 NORDHOFF ST., CHATSWORTH, CA 91311	TOLUENE DIISOCYANATE	5700	34.235829	-118.583610

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
AMBITECH INC.	8944 FULLBRIGHT AVE., CHATSWORTH, CA 91311	AMMONIA	6200	34.260829	-118.590280
AMBITECH INC.	8944 FULLBRIGHT AVE., CHATSWORTH, CA 91311	COPPER	6200	34.260829	-118.590280
MORGAN CHEMICAL PRODS. INC.	20751 SUPERIOR ST., CHATSWORTH, CA 913114416	METHYL ETHYL KETONE	3900	34.246110	-118.584720
AMERICAN NATL. CAN CO. RE:	20730 PRAIRIE ST., CHATSWORTH, CA 91311	N-BUTYL ALCOHOL	2000	34.038889	-118.258330
AMERICAN NATL. CAN CO. RE:	20730 PRAIRIE ST., CHATSWORTH, CA 91311	CERTAIN GLYCOL ETHER	2000	34.038889	-118.258330
AMERICAN NATL. CAN CO. RE:	20730 PRAIRIE ST., CHATSWORTH, CA 91311	MANGANESE	2000	34.038889	-118.258330
AMERICAN NATL. CAN CO. RE:	20730 PRAIRIE ST., CHATSWORTH, CA 91311	NITRIC ACID	2000	34.038889	-118.258330
AMERICAN NATL. CAN CO. RE:	20730 PRAIRIE ST., CHATSWORTH, CA 91311	HYDROGEN FLUORIDE	2000	34.038889	-118.258330
AMERICAN NATL. CAN CO. RE:	20730 PRAIRIE ST., CHATSWORTH, CA 91311	NITRATE COMPOUNDS	2000	34.038889	-118.258330
MICRO MATIC USA INC.	19791 BAHAMA ST., NORTHRIDGE, CA 91324	CHROMIUM	5000	34.233889	-118.563889
MICRO MATIC USA INC.	19791 BAHAMA ST., NORTHRIDGE, CA 91324	COPPER	5000	34.233889	-118.563889
MICRO MATIC USA INC.	19791 BAHAMA ST., NORTHRIDGE, CA 91324	NICKEL	5000	34.233889	-118.563889
3M PHARMACEUTICALS	19901 NORDHOFF ST., NORTHRIDGE, CA 91324	TRICHLOROFLUOROMETHA	5000	34.232219	-118.566110
3M PHARMACEUTICALS	19901 NORDHOFF ST., NORTHRIDGE, CA 91324	DICHLORODIFLUOROMETH	5000	34.232219	-118.566110
3M PHARMACEUTICALS	19901 NORDHOFF ST., NORTHRIDGE, CA 91324	DICHLOROTETRAFLUOROE	5000	34.232219	-118.566110
3M PHARMACEUTICALS	19901 NORDHOFF ST., NORTHRIDGE, CA 91324	METHANOL	5000	34.232219	-118.566110

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
3M PHARMACEUTICALS	19901 NORDHOFF ST., NORTHRIDGE, CA 91324	NITROGLYCERIN	5000	34.232219	-118.566110
HARMAN MOTIVE INC.	8500 BALBOA BLVD., NORTHRIDGE, CA 91329	LEAD	4600	34.226109	-118.501109
BURBANK PLATING SERVICES	13561 DESMOND ST., PACOIMA, CA 913312316	ZINC COMPOUNDS	3200	34.275279	-118.427500
BURBANK PLATING SERVICES	13561 DESMOND ST., PACOIMA, CA 913312316	CYANIDE COMPOUNDS	3200	34.275279	-118.427500
BURBANK PLATING SERVICES	13561 DESMOND ST., PACOIMA, CA 913312316	CADMIUM COMPOUNDS	3200	34.275279	-118.427500
BRICE MFG. CO.	10262 NORRIS AVE., PACOIMA, CA 91331	DICHLOROMETHANE	6300	34.259720	-118.412500
HCI HOLCHEM INC.	13546 DESMOND ST., PACOIMA, CA 913312315	DICHLOROMETHANE	3200	34.276110	-118.426939
HCI HOLCHEM INC.	13546 DESMOND ST., PACOIMA, CA 913312315	METHANOL	3200	34.276110	-118.426939
HCI HOLCHEM INC.	13546 DESMOND ST., PACOIMA, CA 913312315	NITRIC ACID	3200	34.276110	-118.426939
HCI HOLCHEM INC.	13546 DESMOND ST., PACOIMA, CA 913312315	METHYL ETHYL KETONE	3200	34.276110	-118.426939
HCI HOLCHEM INC.	13546 DESMOND ST., PACOIMA, CA 913312315	METHYL ISOBUTYL KETO	3200	34.276110	-118.426939
HCI HOLCHEM INC.	13546 DESMOND ST., PACOIMA, CA 913312315	XYLENE (MIXED ISOMER	3200	34.276110	-118.426939
HCI HOLCHEM INC.	13546 DESMOND ST., PACOIMA, CA 913312315	TOLUENE	3200	34.276110	-118.426939
HCI HOLCHEM INC.	13546 DESMOND ST., PACOIMA, CA 913312315	TETRACHLOROETHYLENE	3200	34.276110	-118.426939
HCI HOLCHEM INC.	13546 DESMOND ST., PACOIMA, CA 913312315	ETHYLENE GLYCOL	3200	34.276110	-118.426939
MOC PRODS. CO. INC.	12306 MONTAGUE ST., PACOIMA, CA 913312213	CERTAIN GLYCOL ETHER	6300	34.254720	-118.399719

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
MOC PRODS. CO. INC.	12306 MONTAGUE ST., PACOIMA, CA 913312213	ETHYLENE GLYCOL	6300	34.254720	-118.399719
PRICE PFISTER INC.	13500 PAXTON ST., PACOIMA, CA 91331	NICKEL	3200	34.276939	-118.424440
PRICE PFISTER INC.	13500 PAXTON ST., PACOIMA, CA 91331	COPPER	3200	34.276939	-118.424440
PRICE PFISTER INC.	13500 PAXTON ST., PACOIMA, CA 91331	NITRATE COMPOUNDS	3200	34.276939	-118.424440
PRICE PFISTER INC.	13500 PAXTON ST., PACOIMA, CA 91331	NITRIC ACID	3200	34.276939	-118.424440
PRICE PFISTER INC.	13500 PAXTON ST., PACOIMA, CA 91331	COPPER COMPOUNDS	3200	34.276939	-118.424440
PRICE PFISTER INC.	13500 PAXTON ST., PACOIMA, CA 91331	LEAD	3200	34.276939	-118.424440
PRICE PFISTER INC.	13500 PAXTON ST., PACOIMA, CA 91331	NICKEL COMPOUNDS	3200	34.276939	-118.424440
PRICE PFISTER INC.	13500 PAXTON ST., PACOIMA, CA 91331	CHROMIUM COMPOUNDS	3200	34.276939	-118.424440
ASHLAND DISTRIBUTION CO.	11071 SUTTER AVE., PACOIMA, CA 91331	STYRENE	5700	34.271940	-118.427500
PHARMAVITE CORP.	1150 AVIATION PL., SAN FERNANDO, CA 91340	ZINC COMPOUNDS	6500	34.292779	-118.420000
PHARMAVITE CORP.	1150 AVIATION PL., SAN FERNANDO, CA 91340	MANGANESE COMPOUNDS	6500	34.292779	-118.420000
M. A. HANNA COLOR	13596 VAUGHN ST., SAN FERNANDO, CA 91340	ZINC COMPOUNDS	3200	34.274999	-118.429169
SPECTROLAB INC.	12500 GLADSTONE AVE., SYLMAR, CA 913425373	AMMONIA	100	34.299720	-118.384720
SPECTROLAB INC.	12500 GLADSTONE AVE., SYLMAR, CA 913425373	N-METHYL-2-PYRROLIDO	100	34.299720	-118.384720
GENERAL POLYMERS W. INC.	12355 GLADSTONE AVE., SYLMAR, CA 91342	DIISOCYANATES	100	34.294169	-118.402500

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
GENERAL POLYMERS W. INC.	12355 GLADSTONE AVE., SYLMAR, CA 91342	XYLENE (MIXED ISOMER	100	34.294169	-118.402500
JOHANSON DIELECTRICS INC.	15191 BLEDSOE ST., SYLMAR, CA 913422710	METHYL ETHYL KETONE	5700	34.307500	-118.463060
JOHANSON DIELECTRICS INC.	15191 BLEDSOE ST., SYLMAR, CA 913422710	TOLUENE	5700	34.307500	-118.463060
JOHANSON DIELECTRICS INC.	15191 BLEDSOE ST., SYLMAR, CA 913422710	LEAD COMPOUNDS	5700	34.307500	-118.463060
JOHANSON DIELECTRICS INC.	15191 BLEDSOE ST., SYLMAR, CA 913422710	BARIUM COMPOUNDS	5700	34.307500	-118.463060
LITHONIA LIGHTING	12881 BRADLEY AVE., SYLMAR, CA 91342	DIISOCYANATES	5700	34.304439	-118.458060
ENGELHARD CORP.	12874 BRADLEY AVE., SYLMAR, CA 913422898	ETHYLENE GLYCOL	5700	34.303889	-118.456940
ANTHONY INTL.	12812 ARROYO ST., SAN FERNANDO, CA 91342	METHANOL	3400	34.149999	-118.250000
ANTHONY INTL.	12812 ARROYO ST., SAN FERNANDO, CA 91342	AMMONIA	3400	34.149999	-118.250000
VALLEY-TODECO INC.	12975 BRADLEY AVE., SYLMAR, CA 91342	TETRACHLOROETHYLENE	5700	34.305000	-118.459440
VALLEY-TODECO INC.	12975 BRADLEY AVE., SYLMAR, CA 91342	CHROMIUM	5700	34.305000	-118.459440
VALLEY-TODECO INC.	12975 BRADLEY AVE., SYLMAR, CA 91342	NICKEL	5700	34.305000	-118.459440
HASA INC.	23119 DRAYTON ST., SAUGUS, CA 91350	CHLORINE	4100	34.429169	-118.541670
KEYSOR-CENTURY CORP.	26000 SPRINGBROOK AVE., SAUGUS, CA 91350	VINYL CHLORIDE	4400	34.430560	-118.538890
KEYSOR-CENTURY CORP.	26000 SPRINGBROOK AVE., SAUGUS, CA 91350	VINYL ACETATE	4400	34.430560	-118.538890
KEYSOR-CENTURY CORP.	26000 SPRINGBROOK AVE., SAUGUS, CA 91350	TRICHLOROETHYLENE	4400	34.430560	-118.538890

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
KEYSOR-CENTURY CORP.	26000 SPRINGBROOK AVE., SAUGUS, CA 91350	LEAD COMPOUNDS	4400	34.430560	-118.538890
ALERT PLATING CO.	9939 GLENOAKS BLVD., SUN VALLEY, CA 91352	NICKEL	6700	34.178889	-118.336939
ALERT PLATING CO.	9939 GLENOAKS BLVD., SUN VALLEY, CA 91352	CADMIUM	6700	34.178889	-118.336939
ALERT PLATING CO.	9939 GLENOAKS BLVD., SUN VALLEY, CA 91352	NITRIC ACID	6700	34.178889	-118.336939
NUPLA CORP.	11912 SHELDON ST., SUN VALLEY, CA 91352	STYRENE	4300	34.240560	-118.391940
PRIME PLATING INC.	11321 GOSS ST., SUN VALLEY, CA 913523206	CYANIDE COMPOUNDS	5400	34.222499	-118.376670
PRIME PLATING INC.	11321 GOSS ST., SUN VALLEY, CA 913523206	NITRATE COMPOUNDS	5400	34.222499	-118.376670
FLAMEMASTER CORP.	11120 SHERMAN WAY, SUN VALLEY, CA 91352	TOLUENE	4500	34.201670	-118.375000
FLAMEMASTER CORP.	11120 SHERMAN WAY, SUN VALLEY, CA 91352	METHYL ETHYL KETONE	4500	34.201670	-118.375000
P. B. FIBERGLASS PRODS. INC.	12177 BRANFORD ST., SUN VALLEY, CA 913521007	STYRENE	6300	34.252780	-118.400000
OASIS-WEST	25555 STANFORD AVE., VALENCIA, CA 91355	COPPER	100	34.432779	-118.582780
GRUBER SYS.	25636 AVE. STANFORD, VALENCIA, CA	STYRENE	100	34.431389	-118.584999
NOVACAP INC.	25111 ANZA DR., VALENCIA, CA 913553416	BARIUM COMPOUNDS	100	34.431389	-118.577219
SGL TECHNIC INC. POLYCARBON	28176 N. AVE. STANFORD, VALENCIA, CA	NITRIC ACID	100	34.508330	-118.508330
SGL TECHNIC INC. POLYCARBON	28176 N. AVE. STANFORD, VALENCIA, CA	NITRATE COMPOUNDS	100	34.508330	-118.508330
REMO INC.	28101 INDUSTRY DR., VALENCIA, CA 91355	METHYL ETHYL KETONE	1600	34.450000	-118.627780

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
REMO INC.	28101 INDUSTRY DR., VALENCIA, CA 91355	TOLUENE	1600	34.450000	-118.627780
REMO INC.	28101 INDUSTRY DR., VALENCIA, CA 91355	DIISOCYANATES	1600	34.450000	-118.627780
CATALINA YACHTS INC.	21200 VICTORY BLVD., WOODLAND HILLS, CA 91367	METHYL METHACRYLATE	5100	34.176390	-118.614720
CATALINA YACHTS INC.	21200 VICTORY BLVD., WOODLAND HILLS, CA 91367	DIMETHYL PHTHALATE	5100	34.176390	-118.614720
CATALINA YACHTS INC.	21200 VICTORY BLVD., WOODLAND HILLS, CA 91367	STYRENE	5100	34.176390	-118.614720
CROWN CHROME PLATING	14660 ARMINTA ST., VAN NUYS, CA 91402	TETRACHLOROETHYLENE	2900	34.213060	-118.452219
PHOTO FABRICATORS INC.	7648 BURNET AVE., VAN NUYS, CA 91405	COPPER	5100	34.209440	-118.462219
VIBRA FINISH CO.	14712 RAYMER ST., VAN NUYS, CA 91405	STYRENE	5100	34.212499	-118.455560
ANHEUSER-BUSCH INC.	15800 ROSCOE BLVD., VAN NUYS, CA 914061379	AMMONIA	4000	34.221110	-118.476940
EQUILON VAN NUYS TERMINAL	8100 N. HASKELL AVE., VAN NUYS, CA 91406	BENZENE	4300	34.217500	-118.473609
EQUILON VAN NUYS TERMINAL	8100 N. HASKELL AVE., VAN NUYS, CA 91406	ETHYLBENZENE	4300	34.217500	-118.473609
EQUILON VAN NUYS TERMINAL	8100 N. HASKELL AVE., VAN NUYS, CA 91406	METHYL TERT-BUTYL ET	4300	34.217500	-118.473609
EQUILON VAN NUYS TERMINAL	8100 N. HASKELL AVE., VAN NUYS, CA 91406	N-HEXANE	4300	34.217500	-118.473609
EQUILON VAN NUYS TERMINAL	8100 N. HASKELL AVE., VAN NUYS, CA 91406	TOLUENE	4300	34.217500	-118.473609
EQUILON VAN NUYS TERMINAL	8100 N. HASKELL AVE., VAN NUYS, CA 91406	"1,2,4-TRIMETHYLBENZ	4300	34.217500	-118.473609
EQUILON VAN NUYS TERMINAL	8100 N. HASKELL AVE., VAN NUYS, CA 91406	XYLENE (MIXED ISOMER	4300	34.217500	-118.473609

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
EASTON SPORTS INC.	7800 HASKELL AVE., VAN NUYS, CA 914061999	NITRIC ACID	5000	34.212499	-118.473330
EASTON SPORTS INC.	7800 HASKELL AVE., VAN NUYS, CA 914061999	NITRATE COMPOUNDS	5000	34.212499	-118.473330
CHEVRON PRODS. CO. VAN NUYS	15359 OXNARD ST., VAN NUYS, CA 91411	BENZENE	4100	34.179720	-118.465280
CHEVRON PRODS. CO. VAN NUYS	15359 OXNARD ST., VAN NUYS, CA 91411	TOLUENE	4100	34.179720	-118.465280
CHEVRON PRODS. CO. VAN NUYS	15359 OXNARD ST., VAN NUYS, CA 91411	XYLENE (MIXED ISOMER	4100	34.179720	-118.465280
CHEVRON PRODS. CO. VAN NUYS	15359 OXNARD ST., VAN NUYS, CA 91411	ETHYLBENZENE	4100	34.179720	-118.465280
CHEVRON PRODS. CO. VAN NUYS	15359 OXNARD ST., VAN NUYS, CA 91411	N-HEXANE	4100	34.179720	-118.465280
CHEVRON PRODS. CO. VAN NUYS	15359 OXNARD ST., VAN NUYS, CA 91411	"1,2,4-TRIMETHYLBENZ	4100	34.179720	-118.465280
CHEVRON PRODS. CO. VAN NUYS	15359 OXNARD ST., VAN NUYS, CA 91411	METHYL TERT-BUTYL ET	4100	34.179720	-118.465280
AVIBANK MFG. INC.	210 S. VICTORY BLVD., BURBANK, CA 915030391	CHROMIUM	7500	34.171389	-118.307500
AVIBANK MFG. INC.	210 S. VICTORY BLVD., BURBANK, CA 915030391	"HYDROCHLORIC ACID (	7500	34.171389	-118.307500
AVIBANK MFG. INC.	210 S. VICTORY BLVD., BURBANK, CA 915030391	NICKEL	7500	34.171389	-118.307500
SENIOR FLEXONICS INC. STAINLESS	2980 N. SAN FERNANDO RD., BURBANK, CA	NITRIC ACID	3400	34.201670	-118.341670
SENIOR FLEXONICS INC. STAINLESS	2980 N. SAN FERNANDO RD., BURBANK, CA	CHROMIUM	3400	34.201670	-118.341670
SENIOR FLEXONICS INC. STAINLESS	2980 N. SAN FERNANDO RD., BURBANK, CA	NICKEL	3400	34.201670	-118.341670
SENIOR FLEXONICS INC. STAINLESS	2980 N. SAN FERNANDO RD., BURBANK, CA	LEAD	3400	34.201670	-118.341670

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MORGAN CHEMICAL PRODS. INC.	6940 FARMDALE AVE., NORTH HOLLYWOOD, CA 916056210	METHYL ETHYL KETONE	2700	34.196110	-118.380279
ARMORCAST PRODS. CO.	13030 RAYMER ST., NORTH HOLLYWOOD, CA 916054213	STYRENE	4700	34.084720	-118.186390
ARMORCAST PRODS. CO.	13030 RAYMER ST., NORTH HOLLYWOOD, CA 916054213	METHYL ETHYL KETONE	4700	34.084720	-118.186390
ARMORCAST PRODS. CO.	13230 SATICOY ST., NORTH HOLLYWOOD, CA 916054213	STYRENE	4700	34.083329	-118.183330
ARMORCAST PRODS. CO.	13230 SATICOY ST., NORTH HOLLYWOOD, CA 916054213	METHYL ETHYL KETONE	4700	34.083329	-118.183330
SPECIALTY COATINGS & CHEMICALS	7360 VARNA AVE., NORTH HOLLYWOOD, CA 91605	XYLENE (MIXED ISOMER	5100	34.204439	-118.422780
SPECIALTY COATINGS & CHEMICALS	7360 VARNA AVE., NORTH HOLLYWOOD, CA 91605	METHYL ETHYL KETONE	5100	34.204439	-118.422780
CALIFORNIA AMFORGE CORP.	750 N. VERNON AVE., AZUSA, CA 91702	CHROMIUM COMPOUNDS	7000	34.123890	-118.156110
CALIFORNIA AMFORGE CORP.	750 N. VERNON AVE., AZUSA, CA 91702	MANGANESE COMPOUNDS	7000	34.123890	-118.156110
CALIFORNIA AMFORGE CORP.	750 N. VERNON AVE., AZUSA, CA 91702	NICKEL COMPOUNDS	7000	34.123890	-118.156110
CRITERION CATALYST CO. LP.	1001 N. TODD AVE., AZUSA, CA 917021356	COBALT COMPOUNDS	3000	34.125000	-117.875000
CRITERION CATALYST CO. LP.	1001 N. TODD AVE., AZUSA, CA 917021356	MOLYBDENUM TRIOXIDE	3000	34.125000	-117.875000
CRITERION CATALYST CO. LP.	1001 N. TODD AVE., AZUSA, CA 917021356	"SULFURIC ACID (1994	3000	34.125000	-117.875000
CRITERION CATALYST CO. LP.	1001 N. TODD AVE., AZUSA, CA 917021356	NICKEL COMPOUNDS	3000	34.125000	-117.875000
CRITERION CATALYST CO. LP.	1001 N. TODD AVE., AZUSA, CA 917021356	NITRATE COMPOUNDS	3000	34.125000	-117.875000
CRITERION CATALYST CO. LP.	1001 N. TODD AVE., AZUSA, CA 917021356	AMMONIA	3000	34.125000	-117.875000

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
CRITERION CATALYST CO. LP.	1001 N. TODD AVE., AZUSA, CA 917021356	NITRIC ACID	3000	34.125000	-117.875000
PERKINELMER OPTOELECTRONICS SC INC.	1300 OPTICAL DR., AZUSA, CA 917023251	NICKEL	5000	34.051390	-117.916670
PERKINELMER OPTOELECTRONICS SC INC.	1300 OPTICAL DR., AZUSA, CA 917023251	COPPER	5000	34.051390	-117.916670
REICHHOLD INC.	237 S. MOTOR AVE., AZUSA, CA 917923228	STYRENE	4700	34.118060	-117.930280
REICHHOLD INC.	237 S. MOTOR AVE., AZUSA, CA 917923228	PHTHALIC ANHYDRIDE	4700	34.118060	-117.930280
REICHHOLD INC.	237 S. MOTOR AVE., AZUSA, CA 917923228	MALEIC ANHYDRIDE	4700	34.118060	-117.930280
REICHHOLD INC.	237 S. MOTOR AVE., AZUSA, CA 917923228	COBALT COMPOUNDS	4700	34.118060	-117.930280
REICHHOLD INC.	237 S. MOTOR AVE., AZUSA, CA 917923228	DICYCLOPENTADIENE	4700	34.118060	-117.930280
REICHHOLD INC.	237 S. MOTOR AVE., AZUSA, CA 917923228	ETHYLENE GLYCOL	4700	34.118060	-117.930280
REICHHOLD INC.	237 S. MOTOR AVE., AZUSA, CA 917923228	CERTAIN GLYCOL ETHER	4700	34.118060	-117.930280
TUBING SEAL CAP INC.	601 S. VINCENT AVE., AZUSA, CA 91702	COPPER	2700	34.123610	-117.738890
TUBING SEAL CAP INC.	601 S. VINCENT AVE., AZUSA, CA 91702	MANGANESE	2700	34.123610	-117.738890
TUBING SEAL CAP INC.	601 S. VINCENT AVE., AZUSA, CA 91702	NICKEL	2700	34.123610	-117.738890
TUBING SEAL CAP INC.	601 S. VINCENT AVE., AZUSA, CA 91702	CHROMIUM	2700	34.123610	-117.738890
NORAC CO. INC.	405 S. MOTOR AVE., AZUSA, CA 917023232	BENZOYL PEROXIDE	4700	34.116669	-117.934999
NORAC CO. INC.	405 S. MOTOR AVE., AZUSA, CA 917023232	BENZOYL CHLORIDE	4700	34.116669	-117.934999

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NORAC CO. INC.	405 S. MOTOR AVE., AZUSA, CA 917023232	METHYL ETHYL KETONE	4700	34.116669	-117.934999
VALSPAR CORP. - AZUSA	1004 W. 10TH ST., AZUSA, CA 91702	N-BUTYL ALCOHOL	4300	34.138890	-117.917500
VALSPAR CORP. - AZUSA	1004 W. 10TH ST., AZUSA, CA 91702	METHYL ETHYL KETONE	4300	34.138890	-117.917500
VALSPAR CORP. - AZUSA	1004 W. 10TH ST., AZUSA, CA 91702	"1,2,4-TRIMETHYLBENZ	4300	34.138890	-117.917500
VALSPAR CORP. - AZUSA	1004 W. 10TH ST., AZUSA, CA 91702	ETHYLBENZENE	4300	34.138890	-117.917500
VALSPAR CORP. - AZUSA	1004 W. 10TH ST., AZUSA, CA 91702	ETHYLENE GLYCOL	4300	34.138890	-117.917500
VALSPAR CORP. - AZUSA	1004 W. 10TH ST., AZUSA, CA 91702	METHYL ISOBUTYL KETO	4300	34.138890	-117.917500
VALSPAR CORP. - AZUSA	1004 W. 10TH ST., AZUSA, CA 91702	TOLUENE	4300	34.138890	-117.917500
VALSPAR CORP. - AZUSA	1004 W. 10TH ST., AZUSA, CA 91702	XYLENE (MIXED ISOMER	4300	34.138890	-117.917500
VALSPAR CORP. - AZUSA	1004 W. 10TH ST., AZUSA, CA 91702	CERTAIN GLYCOL ETHER	4300	34.138890	-117.917500
WYNN OIL CO.	1151 W. 5TH ST., AZUSA, CA 917029510	COPPER COMPOUNDS	3900	34.129720	-117.921940
WYNN OIL CO.	1151 W. 5TH ST., AZUSA, CA 917029510	ZINC COMPOUNDS	3900	34.129720	-117.921940
WYNN OIL CO.	1151 W. 5TH ST., AZUSA, CA 917029510	DIETHANOLAMINE	3900	34.129720	-117.921940
DAVIS WIRE CORP.	5555 IRWINDALE AVE., IRWINDALE, CA 917062070	ZINC (FUME OR DUST)	1400	34.113330	-117.934999
DAVIS WIRE CORP.	5555 IRWINDALE AVE., IRWINDALE, CA 917062070	"HYDROCHLORIC ACID (	1400	34.113330	-117.934999
DAVIS WIRE CORP.	5555 IRWINDALE AVE., IRWINDALE, CA 917062070	"SULFURIC ACID (1994	1400	34.113330	-117.934999

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
MG IND.	16125 ORNELAS ST., IRWINDALE, CA 917062074	"SULFURIC ACID (1994	8000	34.111109	-117.912500
MACDONALD CARBIDE CO.	4510 LITTLEJOHN ST., BALDWIN PARK, CA 917062298	AMMONIA	5700	34.094440	-117.981940
MILLER BREWING CO.	15801 E. 1ST ST., IRWINDALE, CA 917062036	AMMONIA	1400	34.125000	-117.937500
MILLER BREWING CO.	15801 E. 1ST ST., IRWINDALE, CA 917062036	CHLORINE	1400	34.125000	-117.937500
VISION-EASE LENS AZUSA	16016 MONTOYA ST., IRWINDALE, CA 91706	DICHLOROME THANE	5000	34.051390	-117.916670
VISION-EASE LENS AZUSA	16016 MONTOYA ST., IRWINDALE, CA 91706	ETHYLENE GLYCOL	5000	34.051390	-117.916670
JOHNSTON SWEEPER CO.	4651 SCHAEFER AVE., CHINO, CA 917105542	ETHYLENE GLYCOL	100	34.799170	-117.689720
MEDSEP CORP.	1630 INDUSTRIAL PARK ST., COVINA, CA 91722	DI(2-ETHYLHE XYL) PHT	8500	34.091109	-117.921940
BROWN INTL. CORP.	633 N. BARRANCA AVE., COVINA, CA 917231297	CHROMIUM	4900	34.092500	-117.880830
BROWN INTL. CORP.	633 N. BARRANCA AVE., COVINA, CA 917231297	NICKEL	4900	34.092500	-117.880830
RECOT INC. FRITO LAY (DBA)	9535 ARCHIBALD AVE., RANCHO CUCAMONGA, CA	NITRIC ACID	100	34.168060	-117.971670
CITATION PRECISION	11000 JERSEY BLVD., RANCHO CUCAMONGA, CA	ALUMINUM (FUME OR DU	4700	34.149999	-117.933330
CITATION PRECISION	11000 JERSEY BLVD., RANCHO CUCAMONGA, CA	NICKEL	4700	34.149999	-117.933330
CITATION PRECISION	11000 JERSEY BLVD., RANCHO CUCAMONGA, CA	CHROMIUM	4700	34.149999	-117.933330
CITATION PRECISION	11000 JERSEY BLVD., RANCHO CUCAMONGA, CA	COPPER	4700	34.149999	-117.933330
PRECISION AEROSPACE CORP.	11155 JERSEY BLVD. SUITE A, RANCHO CUCAMONGA, CA	NITRIC ACID	4300	34.158330	-117.933890

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
CROWN CITY PLATING CO.	4350 TEMPLE CITY BLVD., EL MONTE, CA 91731	NITRATE COMPOUNDS	4000	34.086110	-118.054169
CROWN CITY PLATING CO.	4350 TEMPLE CITY BLVD., EL MONTE, CA 91731	NITRIC ACID	4000	34.086110	-118.054169
CROWN CITY PLATING CO.	4350 TEMPLE CITY BLVD., EL MONTE, CA 91731	NICKEL COMPOUNDS	4000	34.086110	-118.054169
CROWN CITY PLATING CO.	4350 TEMPLE CITY BLVD., EL MONTE, CA 91731	FORMALDEHYDE	4000	34.086110	-118.054169
CROWN CITY PLATING CO.	4350 TEMPLE CITY BLVD., EL MONTE, CA 91731	COPPER COMPOUNDS	4000	34.086110	-118.054169
CROWN CITY PLATING CO.	4350 TEMPLE CITY BLVD., EL MONTE, CA 91731	CYANIDE COMPOUNDS	4000	34.086110	-118.054169
CROWN CITY PLATING CO.	4350 TEMPLE CITY BLVD., EL MONTE, CA 91731	CHROMIUM COMPOUNDS	4000	34.086110	-118.054169
CROWN CITY PLATING CO.	4350 TEMPLE CITY BLVD., EL MONTE, CA 91731	METHYL ETHYL KETONE	4000	34.086110	-118.054169
JAMES JONES CO.	4127 TEMPLE CITY BLVD., EL MONTE, CA 91731	COPPER	6400	34.085830	-118.033610
JAMES JONES CO.	4127 TEMPLE CITY BLVD., EL MONTE, CA 91731	LEAD	6400	34.085830	-118.033610
JAMES JONES CO.	4127 TEMPLE CITY BLVD., EL MONTE, CA 91731	ZINC (FUME OR DUST)	6400	34.085830	-118.033610
M.C. GILL CORP.	4056 EASY ST., EL MONTE, CA 917311087	PHENOL	6400	34.085830	-118.033610
M.C. GILL CORP.	4056 EASY ST., EL MONTE, CA 917311087	STYRENE	6400	34.085830	-118.033610
M.C. GILL CORP.	4056 EASY ST., EL MONTE, CA 917311087	METHYL ETHYL KETONE	6400	34.085830	-118.033610
M.C. GILL CORP.	4056 EASY ST., EL MONTE, CA 917311087	METHANOL	6400	34.085830	-118.033610
THRIFTY-PAYLESS INC. ICE CREAM DIV.	9200 TELSTAR AVE., EL MONTE, CA 91731	AMMONIA	7700	34.068890	-118.066110

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
KOTOFF & CO. INC.	2620 DURFEE AVE., EL MONTE, CA 91732	NICKEL	7600	34.050830	-118.018609
VALLEY BRASS INC.	3141 MAXON RD., EL MONTE, CA 91732	COPPER	10000	34.070830	-118.019440
VALLEY BRASS INC.	3141 MAXON RD., EL MONTE, CA 91732	LEAD	10000	34.070830	-118.019440
"CARDINAL INDUSTRIAL FINISHES, INC."	1329 POTRERO AVE., SOUTH EL MONTE, CA 91733	TOLUENE	3300	34.045829	-118.058330
"CARDINAL INDUSTRIAL FINISHES, INC."	1329 POTRERO AVE., SOUTH EL MONTE, CA 91733	XYLENE (MIXED ISOMER	3300	34.045829	-118.058330
"CARDINAL INDUSTRIAL FINISHES, INC."	1329 POTRERO AVE., SOUTH EL MONTE, CA 91733	METHYL ETHYL KETONE	3300	34.045829	-118.058330
"CARDINAL INDUSTRIAL FINISHES, INC."	1329 POTRERO AVE., SOUTH EL MONTE, CA 91733	CERTAIN GLYCOL ETHER	3300	34.045829	-118.058330
"CARDINAL INDUSTRIAL FINISHES, INC."	1329 POTRERO AVE., SOUTH EL MONTE, CA 91733	N-BUTYL ALCOHOL	3300	34.045829	-118.058330
FLEXFIRM PRODS. INC.	2300 N. CHICO AVE., SOUTH EL MONTE, CA 917331673	ANTIMONY COMPOUNDS	8300	34.055560	-118.059170
SANTOSHI CORP.ALUM-A-C OAT (DBA)	9859 KALE ST., SOUTH EL MONTE, CA 91733	MANGANESE	8300	34.056940	-118.052780
SANTOSHI CORP.ALUM-A-C OAT (DBA)	9859 KALE ST., SOUTH EL MONTE, CA 91733	"SULFURIC ACID (1994	8300	34.056940	-118.052780
PLASTIC DRESS-UP CO.	11077 E. RUSH ST., SOUTH EL MONTE, CA 91733	METHANOL	2900	34.045000	-118.043610
PLASTIC DRESS-UP CO.	11077 E. RUSH ST., SOUTH EL MONTE, CA 91733	TOLUENE	2900	34.045000	-118.043610
PLASTIC DRESS-UP CO.	11077 E. RUSH ST., SOUTH EL MONTE, CA 91733	METHYL ETHYL KETONE	2900	34.045000	-118.043610
SUPREME STEEL TREATING	2466 SEAMAN AVE., SOUTH EL MONTE, CA 91733	AMMONIA	3300	34.045280	-118.051939
GREGG INDS.	10460 HICKSON ST., EL MONTE, CA 91734	NICKEL	6400	34.065830	-118.033610

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
PLATO PRODS. INC.	18731 RAILROAD ST., CITY OF INDUSTRY, CA 91748	COPPER	4300	33.998059	-117.887220
ALTA-DENA CERTIFIED DAIRY INC.	17637 E. VALLEY BLVD., LA PUENTE, CA 91747	NITRIC ACID	5900	34.009169	-117.917219
ALTA-DENA CERTIFIED DAIRY INC.	17637 E. VALLEY BLVD., LA PUENTE, CA 91747	NITRATE COMPOUNDS	5900	34.009169	-117.917219
MAINTEX INC.	13300 E. NELSON AVE., INDUSTRY, CA 917467110	CERTAIN GLYCOL ETHER	3900	34.052219	-117.992780
MAINTEX INC.	13300 E. NELSON AVE., INDUSTRY, CA 917467110	ETHYLENE GLYCOL	3900	34.052219	-117.992780
SEMCO ENTERPRISES INC.	475 S. WILSON WAY, CITY OF INDUSTRY, CA 917443935	COPPER	2500	34.016110	-117.956109
SEMCO ENTERPRISES INC.	475 S. WILSON WAY, CITY OF INDUSTRY, CA 917443935	ZINC (FUME OR DUST)	2500	34.016110	-117.956109
DISTINCTIVE APPLIANCES INC.	14525 CLARK AVE., CITY OF INDUSTRY, CA 91745	DIISOCYANATES	2500	34.024719	-117.986390
HILL BROTHERS CHEMICAL CO.	15017 E. CLARK AVE., CITY OF INDUSTRY, CA 91745	SODIUM DIMETHYLDITHI	2500	34.020280	-117.976390
HILL BROTHERS CHEMICAL CO.	15017 E. CLARK AVE., CITY OF INDUSTRY, CA 91745	AMMONIA	2500	34.020280	-117.976390
LANSCO DIE CASTING INC.	711 S. STIMSON AVE., CITY OF INDUSTRY, CA 917451627	COPPER	2500	34.012779	-117.954170
QUEMETCO INC.	720 S. 7TH AVE., CITY OF INDUSTRY, CA 91745	LEAD COMPOUNDS	2500	34.024999	-117.982780
QUEMETCO INC.	720 S. 7TH AVE., CITY OF INDUSTRY, CA 91745	ARSENIC COMPOUNDS	2500	34.024999	-117.982780
QUEMETCO INC.	720 S. 7TH AVE., CITY OF INDUSTRY, CA 91745	ANTIMONY COMPOUNDS	2500	34.024999	-117.982780
QUEMETCO INC.	720 S. 7TH AVE., CITY OF INDUSTRY, CA 91745	COPPER COMPOUNDS	2500	34.024999	-117.982780
QUEMETCO INC.	720 S. 7TH AVE., CITY OF INDUSTRY, CA 91745	CHROMIUM COMPOUNDS	2500	34.024999	-117.982780

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
TELEDYNE CAST PARTS INDUSTRY OPS.	16800 CHESTNUT ST., CITY OF INDUSTRY, CA 917481017	NICKEL	2500	34.006390	-117.933059
TELEDYNE CAST PARTS INDUSTRY OPS.	16800 CHESTNUT ST., CITY OF INDUSTRY, CA 917481017	CHROMIUM	2500	34.006390	-117.933059
CASCADE DIE CASTING / PACIFIC	950 TURNBULL CANYON RD., CITY OF INDUSTRY, CA 91745	COPPER	3200	34.013610	-117.975000
BENTLEY MILLS INC.	14641 E. DON JULIAN RD., CITY OF INDUSTRY, CA 91746	AMMONIA	2500	34.028609	-117.979439
BENTLEY MILLS INC.	14641 E. DON JULIAN RD., CITY OF INDUSTRY, CA 91746	CERTAIN GLYCOL ETHER	2500	34.028609	-117.979439
GNB TECHS. INC.	14500 NELSON AVE., CITY OF INDUSTRY, CA 91746	LEAD COMPOUNDS	5600	34.041670	-117.970280
GNB TECHS. INC.	14500 NELSON AVE., CITY OF INDUSTRY, CA 91746	ANTIMONY	5600	34.041670	-117.970280
LIGHT METALS INC.	13329 ECTOR ST., CITY OF INDUSTRY, CA 91746	CHLORINE	3900	34.056669	-117.985559
LIGHT METALS INC.	13329 ECTOR ST., CITY OF INDUSTRY, CA 91746	COPPER	3900	34.056669	-117.985559
TEKNOR APEX CO. - MACLIN DIV.	420 S. SIXTH AVE., CITY OF INDUSTRY, CA 91746	LEAD COMPOUNDS	5900	34.008330	-117.924999
TEKNOR APEX CO. - MACLIN DIV.	420 S. SIXTH AVE., CITY OF INDUSTRY, CA 91746	DI(2-ETHYLHEXYL) PHT	5900	34.008330	-117.924999
TEKNOR APEX CO. - MACLIN DIV.	420 S. SIXTH AVE., CITY OF INDUSTRY, CA 91746	ANTIMONY COMPOUNDS	5900	34.008330	-117.924999
TEKNOR APEX CO. - MACLIN DIV.	420 S. SIXTH AVE., CITY OF INDUSTRY, CA 91746	BARIUM COMPOUNDS	5900	34.008330	-117.924999
TEKNOR APEX CO. - MACLIN DIV.	420 S. SIXTH AVE., CITY OF INDUSTRY, CA 91746	ZINC COMPOUNDS	5900	34.008330	-117.924999
PROGRESSIVE INK CO. L.L.C.	801 BALDWIN PARK BLVD., CITY OF INDUSTRY, CA 91746	BARIUM COMPOUNDS	5800	34.061390	-117.987779
ROBERT H. PETERSON CO.	14724 E. PROCTOR AVE., CITY OF INDUSTRY, CA 91746	DIISOCYANATES	2500	34.030559	-117.974720

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
CALGON CORP.	18725 E. SAN JOSE AVE., CITY OF INDUSTRY, CA 91744	CERTAIN GLYCOL ETHER	5900	34.000000	-117.891670
CALGON CORP.	18725 E. SAN JOSE AVE., CITY OF INDUSTRY, CA 91744	ZINC COMPOUNDS	5900	34.000000	-117.891670
CALGON CORP.	18725 E. SAN JOSE AVE., CITY OF INDUSTRY, CA 91744	ETHYLENE GLYCOL	5900	34.000000	-117.891670
CALGON CORP.	18725 E. SAN JOSE AVE., CITY OF INDUSTRY, CA 91744	ACRYLIC ACID	5900	34.000000	-117.891670
CALGON CORP.	18725 E. SAN JOSE AVE., CITY OF INDUSTRY, CA 91744	SODIUM NITRITE	5900	34.000000	-117.891670
PLASTRON - A TEKNI-PLEX CO.	19555 E. ARENTH AVE., CITY OF INDUSTRY, CA	DI(2-ETHYLHEXYL) PHT	4300	34.001389	-117.879999
ROBERTS CONSOLIDATED INDS. INC.	600 N. BALDWIN PARK BLVD., CITY OF INDUSTRY, CA 91746	METHANOL	7800	34.001669	-117.973889
AIR PRODS. POLYMERS L.P.	17801 ARENTH AVE., CITY OF INDUSTRY, CA 91748	VINYL ACETATE	10500	34.011669	-117.909720
AIR PRODS. POLYMERS L.P.	17801 ARENTH AVE., CITY OF INDUSTRY, CA 91748	BUTYL ACRYLATE	10500	34.011669	-117.909720
SAFE PLATING INC.	18001 RAILROAD ST., CITY OF INDUSTRY, CA 91748	NITRIC ACID	5900	33.996940	-117.909720
SAFE PLATING INC.	18001 RAILROAD ST., CITY OF INDUSTRY, CA 91748	NICKEL COMPOUNDS	5900	33.996940	-117.909720
SIGMA PLATING CO. INC.	1040 S. OTTERBEIN AVE., LA PUENTE, CA 91748	CHROMIUM	8300	34.006670	-117.878890
SIGMA PLATING CO. INC.	1040 S. OTTERBEIN AVE., LA PUENTE, CA 91748	NICKEL	8300	34.006670	-117.878890
ECOLAB INC.	18383 E. RAILROAD ST., CITY OF INDUSTRY, CA	CERTAIN GLYCOL ETHER	5900	33.997779	-117.902780
GOULDS PUMPS VPO	3951 CAPITOL AVE., CITY OF INDUSTRY, CA 90601	CHROMIUM	2900	34.017499	-118.046390
GOULDS PUMPS VPO	3951 CAPITOL AVE., CITY OF INDUSTRY, CA 90601	NICKEL	2900	34.017499	-118.046390

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
GOULDS PUMPS VPO	3951 CAPITOL AVE., CITY OF INDUSTRY, CA 90601	COPPER	2900	34.017499	-118.046390
LA VERNE METAL PRODS.	900 PALOMARES, LA VERNE, CA 91750	MANGANESE	4300	34.158330	-117.936110
LA VERNE METAL PRODS.	900 PALOMARES, LA VERNE, CA 91750	PHOSPHORUS (YELLOW O	4300	34.158330	-117.936110
LA VERNE METAL PRODS.	900 PALOMARES, LA VERNE, CA 91750	CHROMIUM	4300	34.158330	-117.936110
LA VERNE METAL PRODS.	900 PALOMARES, LA VERNE, CA 91750	NICKEL	4300	34.158330	-117.936110
LA VERNE METAL PRODS.	900 PALOMARES, LA VERNE, CA 91750	COPPER	4300	34.158330	-117.936110
LA VERNE METAL PRODS.	900 PALOMARES, LA VERNE, CA 91750	COBALT	4300	34.158330	-117.936110
SYNTHANE TAYLOR	1400 ARROW HWY., LA VERNE, CA 91750	"N,N-DIMETHYLFORMAMI	4600	34.093890	-118.272220
MONTCLAIR BRONZE INC.	5621 STATE ST., MONTCLAIR, CA 91763	COPPER	100	34.341669	-117.836110
CENTURY CAST PRODS. INC.	1275 E. FRANKLIN AVE., POMONA, CA 917665450	STYRENE	7700	34.040829	-117.729719
AIRGAS WEST - POMONA	1340 E. MISSION BLVD., POMONA, CA 91766	PROPYLENE	3600	34.055280	-117.751389
TELEDYNE CAST PARTS POMONA OPS.	4200 W. VALLEY BLVD., POMONA, CA 917662348	DIISOCYANATES	700	34.034999	-117.823329
COAST FNDY.	2696 1ST ST., LA VERNE, CA 91750	COPPER	100	34.258330	-117.891670
PIONEER ELECTRONICS TECH. INC.	1800 W. HOLT AVE., POMONA, CA 917683303	ETHYLENE GLYCOL	6900	34.051110	-117.780000
W. R. MEADOWS OF CALIFORNIA	2300 VALLEY BLVD., POMONA, CA 91768	CUMENE HYDROPEROXIDE	6900	34.060559	-117.795000
INDUSTRIAL ALLOYS INC.	3880 W. VALLEY BLVD., POMONA, CA 91768	AMMONIA	6900	34.041110	-117.750000

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
TITECH INTL. INC.	4000 W. VALLEY BLVD., POMONA, CA 91769	NITRIC ACID	5400	34.033890	-117.830280
TITECH INTL. INC.	4000 W. VALLEY BLVD., POMONA, CA 91769	HYDROGEN FLUORIDE	5400	34.033890	-117.830280
TITECH INTL. INC.	4000 W. VALLEY BLVD., POMONA, CA 91769	SODIUM NITRITE	5400	34.033890	-117.830280
HERMETIC SEAL CORP.	4232 TEMPLE CITY BLVD., ROSEMEAD, CA 91770	NITRIC ACID	7000	34.080560	-118.089169
HERMETIC SEAL CORP.	4232 TEMPLE CITY BLVD., ROSEMEAD, CA 91770	METHANOL	7000	34.080560	-118.089169
ALTAWOOD INC.	420 S. 11TH AVE., UPLAND, CA 91786	TOLUENE	2900	34.088610	-118.256670
ALTAWOOD INC.	420 S. 11TH AVE., UPLAND, CA 91786	XYLENE (MIXED ISOMER	2900	34.088610	-118.256670
ALTAWOOD INC.	420 S. 11TH AVE., UPLAND, CA 91786	DICHLOROMETHANE	2900	34.088610	-118.256670
"CONCORDE/INTERSPACE BATTERY,	2009 SAN BERNARDINO RD., WEST COVINA, CA	LEAD	8900	34.090280	-117.943890
"CONCORDE/INTERSPACE BATTERY,	2009 SAN BERNARDINO RD., WEST COVINA, CA	LEAD COMPOUNDS	8900	34.090280	-117.943890
CROWN BRASS MFG. CO.	400 S. PALM AVE., ALHAMBRA, CA 91803	COPPER	3300	34.086110	-118.145829
CROWN BRASS MFG. CO.	400 S. PALM AVE., ALHAMBRA, CA 91803	LEAD	3300	34.086110	-118.145829
INTERNATIONAL EXTRUSION CORP.	1000 MERIDIAN AVE., ALHAMBRA, CA 91803	CERTAIN GLYCOL ETHER	3300	34.084720	-118.152780
INTERNATIONAL EXTRUSION CORP.	1000 MERIDIAN AVE., ALHAMBRA, CA 91803	TOLUENE	3300	34.084720	-118.152780
INTERNATIONAL EXTRUSION CORP.	1000 MERIDIAN AVE., ALHAMBRA, CA 91803	XYLENE (MIXED ISOMER	3300	34.084720	-118.152780
INTERNATIONAL EXTRUSION CORP.	1000 MERIDIAN AVE., ALHAMBRA, CA 91803	AMMONIA	3300	34.084720	-118.152780

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
INTERNATIONAL EXTRUSION CORP.	1000 MERIDIAN AVE., ALHAMBRA, CA 91803	NITRIC ACID	3300	34.084720	-118.152780
PEMACO METAL PROCESSING CORP.	2125 LEMON ST., ALHAMBRA, CA 918030488	CHLORINE	3300	34.086390	-118.146110
SILVESTRI STUDIO INC.	1733 W. CORDOVA ST., LOS ANGELES, CA 900071194	STYRENE	5000	34.039440	-118.294720
FOX HILLS INDS.	5831 RESEARCH DR., HUNTINGTON BEACH, CA 92649	COPPER	100	34.227779	-118.050560
FOREMOST IN PACKAGING SYS. INC.	308 E. DYER RD., SANTA ANA, CA 92707	DIISOCYANATES	7300	33.750000	-118.383330
KAGA (U.S.A.) INC.	2620 S. SUSAN ST., SANTA ANA, CA 92704	TRICHLOROETHYLENE	4800	34.193330	-118.521940
THOMAS & BETTS CORP.	76 FAIRBANKS, IRVINE, CA 92618	COPPER	4500	34.064169	-118.189440
ANAHEIM PLATING	928 E. S. ST., ANAHEIM, CA 92805	NITRIC ACID	2400	34.392499	-118.514999
SIERRACIN/SYLMAR CORP.	12780-12782 SAN FERNANDO RD., SYLMAR, CA 91342	DIISOCYANATES	5700	34.302219	-118.461390
REXHALL IND. INC.	46147 7TH ST. W., LANCASTER, CA 93534	STYRENE	300	34.722219	-118.144170
BOEING CO. REUSABLE SPACE SYS.	1500 E. AVE. M, PALMDALE, CA 93550	FREON 113	400	34.634720	-118.095830
MOBIL OIL VERNON TERMINAL	2619 E 37TH ST., VERNON, CA 90058	BENZENE	100	34.008990	-118.226420
MOBIL OIL VERNON TERMINAL	2619 E 37TH ST., VERNON, CA 90058	ETHYLBENZENE	100	34.008990	-118.226420
MOBIL OIL VERNON TERMINAL	2619 E 37TH ST., VERNON, CA 90058	XYLENE (MIXED ISOMER	100	34.008990	-118.226420
MOBIL OIL VERNON TERMINAL	2619 E 37TH ST., VERNON, CA 90058	N-HEXANE	100	34.008990	-118.226420
MOBIL OIL VERNON TERMINAL	2619 E 37TH ST., VERNON, CA 90058	TOLUENE	100	34.008990	-118.226420

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
CALIFORNIA METAL-X	366 E. 58TH ST., LOS ANGELES, CA 90011	COPPER	3300	33.989740	-118.268470
CALIFORNIA METAL-X	366 E. 58TH ST., LOS ANGELES, CA 90011	LEAD	3300	33.989740	-118.268470
CALIFORNIA METAL-X	366 E. 58TH ST., LOS ANGELES, CA 90011	NICKEL	3300	33.989740	-118.268470
TRIDENT PLATING INC.	2161 SAYBROOK AVE., CITY OF COMMERCE, CA 900401717	TETRACHLOROETHYLENE	4500	34.004179	-118.138279
WESTLECTIC CASTINGS INC.	2040 CAMFIELD AVE., CITY OF COMMERCE, CA 90040	MANGANESE	4500	34.008509	-118.156059
WESTLECTIC CASTINGS INC.	2040 CAMFIELD AVE., CITY OF COMMERCE, CA 90040	NICKEL	4500	34.008509	-118.156059
WESTLECTIC CASTINGS INC.	2040 CAMFIELD AVE., CITY OF COMMERCE, CA 90040	CHROMIUM	4500	34.008509	-118.156059
LAROCHE INDS. INC.	15116 CANARY AVE., LA MIRADA, CA 90638	AMMONIA	4500	33.893739	-118.023999
ARCO PRODS. CO. CARSON CRUDE	24696 WILMINGTON AVE., CARSON, CA 90745	BENZENE	4400	33.802530	-118.257240
ARCO PRODS. CO. CARSON CRUDE	24696 WILMINGTON AVE., CARSON, CA 90745	TOLUENE	4400	33.802530	-118.257240
ARCO PRODS. CO. CARSON CRUDE	24696 WILMINGTON AVE., CARSON, CA 90745	XYLENE (MIXED ISOMER	4400	33.802530	-118.257240
ARCO PRODS. CO. CARSON CRUDE	24696 WILMINGTON AVE., CARSON, CA 90745	N-HEXANE	4400	33.802530	-118.257240
CUNICO CORP.	214 N. HAWAIIAN AVE., WILMINGTON, CA 90748	COPPER	3300	33.770880	-118.276080
CUNICO CORP.	214 N. HAWAIIAN AVE., WILMINGTON, CA 90748	NICKEL	3300	33.770880	-118.276080
ELECTRO RENT CORP.	15385 OXNARD ST., VAN NUYS, CA 91411	DIISOCYANATES	4100	34.179249	-118.467989
CALIFORNIA ART PRODS. CO.	11111 CHANDLER BLVD., NORTH HOLLYWOOD, CA	STYRENE	4400	34.168060	-118.373079

Name	Address	Chemical	# of Residents within 5 km Radius	Latitude	Longitude
HCC MACHINING CO. INC.	4501 ARDEN DR., EL MONTE, CA 91731	CHROMIUM	4000	34.087799	-118.042810
HCC MACHINING CO. INC.	4501 ARDEN DR., EL MONTE, CA 91731	NICKEL	4000	34.087799	-118.042810
CACIQUE INC.	14940 PROCTOR, CITY OF INDUSTRY, CA 91746	NITRIC ACID	2500	34.028039	-117.971570
UNIVERSAL DIE CASTING	5001 SANTA FE AVE., LOS ANGELES, CA 90058	COPPER	100	33.997639	-118.230360
PACIFIC SINTERED METALS	14000 AVALON BLVD., LOS ANGELES, CA 900612636	COPPER COMPOUNDS	5400	33.904249	-118.265210
PACIFIC SINTERED METALS	14000 AVALON BLVD., LOS ANGELES, CA 900612636	ZINC COMPOUNDS	5400	33.904249	-118.265210
PACIFIC SINTERED METALS	14000 AVALON BLVD., LOS ANGELES, CA 900612636	NICKEL COMPOUNDS	5400	33.904249	-118.265210

Emergency Response

Los Angeles County Area Plan for Hazardous Materials

The Los Angeles County Area Plan for Hazardous Materials is established pursuant to Health and Safety Code Section 25503 and Title 19 of the California Code of Regulations commencing with Section 2720. This plan was formulated to supplement the Los Angeles County Operational Area Emergency Response Plan (LACOAERP). Addendums provide more specifics than is provided in the Los Angeles County Operational Area Emergency Response Plan. The plan is designed to incorporate information gathered from known handlers of hazardous materials prior to an emergency release with a plan of action once a release occurs. The plan also allows for pre-emergency planning and training of response personnel and for coordination of available resources.

The objectives of the plan are to:

- Provide procedures and protocols for emergency rescue personnel, including the safety and health of those personnel;
- Pre-emergency planning;
- Provide notification and coordination of on-site activities with State, local and federal agencies, responsible parties, and special districts;
- Training of appropriate personnel;
- On-site public safety and information;
- Required supplies and equipment;
- Access to emergency response contractors and hazardous waste disposal sites;
- Incident critique and follow-up.

Containment & Clean-up

The Incident Commander at a hazardous material incident is responsible to ensure that hazardous waste generated at the scene is properly disposed. Proper clean-up of hazardous waste in accordance with state and federal law is often quite costly; therefore, both state and federal funds have been set aside to aid local jurisdictions in paying for clean-up of emergency releases. In all hazardous waste clean-up efforts, the party responsible for the release has primary financial responsibility for proper removal of the waste. The person, firm or corporation responsible for an unauthorized discharge shall initiate and complete all actions necessary for cleanup. Costs associated with the cleanup shall be the responsibility of the person, firm or corporation. If however, the responsible party is unable to finance clean-up or is an unknown party, then the following state or federal funds may be accessed provided criteria specific to each funds are met. The Los Angeles County Fire Department Health Hazardous Materials Division has considerable experience and expertise in accessing these funds and is most familiar with the necessary criteria for each fund. The Los Angeles County Fire Department, Health Hazardous Materials Division is designated to provide liaison and technical expertise to the Incident Commander in accessing state and federal clean-up funds.

Funding Agencies

Local Government

In the event that state or federal funding criteria are not met at any given incident, local government should maintain a fund that is readily available for costs associated with emergency response and mitigation measures for hazardous materials incidents.

State Government

Cal Trans

Cal Trans administers a fund for clean-up on hazardous materials spills that impact state highways and right-of-way. Does not include cleanup of hazardous materials beyond the right-of-way even though it originated on a state highway.

Fish & Game (Fish and Game Code Section 12017)

Fish & Wildlife Pollution Cleanup and Abatement Account

Clean-up and abatement actions of materials threatening to pollute, contaminate, or obstruct waters of the state to the detriment of fish, plant, bird, or animal life.

Funds in the Fish and Wildlife Pollution Clean-up and Abatement Account shall be expended only if both of the following conditions exist.

The Department has made a reasonable effort to have the responsible party remove in a timely manner, or reimburse the Department for the cost of the removal, the substance causing the prohibited condition pursuant to Section 12015.

Funds are not available for disbursement from the Emergency Reserve Account of the Hazardous Substance Account in the General Fund pursuant to Section 25351 or 25354 of the Health and Safety Code.

California Environmental Protection Agency (Health & Safety Code Section 25354)

(Toxic Substances Control Account for Hazardous Materials Incidents)

Administered by the Toxics Substances Control Program. Funds may be used for payment of all costs of removal or remedial action by the State or by a local agency with the approval of the Director.

To request funding ask the OES Warning Control Officer to contact the on-call Duty Officer of the California Environmental Protection Agency Department of Toxics Substance Control Division and to inform the Duty Officer that EPA funding is requested. Give the name and telephone number of the local contact representative. The Duty Officer will contact the local government representative as soon as he/she is notified. If the incident is eligible, one of the following may occur.

Federal Government

U.S. Coast Guard

Clean Water Act Federal Pollution Fund (311k)

Primary for oil spills that affect navigable waterways

Environmental Protection Agency

Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) Hazardous Substance Response Trust Fund.

Primarily for hazardous materials spills (not oil)

Radiological Incidents/Accidents

Radiological Incidents/Accidents were rated MODERATE PRIORITY HAZARDS in Los Angeles County.

There are two operating nuclear power plants (NPP) in California, Diablo Canyon Power Plant in San Luis Obispo County, and San Onofre Nuclear Generating Station in San Diego County. Two other nuclear power plants, Humboldt Bay and Rancho Seco, are not operational, but have spent fuel stored on-site.

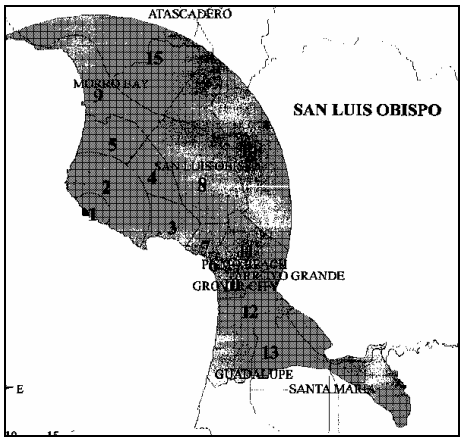
State and local governments having jurisdiction within ten miles of an operating nuclear power plant must plan, train, and conduct emergency exercises annually in accordance with federal regulations. Detailed emergency plans are maintained by each affected agency.

Four Emergency Classification Levels (ECLs) have been established in federal regulations to characterize the severity of the emergency and the response actions required. The ECLs must be used as the foundation for emergency response planning, training and exercises. ECLs are described in the table below.

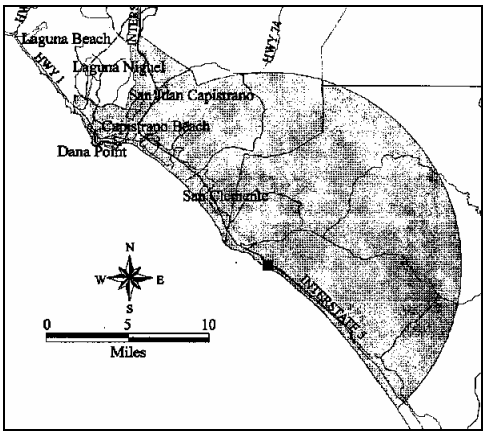
As part of the planning basis, affected agencies must establish emergency planning zones (EPZs), which is an approximate ten-mile radius drawn around each plant site. The exact EPZ size is established to provide for substantial reduction in early severe health effects in the event of a worst-case core melt accident.

To date, there have been no deaths or injuries resulting from a nuclear emergency event at a California nuclear power plant. For this reason they are classified as a less significant hazard.

Emergency Classification Levels	ECL Description and Purpose	Populations Effected	Occurrences
Notification of Unusual Event	Issued when events have occurred that potentially could degrade the level of plant safety. No radioactive releases requiring emergency response are expected.	On site only	Average 1-2 per year.
Alert	Issued when events have occurred that involves a substantial degradation of plant safety. Any radioactive releases are expected to be a fraction of federal exposure guidelines requiring protective actions.	On site only	1 (SONGS, March 1999)
Site Area Emergency	Issued when events have occurred that involve the failure of major plant functions needed to protect the public. Radioactive releases are not expected to exceed federal exposure guidelines at the site boundary.	Site area, schools, beaches, & transient populations within the EPZ.	0
General Emergency	Issued when events have occurred that involve substantial core degradation or loss of containment integrity. Radioactive releases are expected to exceed federal exposure guidelines.	Designated areas within the (EPZ)	0



EPZ for the Diablo Canyon NPP



EPZ for SONGS

(Source: Mark Johnson, CA OES, Radiological Coordinator, Radiological Preparedness Unit)

The Nuclear Regulator Commission (NRC) regulates the operation of nuclear power plants in the Unites States. The NRC is responsible for ensuring that the NPPs in California are safe from hazards such as earthquakes and fires, as well as hazards from hostile sources such as terrorism. FEMA evaluates the ability of local and state governments to protect the public in the event of a nuclear power plant emergency.

Due to strict regulation of nuclear power plants in the United States, significant nuclear power incidents that can cause harm to the public have low probability of occurrence, and none have occurred in California.

Special Event

Special Events were rated MODERATE PRIORITY HAZARDS in Los Angeles County.

Large crowds, gathered for special events, represent disaster hazards in the following ways:

- Viable targets for a terrorists
- Concentration of people in a relatively small, enclosed area during earthquakes
- Site for mass casualties in the event of an aviation disaster
- Challenge to egress in the event of a large fire elevating the risk of mass casualties
- Depending on the event, could be prone to civil disobedience or riots

Los Angeles County Events

Public Holidays include: **New Year's Day** (1 January), **Robert E. Lee's Birthday** (19 January), **Martin Luther King Jr. Day** (third Monday in January), **Presidents' Day** (third Monday in February), **Eastern**, **Confederate Memorial Day** (26 April), **Memorial Day** (last Monday in May), **Independence Day** (4 July), Colorado Day (first Monday in August), **Labor Day** (first Monday in September), **Columbus Day** (second Monday in October), **Veterans' Day** (11 November), **Thanksgiving** (fourth Thursday in November) and **Christmas Day**.

Every New Year's Day the **Tournament of Roses Parade** - marching bands, celebrities and flower-coated floats - makes its way down Pasadena's Colorado Blvd. The **Rose Bowl** college football championship is played later the same day. A parody of the Tournament of Roses - the **Doo Dah Parad**e - makes its way down Colorado Blvd in November, on the Saturday after Thanksgiving.

February is **African American History Month**, with films, lectures, exhibits and performances across the county. LA's night of nights, the **Academy Awards**, is held in March. **Cinco de Mayo**, marking Mexico's victory over the French army at the Battle of Puebla (1862), is celebrated on May 5 with plenty of south-of-the-border style festivities.

In June, the **Gay & Lesbian** Pride Celebration is marked with a flamboyant parade down Santa Monica Blvd. The **Summer Pops Festival** runs from July through September at the Hollywood Bowl, and the **International Surf Festival** hits the waves of Manhattan, Hermosa and Redondo Beaches in August.

Los Angeles County Fair, held in Pomona in September, is the largest county fair in the world, with music, sideshows, rides and other country-style delights. For those who prefer not to get their glad rags grubby, October's **AFI-LA International Film Festival** is one of the country's biggest, with more than 75 features from around the world.

Other events include the **Hollywood Christmas Parade**, where movie and TV stars join Santa in a typically flashy parade and the **Las Posadas**, candle-lit processions that relive Mary and Joseph's journey to Bethlehem and honor the Christ child.

Other Event Venues

Downtown Los Angeles

Downtown LA is a microcosm of the city's past, present, and future and one of its most intriguing neighborhoods. El Pueblo commemorates the city's Spanish origins, while Chinatown to the north and Little Tokyo to the south are the vibrant centers of immigrant communities. The city's financial pulse beats in glass high-rises along flower and Figueroa Streets in sharp contrast to the eclectic early 20th-century architecture in the area around Pershing Square. Culture is king in downtown, from the renowned Museum of Contemporary Art and the spectacular new Walt Disney Concert Hall to the experimental galleries and studios of the Arts District east of Alameda Avenue. The Fashion and Jewelry Districts also add their own flair to the urban tapestry. Downtown is eminently walk able, but DASH buses also whisk you around between the diverse worlds that make up LA.

El Pueblo de Los Angeles

This historic district near LA's 1781 founding site comprises buildings dating back to the early 19th century, when the city was little more than a scruffy outpost under Mexican rule. Its lain artery, Olvera Street, has been restored to a lively lane lined with Mexican trinket shops and restaurants.

Union Station

Built in 1939 during the golden age of railroad travel, the design of the dignified Union Station blends traditional Spanish Mission elements with Modernist Art Deco touches. Its lofty main wailing room is graced with a coffered wooden ceiling, highly polished marble floors, and tall arched windows. Union Station has been featured in several movies, The Hustler (1961) and Bugsy (1992) among others.

800 N Alameda St

Chinatown

The Chinese first settled in LA after the Gold Rush, but were forced by the construction of Union Station to relocate a few blocks north to an area that is today known as "New Chinatown." The cultural hub of over 200,000 Chinese Americans, this exotic district has stores hawking dried and pickled ginger and lucky bamboo, the offices of herbalists and acupuncturists, and restaurants that serve hot dim sum. In February, the Chinese New Year is celebrated with colorful parades and dragon dances.

Along Broadway Hill north of Cesar Chavez Blvd

Little Tokyo

The Japanese have been a presence in LA since the 1880s, but radical redevelopment in the 1960s replaced most of Little Tokyo's original structures with bland modern architecture. The few surviving buildings on East First Street are now protected as a National Historic Landmark. Stop at the Japanese American National Museum, and check out the MOCA Geffen Contemporary close by, and the Japanese Village Plaza.

Bounded by 1st & 4th Alameda & Los Angeles St

Cathedral of Our Lady of the Angels

LA's strikingly modern Roman Catholic cathedral looms above the Hollywood Freeway that he been likened to a "river of transportation." Opened in 2002, the adobe-colored structure is entered through giant bronze doors cast by LA sculptor Robert Graham and guarded by a statue of Our Lady of the Angels. The soaring hall of worship, which seats 3,000 people, is bathed in soft light streaming in through alabaster windows. It is the first Catholic cathedral to be constructed in the western US in over a quarter century.

550 W Temple St

Walt Disney Concert Hall

The new home of the Los Angeles Philharmonic Orchestra is a spectacular addition to downtown's physical and cultural landscape Frank Gehry conceived the dramatic design of this 2,265-seat auditorium, rather like the sculptural interpretation of a ship caught at sea. The exterior "sails" are clad in shining stainless steel panels, while the concert space itself boasts a curved wooden ceiling carefully calibrated for superb acoustics.

111 S Grand Ave

Bradbury Building

The nondescript facade of this Victorian-era office building doesn't do justice to the magical courtyard within. Muted light filters in through a soaring glass roof while open-cage elevators take you up floors hemmed in by lacy banisters. Commissioned by the mining and real estate magnate Lewis Bradbury and completed in 1893, architect George Wyman allegedly found inspiration for some of his designs in Edward Bellamy's 1887 novel, Looking Backward.

304 S Broadway

Grand Central Market

Angelenos have perused the produce aisles of this exotic and lively market since 1917. Today, homemakers mingle with office workers to stock up on everything from fruits and vegetables to fresh fish and meat, and spices and herbs to cakes and bread, all available at bargain prices. Many of the eateries here also have long traditions, such as Roast-to-Go where the Penilla family has served made-to-order tacos and burritos since the 1950s. The architect Frank Lloyd Wright once had an office upstairs in this 1905 Beaux-Arts building.

317 S Broadway

Pasadena

Pasadena may be considered part of LA, but is, in fact, distinctly apart. As LA's first suburb, it attracted a large share of the rich and the powerful, who saw to it that a European flair enhanced the town. Fine mansions, such as the masterful Craftsman-era Gamble House, occupy grounds on leafy streets. Old Town Pasadena, the historic core, has been renovated to create a vibrant street with fine restaurants and shops. Pasadena is in the limelight every year on January 1 with its Tournament of Roses, a parade and football game. The area's other treasures include the Rose Bowl and the fabled Huntington Gardens.

Huntington Library, Art Collections, & Botanical Gardens

This treasure trove of high culture is the legacy of railroad baron Henry E. Huntington. He made his vast fortune as a real estate speculator and owner of LA's first mass transit system, The Big Red Cars.

Norton Simon Museum

This must-see for art lovers owes its existence to Norton Simon, a hugely successful entrepreneur who amassed hundreds of masterpieces from the Renaissance to the 20th century, and sculpture from India and Southeast Asia. Old Masters such as Rembrandt and Goya and the Impressionists, especially Degas, as well as Renoir, Cezanne, and Monet are well represented. Frank Gehry's recent remodel improved the lighting conditions of the exhibit space. Sculptures, including Rodin's The Thinker, dot the gardens, inspired by Monet's at Giverny in France.

411 W Colorado Blvd

Pacific Asia Museum

Grace Nicholson, infatuated with all things Asian, had her 1920s private home designed to look like a Chinese imperial palace. It now makes a fitting setting for this museum's artifacts from Asia and the Pacific Islands. Exhibits, usually drawn from the 14,000-strong collection, feature masks from New Guinea, paintings by Japanese masters Hokusai and Hiroshige, and woven costumes from Pakistan.

46 N Los Robles Ave

Old Town Pasadena

Pasadena's historic business district along western Colorado Boulevard was once a decaying part of town, but has now been restored. Today, its handsome brick buildings are packed with boutiques, restaurants, and bookstores. A short detour will take you to the imposing 1898 Castle Green, an apartment building that was once Old Pasadena's most luxurious resort hotel.

Along Colorado Blvd between Marengo Ave & Pasadena Ave

Rose Bowl

Pasadena's most famous landmark, the Rose Bowl draws worldwide attention every New Year's Day when two top-ranking college football teams battle it out for the Rose Bowl Game Trophy. College football first became part of the Tournament of Roses in 1902 when Stanford was trounced 49-0 by Michigan. Architect Myron Hunt's originally horseshoe-shaped structure was later converted into an elliptical shape and enlarged to its current seating capacity of 93,000.

1000 Rose Bowl Dr

Wrigley Mansion & Garden

William Wrigley Jr, the man who gave the world Wrigley's chewing gum, certainly knew how to live. His winter residence in Pasadena is an 18,500-sq-ft (1,720-sq-m) Renaissance-style mansion. It houses the Tournament of Roses Association, which organizes the annual New Year's Day Rose Parade and the Rose Bowl Game. Memorabilia includes Rose Queen crowns, trophies, and photographs.

391 S Orange Grove Blvd

California Institute of Technology (CalTech)

One of the world's leading scientific research centers and a pioneer in earthquake science and molecular biology, CalTech counts 29 Nobel Prize winners among its alumni and faculty, including biologist and current president, David Baltimore. The institute evolved from an arts and crafts school founded in 1891 by the famous Amos G. Throop, changing its focus to science after astronomer George E. Hale became a board member in 1907.

1200 E California Blvd

Pasadena Civic Center

This grand complex was inspired by the early 20th-century City Beautiful movement. It consists of three European-style Beaux-Arts structures stretching along a central axis - the Main Library, the Civic Auditorium, and the City Hall. Architect Myron Hunt designed the public library.

City Hall, 100 N Garfield Ave, Civic Auditorium, 300 E Green St, Library, 285 E Walnut St

Colorado Street Bridge

The graceful arches of this recently restored 1913 bridge straddle the Arroyo Seco (Spanish for "dry brook"), a natural ravine that comes down from the San Gabriel Mountains. The imposing 1903 Vista del Arroyo Hotel overlooking the bridge is presently home to the Ninth Circuit Court of Appeals.

125 S Grand Ave

Pasadena Museum of California Art

Pasadena art collectors, Robert and Arlene Oilman, occupy the third floor of their 2002 custom-built museum, the only one in the state solely devoted to the art and architecture of California. Watercolors, photographs, and the works of historical as well as living artists are showcased.

490 E Union St

Hollywood

Hollywood is at once a town, an industry, and an illusion, and you'll experience all of these as you stroll along the famed Hollywood Boulevard. Its history encompasses the birth of the movies, the Golden Age of film premieres and o crushing decline as the studios moved elsewhere. But recent years have seen a renaissance along the boulevard - the Hollywood and Highland complex is a major development, and many of the grand movie palaces once again host glamorous film openings. At its core, Hollywood is a museum - the huge sign in the hills, movie stars "at your feet" on the Walk of Fame, the bars that hosted greats such as Ernest Hemingway - this is still the place to rekindle childhood dreams about the "stars."

Hollywood Boulevard

Hollywood's main artery, one of the district's most glamorous streets during its pre-World War II heydays, has been revitalized in recent years. The focus of this rejuvenation is the extravagantly designed Hollywood and Highland complex, but old favorites such as Mann's Chinese Theatre and the Walk of Fame have also received a fresh sheen.

Hollywood Sign

From the very beginning, the shiny white Hollywood sign atop Mount Lee was meant to attract attention, originally for the real estate developer and publisher Harry Chandler. Built in 1923 at a cost of $21,000, the sign was once illuminated by 4,000 bulbs and had its own caretaker. Each letter is 50 ft (15 m) tall and is made of sheet metal. In 1932, unemployed actress Peggy Entwistle immortalized herself by leaping to her death off the H. It's illegal to hike to the sign, but the top of Beachwood Drive gets you fairly close to LA's most recognizable landmark.

Hollywood Bowl

A night at the world's largest natural amphitheater is as much part of Los Angeles summer tradition as backyard barbecues and fun at the beach. The world's finest artists - from Sinatra to Pavarotti - have performed here since 1922. In 1924, Lloyd Wright designed the first concert shell, greatly improving acoustics.

2301 N Highland Ave

Hollywood Heritage Museum

This museum is housed in the 1895 barn where Jesse Lasky and Cecil B. De Mille set up Hollywood's first major film studio in 1913. Originally located at Selma Avenue and Vine Street, De Mille shot Hollywood's first full-length feature The Squaw Man here in 1913-14. Exhibits include a recreated studio as well as plenty of photographs, props, and memorabilia from the silent movie era.

2100 N Highland Ave

Hollywood Forever Cemetery

Founded in 1899, this cemetery has the densest concentration of celebrity corpses in the world. The long list of those interred here includes Rudolph Valentino, Jane Mansfield, and Cecil B. De Mille. The grandest memorial, though, belongs to Douglas Fairbanks Sr. who, since 2000, has

shared his marble tomb with his son, Douglas Fairbanks Jr. Buy a map of the graves from the nearby flower shop.

6000 Santa Monica Blvd

Paramount Studios

The only major movie studio still located in Hollywood, Paramount traces its pedigree back to 1916 when movies were made with the Paramount logo. The studio has always had a stunning star roster and in 1929, Paramount's Wings took home the first ever Best Picture Oscar. More recent hits include Psycho The Godfather, Forrest Gump, and Titanic. Studio tours have been suspended indefinitely but you can enter the ornate gates by being part of a live audience for a TV show taping.

5555 Melrose Ave

Cinerama Dome

Hollywood landmark and site of many a movie premiere, this white dome of interlocked triangles is LA's most unusual movie theater. The world's only concrete geodesic dome was built by Welton Beckett in 1963 to show Cinerama movies, a revolutionary wide-screen technique requiring three 35 mm projectors. Today, it is part of a brand new complex that also includes the ArcLight movie theaters.

Crossroads of the World

The centerpiece of this unique architectural metaphor is a shiplike Art Deco building that "sails" into a courtyard flanked by cottages in styles ranging from Spanish Colonial to German gingerbread. A quiet office complex, it was built in 1936 by Robert Derrah, who designed Downtown's Coca-Coca Bottling Plant.

6671 Sunset Blvd

Silver Lake & Los Feliz

The twin neighborhoods of Silver Lake and Los Feliz constitute one of Los Angeles's oldest movie colonies with bohemianchic dining, shopping, and nightlife scenes. The hills are studded with Modernist masterpieces such as Frank Lloyd Wright's 1924 Ennis-Brown House and the Lovell House built 3y Richard Neutra.

Ennis-Brown House, 2655 Glendower Ave, Lovell House, 4616 Dundee Dr

Hollyhock House

Los Feliz is also home to the Hollyhock House, a community arts center. The Mayan-style mansion was designed by Frank Lloyd in 1921 for oil heiress Aline Barnsdall. Depictions of the hollyhock, her favorite flower, appear everywhere on facades and in furniture.

4808 Hollywood Blvd

Beverly Hills, Westwood, & Bel-Air

Staff is livery standing over rows of Rolls Royces, Tom Cruise disembarking from a stretch limo, cellphone-addicted fat-cat producers cutting poolside deals in pleasure-palace hotels, slinky young things in black - this is Beverly Hills where the smell of money drapes the very breeze. But there is more than just opulence and wealth here. Adjacent Westwood is home to UCLA, one of the finest public universities in the country. The nearby Getty Center serenely lords above it all in its white majesty. Bel Air mansions have routinely passed from Fairbanks and Bogart to Streisand and Diaz. Beverly Hills and its environs offer glimpses into a fairytale lifestyle unattainable for most.

Beverly Hills Hotel

LA's most famous hotel has been part of Hollywood history since its 1912 opening. Douglas Fairbanks Sr. and Will Rogers got drunk in the bar, Howard Hughes rented Bungalow 3 for 30 years, and Marilyn Monroe reportedly romanced both JFK and RFK here. Political leaders, royals, and Hollywood headliners have all stayed, partied, and cavorted at the legendary Pink Palace. It's been featured in movies and on the cover of the Eagles' Hotel California album. And stars still come - Elton John celebrated his 55th birthday here in 2002.

9641 Sunset Blvd

Rodeo Drive

Rodeo Drive is one of the world's most famous - and expensive -shopping streets, synonymous with a lifestyle of luxury and fame. Only three blocks long, it s essentially an haute couture runway, with all the major international players represented. You'll often spot nicely groomed shoppers, though actual star sightings are rare. Rodeo's southern end is punctuated by the Regent Beverly Wilshire, one of LA's grandest hotels. Architecture fans check out Frank Lloyd Wright's Anderton Court. Rodeo Drive between Wilshire & Santa Monica Blvds

Museum of Television & Radio

Most people alive today have grown up watching television, one of the defining media of the 20th century. This museum, housed in a striking building by Getty Center architect Richard Meier, has made it its mission to collect, preserve, and share nearly 80 years of radio and TV history. About 120,000 programs - news to musicals, sports to sitcoms - have been catalogued and are available for viewing and listening. The museum also offers daily presentations in its on-site theaters and organizes seminars and live radio broadcasts.

N Beverly Dr

Beverly Hills Civic Center

The wealth of a city is offer reflected in its public buildings, so it should come as no surprise that Beverly Hills has the kind of civic center that's the envy of other towns. Its centerpiece is the elegant City Hall, built in 1932 in Spanish Renaissance style and harmoniously incorporated into a contemporary Spanish-style complex with palm-lined walkways and curved colonnades. It houses a beautiful library as well as the local police and fire departments.

East of Crescent Dr between Santa Monica Blvd & Burton Dr

Museum of Tolerance

This high-tech museum confronts visitors with issues of extreme intolerance to make them realize the need for greater acceptance in today's world. The experience begins at the "Tolerancenter," whose exhibits address issues such as human rights violations and the Civil Rights movement. The Holocaust section, at the core, chronicles Nazi atrocities. A new multimedia exhibit follows the lives of well-known Americans from different ethnic backgrounds.

9786 W Pico Blvd

University of California, 13 Los Angeles (UCLA)

One of the nation's top research universities, UCLA (founded in 1919) counts many luminaries among its alumni, including Francis Ford Coppola. It has around 150 buildings with architectural gems such as Royce Hall. The Fowler Museum has a marvellous collection of non-Western art. To the north is the lovely Franklin D. Murphy Sculpture Garden.

Bounded by Sunset Blvd & Le Conte, Hilgard, & Gayley Aves

UCLA Hammer Museum

This museum, run by UCLA, is the legacy of Armand Hammer an oil tycoon who discovered a passion for collecting art in the 1920s. Hammer was especially fond of 19th-century French Impressionists such as Monet. Rotating exhibitions are complemented by traveling shows with a more contemporary angle. Free readings, film screenings, and lectures are quite popular. An upcoming renovation may require temporary full or partial closure of the museum.

10899 Wilshire Blvd

Pierce Brothers Westwood Village Memorial Park

This small cemetery beneath Westwood's towering office high-rises has more Hollywood stars per square yard than any other burial ground in LA. Marilyn Monroe's remains rest in an above-ground crypt always decorated with flowers (Hugh Hefner has allegedly reserved the adjacent space). Other celebs buried here are Burt Lancaster, Natalie Wood, and Frank Zappa.

1218 Glendon Ave

Skirball Cultural Center

This state-of-the-art Jewish cultural center was named after its main benefactor, Jack Skirball (1896-1985), a rabbi and producer of Hitchcock films. Open since 1996, the complex hosts a lively events schedule and has a multimedia museum. Exhibits explore the parallels between the Jewish experience and the principles of American democracy. After a major expansion, expected to be completed in 2004, the Skirball will host a major exhibition on Albert Einstein.

2701 N Sepulveda Blvd, Brentwood/Bei-Air

Getty Center

Although best known for its collection of European art, the Getty offers much more - a hill-top setting with sweeping views - from the ocean to the mountains, architecture as exquisite as "frozen music" (to quote Goethe), and landscaped gardens that are nothing less than the finest art.

Santa Monica Bay

Santa Monica Bay spans about 20 miles (32 km) between two of the richest communities in California - Malibu and Palos Verdes. It's truly the "Cold Coast" of the Golden State, and its shores have some of the finest beaches anywhere, including Topanga, Santa Monica, and Venice on through Manhattan, Hermosa, Redondo, and Torrance. American surfing, and the youth culture it spawned, was born here. In the movies, these fabled beaches have stood in for everything from Guadalcanal and Tahiti to Shangri-la. The rows of mammoth palms along the Santa Monica promenade cliffs epitomize California. Access to the Pacific along the beaches - whether by ferry to Catalina Island, surfing, taking a gondola cruise through the canals of Long Beach, or just popping into the local waves from a newly discovered favorite strand - is bountiful. Take the plunge! Santa Monica's main attraction however, is Santa Monica Pier which offers sundry entertainment options and a lively carnival atmosphere.

Malibu Adamson House & Malibu Lagoon Museum

Located on a bluff overlooking the Malibu Lagoon, this Spanish Colonial-style mansion was built by Rhoda Rindge Adamson and her husband, Merritt, in 1928. The complex showcases hand-painted ceramic tiles manufactured by Malibu Potteries, owned by the Rindge family. The Rindges also built the Malibu Colony, a celebrity enclave now home to Tom Hanks and Barbra Streisand. The Malibu Lagoon Museum next to the Adamson House chronicles Malibu's history, from its Shumash Indian origins to its position as movie star Shangri-la.

23200 Pacific Coast Hwy, Malibu

Santa Monica Pier

For a variety of entertainment, visit Santa Monica Pier. Where else can you hop on to a historic carousel, visit an aquarium, or ride a roller coaster? California's oldest amusement pier (built in 1908) also marks the western terminus of Route 66. Its oldest attraction is the 1916 Hippodrome, a merry-go-round that has made many movie appearances. Its newest 5 Pacific Park, a compact amusement park, anchored by a solar-powered Ferris wheel. Tucked beneath the pier, the Santa Monica Pier Aquarium is a small, family-oriented facility where you can observe and pet local marine life. At the end of Colorado Ave

Bergamot Station Arts Center

This former historic trolley station has been imaginatively recycled into an industrial-flavored complex of nearly three dozen galleries, shops, artists' studios, and a cafe. A highlight is the Santa Monica Art Museum, exhibiting cutting-edge artists, many of whom work in non-traditional media including video installations. It also organizes lectures, workshops, and other events designed to involve the community in the creative process.

2525 Michigan Ave, Santa Monica

Third Street Promenade

Downtown Santa Monica's main artery, this three-block mall is one of the most pleasant walking areas in LA. The product of a hugely successful revitalization effort in the late 1980s, it is flanked by upscale shops, movie theaters, and eclectic restaurants, bars, and cafes. Street musicians from around the globe shower strollers with flamenco, jazz, and hip hop. On Wednesday and Saturday mornings, the farmers market attracts large crowds.

3rd St between Broadway & Wilshire Blvd, Santa Monica

Venice Boardwalk

It is perhaps fitting that Venice Beach, masterminded by an eccentric visionary named Abbot Kinney, is LA's epicenter of counterculture. The circus-like scene reigning along the seaside boardwalk (officially known as "Ocean Front Walk") must be seen to be believed. Avoid after dark.

Ocean Front Walk between Venice Blvd & Rose Ave

Venice Canals

Abbot Kinney's Venice of America was once laced with 16 miles (26 km) of canals. The area anguished until the 1960s when beatniks such as Stuart Perkoff discovered its unique charm, dragging flower children - most famously Jim Morrison - in their wake. In 1994, the city restored 3 miles (5 km) of canals, which have since become a beautiful, upscale neighborhood. A narrow walkway that is known as the Venice Canal Walk threads through here.

Between Washington & Venice Blvds

Marina del Rey

With over 6,000 yachts and pleasure boats, Marina del Rey is the largest small-craft harbor in the world and the place to come for those seeking fun on the water. Active types could explore the harbor on kayaks. You can also catch a dinner cruise, book a whale-watching trip (January to March), or charter a sport fishing boat. Favorite landlubber activities include a sunset dinner at one of the many excellent restaurants.

South of Venice Beach

South Bay

Surfing, swimming, tanning, beach volleyball, and other outdoor pursuits govern the laid-back lifestyle of the string of three picture-perfect beach towns in the southern Santa Monica Bay. Of these, Manhattan Beach is the most sophisticated, Hermosa the liveliest, and Redondo the most Historical. A paved trail paralleling the beach and connecting all the three communities is perfect for bicycling and inline skating.

Palos Verdes Peninsula

This posh enclave straddling a rocky precipice is one of the most exclusive in America. A drive along its coastline affords great ocean views with Catalina Island in the distance. Malaga Cove and Abalone Cove are popular for tidepool explorations and Point Vicente for whale-watching. Flower lovers should head inland to the sprawling South Coast Botanic Garden.

Follow Palos Verdes Dr along the coast

Wayfarer's Chapel

The most famous structure by Lloyd Wright is a striking 1951 glass and stone memorial to 18th-century theologian Emanuel Swedenborg. The chapel, overlooking the Pacific, is surrounded by landscaped grounds that include a reflecting pool and terraced amphitheater.

5755 Palos Verdes Dr South

Long Beach & San Pedro

San Pedro & Long Beach are the maritime muscles fueling LA's reputation as a great trading city. San Pedro supplies much of the manpower that operates the cranes, derricks, tugs, and railway systems in one of the most awesome seaports in the world. Through here pass the goods - automobiles, electronics, and foods - that will make their way to virtually every city in the Americas and Asia. Long Beach, on the other hand, is a city in metamorphosis. Shedding its working-class past, it has become a sophisticated cultural and financial hub. Long Beach's pulse beats strongest along Pine Avenue where indulgences range from Italian Barolo wines to music by Berlioz and belly dance. The grand ocean liner Queen Mary and a defining aquarium are the area's flagship sights.

Marine Aquarium

Housed in a modern building designed by Frank Gehry, this aquarium offers plenty to do apart from viewing marine life in its 34 saltwater tanks. Memorable experiences include observing newborn jellyfish in the aquatic nursery, listening to whale sounds, and viewing prickly urchins and sea stars in tidepools accessed through the short Cabrillo Coastal Park Trail.

3720 Stephen White Drive, San Pedro

Los Angeles Maritime La Museum

This Art Deco museum celebrates LA's seafaring tradition through displays of ship models, photographs, nautical equipment, and memorabilia. A highlight 13 the exhibit about the USS Los Angeles, a navy cruiser that saw battle in China and during the Korean War. A recreated 18-ft (5.4-m) model of the ill-fated Titanic is a crowd pleaser.

Berth 84, at foot of 6th St, San Pedro

Ports O' Call Village

This is a mock New England seaside village geared to catering to tourists. A cobblestone walkway links a variety of shops selling crafts and kitsch. There are also several restaurants, many of them with harbor views. Dine on platters of fresh shrimp, fried calamari rings, and whatever has been freshly caught that morning. For close-up views of supertankers and cargo and cruise ships, join a harbor cruise, which departs from the village. Whale-watching cruises operate from January to March.

San Pedro waterfront, Berth 77

Banning Residence Museum

The Greek Revival style home of Phineas Banning (1830-85), the "Father of Los Angeles Harbor," offers a glimpse into the life of one of the most influential of the city's pioneers. Tours take in the office, parlor, family and dining rooms, kitchen, and nursery, all filled with late 19th-century period furniture.

401 E M St, Wilmington

Queen Mary

On its maiden voyage in 1936, the Queen Mary was the most luxurious liner ever to sail the seven seas. Each crossing carried famous faces, along with thousands of regular vacationers and immigrants. During World War II, she whisked as many as 15,000 soldiers per trip from the USA to Europe. The elegant vessel retired in 1964 and became a tourist attraction three years later. Much of the Queen Mary, which also contains a hotel, can be explored on self-guided and guided tours.

1126 Queen Highway, Long Beach

Aquarium of the Pacific

One of Long Beach's flagship attractions, this high-tech zoo teems with 12,000 fish, birds, and mammals that make their home in the Pacific Ocean. A full-scale model of a blue whale greets visitors in the Great Hall. You'll come face to face with exotic giant spider crabs, playful sea otters, and even get to pet a shark. For a look at what it takes to keep the aquarium afloat, take a Behind-the-Scenes-Tour.

100 Aquarium Way Long Beach

Museum of Latin American Art (MOLAA)

Part of Long Beach's emerging East Village Arts District, this lively museum is the only one in the western United States dedicated to showcasing the work of artists who've lived or worked in Latin America since 1945. The collection offers great insight into the culture and concerns of artists from Mexico to Tierra del Fuego and every country in between. The restaurant is a lovely spot for lunch.

628 Alamitos Ave, Long Beach

Long Beach Museum Art

This small community museum mounts several temporary exhibits annually in addition to showing selections from its permanent collection. A tour of the galleries yields encounters with paintings and drawings by early 20th-century European and Californian artists along with furniture and decorative objects from throughout American history. The museum is distinguished by a waterfront location with great views of Long Beach's famous offshore oil wells.

2300 E Ocean Blvd

Naples & Belmont Shore

Naples is an Italian-flavored peninsula in Alamitos Bay, which is connected by a causeway to Belmont Shore with its many shopping and dining options. Long Beach's poshest neighborhood, Naples was dreamed up by Arthur Parsons in 1903, around the same time Abbott Kinney conceived of Venice. Enjoy an authentic Venetian gondola ride.

Southern Long Beach

Ranches Los Alamitos & Los Cerritos

In 1784, Manuel Nieto, a corporal in the Spanish army, was granted 300,000 acres of land in recognition of his services. The land was later divided into five ranches, including Rancho Los Alamitos and Rancho Los Cerritos. The ranch houses are some of the state's oldest structures.

Rancho Los Alamitos, 6400 Bixby Hill Rd. Rancho Los Cerritos, 4600 Virginia Rd

Electronic Cafe International, Santa Monica - performance art

Fairplex, Pomona

Farmer's Market Events, Mid-City

Fowler Museum Event Calendar, Westwood - UCLA

Long Beach Convention & Entertainment Center

Los Angeles Convention Center, Downtown

Bateman Hall Auditoirum and Meeting Rooms

Olvera Street Fiestas, Downtown

Pershing Square, Downtown

Valley Cultural Center, Woodland Hills

West Los Angeles College Events Calendar, Culver City

Major Studios

Castle Rock Entertainment, Beverly Hills

Dreamworks SKG, Universal City

Fine Line Features, Mid-City

Imagine Entertainment, Century City

Lions Gate Films, Marina del Rey

MGM, Santa Monica

New Line Cinema, West LA

Paramount Classics

Paramount Pictures

Sony Pictures Entertainment, Culver City

20th Century Fox, West LA

Walt Disney Pictures, Burbank - official

Movies.com - Buena Vista Pictures/Hollywood Pictures

Theme Parks

Six Flags Magic Mountain

Magic Mountain Pkwy, Interstate 5

Valencia

Universal Studios Hollywood

Hollywood Fwy. at Lankershim Bl.

Hollywood

Local Events

Because of the generally temperate and pleasant weather conditions, on any given day, it's possible to find a local special event that involves a gathering of people and/or some kind of venue. Local parks, community centers and theaters all harbor local celebrations.

Dam Failure

Dam Failure was rated a MODERATE PRIORITY HAZARD in Los Angeles County.

There are a total of 103 dams in Los Angeles County, owned by 23 agencies or organizations, ranging from the Federal government to Home Owner Associations. These dams hold billions of gallons of water in reservoirs. Releases of water from the major reservoirs are designed to protect Southern California from flood waters and to store domestic water. Seismic activity can compromise the dam structures, and the resultant flooding could cause catastrophic flooding. Following the 1971 Sylmar earthquake the Lower Van Norman Dam showed signs of structural compromise, and tens of thousands of persons had to be evacuated until the dam could be drained. The dam has never been refilled.

Los Angeles County Dams

Facility Name	CASTAIC
CA State Dam Number	1-058
National ID	CA00044
Owner	State of California-Water Resources
Type	EARTHEN
Capacity (acre feet)	323700
Facility Name	PEARBLOSSOM SPREADING BASIN
CA State Dam Number	1-061
National ID	CA00047
Owner	State of California-Water Resources
Type	EARTHEN
Capacity (acre feet)	106
Facility Name	PYRAMID
CA State Dam Number	1-066
National ID	CA00052
Owner	State of California-Water Resources
Type	ROCK
Capacity (acre feet)	180000
Facility Name	J W WISDA
CA State Dam Number	1-067
National ID	CA00053
Owner	State of California Parks & Recreation
Type	EARTHEN
Capacity (acre feet)	45
Facility Name	RESERVOIR NO 1
CA State Dam Number	4-004
National ID	CA00058
Owner	City of Burbank
Type	EARTHEN
Capacity (acre feet)	21
Facility Name	RESERVOIR NO 4

CA State Dam Number	4-006
National ID	CA00059
Owner	City of Burbank
Type	RECT
Capacity (acre feet)	34
Facility Name	RESERVOIR NO 5
CA State Dam Number	4-007
National ID	CA00060
Owner	City of Burbank
Type	RECT
Capacity (acre feet)	77
Facility Name	BRAND PARK
CA State Dam Number	5-000
National ID	CA00061
Owner	City of Glendale
Type	EARTHEN
Capacity (acre feet)	32
Facility Name	10TH AND WESTERN
CA State Dam Number	5-004
National ID	CA00062
Owner	City of Glendale
Type	EARTHEN
Capacity (acre feet)	46
Facility Name	CHEVY CHASE 968
CA State Dam Number	5-005
National ID	CA00063
Owner	City of Glendale
Type	EARTHEN
Capacity (acre feet)	46
Facility Name	DIEDERICH RESERVOIR
CA State Dam Number	5-006
National ID	CA00064
Owner	City of Glendale
Type	EARTHEN
Capacity (acre feet)	174
Facility Name	GLENOAKS 968 RESERVOIR
CA State Dam Number	5-007
National ID	CA00065
Owner	City of Glendale
Type	EARTHEN
Capacity (acre feet)	28
Facility Name	CHATSWORTH
CA State Dam Number	6-004
National ID	CA00067
Owner	City of Los Angeles
Type	HYDF
Capacity (acre feet)	9886
Facility Name	DRY CANYON

CA State Dam Number	6-005
National ID	CA00068
Owner	City of Los Angeles
Type	HYDF
Capacity (acre feet)	1140
Facility Name	ELYSIAN
CA State Dam Number	6-006
National ID	CA00069
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	167
Facility Name	ENCINO
CA State Dam Number	6-007
National ID	CA00070
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	9789
Facility Name	FAIRMONT
CA State Dam Number	6-008
National ID	CA00071
Owner	City of Los Angeles
Type	HYDF
Capacity (acre feet)	7507
Facility Name	LOWER FRANKLIN
CA State Dam Number	6-014
National ID	CA00075
Owner	City of Los Angeles
Type	HYDF
Capacity (acre feet)	920
Facility Name	LOWER SAN FERNANDO
CA State Dam Number	6-015
National ID	CA00076
Owner	City of Los Angeles
Type	HYDF
Capacity (acre feet)	10000
Facility Name	DRINKWATER
CA State Dam Number	6-016
National ID	CA00077
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	92
Facility Name	MULHOLLAND
CA State Dam Number	6-017
National ID	CA00078
Owner	City of Los Angeles
Type	GRAVEL
Capacity (acre feet)	4036

Facility Name	ROWENA
CA State Dam Number	6-018
National ID	CA00079
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	96
Facility Name	SILVER LAKE
CA State Dam Number	6-051
National ID	CA00081
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	2020
Facility Name	STONE CANYON
CA State Dam Number	6-025
National ID	CA00083
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	10372
Facility Name U	PPER FRANKLIN
CA State Dam Number	6-027
National ID	CA00085
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	118
Facility Name	UPPER SAN FERNANDO
CA State Dam Number	6-028
National ID	CA00086
Owner	City of Los Angeles
Type	HYDF
Capacity (acre feet)	1848
Facility Name	UPPER HOLLYWOOD
CA State Dam Number	6-029
National ID	CA00087
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	176
Facility Name	BOUQUET CANYON
CA State Dam Number	6-031
National ID	CA00088
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	36505

Facility Name	CHANNEL DIVERSION DIKE
CA State Dam Number	6-039
National ID	CA00093
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	437
Facility Name	EAGLE ROCK
CA State Dam Number	6-041
National ID	CA00094
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	254
Facility Name	GREEN VERDUGO
CA State Dam Number	6-043
National ID	CA00096
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	99
Facility Name	UPPER STONE CANYON
CA State Dam Number	6-044
National ID	CA00097
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	425
Facility Name	YARNELL DEBRIS BASIN
CA State Dam Number	6-046
National ID	CA00099
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	105
Facility Name	SANTA YNEZ CANYON
CA State Dam Number	6-047
National ID	CA00100
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	356
Facility Name	L VAN NORMAN BYPASS
CA State Dam Number	6-048
National ID	CA00101
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	240

Facility Name	L FRANKLIN NO 2
CA State Dam Number	6-052
National ID	CA00118
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	206
Facility Name	FAIRMONT NO 2
CA State Dam Number	6-053
National ID	CA00125
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	493
Facility Name	WHITTIER RESERVOIR NO 4
CA State Dam Number	18-002
National ID CA00153	
Owner	City of Whittier
Type	EARTHEN
Capacity (acre feet)	32
Facility Name	MORRIS S JONES
CA State Dam Number	19-003
National ID	CA00154
Owner	City of Pasadena
Type	EARTHEN
Capacity (acre feet)	154
Facility Name	BIG DALTON DAM
CA State Dam Number	32-000
National ID	CA00187
Owner	Los Angeles County
Type	MULA
Capacity (acre feet)	915
Facility Name	BIG SANTA ANITA DAM
CA State Dam Number	32-002
National ID	CA00188
Owner	Los Angeles County
Type	VARA
Capacity (acre feet)	858
Facility Name	DEVILS GATE DAM
CA State Dam Number	32-003
National ID	CA00189
Owner	Los Angeles County
Type	GRAVEL
Capacity (acre feet)	2775

Facility Name	COGSWELL DAM
CA State Dam Number	32-005
National ID	CA00190
Owner	Los Angeles County
Type	ROCK
Capacity (acre feet)	8696
Facility Name	BIG TUJUNGA DAM NO 1
CA State Dam Number	32-006
National ID	CA00191
Owner	Los Angeles County
Type	VARA
Capacity (acre feet)	5750
Facility Name	LIVE OAK DAM
CA State Dam Number 3	2-007
National ID	CA00192
Owner	Los Angeles County
Type	GRAVEL
Capacity (acre feet)	239
Facility Name	PACOIMA DAM
CA State Dam Number	32-008
National ID	CA00193
Owner	Los Angeles County
Type	VARA
Capacity (acre feet)	3777
Facility Name	PUDDINGSTONE DAM
CA State Dam Number	32-009
National ID	CA00194
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	16342
Facility Name	SAN DIMAS DAM
CA State Dam Number	32-010
National ID	CA00195
Owner	Los Angeles County
Type	GRAVEL
Capacity (acre feet)	1534
Facility Name	SAWPIT DAM
CA State Dam Number	32-012
National ID	CA00196
Owner	Los Angeles County
Type	CORA
Capacity (acre feet)	406

Facility Name	SIERRA MADRE DAM
CA State Dam Number	32-013
National ID	CA00197
Owner	Los Angeles County
Type	ORA
Capacity (acre feet)	51
Facility Name	THOMPSON CREEK DAM
CA State Dam Number	32-015
National ID	CA00198
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	543
Facility Name	PUDDINGSTONE DIVERSION DAM
CA State Dam Number	32-016
National ID	CA00199
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	195
Facility Name	SAN GABRIEL DAM NO 1
CA State Dam Number	32-019
National ID	CA00200
Owner	Los Angeles County
Type	ERRK
Capacity (acre feet)	44183
Facility Name	EATON WASH DAM
CA State Dam Number	32-020
National ID	CA00201
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	721
Facility Name	RUBIO DEBRIS BASIN
CA State Dam Number	32-021
National ID	CA00202
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	37
Facility Name	LAGUNA REG BASIN
CA State Dam Number	32-022
National ID	CA00203
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	310

Facility Name	PALOS VERDES RESERVOIR
CA State Dam Number	35-004
National ID	CA00215
Owner	Metropolitan Water District
Type	EARTHEN
Capacity (acre feet)	1100
Facility Name	MORRIS DAM
CA State Dam Number	32-040
National ID	CA00216
Owner	Los Angeles County
Type	GRAVEL
Capacity (acre feet)	2700
Facility Name	GARVEY RESERVOIR
CA State Dam Number	35-006
National ID	CA00217
Owner	Metropolitan Water District
Type	EARTHEN
Capacity (acre feet)	1610
Facility Name	WEYMOUTH MEM RESERVOIR
CA State Dam Number	35-011
National ID	CA00222
Owner	Metropolitan Water District
Type	RECT
Capacity (acre feet)	151
Facility Name	LITTLEROCK
CA State Dam Number	57-000
National ID	CA00237
Owner	Little Rock Irrigation District
Type	MULA
Capacity (acre feet)	3500
Facility Name	HAROLD RESERVOIR
CA State Dam Number	57-002
National ID	CA00238
Owner	Palmdale Water District
Type	EARTHEN
Capacity (acre feet)	4250
Facility Name	WRIGLEY RESERVOIR
CA State Dam Number	104-026
National ID	CA00444
Owner	Southern California Edison
Type	EARTHEN
Capacity (acre feet)	62

Facility Name	THOMPSON
CA State Dam Number	104-027
National ID	CA00445
Owner	Southern California Edison
Type	EARTHEN
Capacity (acre feet)	1010
Facility Name	MALIBU LAKE CLUB
CA State Dam Number	771-000
National ID	CA00739
Owner	Malibu Lake Management Assn.
Type	CORA
Capacity (acre feet)	500
Facility Name	CENTURY
CA State Dam Number	1-071
National ID	CA00740
Owner	State of California Parks & Recreation
Type	CORA
Capacity (acre feet)	70
Facility Name	PORTER ESTATE
CA State Dam Number	775-000
National ID	CA00741
Owner	Porter Ranch Development
Type	EARTHEN
Capacity (acre feet)	135
Facility Name	LINDERO
CA State Dam Number	785-000
National ID	CA00742
Owner	Lake Lindero Homeowners' Association
Type	EARTHEN
Capacity (acre feet)	90
Facility Name	POTRERO
CA State Dam Number	786-000
National ID	CA00743
Owner	Westlake Management District
Type	GRAVEL
Capacity (acre feet)	791
Facility Name	RIVIERA RESERVOIR
CA State Dam Number	1043-000
National ID	CA00876
Owner	City of Santa Monica
Type	RECT
Capacity (acre feet)	76

Facility Name	10 MG WALTERIA
CA State Dam Number	1049-000
National ID	CA00881
Owner	City of Torrance
Type	RECT
Capacity (acre feet)	31
Facility Name	GREYSTONE RESERVOIR
CA State Dam Number	1061-000
National ID	CA00893
Owner	City of Beverly Hills
Type	RECT
Capacity (acre feet)	60
Facility Name	WESTLAKE RESERVOIR
CA State Dam Number	1073-000
National ID	CA00904
Owner	Las Virgenes MWD
Type	EARTHEN
Capacity (acre feet)	9800
Facility Name	CHEVY CHASE 1290
CA State Dam Number	5-008
National ID	CA01078
Owner	City of Glendale
Type	EARTHEN
Capacity (acre feet)	17
Facility Name	EAST GLORIETTA
CA State Dam Number	5-009
National ID	CA01079
Owner	City of Glendale
Type	RECT
Capacity (acre feet)	71
Facility Name	ELDERBERRY FOREBAY
CA State Dam Number	6-049
National ID	CA01080
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	28400
Facility Name	LOS ANGELES RESERVOIR
CA State Dam Number	6-050
National ID	CA01081
Owner	City of Los Angeles
Type	EARTHEN
Capacity (acre feet)	10000

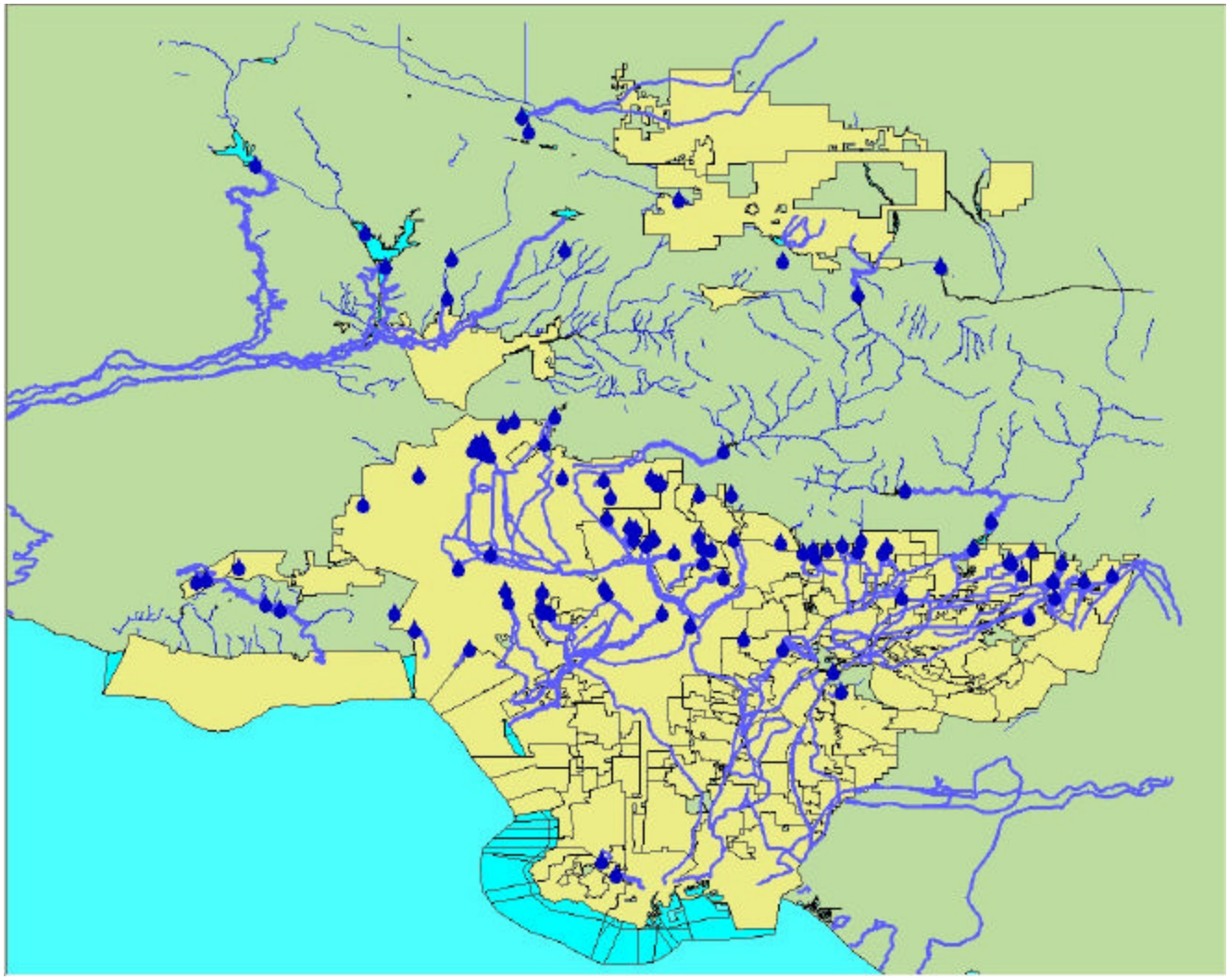
Facility Name	LIVE OAK RESERVOIR
CA State Dam Number	35-013
National ID	CA01084
Owner	Metropolitan Water District
Type	EARTHEN
Capacity (acre feet)	2500
Facility Name	BAILEY DEBRIS BASIN
CA State Dam Number	32-024
National ID	CA01150
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	43
Facility Name	BLANCHARD DEBRIS BASIN
CA State Dam Number	32-025
National ID	CA01151
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	26
Facility Name	BRAND DEBRIS BASIN
CA State Dam Number 3	2-026
National ID	CA01152
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	42
Facility Name	LA TUNA DEBRIS BASIN
CA State Dam Number	32-027
National ID	CA01153
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	207
Facility Name	LITTLE DALTON DEBRIS BASIN
CA State Dam Number	32-028
National ID	CA01154
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	234
Facility Name	SANTA ANITA DEBRIS BASIN
CA State Dam Number	32-029
National ID	CA01155
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	116

Facility Name	BIG DALTON DEBRIS BASIN
CA State Dam Number	32-030
National ID	CA01156
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	193
Facility Name	SAWPIT DEBRIS BASIN
CA State Dam Number	32-031
National ID	CA01157
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	152
Facility Name	SIERRA MADRE VILLA DAM
CA State Dam Number	32-032
National ID	CA01158
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	109
Facility Name	STOUGH DEBRIS BASIN
CA State Dam Number	32-033
National ID	CA01160
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	67
Facility Name	LOWER SUNSET DEBRIS BASIN
CA State Dam Number	32-034
National ID	CA01161
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	37
Facility Name	WILSON DEBRIS BASIN
CA State Dam Number	32-035
National ID	CA01162
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	84
Facility Name	SCHOOLHOUSE DEBRIS BASIN
CA State Dam Number 3	2-036
National ID	CA01172
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	19

Facility Name	18 MG WALTERIA
CA State Dam Number	1049-002
National ID	CA01193
Owner	City of Torrance
Type	RECT
Capacity (acre feet)	58
Facility Name	MORGAN DEBRIS BASIN
CA State Dam Number	32-039
National ID	CA01385
Owner	Los Angeles County
Type	EARTHEN
Capacity (acre feet)	21
Facility Name	HAINES CANYON DEBRIS BASIN
CA State Dam Number	9000-004
National ID	CA10004
Owner	U.S. Army Corps of Engineers
Type	EARTHEN
Capacity (acre feet)	92
Facility Name	HANSEN DAM
CA State Dam Number	9000-019
National ID	CA10019
Owner	U.S. Army Corps of Engineers
Type	EARTHEN
Capacity (acre feet)	26695
Facility Name	LOPEZ
CA State Dam Number	9000-020
National ID	CA10020
Owner	U.S. Army Corps of Engineers
Type	EARTHEN
Capacity (acre feet)	441
Facility Name	SANTA FE DAM
CA State Dam Number	9000-024
National ID	CA10024
Owner	U.S. Army Corps of Engineers
Type	EARTHEN
Capacity (acre feet)	32109
Facility Name	SEPULVEDA DAM
CA State Dam Number	9000-025
National ID	CA10025
Owner	U.S. Army Corps of Engineers
Type	EARTHEN
Capacity (acre feet)	17425

Facility Name	WHITTIER NARROWS DAM
CA State Dam Number	9000-027
National ID	CA10027
Owner	U.S. Army Corps of Engineers
Type	EARTHEN
Capacity (acre feet)	36160
Facility Name	REC DAM EDWARDS AF BASE
CA State Dam Number	9000-120
National ID	CA10120
Owner	U.S. Air Force
Type	EARTHEN
Capacity (acre feet) 1	7
Facility Name	BROWN MOUNTAIN BARRIER
CA State Dam Number	9000-341
National ID	CA82421
Owner	U.S. Forest Service
Type	GRAVEL
Capacity (acre feet)	600
Facility Name	PICKENS M1
CA State Dam Number	9000-340
National ID	CA82427
Owner	U.S. Forest Service
Type	GRAVEL
Capacity (acre feet)	16
Facility Name	BLANCHARD M1
CA State Dam Number	9000-342
National ID	CA82438
Owner	U.S. Forest Service
Type	GRAVEL
Capacity (acre feet)	24

Location of Dams and Reservoir Inundation Routes



Transportation Loss

Transportation Loss was rated a MODERATE PRIORITY HAZARD in Los Angeles County.

Transportation disruption and loss in Los Angeles County have the potential for catastrophic consequences on the populace. The area's heavy reliance on conveyances is a major factor in economic stability and survival during emergencies. Los Angeles County's transportation corridor interconnections link all parts of the county to neighboring jurisdictions and their stability and dependability is necessary to assure population health and welfare in an emergency. A catastrophic loss or extended disruption in any of the transportation forms listed below could have severe and long-lasting impacts on the area's economy and health.

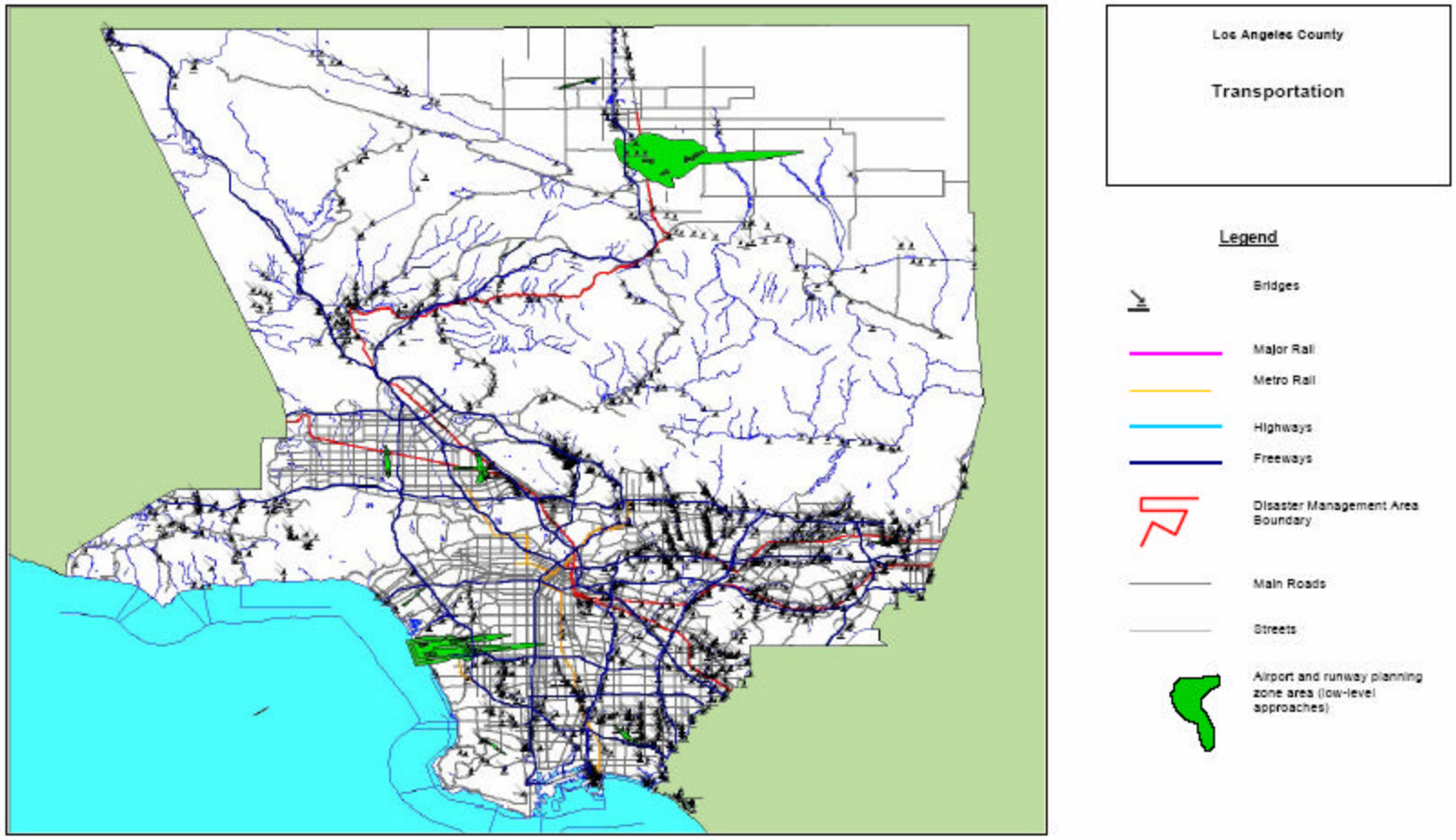
Roads, Road Miles, Motor Vehicles, & Drivers in L.A. County

- Los Angeles County has over 600 miles of freeway and 382 miles of conventional highway.
- On the average day, 92 million vehicle miles are driven in L.A. County.

Type of Vehicle Registrations	2000	1999	1998
Autos	5,134,168	4,935,605	4,825,512
Trucks	1,021,397	991,315	970,993
Trailers	283,402	283,402	262,506
Motorcycles	81,167	75,569	74,210
Total	6,520,134	6,290,976	6,133,221

Note: More than 600,000 cars are sold in Southern California every year, according to J.D. Powers & Associates of Agoura Hills and Calif. DMV

Los Angeles County Transportation Map Los Angeles County GIS Data



Public Transportation

Public Transit Ridership
Los Angeles County, Fiscal Year 1998-1999

System	Ridership	Vehicles in Operation at Peak Weekday Usage
MTA* - Motor Bus	344,536,072	1,815
MTA* - Street Car	22,889,800	51
MTA* - Rapid Rail	11,808,915	36
Long Beach Transit	27,118,943	154
Santa Monica Municipal Bus Lines	21,606,547	118
Foothill Transit	16,241,489	224
Montebello Transit	6,947,134	37
Southern California Regional Rail Authority (MetroLink)	6,734,076	103
Gardena Municipal Bus Lines	5,897,649	38
Culver City Transit	4,584,260	n/a
System	**Ridership**	**Vehicles in Operation at Peak Weekday Usage**
Torrance Transit	4,372,529	55
Antelope Valley Transit Authority	2,154,653	36
Santa Clarita Transit	2,119,481	41
Norwalk Transit	1,384,735	15
Los Angeles Department of Transportation (LADOT) (Commuter Express; Community Connection; DASH)	1,131,656	82
Commerce Municipal Bus Lines	1,012,429	6
Downey LINK Public Transit Service	332,647	6
Palos Verdes Transit Authority	107,737	13
Cerritos on Wheels (COW)	n/a	n/a

*LA County Metropolitan Transit Authority (MTA), once known as Southern California Rapid Transit District (SCRTD)
n/a information not available
Source: California State Controller
The MTA bus system operates 2,258 buses over 185 routes totaling. There are 18,500 bus stops in MTA's 1,433 square mile service area. There are more than 2,000 MTA buses in service on any average weekday

Los Angeles County Metropolitan Transportation Authority (MTA) uses its subway system and fleet of about 2,400 buses to move about 400 million passengers each year. It supports about 16 municipal bus operators. The MTA also operates a rail system that spans about 75 miles and incorporates more than 60 stations. It operates a light rail that runs between LA and Pasadena. Other MTA activities include funding community projects like bikeways, pedestrian facilities, and local road and highway improvements.

Metropolitan Transit Authority (MTA) Light Rail Lines

METRO BLUE LINE (Above ground) 22 miles and 22 stations Downtown Los Angeles to Long Beach Opened July 1990 Cost: $877 million 54 cars in fleet 66,225 average weekday boardings, 39,725 average weekend boardings (daily average, FY 2001) 17,881,974 total passenger boardings in FY 2001
METRO GREEN LINE (Above ground) 20 miles and 14 stations El Segundo to Norwalk Opened 1995 Cost: $714 million 15 cars in fleet 29,800 average weekday boardings, 15,125 average weekend boardings (daily average, FY 2001) 7,637,725 total passenger boardings in FY 2001
METRO RED LINE (Subway) 17.4 miles* and 16 stations Downtown LA to the Wilshire corridor Downtown LA through Hollywood to North Hollywood Segment One opened 1993 (Wilshire/Western Segment Opened 1996; Hollywood Segment Opened 1999; North Hollywood Segment Opened 2000) Cost: estimated at $4.5 billion 102 cars in fleet 147,775 average weekday boardings, 72,537 average weekend boardings (daily average, FY 2001) 33,825,491 passenger boardings in FY 2001 * includes yards and maintenance areas

Source: MTA

Rail

Rail Roads Operating in Los Angeles County In 1995, Burlington Northern merged with the Atchinson Topeka & Santa Fe Railway to form Burlington Northern & Santa Fe Railway. The following year, Southern Pacific Lines was acquired by Union Pacific Railroad.

Amtrak	Passengers	Union Station, 800 N Alameda St, LA 90012; (800) 872-7245
Metrolink (*Southern California Regional Rail Authority*)	Passengers	700 S Flower St, Ste 2600, Los Angeles 90017; (800) 371-LINK
Burlington Northern & Santa Fe Railway	Freight	3020 Saturn St, Brea 92811; (818) 812-9416
Los Angeles Junction Railway (*owned by Burlington Northern Santa Fe Railway*)	Freight	4433 Exchange Ave, Los Angeles 90058; (213) 267-3489 or 277-2004
Union Pacific Railroad Company	Freight	5500 Ferguson Dr, Los Angeles 90022; (213) 725-2222

Daily Truck & Train Movements to/from Los Angeles/Long Beach Harbor 1990, 2000 & Projections

Year	Truck Movements	Train Movements
1990	20,000	30
2000	25,000	50
2010	33,000	70
2020	50,000	100

Alameda Corridor Project

It is estimated that Los Angeles and Long Beach harbors will have double the current volume of incoming ocean freight traffic by the year 2020. The Alameda Corridor Project, started in 1997, was planned to divert much of this traffic from local freeways and street-level railroad crossings and provide, by the year 2002, a 20-mile express rail link between the Los Angeles and Long Beach harbors and the rail yards in Vernon. The $2.4 billion project will consolidate the operations of the Union Pacific and Burlington Northern Santa Fe railroads. Street level railroad crossings along Alameda Street will be eliminated and half of the route will run below street level. The project is under the direction of the Alameda Corridor Transportation Authority.

Amtrak Routes From/Through Los Angeles

Route	Major Stops
Coast Starlight	Los Angeles-San Jose-Oakland-Sacramento-Portland-Seattle
Pacific Surfliner	San Diego-Anaheim-Los Angeles-Ventura-Santa Barbara-San Luis Obispo
San Joaquins*	Los Angeles-Bakersfield-Fresno-Stockton-Oakland
Southwest Chief	Los Angeles-Flagstaff-Albuquerque-Topeka-Kansas City-Chicago
Sunset Limited	Los Angeles-Phoenix-Tucson-El Paso-San Antonio-Houston-New Orleans-Mobile-Orlando, Florida
Texas Eagle	Connects with the Sunset Limited at San Antonio-Dallas/Ft. Worth-Little Rock-St. Louis-Chicago

*Amtrak bus service ferries passengers between the Los Angeles and Bakersfield stations.

Air Transportation

Los Angeles County Airports & Airfields

Airport/Airfield	Location
Agua Dulce Airpark	Agua Dulce Canyon Rd, Saugus
Brackett Field (POC)	1615 McKinley Av, La Verne 91750 (909) 593-1395
Brian Ranch	Palmdale
Burbank-Glendale-Pasadena (BUR)	2627 N Hollywood Way, Burbank
Catalina (AVX)	Avalon
Catalina Air & Sea Terminal	Berth 95, San Pedro
Compton (CPM)	901 W Alondra Blvd, Compton 90220 (310) 631-8140
El Monte Airport (EMT)	4233 Santa Anita Av, El Monte 91731 (626) 448-6129
General William J. Fox Airfield (WJF)	4555 W Avenue G, Lancaster 93536 (661) 940-1709
Goodyear Blimp Base	19200 S Main St, Carson
Hawthorne Municipal (Jack Northrop Field) (HHR)	12101 Crenshaw Av, Hawthorne
Long Beach Municipal Airport (LGB)	4100 Donald Douglas Dr, Long Beach
Los Angeles International Airport (LAX)	World Way, Los Angeles
Palmdale Regional Airport	39516 N 20th St E, Palmdale 93550 (661) 266-7602
Palmdale Production Flight/Test Installation Plant 42	Palmdale
Santa Monica Municipal (SMO)	3200 Airport Dr, Santa Monica
Torrance Municipal (Zamperini Field) (TOA)	3115 Airport Dr, Torrance
Van Nuys (VNY)	16461 Sherman Way, Van Nuys
Whiteman Airport (WHP)	12653 Osborn St, Pacoima 91331 (818) 896-5271

Passenger Traffic Totals - Arriving & Departing, 1991-2000

Year	Total	Departing	Arriving
2000	67,303,182	33,836,077	33,467,105
1999	64,279,571	32,298,944	31,980,627
1998	61,215,712	30,826,859	30,388,853
1997	60,142,588	30,313,688	29,828,900
1996	57,974,559	29,162,942	28,811,617
1995	53,909,223	27,234,353	26,674,870
1994	51,050,275	25,812,087	25,238,188
1993	47,844,794	24,141,068	23,703,726
1992	46,964,555	23,732,371	23,232,184
1991	45,668,204	22,954,976	22,713,228

Maritime Transportation

Major Ports

Port of Los Angeles
425 S Palos Verdes St
San Pedro 90733

Port of Long Beach
925 Harbor Plaza
Long Beach 90801

State and Local Stakeholders

Ports and waterways stimulate economic development, which in turn benefits state and local economies. In 1994, U.S. port activities contributed more than $780 billion to the gross domestic product. Port activities also resulted in tax payments of $56 billion to state and local governments (Maritime Administration, 1994). Successful ports attract a wide variety of support businesses, such as container manufacturers, stevedore companies, ship chandlers, customhouse brokers, and freight forwarders. These support groups, in turn, become stakeholders in the continued success of the port.

States also have an interest in effective port administration and operation. In addition to collecting taxes from businesses that depend on port activity, states have a political interest in promoting safety and sound environmental practices.

Public and Community Stakeholders

Throughout U.S. history, efficient water transportation has stimulated economic growth. It is no accident that the top ports in terms of tonnage are located in densely populated areas. New York, Los Angeles, Houston, and Philadelphia are cases in point. History has proven that population density and economic prosperity are often brought about by the presence of a port.

One of the most important public benefits generated by ports is job creation. In 1992, more than 1.5 million people were employed directly by the port industry; another 14 million were employed by port users and suppliers. That same year, port activities generated $523 billion in personal income (Maritime Administration, 1994). These workers have a significant stake in the port industry.

Ports and waterways also provide significant aesthetic and recreational opportunities, which are highly valued by the public today. These activities are fostered by environmental protection, one of the most significant public issues shaping the economic and political landscape today. In response to public demands, federal and state governments have imposed numerous environmental laws and regulations in recent years. Logistics and transportation professionals, as well as architects and operators of ports and waterways, must comply with a growing catalog of environmental restrictions in order to survive. Technological advances that reduce the incidence of oil spills are in keeping with the public interest in protecting the environment.

Explosion

Explosion was rated a MODERATE PRIORITY HAZARD in Los Angeles County.

An explosion is a rapid release of stored energy characterized by a bright flash and an audible blast. Part of the energy is released as thermal radiation (flash); and part is coupled into the air as air blast and into the soil (ground) as ground shock, both as radially expanding shock waves.

To be explosive, the material

1. Must contain a substance or mixture of substances that remains unchanged under ordinary conditions, but undergoes a fast chemical change upon stimulation.

2. This reaction must yield gases whose volume—under normal pressure, but at the high temperature resulting from an explosion—is much greater than that of the original substance.

3. The change must be exothermic in order to heat the products of the reaction and thus to increase their pressure.

Common types of explosions include construction blasting to break up rock or to demolish buildings and their foundations, and accidental explosions resulting from natural gas leaks or other chemical/explosive materials.

The rapid expansion of hot gases resulting from the detonation of an explosive charge gives rise to a compression wave called a **shock wave,** which propagates through the air. The front of the shock wave can be considered infinitely steep, for all practical purposes. That is, the time required for compression of the undisturbed air just ahead of the wave to full pressure just behind the wave is essentially zero.

If the explosive source is spherical, the resulting shock wave will be spherical. Since its surface is continually increasing, the energy per unit area continually decreases. Consequently, as the shock wave travels outward from the charge, the pressure in the front of the wave, called the **peak pressure**, steadily decreases. At great distances from the charge, the peak pressure is infinitesimal, and the wave can be treated as a sound wave.

Behind the shock wave front, the pressure in the wave decreases from its initial peak value. At some distance from the charge, the pressure behind the shock front falls to a value below that of the atmosphere and then rises again to a steady value equal to that of the atmosphere. The part of the shock wave in which the pressure is greater than that of the atmosphere is called the **positive phase**, and, immediately following it, the part in which the pressure is less than that of the atmosphere is called the **negative or suction phase**.

Conventional structures, in particular those above grade, are susceptible to damage from explosions, because the magnitudes of design loads are significantly lower than those produced by most explosions. The peak pressure in the blast pulse produced by 10 lb of TNT at a range of about 50’ is approximately 2.4 psi (which is 348 psf!) with a duration of the positive phase of 7.7 ms. Conventional structures are not normally designed to resist blast loads.

Recent terrorist attacks demonstrate the types of damage that can be produced. The 1993 terrorist attack on the World Trade Center in New York City removed several thousand square feet of concrete floor slabs in the general area of the explosion and severely damaged several buildings' communication, transportation and utility systems. Due to the inherent redundancy of the steel frames, the structures did not collapse.

The 1995 attack on the Alfred P. Murrah Federal Building in Oklahoma City revealed the vulnerability of conventional structural designs when subjected to blast loads. When a source is located at street level, the blast shock wave acts up against the underside of the floor slabs at upper stories. Floor slabs are not designed for this magnitude and direction of load—for this direction of load, the reinforcement is in the wrong place.

Explosion Hazards

There are many potential explosion hazards in Los Angeles County. Catastrophic explosions could be caused by:

- Exotic Chemicals and Substances
- Natural Gas and Propane
- Methane Gas
- Gasoline and other liquid fuels
- Manufactured and Military Explosives

The origin of a catastrophic explosion may be:

- Stationary pressure vessels and tanks
- Rail tank cars
- Truck tanks
- Pipelines
- Cargo ships carrying explosive materials

Explosions can be triggered by:

- Manual of Accidental Detonation of Explosives
- Fire/Open Flame
- Electrical Discharge
- Chemical Interaction
- Radiological Reaction
- Faulty Containment
- Equipment Malfunctions

Explosion Consequences

A catastrophic explosion could challenge responders to deal with:

- Mass casualties
- Fires
- Building and property destruction
- Infrastructure failure (telecommunications, transportation, etc.)
- Lifeline interruption
- Chemical or radiation contamination
- Debris removal

LOW PRIORITY Technological & Human-caused Hazards

Agricultural Loss

Agricultural Loss was rated a LOW PRIORITY HAZARD in Los Angeles County.

Los Angeles County (as of 2000) has 1226 producing farms comprising 130,838 acres (or 5.1% of the land in LA County). The average size of a farm is 107 acres. A total of 23,805 acres were harvested.

Agricultural Products Los Angeles County **Product**	**Value**	**Production**
Ornamental Trees & Shrubs	$118,240,000	8,121,000 green house sq. ft. & 1,480 field acres
Root Vegetables (includes carrots, potatoes, beets, radishes, turnips, etc.)	$44,111,000	9,964 acres
Bedding Plants	$35,369,000	1,678,000 green house sq. ft. & 144 field acres
Dry Onions	$12,797,000	1,720 acres/ 44,108 tons
Peaches	$11,672,000	841 acres/ 12,601 tons
Indoor Plants, Foliage	$7,171,000	368,000 green house sq. ft. & 1 field acre
Alfalfa Hay	$5,897,000	5,200 acres/ 43,680 tons
Herbs (includes cilantro, parsley, chives, mint, thyme, etc.)	$4,550,000	297 acres
Indoor Plants, Flowering	$3,643,000	287,000 green house sq. ft. & 1 field acre
Strawberries	$2,807,000	122 acres/ 2,800 tons
Table Greens (includes lettuce, spinach, kale, & oriental specialties)	$1,802,000	235 acres
Rangeland	$1,611,000	200,160 acres
Vine Crops (includes cucumbers, pumpkins, tomatoes, squashes, melons, & green beans)	$1,570,000	304 acres
Ground Covers	$1,486,000	225,000 green house sq. ft. & 20 field acres
Grain Hay	$929,000	2,400 acres/ 7,200 tons
Apples	$560,000	71 acres/ 280 tons
Honey	$503,000	291,000 pounds
Grapes	$436,000	165 acres/ 593 tons
Cherries	$406,000	130 acres/ 102 tons
Avocados	$124,000	46 acres/ 146 tons
Beeswax	$82,000	22,500 pounds
Christmas Trees	$34,000	6 field acres / 730 trees
Firewood	$6,000	n/a

Also grown in L.A. County: nectarines, orchids, cacti, sod, citrus, Asian pears, includes sweet corns, leeks, green onions, bell peppers, oat hay, Sudan hay, lilacs, mums, yarrow, gypsophila, carnations, delphinium, freesia

Source: L.A. County Agricultural Commissioner/Weights & Measures Dept.

Selected Livestock Inventory Los Angeles County

Stock	1997		1992		1987	
	Farms	Inventory	Farms	Inventory	Farms	Inventory
Beef Cows	84	*	94	6,993	194	4,524
Milk Cows	7	*	16	2,410	37	4,428
Hogs & Pigs	59	1,683	88	1,393	125	2,568
Sheep & Lambs	60	8,213	92	14,855	144	19,750
Chickens (Layers and pullets - 13 weeks old+)	87	8,821	156	44,549	245	375,520
Chickens (Broilers and other meat-type chickens sold)	11	180,753	13	1,925,148	39	2,197,619

* Withheld to avoid disclosing data for individual farms

Horses & Ponies

Year	1997	1992
Horse/Pony Farms	391	593
Horse/Pony Inventory	5,716	6,703
Horses/Ponies Sold	421	784
Value of Horses/Ponies Sold	$1,651,000	$1,968,00

Source: U.S. Census Bureau

Fire Ants

Photo of a Fire Ant

Fire ants are among the worst insect pests ever to invade the United States. Originally from South America, they are from 4/100 to 2/10 of an inch long and have a severe sting that burns like fire. These ants are aggressive and when disturbed are quick to attack people and animals. They also cause damage to homes, buildings, air-conditioning units, and other electrical equipment. They have flourished in the United States because they have no natural enemies there. Native ants are being replaced by the imported red fire ants.

Fire ants interfere with hay harvesting, maintenance of pastures and some crops, but present the greatest problem around human dwellings. The greatest danger arises from multiple stings, often experienced by young children.

The two most common forms of imported fire ants are the red imported fire ant and the black imported fire ant. The black fire ant was introduced into Alabama from South America in 1918 and remained confined to the immediate area for about 10 years. The red imported fire ant was introduced into Alabama about 1930 and has since spread to the outer limits of the present imported fire ant range. There has been much controversy over the taxonomic status and interrelationship of the light and dark forms or species.

Distribution

The red imported fire ant is more widespread and is now in much of the Southeast, from the Carolinas to Texas. The imported red fire ant has invaded over 275 million acres. All counties in Alabama, Florida, and Louisiana are infested. Counties in Arkansas, Georgia, Mississippi, Oklahoma, North Carolina, South Carolina, Tennessee, and Texas plus Puerto Rico have been invaded. Isolated colonies have been found as far west as California, and as far north as Kansas City, Missouri. One factor accounting for the rapid spread of fire ants in a region is the transport of queens and colonies by movement of nursery stock.

Stings

Their sting is characterized by an intense burning sensation. A pustule (not seen in the sting of other species) forms at the sting site in a day or so and may become infected. Sensitive individuals may swell up as a result of stings and occasionally die. The venom of fire ants, containing alkaloids with relatively little protein, is unique among stinging insects, who usually employ a venom rich in protein. The venom is used to kill prey for food. It is an effective agent in killing insects, bacteria, and fungi.

Feeding Habits

Food is collected by workers who often leave the mound through tunnels which extend 15-25 m from the mound, 6-12 m underground. When food is found, the forager returns to the nest, leaving a pheromone trail for others to follow to the food source.

Their primary food is insects such as spiders, earthworms, fly larvae in animal wastes, leaf-eating caterpillars, and other ground-crawling insects. They attack newly hatched poultry and the young of ground-nesting wild birds. Helpless newborn animals, domestic and wild, have been killed by swarms of the worker ants.

Insects, spiders, myriopods, earthworms, and other small invertebrates make up the usual diet of the fire ants. They are attracted to sugar and honeydew and are known to feed on carrion.

Colonies

A colony is usually started by a single queen, but some beginning colonies are known to contain up to 5 queens. Fire ants infest lawns, school yards, athletic fields and parks. They invade household kitchens and pantries. Mature multi-queen colonies are generally the case. After the nuptial flight, the queen lays eggs in the burrow she has created in 24-48 hours, the first workers appear 20-30 days later. Reproductive forms are produced in 5-12 months. A colony may contain 240,000 workers after three years. Each colony of fire ants is composed of a queen, winged males and females, and three kinds of workers. A single nest averages approximately 25,000 workers, but far larger populations are common.

The semi permanent nests are large, unsightly mounds of excavated soil with openings for ventilation. Imported red fire ant mounds are generally dome-shaped, in contrast to those of other fire ant species. The hardened mounds interfere with the mechanical cultivation of fields and the ants' painful stings interfere with livestock grazing and the harvesting of crops by farm workers. The ants nest in the soil of open areas, pastures, agronomic fields, and are found occasionally in wooded areas.

Regulation

In 1958, a federal quarantine was enacted to try to prevent the fire ant's spread. The quarantine restricts the movement of soils, sod, hay, potted plants, plants with soil attached, and used soil-moving equipment to noninfested areas. These pests are regulated in several States, including: Alabama, Florida, Louisiana, and parts of Arkansas, Georgia, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas.

Control

The problem of effectively eradicating fire ants has baffled scientists and the government for decades. Control tactics include the judicious use of pesticides and other management options. Biological control has become an area of interest within the community of fire ant researchers. There are parasitic flies, ants, and other organisms that are currently being evaluated for use in fire ant infested areas of the United States.

One solution under investigation is infesting fire ants with the microorganism T. solenopsae. In 1973, it was discovered in Brazil and is the most common pathogen found in fire ants in South America. The pathogen T. solenopsae infects ant colonies and chronically weakens them. The microorganism doesn't harm plants or native ant species. Workers transmit the pathogen to the

queen through food exchange. The disease slowly reduces her weight. She lays fewer and fewer eggs, all infected with the pathogen, further weakening the colony. Colony elimination can take from nine to 18 months.

Fire ants infected with a microorganism were released in Arkansas and Oklahoma to reduce the numbers of the imported ants. Scientists from the U.S. Department of Agriculture's Agricultural Research Service think that, over time, T. solenopsae can reduce fire ant populations.

Community Involvement Needed for Successful Abatement

Community involvement is important for effective control of the red imported fire ant. Several communities throughout the United States have developed abatement programs to minimize the impact of this insect. There are several types of abatement programs which a community can develop. Some communities have area-wide treatment periods during which the homeowner elects to purchase the appropriate pesticide and apply it within a specified period. Other communities involve individuals who apply the pesticides at the appropriate period, and the community pays him/her a fee for services.

In 1997, Texas offered a $1,000 reward for the discovery of the largest fire ant mound to stimulate the public and press to become aware of the threat of imported red fire ants. The contest was divided into two categories, the largest city mound and the largest country mound. The largest mound found was 40 inches at the base and 18 inches tall. According to Texas surveys, fire ants are considered the second most important urban pest, behind cockroaches. Besides stinging people and animals, fire ants can damage air conditioners, outside lighting, sprinkler systems, computers and other electronic equipment.

Creutzfeldt-Jakob Disease (Mad Cow Disease)

Since 1996, evidence has been increasing for a causal relationship between ongoing outbreaks in Europe of a disease in cattle, called bovine spongiform encephalopathy (BSE, or "mad cow disease"), and a disease in humans, called variant Creutzfeldt-Jakob disease (vCJD). Both disorders are invariably fatal brain diseases with unusually long incubation periods measured in years, and are caused by an unconventional transmissible agent.

On December 23, 2003, the U.S. Department of Agriculture (USDA) announced a presumptive diagnosis of bovine spongiform encephalopathy (BSE, or "mad cow" disease) in an adult Holstein cow from Washington State. The diagnosis was confirmed by an international reference laboratory in Weybridge, England, on December 25. Preliminary trace-back based on an ear-tag identification number suggests that the BSE-infected cow was imported into the United States from Canada in August 2001.

Description

Since 1996, strong evidence has accumulated for a causal relationship between ongoing outbreaks in Europe of disease in cattle called bovine spongiform encephalopathy (BSE, or "mad cow disease") and a disease in humans originally called new variant Creutzfeldt-Jakob disease or more recently simply variant CJD (vCJD). Both disorders are invariably fatal brain diseases with unusually long incubation periods measured in years and are caused by an unconventional transmissible agent. Although there is very strong evidence that the agent responsible for the human disease is the same agent responsible for the BSE outbreaks in cattle, the specific foods that might be associated with the transmission of this agent from cattle to humans are unknown. However, bioassays have identified the presence of the BSE agent in the brain, spinal cord,

retina, dorsal root ganglia (nervous tissue located near the backbone), distal ileum, and the bone marrow of cattle experimentally infected with this agent by the oral route.

In addition to cattle, sheep are susceptible to experimental infection with the BSE agent by the oral route. Thus, in countries where flocks of sheep and goats may have been exposed to the BSE agent through contaminated feed, a theoretical risk exists that these animals might have developed infections caused by the BSE agent and that these infections are being maintained in the flocks, even in the absence of continued exposure to contaminated feed (for example, through maternal transmission). Regardless, as of July 2002, cattle remain the only known food animal species with disease caused by the BSE agent.

Preventive Measures

Public health control measures, such as enhanced BSE surveillance, the culling of sick animals, and bans of specified risk materials (SRM), have been instituted in countries of Europe to prevent potentially BSE-infected tissues from entering the human food chain. The most stringent of these control measures, including an "Over Thirty Months Scheme" that excludes all animals older than 30 months from the human food and animal feed chains, have been applied in the United Kingdom and appear to be highly effective. In June 2000, the European Union Commission on Food Safety and Animal Welfare strengthened the European Union's set of control measures in relation to BSE by adopting a decision requiring all member states to remove SRMs from the animal feed and human food chains as of October 1, 2000; such bans had already been instituted in most member states. Also noteworthy among European Union's set of control measures are the banning of the use of mechanically recovered meat from the vertebral column of cattle, sheep, and goats for human food, and the BSE testing of all cattle aged over 30 months destined for human consumption.

New variant CJD (vCJD) is a rare, degenerative, fatal brain disorder in humans. Although experience with this new disease is limited, evidence to date indicates that there has never been a case of vCJD transmitted through direct contact of one person with another. However, a case of probable transmission of vCJD through transfusion of blood components from an asymptomatic donor who subsequently developed the disease has been reported.

Sinkhole & Subsidence

Sinkholes and Subsidence were rated LOW PRIORITY HAZARDS in Los Angeles County.

Land subsidence (the vertical downward movement of the land surface) has a variety of causes, including some that are related exclusively to human activities (e.g. mining and drainage of organic soils). We have already seen that subsidence can result from isostatic adjustments and natural compaction. Now we shall examine subsidence caused by fluid withdrawal, sinkhole development, and hydro-compaction.

Deep Subsidence

Deep subsidence is the slow downward movement of land caused by the compaction of sediments that occur below the earth's surface.

Deep subsidence occurs in locations where fluids under pressure are withdrawn from the subsurface. This includes groundwater taken from confined aquifers and fluids pumped from oil and gas reservoirs.

Central Valley, California: world's largest area of subsidence (geology) Long Beach, CA: up to 30 feet of subsidence occurred over an oil field

When fluids held under pressure within the subsurface are withdrawn, the fluid pressure drops. If the formation from which fluids were taken is composed of compressible sediments, a reduction in fluid pressure can cause the overlying formations to slowly subside.

Santa Clara Valley, CA: groundwater levels correlate with subsidence. Long Beach, CA: subsidence has been halted by using injection wells

Sinkholes

There are three types of sinkholes, each of which forms in a different way. Collapse sinkholes are by far the most hazardous because of how suddenly they can form.

SOLUTION SINK HOLES

Solution sinkholes form where soluble bedrock (i.e., limestone, dolomite, marble, or rock salt) is exposed at the land surface and therefore subject to dissolution by surface water. Runoff collects in natural depressions (often where bedrock fractures intersect) and slowly dissolves a sinkhole.

SUBSIDENCE SINKHOLES

Subsidence sinkholes are similar to solution sinkholes, except the soluble bedrock is covered by a thin layer of unconsolidated material (e.g., soil and/or sediment). Surface water infiltration dissolves cavities where the bedrock is most intensely fractured, and the overlying sediments gradually move downward into the expanding cavity.

COLLAPSE SINKHOLES

Collapse sinkholes form when surface materials suddenly sink into a subsurface cavity or cave. Cavities form slowly over time as groundwater moves along fractures in soluble bedrock and enlarge them through dissolution. Collapse can occur in two different ways: (where caves are found)

When a cavity gets sufficiently large, the "roof" becomes too thin to support its own weight and the weight of any overlying rock or sediment, so it collapses into the cavity.

Sometimes cavities are able to support the weight of overlying materials (usually sediments) by virtue of being completely filled with groundwater. If the groundwater level is lowered, then the overburden will first erode and then collapse into the dewatered cavity.

Hydro-compaction

Hydro-compaction is the subsidence of shallow soils and sediments as a result of adding water to the land surface. Typically this occurs in dry regions where agriculture relies on extensive irrigation) is notable not for the magnitude of the subsidence that occurs but for the fact that much of the western United States has the type of geologic conditions which are susceptible to this phenomenon.

The sediments that are susceptible to hydro-compaction were loosely deposited in an arid or semi-arid environment by processes that left them with a very high porosity (> 45%). As these sediments dry out, their high-porosity structure is preserved by clay particles that act as "bridges" to cement the larger particles together. If water is added, the clay "cement" loses its strength, and the sediment subsides under its own weight.

Mine Accidents

Mine Accidents were rated LOW PRIORITY HAZARDS in Los Angeles County.

Mine accidents have declined dramatically both in number and severity as a result of decades of research, technology, education, and preventive programs. Today, mine accidents resulting in five or more deaths are no longer common. However, preventing recurrence of disasters like those of the past remains a top priority requiring constant vigilance by management, labor, and government.

County of Los Angeles
All-Hazard Mitigation Plan

Version 1.1

June 2005

SECTION 5

Strategies

SECTION 6

Goals

SECTION 7

Plan Maintenance

Prepared by Dimensions Unlimited, Inc.

Table of Contents

Section 5 – Strategies

Strategies listed in this plan were painstakingly developed and submitted by all represented County departments and offices, and then approved by the Steering Committee. Most of the strategies reflect specific future desired disaster damage mitigation efforts and are labeled as such. The Committee, however, required that this plan be a versatile and all-encompassing document. Therefore, there may be some strategies that are not directly connected to specific disaster damage mitigation, but may be more directly related to other aspects of emergency management for the County of Los Angeles, such as preparedness, response or recovery. Each strategy is labeled as pertaining to either (Mitigation), (Preparedness), (Response), or (Recovery). The table below is a synopsis of the strategies and what aspect they represent:

Aspects Addressed by Strategies

Strategy	Mitigation	Preparedness	Response	Recovery
AH1	v			
AH2		v		
AH3		v		
AH4		v		
AH5		v		
AH6		v		
AH7	v			
AH8	v			
AH9	v			
AH10	v			
AH11	v			
AH12		v		
AH13	v			
AH14	v			
AH15	v			
AH16	v			
AH17		v		
AH18	v			
AH19		v		
AH20		v		
AH21		v		
AH22			v	
AH23		v		
AH24		v		
AH25			v	
AH26		v		
AH27				v
AH28	v			
AH29	v			
AH30	v			
AH31		v		

Strategy	Mitigation	Preparedness	Response	Recovery
AH32		v		
AH33			v	
AH34	v			
AH35				v
AH36				v
AH37	v			
AH38	v			
AH39	v			
AH40		v		
AH41			v	
AH42			v	
AH43	v			
AH44		v		
AH45			v	
AH46				v
AH47	v			
AH48		v		
AH49	v			
AH50		v		
AH51		v		
AH52			v	
AH53	v			
AH54	v			
EQP1	v			
EQ1	v			
EQ2	v			
EQ3	v			
EQ4	v			
EQ5	v			
EQ6	v			
EQ7	v			
EQ8	v			
EQ9	v			
EQ10	v			
EQ11	v			
EQ12	v			
EQ13	v			
EQ14	v			
EQ15	v			
EQ16	v			
EQ17	v			
EQ18	v			
EQ19	v			
WF1	v			
WF2			v	
WF3			v	
WF4		v		
WF5		v		
WF6			v	
WF7	v			

Strategy	Mitigation	Preparedness	Response	Recovery
WF8			v	
WF9			v	
WF10			v	
WF11		v		
WF12	v			
WF13	v			
WF14	v			
WF15	v			
WT1	v			
WT2		v		
WT3	v			
WT4	v			
WT5			v	
WT6			v	
WT7			v	
WT8			v	
WT9			v	
WT10	Confidential			
WT11	Confidential			
WT12		v		
WT13	v			
WT14	v			
WT15	v			
WT16			v	
WT17	v			
WT18	v			
WT19	v			
WT20		v		
UL1	v			
UL2	v			
FL1	v			
FL2	v			
FL3	v			
FL4	v			
FL5	v			
FL6	v			
FL7	v			
FL8	v			
FL9	v			
FL10	v			
FL11	v			
FL12	v			
FL13	v			
FL14		v		
FL15	v			
FL16	v			
FL17	v			
FL18	v			
FL19	v			
FL20	v			

Strategy	Mitigation	Preparedness	Response	Recovery
FL21	v			
FL22	v			
FL23	v			
FL24	v			
FL25	v			
FL26	v			
FL27	v			
FL28	v			
FL29	v			
FL30	v			
FL31	v			
FL32	v			
BH1			v	
BH2			v	
BH3			v	
BH4	v			
BH5	v			
BH6		v		
BH7			v	
BH8		v		
BH9	v			
BH10	v			
BH11	v			
BH12			v	
WW1	v			
WW2	v			
WW3	v			
WW4	v			
WW5	v			
WW6	v			
WW7	v			
WW8	v			
WW9	v			
WW10	v			
WW11			v	
WW12			v	
WW13			v	
WW14		v		
WW15			v	
WW16			v	
WW17			v	
WW18			v	
DT1	v			
LF1		v		
LF2		v		
LF3	v			
LF4		v		
LF5		v		
LF6	v			
LF7	v			

Strategy	Mitigation	Preparedness	Response	Recovery
LF8	v			
LF9	v			
LF10	v			
HM1		v		
HM2		v		
HM3		v		
HM4		v		
HM5		v		
HM6	v			
HM7	v			
HM8			v	
RA1	v			
RA2	v			
RA3			v	
RA4			v	
RA5			v	
RA6			v	
RA7			v	
RA8	v			
RA9	v			
DF1			v	
DF2	v			
DF3	v			
DF4	v			
DF5	v			
DF6	v			
DF7	v			
DF8	v			
DF9	v			
DF10	v			
DF11	v			
LS1	v			
LS2	v			
LS3	v			
LS4		v		
LS5	v			
LS6		v		
LS7	v			
LS8	v			
LS9		v		
LS10		v		
LS11	v			
LS12	v			
LS13	v			
LS14	v			
LS15		v		
LS16			v	
LS17		v		
SW1	v			

Strategy Matrix

Strategies are identified with a series of initials (such as EQ representing Earthquake, WF representing Wild Fire, etc). The identification initials are followed by a number, which represents the priority for which the strategy will be considered for implementation.

Strategies may address more than one hazard. In the matrix on the following pages, each strategy is listed showing its identifier and then showing the primary hazard it addresses as well as other related hazards.

The matrix below shows the ***Primary Hazard*** (P) that the strategy addresses and also indicates the ***Related Hazards*** (X) that the strategy addresses:

	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
STRATEGY	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
EQ1	P																			
EQ2	P																			
EQ3	P		X								X								X	
EQ4	P										X									X
EQ5	P										X									X
EQ6	P										X									X
EQ7	P										X									X
EQ8	P										X									X
EQ9	P																			X
EQ10	P																			X
EQ11	P																			
EQ12	P																	X		
EQ13	P		X		X					X	X									
EQ14	P										X									
EQ15	P										X									
EQ16	P		X				X										X			
EQ17	P		X				X													
EQ18	P		X				X													
EQ19	P										X									
WF1	X	P																		
WF2	X	P	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WF3		X									X									
WF4	X	P									X	X	X						X	
WF5	X	P									X								X	
WF6		P									X									
WF7		P									X									
WF8		P									X									
WF9		P									X									
WF10		P									X									
WF11		P									X									

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
WF12		P																		
WF13	X	P		X																
WF14	X	P		X																
WF15		P		X																
WT1			P																	
WT2			P																	
WT3			P																	
WT4	X	X	P	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WT5			P																	
WT6			P																	
WT7			P																	
WT8			P																	
WT9			P																	
WT10			P																	
WT11			P																	
WT12			P																	
WT13			P																	
WT14			P			X														
WT15			P			X														
WT16			P								X								X	
WT17			P																	
WT18			P																	
WT19			P																	
Wt20			P			X														
Ul1	X			P																X
Ul2	X			P																X
FL1					P															
FL2					P															
FL3	X	X			P												X			X
FL4					P															
FL5	X	X			P															
FL6	X	X			P															
FL7	X	X			P															
FL8					P											X				
FL9					P															
FL10					P											X				
FL11	X	X			P															
FL12					P													X		
FL13	X			X	P															
FL14					P												X			
FL15					P												X			
FL16					P												X			
FL17					P												X			
FL18					P												X			

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
FL19					P												X			
FL20					P												X			
FL21					P												X			
FL22					P												X			
FL23					P												X			
FL24					P												X			
FL25					P												X			
FL26					P												X			
FL27					P												X			
FL28					P												X			
FL29					P												X			
FL30					P												X			
FL31					P												X			
FL32					P													X		
BH1	X		X		X	P														
BH2	X		X		X	P														
BH3	X		X		X	P	X					X	X	X						
BH4	X		X		X	P	X					X	X	X						
BH5			X			P														
BH6	X		X		X	P	X					X	X	X						
BH7	X		X		X	P	X					X	X	X						
BH8	X		X		X	P	X					X	X	X						
BH9	X		X		X	P	X					X	X	X						
BH10	X		X		X	P	X					X	X	X						
BH11			X			P							X	X						
BH12			X			P							X	X						
WW1	X		X				P													
WW2	X		X				P													
WW3	X		X				P													
WW4	X		X				P													
WW5	X			X			P													
WW6	X			X			P													
WW7	X		X	X			P													
WW8	X		X	X			P													
WW9	X		X	X			P													
WW10	X	X	X				P			X	X									
WW11	X				X		P									X	X			
WW12	X				X		P									X	X			
WW13	X				X		P									X	X			
WW14	X				X		P									X	X			
WW15	X				X		P									X	X			
WW16	X				X		P									X	X			
WW17	X				X		P									X	X			
WW18	X				X		P							X		X	X			

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
WW19	X				X		P									X	X			
DT1	X	X	X	X	X	X	X	P	X	X	X	X	X	X	X	X	X	X	X	X
LF1	X		X								P								X	
LF2	X		X								P								X	
LF3	X	X	X	X	X	X	X	X	X	X	P	X	X	X	X	X	X	X	X	X
LF4			X								P								X	
LF5	X	X									P	X	X						X	
LF6	X										P									X
LF7	X										P									X
LF8	X										P									X
LF9	X										P									X
LF10	X										P									X
HM1			X			X							P	X						
HM2	X											X	P							
HM3	X										X	X	P						X	
HM4			X									X	P						X	
HM5			X									X	P						X	
HM6	X				X								P							
HM7													P							
HM8						X							P	X					X	
RA1											X			P						
RA2											X			P						
RA3											X			P						
RA4											X			P						
RA5											X			P						
RA6											X			P						
RA7											X			P						
RA8											X			P						
RA9											X			P						
DF1	X				X											P				
DF2	X															P				
DF3	X				X											P				
DF4	X				X											P				
DF5	X				X											P				
DF6	X				X											P				
DF7	X				X											P				
DF8	X				X											P				
DF9	X				X											P				
DF10	X															P				
DF11	X															P				
LS1																	P			X
LS2																	P			X
LS3																	P			X
LS4																	P			

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
LS5																	P			
LS6																	P			X
LS7	X																P			X
LS8	X																P			X
LS9	X																P			
LS10	X																P			X
LS11	X				X												P			X
LS12	X				X												P			X
LS13	X				X												P			X
LS14	X				X												P			X
LS15	X				X												P			X
LS16	X				X												P			X
LS17	X				X												P			X
SW1		X																		P

High Risk Priority Hazards

Many strategies were developed that address all hazards identified by the Steering Committee. These strategies are identified using the initials "AH", representing All Hazards, and are then followed with the priority number. The strategies addressing ALL HAZARDS are listed below.

All Hazards (AH)

General Strategy Category

Strategy AH-1 – (Mitigation)

Survey the systems available with the goal of installing a Bio-chemical and radiation warning system for the County Office of Emergency Management (OEM) Emergency Operations Center, (EOC). This strategy would include the installation of Bio-chemical and radiation warning and detection equipment. System would be deployed both internally and externally of the EOC

- The Lead Agency for this strategy would be the Office of Emergency Management along with the Sheriff's Department
- Implementation Time Frame would be in 1-3 years
- This is an all hazard mitigation strategy
- Cost study to design and engineer this system is estimated at $125,000.00
- Funding source would be the County General Fund and Homeland Security Grants

Strategy AH-2 – (Preparedness)

Design, engineer and replace the Emergency Operations Center ventilation system to be self contained and closed to outside and inside contamination. System would require an air purification system. Specialized air intact components. Have a dedicated power source

- The lead agency for this strategy would be the Los Angeles County OEM and the Sheriff's Department.
- The implementation time frame would be 1-3 years for the study and implementation of the strategy
- This is an all hazard mitigation strategy
- Design and engineering cost are estimated to be $75,000.00
- Funding Source would be the County General Fund and Homeland Security Grants

Strategy AH-3 – (Preparedness)

Conduct a study for the design and implementation of a Fire Suppression System that will not pose a risk to the computer, telephone and ham radio rooms and systems. The current fire suppression system would damage the internal electronic systems of the EOC. A component of this strategy would be to write a systems continuity plan to protect the environment, telecommunications and data systems for the EOC

- The lead agency would be the Los Angles OEM and the Sheriff's Department
- The implementation time frame would be 1-5 years
- This is an all hazard strategy with emphasis on fire mitigation
- Design and engineering costs are estimated to be $75,000.00
- Funding sources would be the County General Fund and the Homeland Security Grants.

Strategy AH-4 – (Preparedness)

Enhance the EMIS system in the EOC, which would include upgrading the software and potentially install a satellite communication system. This system is currently under study and this strategy needs further development based on that survey.

- The lead agency would be the Los Angeles County OEM
- The implementation time frame would be 1-3 years.
- This is an all hazards mitigation strategy serving the County and the 88 cities within the county.
- Implementation Costs are not yet available
- Funding would be the County General Fund, and the OEM and Sheriff's Department Budget

Strategy AH-5 – (Preparedness)

In 2004 the Los Angeles County OEM completed a project which identified and collected Los Angles County's Department and Los Angeles County City's GIS data to be utilized to update the EOC's GIS program and to house this data in a secure place. The strategy is to do an annual survey of the departments and cities contributing to this database to contribute their updated GIS information. Further, during the DMA 2000 process it has become apparent that jurisdictions who did not participate or do not have GIS are not accurately represented in the County EOC's database.

- The lead agency for this strategy would be the Office of Emergency Management.

- This project is to conduct an annual update of the existing data and utilizing GPS/GIS technology create an accurate critical facilities data base for those jurisdictions who did not or could not participate in the 2004 project.

- The implementation frame would be an annual update starting in 2005

- This is an all hazards strategy serving the County and the 88 cities within the County

- The projected costs to collect the updates to the existing data is $100,000.00, The projected costs to utilize the GPS, GIS technology for the data upgrade for nonparticipating cities is $300,000.00, Total for project $400,000.

- Funding would be the County's general fund and Homeland Security Grants.

Strategy AH-6 – (Preparedness)

Implement a County Business Continuity Program (BCP) for Los Angeles County as approved by the Emergency Management Council and the County Chief Administrative Officer. The priorities referred to in this strategy were approved in principle by the Emergency Management Council and will be used to prioritize the BCP planning.

- The lead agency for implementation of this Strategy is the Office of Emergency Management with participation of all County Departments.

Business Continuity Plan Priorities are for the application of countywide resources to restore infrastructure and systems that support county programs and services during an emergency. Services on this list are not only programs and services that will receive countywide support, but this will be the priority order for application of countywide resources.

Departments may use internal resources to recover programs and services that are not in this priority list, so long as this does not detract from countywide recovery priorities.

County Departments will place a high priority on the rapid restoration of programs and services and return to normalcy; however, these priorities will be applied when there are insufficient resources to restore all County programs and services.

Notes:

1. These priorities are defined to describe specific programs and services, not departments.

2. Countywide support services, such as those provided by Internal Services, will be prioritized using the criteria listed in this strategy.

3. During BCP planning, priorities for County wide support services will be established as part of the coordinated interdepartmental planning process.

4. The Board of Supervisors, the Director of Recovery Operations, or the Emergency Management Council may change this priority list, based on the needs presented by the emergency.

5. The examples of programs listed in this strategy are included only as illustrations.

Business Continuity Priorities Programs and Services

Priority 1 Programs that provide for life-safety and protection of property, including critical police, fire, emergency medical services, coroner services, key dispatch services, including the 911 system, the County Emergency Operations Center, and Department Emergency Centers that support life-safety, and "protection of Property" programs and services.

Priority 2. Continuity for County Governance including support for the Board of Supervisors and key administrative bodies that support life safety and protection of property.

Priority 3. Emergency Public Information (EPI) programs and the infrastructure that support these programs. EPI is formed by messages that alert inform and reassure the public and County employees including public information programs managed primarily by the Sheriff, Fire, Health Services, and Mental Health, with the involvement of the Board of Supervisors. This priority also includes EPI programs that facilitate coordination with other governments such as Joint Information Centers.

Priority 4. Non-public-safety emergency communications systems that enable emergency communications between county departments, cities and school districts, the County Emergency Operations Center's communications with the State.

Priority 5. Public health and welfare systems that meet the emergency short term needs of people such as emergency food and shelter and "safety-net" programs such as welfare.

Priority 6. Programs that support custodial and residential services where the residents are under county care and supervision. These include hospital, jails, juvenile detention facilities and probation camps, persons dependent on critical Mental Health maintenance programs, County supervised group homes for children and dependent adults, and other similar facilities.

Priority 7. Programs that must be restored in order to protect the County from severe financial losses and lawsuits.

Priority 8. Criminal justice system programs that support criminal court activities.

Priority 9. County Programs, including ad hoc programs, that directly promote County and community economic and social recovery including federal and state reimbursement programs for disaster losses, county recovery assistance centers, disaster mental health programs, and building repair and reconstruction permitting centers. In some departments this includes the employee payroll systems that may be required to support proper federal and state reimbursement claims.

- Implementation time frame is 1 to 3 years and the program is currently in year 1.

- This is an all hazards mitigation strategy
- The cost for this program is coming from General Fund money and special grants

Strategy AH-7 - (Mitigation)

The County is currently working with the University of Southern California to utilize HAZUS MH Risk Assessment Report. This report is very useful to the County in analyzing loss data. However, the default national data does not accurate reflect asset and property values in Los Angeles County. An example of this would be the default amount of $500,000.00 for a school building. The average school building in California cost in excess of 5 million dollars and generally a great deal more. It is estimated it would take the Office of Emergency Management GIS department approximately one year to upgrade the HAZUS MH program data to correctly reflect losses in Los Angeles County.

- The lead agency would be the Office of Emergency Management GIS Division
- The implementation time frame would be 1 – 3 years
- This is an all hazards mitigation strategy which would benefit the County, its cities and public agencies.
- Implementation of this strategy would cost a FTE at a cost of $135,000.00 per year for salary and benefits
- The funding for this strategy would come from the Counties General Fund.

Strategy: AH-8 Electrical Standby System – (Mitigation)

The Internal Services Division Headquarters at 9230 E. Imperial Hwy, Downey, CA does not have an electrical standby system in place. The project is to install an Auto Transfer Switch and Generator for power projection in the event of a disaster.

- **Total Cost:** $25,000.00
- **Time Frame**: 1-5 years
- **Responsible Agency**: Internal Services Division
- **Funding Source:** County General Fund
- **Goal Addressed:** Protect Emergency Communication
- **Related Hazard:** All Hazard

Strategy: AH-9 Asbestos and Lead Surveys – (Mitigation)

The project would identify the need for asbestos abatement in the listed buildings. Asbestos is exposed and released into the air during disaster incidents causing a risk to life and property

1100 North Eastern Ave. ISD Administration Building	80,000 sq.ft.	$11,200.00
1102 North Eastern Ave. – ISD shops Bldg.B	68,000 sq.ft	23,602.00
1104 North Eastern Ave. - ISD Automotive Bldg. C/D	230,031 sq.ft.	32,205.00
1106 North Eastern Ave. – ISD Special Services Bldg.	13,260 sq.ft	1,857.00
1110 North Eastern Ave-ISD Telecom Bldg.	37,742 sq.ft.	5,284.00

- **Total Cost –** (See breakdown by property above)
- **Time Frame**: 1-5 years
- **Responsible Agency**: Internal Services Department – FOS
- **Funding Source:** Los Angeles County Budget
- **Goal:** Protect Life and Property
- **Related Hazard**: All Hazard Earthquake, fire, rain storm damage

Strategy: AH-10 Asbestos Abatement Program – (Mitigation)

This project would remove asbestos from the buildings, rendering them safe in both day to day operations and disaster incidents. Asbestos is exposed and released into the air during disaster incidents causing a risk to life and property.

1100 North Eastern Avenue – ISD Admin. Bldg.A		
Asbestos fireproofing	4000 sq.ft. @ $50. per sq.ft.	$200,000.00
Asbestos Pipe Insulation	50 lin. Ft.@ $27.00	1,350.00
1102 North Eastern Avenue – ISD Shops Building B		
Asbestos fireproofing	10,800 sq.ft.@ $50.00	$540,000.00
Asbestos Pipe Insulation	3000 lin. Ft. @ $27.00	81.000.00
1104 North Eastern Ave. ISD Automotive Bldg.-C,D		
Asbestos fire proofing	14,400 sq.ft. @ $50.	$720,000.00
Asbestos Pipe Insulation	3,000 lin. Ft. @ $27	81,000.00
1106 North Eastern Avenue ISD Special Services Bldg		
Asbestos Fireproofing	1,200 sq.ft. @ $50	$60,000.00
Asbestos Fireproofing	200 lin.ft. @ $27	5,500.00
1110 North Eastern Avenue – ISD Telecom Building		
Asbestos Fireproofing	3,600 sq.ft.@ $50	$180,000.00
Asbestos Pipe Insulation	500 lin.ft. @ $27	13,500.00

- **Time Frame for implementation:** Schedule 1-5 Years
- **Responsible Agency:** Internal Services Department – FOS
- **Funding Source:** Los Angeles County Budget
- **Goal Addressed:** Protection of life and property
- **Related Hazard:** All Hazard, Earthquakes, fire, storm water damage

Strategy: AH-11 Perform Asbestos Paint Survey – (Mitigation)

County Buildings built prior to 1980 are likely to have asbestos paint in them. This project would survey those buildings to determine the asbestos abatement needs throughout the County. Asbestos paint could be exposed and released into the air during disasters.

Project to apply to all county owned building built prior to 1980.

- **The cost for this project is** $4,200,00.00
- **Time Frame for Implementation:** 1 to 10 years
- **Responsible Agency:** Internal Service Department
- **Funding Source:** Los Angeles County Budget
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** All Hazard with emphasis on Hazardous Materials, Earthquake, fire and storm water damage

Strategy: AH-12 Communications – (Preparedness)

Do a cost and feasibility study to either upgrade or replace the two-way radio system for communications between the headquarters and the ISD District Service Trucks. The system to be studied is located at 11236 Playa Ct. Culver City

- **Cost:** To be determined
- **Time Frame for Implementation:** 1 to 10 years
- **Responsible Agency:** Internal Service Department
- **Funding Source:** Los Angeles County Budget
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** All Hazard

Strategy: AH-13 Emergency Power – (Mitigation)

The Internal Services Division District 3 Headquarters does not have emergency power for its facility. The project is to purchase and install and emergency generator to protect the building against power failure/

- **Cost:** To be determined
- **Time Frame for Implementation:** 1 to 10 years
- **Responsible Agency:** Internal Service Department
- **Funding Source:** Los Angeles County Budget
- **Goal Addressed:** Protect Life and Property and continue property saving services
- **Related Hazard:** All Hazard

Strategy: AH-14 Data Protection – (Mitigation)

The Downey Data Center is operationally managed by the Internal Service Department and is essential for the data services operation of the County. The data center is currently housed in an unsafe facility. It is the intent of the County to replace this center to ensure that essential County systems are available for normal operations, during emergencies and when a disaster occurs.

- **Cost:** $60,000,000
- **Time Frame for Implementation:** 1 to 5 years
- **Responsible Agency:** County Administrative Office and the Department of Public Works
- **Funding Source:** General Fund Capital Projects
- **Goal Addressed:** Protects life and property to ensure County Data protection
- **Related Hazard:** All Hazard

Strategy: AH-15 Disaster Back-up Data Center – (Mitigation)

It is the intent of the Internal Services Division that a Disaster Recovery Data Center be established to sustain critical applications in the event of a sustained out at the prime data center.

Los Angeles County is subject to a number of hazards which could damage or disable the prime data center.

- **Cost**: $3,500.000.00 ($1,500,000.00) will be a one time cost and the remainder will be ongoing costs.
- **Time Frame for Implementation:** 1 to 2 years
- **Responsible Agency:** Internal Services Department
- **Funding Source:** Los Angeles County Operating Budget
- **Goal Addressed:** Protect Life and Property by ensuring data services to L.A. County are secure.
- **Related Hazard:** All Hazard

Strategy: AH -16 Communications Microwave Towers – (Mitigation)

Microwave Tower Infrastructure Upgrades, upgrade the power, air-conditioning, access roads for mountain sites and buildings housing the County's many microwave sites. Individual sites are confidential information.

- **Cost**: $3,000,000.00
- **Time Frame for Implementation:** 1 to 48years
- **Responsible Agency**: Internal Services Department
- **Funding Source:** Unbudgeted at this time
- **Goal Addressed:** Protect effectiveness of Emergency Services
- **Related Hazard:** All Hazards

Strategy: AH-17 – (Preparedness)

Program/Project Description	DPSS/Red Cross Certified Shelter Management Training Program DPSS maintains a cadre of trained shelter staff to be deployed as Red Cross shelter managers and workers after a disaster occurs. Our certified shelter managers play a crucial role in meeting our Department's disaster mission for providing care and shelter to L.A. County residents after disaster. The last shelter management training sessions were completed in April, 2001. Due to natural attrition, many of the original 300 DPSS employees certified as Red Cross Shelter managers remain on our active participant roster. The training program will consist of ten, two-day training sessions beginning the week of March 14, 2005, and will run through the week of June 3, 2005. The training sessions will be located at four different sites located throughout the County.
Cost	$3500.00
Timeline/Schedule	March 2004 - June 2004
Responsible Agency	DPSS, Red Cross
Financing	Staff Time Training materials provided by the Red Cross
Goal Addressed	To mitigate potential delays in deploying staff to disaster sites. by ensuring trained care and shelter staff are immediately available to work in Red Cross Shelters after a local disaster or emergency.
Related Hazard	All Hazards

Strategy: AH-18 – (Mitigation)

Program/Project Description	**Mass Casualty/Shelter/evacuation: Shelter Screening Process** Establish a process for screening potentially contaminated victims of a public health disaster as a pre-admission requirement prior to being allowed into a Red Cross shelter. Victims of an incident which involves any level of contamination (Biological, radiological or chemical) and thus a public health threat will be assessed and triaged at the secured incident site (red zone). Victims of an incident which involves any level of contamination (Biological, radiological or chemical) and thus a public health threat will be assessed and triaged at the secured incident site (red zone). Fire and other First responders will determine if the incident victims have been exposed to contaminants. If the victims have not been exposed to the contaminants they be identified as such and released to go home or to a Red Cross (green zone) shelter (depending on the severity of the incident). If the victims are determined to be exposed to contaminants, they will be assessed by public health staff and either decontaminated or transported to an appropriate medical facility. Decontaminated victims and victims originally determined to be "clean" wishing to enter a Red Cross Shelter will be screened at the shelter by a public health nurse and security staff prior to admittance. Shelters are for "healthy" victims only. If this screening process identifies victims in need of further medical treatment, Red Cross staff will call for medical assistance from appropriate public health or emergency medical professionals. All otherwise "healthy" victims will be allowed to enter the shelter. This process has been adopted by the American Red Cross and is part of the Federal National Emergency Response Plan for processing victims of public health disasters.
Cost	Full Time Equivalent currently funded
Timeline/Schedule	Start time: August 2004 Finish Time: March 2005.
Responsible Agency	American Red Cross, DPSS, Department of Health Services, L.A. County Fire, L.A. County Sheriff, City of Los Angeles Fire
Financing	Staff time
Goal Addressed	Protect Lives and Property Increase effectiveness of Emergency Services Strengthen partnerships
Related Hazard	Terrorism, Biological, Chemical and Nuclear Hazards, but applicable to all hazards.

Strategy AH-19 – (Preparedness)

Implement and evaluate a new emergency telephone system for the receipt of 911 and E911 cellular telephone callers, including GIS and recording components

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** LA County Fire - Command & Control Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** All Hazards

Strategy AH-20 – (Preparedness)

In coordination with the other County stakeholders, lead and direct support for the implementation of the RFP for the Fire/Sheriff Radio Project

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** LA County Fire - Command & Control Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** All Hazards

Strategy AH-21 – (Preparedness)

Research and provide recommendations (including funding source) to increase wireless interoperability in the Los Angeles area

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** LA County Fire Command & Control Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** All Hazards

Strategy AH-22 – (Response)

Develop quick-connect with automatic aid dispatch center

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** LA County Fire – Command & Control Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** All Hazards

Strategy AH-23 – (Preparedness)

Upgrade or replace two-way radio system in headquarters building (nternal Services Division FOS District 3 Headquarters at 11236 Playa Ct, Culver City.

- **Cost:** To be determined
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** Internal Services Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
  Increase effectiveness of emergency services
- **Related Hazard:** All Hazards

Strategy AH-24 – (Preparedness)

Evaluate and change, as necessary, the name, role, and responsibility of the Emergency Preparedness Commission (EPC). There are over 200 independent governments within the Los Angeles County Operational Area, and County government has the continual challenge to ensure that all local governments are prepared for any disaster and understand the requirements of the California Standardized Emergency Management System. The Forum is the Operational Area newsletter, which in the past was published as a printed newsletter. This publication ended due to resource limitations within the Office of Emergency Management (OEM). Implementation of this strategy will seek a method to continue publication of this important communication tool, within existing OEM resources.

The OAAB and EPC are important coordinating and networking bodies to ensure continuity of effort within the operational area, and their reorganization will strengthen joint planning efforts.

- **Cost:** There are no special costs for implementation. All work is done within existing budgets for the county and participating cities.

- **Time Frame for Implementation:** This strategy is scheduled for full implementation by the end of 2005.

- **Responsible Agency:** An EPC Ad Hoc Committee, lead by OEM has developed a draft plan for EPC and OAAB consideration. Committee members were assigned to work on three specific goals which included: drafting a statement which redefines the role of the EPC; draft a proposal to broaden the EPC's membership; and draft ideas on new ways of doing business. The consensus of the Committee is that the EPC membership should be broadened to include representation from other entities such as: school districts, special districts, health, private industry, not-for-profit organizations, utilities, and transportation. Based on these discussions, OEM will recommend changes to the Board of Supervisors. (The EPC is a Board-created commission.)

- **Goal Addressed:** Increase effectiveness of emergency services. These strategies will lead to stronger communications between governments.

Strategy AH-25 – (Response)

December 2004: Assess technological advancements to improve the county's internal ability to communicate during a major disaster (at both executive and staff levels). Focus on distributed communications, multiple systems, duplicate systems, backup EOCs, etc. (LACOA Emergency Management Strategic Plan Goal 1, strategy 3)

A needs assessment was completed during 2004, and ISD is presently working on multiple projects to increase county communication capacity in a major disaster. One project is the Los Angeles County Regional Communications Systems and the other is a project to enhance CWIRS radio area (frequency) coverage. Written plans and proposals for both projects have been completed. ISD is currently working with the Los Angeles Tactical Communications System Executive Committee to obtain grant monies to complete the projects.

- **Cost:** TBD
- **Time Frame for Implementation:** The completion timeline is dependent on funding.
- **Responsible Agency:** Los Angeles County Office of Emergency Management
- **Goal Addressed:** Improve the county's internal ability to communicate during a major disaster (at both executive and staff levels). Increase effectiveness of emergency services

Strategy AH-26 – (Recovery)

Develop plans for a post-disaster business and nonprofit economic recovery advisory task force, to ensure that County recovery planning addresses economic recovery. Identify probable participants in advance of a major disaster by working with professional and networking organizations that can assist. The Community Development Commission (CDC) has completed the work necessary to ask the Los Angeles County Economic Development Corporation to convene the Economic Development Leadership Council following disasters. The role of the Economic Development Leadership Council will be to assist with the County's recovery by engaging in efforts that help promote and sustain economic development for job growth as well as retention, expansion, creation, and attraction of business following disasters. All of the organizations that will participate in the Economic Leadership Council have been identified. This work will be completed during the next quarter.

- **Cost:** Costs for the project are paid out of existing department budgets.
- **Time Frame for Implementation:** This project will be completed within one to three years.
- **Responsible Agency:** CDC is currently completing the necessary tasks to "institutionalize" the Economic Development Leadership Council in its departmental disaster plans, policies and procedures, and to inform members of the Economic Development Leadership Council regarding their new role during disasters.
- **Goal Addressed:** Ensure that County recovery planning addresses economic recovery. Increase effectiveness of emergency services

Strategy AH-27 – (Preparedness)

Develop plans to conduct regular emergency management seminars for executive managers in government, business, and nonprofits, ensuring that the issues presented, the mode of presentation, and speakers are appropriate to the audience. Objectives of these seminars should be to encourage greater financial and policy support for emergency planning and mitigation including greater support for emergency services coordinators.

- **Cost:** All costs for the project are salaries for OEM staff and are part of the normal county budget
- **Time Frame for Implementation:** The plan to complete this objective will be completed within the next year, and full implementation within 1 to 3 years.
- **Responsible Agency:** Los Angeles County Office of Emergency Management
- **Goal Addressed:** The LACOA Emergency Management Strategic Plan calls for county government to develop plans to engage the attention of government, business, and nonprofit executive managers on issues related to the threat of disasters, including risk avoidance considerations, and the need for mitigation and planning. Increase effectiveness of emergency services

Strategy AH-28 – (Mitigation)

Develop a special program to enhance the awareness of school boards and superintendents to the vulnerability of schools and issues of child safety. OEM staff completed a summary report describing the programs that COE developed to enhance school preparedness. On August 25, 2004, the Emergency Management Council (EMC) formally designated the County Office of Education as the Operational Area Coordinator for schools. OEM will work with COE administration on a process to notify superintendents of local districts of the responsibilities of COE in this new role and the responsibilities of local districts. OEM will recommend that the notification include a discussion of the role of the school boards and recommend that the superintendents brief their boards on these responsibilities. This will be completed within the next 1 to 3 years.

- **Cost:** All costs for these projects are salaries for OEM staff and are part of the normal county budget.
- **Time Frame for Implementation:** The plan to complete this objective will be completed within the next year, and full implementation within 1 to 3 years.
- **Responsible Agency:** Los Angeles County Office of Emergency Management
- **Goal Addressed:** The LACOA Emergency Management Strategic Plan calls for county government to develop plans to engage the attention of government, business, and nonprofit executive managers on issues related to the threat of disasters, including risk avoidance considerations, and the need for mitigation and planning. Increase effectiveness of emergency services

Strategy AH-29 – (Mitigation)

Develop plans for regular workshops sponsored by the Board of Supervisors for mayors and city managers to address threats of disaster, including risk avoidance and the need for mitigation and planning. Initial planning meetings with OEM management regarding this goal were completed in June. OEM will submit a proposal for approval by the Emergency Management Council (EMC) to conduct regular conferences/workshops with emergency managers and Operational Area partners

- **Cost:** All costs for these projects are salaries for OEM staff and are part of the normal county budget.
- **Time Frame for Implementation:** The plan to complete this objective will be completed within the next year, and full implementation within 1 to 3 years.
- **Responsible Agency:** Los Angeles County Office of Emergency Management
- **Goal Addressed:** The LACOA Emergency Management Strategic Plan calls for county government to develop plans to engage the attention of government, business, and nonprofit executive managers on issues related to the threat of disasters, including risk avoidance considerations, and the need for mitigation and planning. Increase effectiveness of emergency services

Strategy AH-30 – (Mitigation)

Ensure that County building evacuation plans address the needs of people with disabilities, including visitors to County facilities, and that evacuation drills test these plans. The plan includes an annual training program to reinforce County policies, supported by a video tape for key County staff. OEM has worked with Office of Affirmative Action Compliance (OAAC) to complete a set of building emergency procedures for the disabled in August 2003. The ADA/BEC procedures will be the basis for the information that will be provided in the video and disk. OEM met with the County Office of Education (COE) to discuss the possibility of using their video production facilities for the making of the ADA/BEC training video.

- **Cost:** OEM staff is seeking funding for production of the ADA/BEC training video.
- **Time Frame for Implementation:** The plan to complete this objective will be completed within the next year, and full implementation within 1 to 3 years.
- **Responsible Agency:** COE provided planning support to help OEM develop a production cost estimate for the training video.
- **Goal Addressed:** Protect lives and property. Increase effectiveness of emergency services

Strategy AH-31 – (Preparedness)

Conduct a regular review and update of county departmental disaster response and recovery plans, roles, and responsibilities; and to ensure these are clearly defined and that departmental executives and key staff are briefed and trained on these responsibilities and that plans address the threat of terrorism. All departments have plans that meet these requirements, but each department is required to review and revise plans every three years. This is an on-going program.

- **Cost:** All costs for these projects are salaries for OEM staff and are part of the normal county budget.
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** Los Angeles County Office of Emergency Management
- **Goal Addressed:** Protect lives and property. Increase effectiveness of emergency services

Strategy AH-32 – (Preparedness)

Evaluate the effectiveness of training programs for the 38 Department Emergency Coordinators (DECs) and 2500 Building Emergency Coordinators (BECs) to ensure that they understand their roles and responsibilities. DECs and BECs are responsible for developing department and building plans to ensure the safety of employees. During this review, OEM will ensure that BEC policies and training programs address issues related to multi-tenant buildings and County tenants in non-County facilities. This is an ongoing program. OEM completed a revised Building Emergency Coordinator (BEC) and Department Emergency Coordinator (DEC) training program. The new courses address the requirements of multi-tenant building and County tenants in non-County facilities. An ongoing evaluation system was also developed by OEM and is now in place. OEM now conducts a survey following each quarterly DEC and BEC training session. The results of the surveys for the entire year will be compiled and distributed to the DECs every December. A copy of the yearly training evaluation will also be submitted to the Emergency Management Council. The results of these surveys will be incorporated into future revisions including the Countywide Building Emergency Plan Guidelines.

- **Cost:** All costs for these projects are salaries for OEM staff and are part of the normal county budget.
- **Time Frame for Implementation:** Yearly.
- **Responsible Agency:** Los Angeles County Office of Emergency Management
- **Goal Addressed:** Increase effectiveness of emergency services.

Strategy AH-33 – (Response)

Establish duty statements and training standards for County EOC responders, DECs, and BECs to include a standard training curriculum, a monitoring system to track staff assignments and training, and a policy addressing succession, to ensure a continual trained pool of staff. The following items are now in place for the Building Emergency Coordinator (BEC) and Department Emergency Coordinator (DEC) training update: OEM has completed a list of required BEC courses. OEM has instituted a manual tracking system for BEC trainees and the courses. A duty statement for the members of the Building Emergency Response Team is now in place and OEM has distributed it to the DECs. A list of the BEC attendees for each required course is now distributed by OEM to the DECs following each BEC training session.

The following County Emergency Operations Center (CEOC) training items are in place:

A revised CEOC orientation class has been completed and is in place. EMIS computer training is ongoing. All CEOC staff participated in hands-on CEOC training as part of the 2003 Operation Trident Tabletop exercises. A monitoring system to track CEOC staff training is being developed and will be in place by the end of next quarter.

A draft of the CEOC Staff Training Standards and Duty Statements has been completed and has undergone initial review by OEM management.

- **Cost:** All costs for these projects are salaries for OEM staff and are part of the normal county budget.
- **Time Frame for Implementation:** This project will be completed within 1 to 3 years and will be renewed annually.
- **Responsible Agency:** Los Angeles County Office of Emergency Management
- **Goal Addressed:** Increase effectiveness of emergency services.

Strategy AH-34 – (Mitigation)

Evaluate what medical appliances, such as automatic defibrillators, should be placed in County facilities. As part of this evaluation, review the implementation of defibrillators and other medical appliances in airlines and other industries.

- **Cost:** All costs for these projects are salaries for OEM staff and are part of the normal county budget.
- **Time Frame for Implementation:** This is scheduled for completed within the next 3 years.
- **Responsible Agency:** Los Angeles County Department of Health Services.
- **Goal Addressed:** Increase effectiveness of emergency services.

Strategy AH-35 – (Recovery)

Develop plans for County ADA coordinators to assist in delivery of post-disaster services and programs, to ensure accessibility, including deaf and blind accessibility and to include a plan for compliance monitoring of public points of service following a disaster.

- **Cost:** All costs for these projects are salaries for OEM staff and are part of the normal county budget.
- **Time Frame for Implementation:** This is scheduled for completion in 2005.
- **Responsible Agency:** Los Angeles County Office of Emergency Management
- **Goal Addressed:** Increase effectiveness of emergency services.

Strategy A-36 – (Recovery)

Develop plans in concert with OES, INFO LINE, and other stakeholder agencies for post-disaster public information and recovery centers (similar to FEMA's disaster application centers) and to evaluate the participation of County departments.

- **Cost:** All costs for these projects are salaries for OEM staff and are part of the normal county budget.
- **Time Frame for Implementation:** This will be completed by the end of 2005.
- **Responsible Agency:** Los Angeles County Office of Emergency Management
- **Goal Addressed:** Increase effectiveness of emergency services.

Strategy AH-37 – (Mitigation)

Los Angeles County manages a highly effective program to educate the public on home preparedness for disasters, including terrorism. This program is called the Emergency Survival Program (ESP), and the advisory board includes emergency management professionals from state and local governments throughout Southern California and other states, as well as a Red Cross representative. This is an on-going program which reaches over 50,000 people with hard copies of materials, and an unknown number through the program website at www.espinfo.org. The ESP campaign for 2005 will focus on terrorism.

The ESP program coordinator is working with a private contractor and the Commissions on Aging and Disabilities to develop focused outreach materials to meet the unique preparedness needs for the aged and people with disabilities.

- **Cost:** About $50,000 is budgeted each year to support the program, which does not include staff costs for OEM or the advisory group. An additional $100,000 is donated to support the program by cash and in-kind corporate donations. $30,000 is budgeted for this project and is paid out of federal terrorism grant funding.

- **Time Frame for Implementation:** The project will be completed by the end of 2005.
- **Responsible Agency:** Los Angeles County Office of Emergency Management
- **Goal Addressed:** Increase effectiveness of emergency services. Increase public awareness.

Strategy AH-38 – (Mitigation)

The Board of Supervisors has ordered OEM to develop a public website to ensure that communities have access to the latest emergency information and alerts following a major disaster. After major wild fires in 2002 and 2003, OEM developed a public website with recovery information, including information on federal public assistance programs. This website is being expanded to include emergency alerts and other information regarding an emergency.

- **Cost:** All costs for these projects are salaries for OEM staff and are part of the normal county budget.
- **Time Frame for Implementation:** This project will be completed by July 2005.
- **Responsible Agency:** Los Angeles County Office of Emergency Management
- **Goal Addressed:** Increase effectiveness of emergency services. Increase public awareness. The Board of Supervisors has ordered OEM to develop a public website to ensure that communities have access to the latest emergency information and alerts following a major disaster. After major wild fires in 2002 and 2003, OEM developed a public website with recovery information, including information on federal public assistance programs. This website is being expanded to include emergency alerts and other information regarding an emergency. This project will be completed by July 2005.

Strategy AH-39 – (Mitigation)

Program/Project Description	**Mission of the Los Angeles County Operational Area Citizen Corps Program:** The mission of the Los Angeles County Operational Area Citizen Corps program is to engage in collaborative efforts aimed at helping cities and communities become safer, stronger, and better prepared for preventing and handling terrorism, crime and disasters. **Scope of the Los Angeles County Operational Area Citizen Corps Council:** The Los Angeles County Operational Area Citizen Corps Council will: Encourage an inclusive membership of non-profit organizations, cities, Law and Fire volunteer programs, and community-based Citizen Corps councils Determine the priorities and tasks for the yearly Citizen Corps grant program Complete all the necessary planning tasks and deliverables for the Homeland Security Citizen Corps grant Oversee progress of new and existing training and volunteer initiatives with an emphasis on the four core Citizen Corps programs including Community Emergency Response Teams (CERT), Neighborhood Watch, Volunteers in Police Service (VIPS), and Medical Reserve Corps (MRC) Keep members informed of grant progress, best practices, and innovative volunteer programs Promote the use of the Operational Area Citizen Corps Volunteer website Develop strategies to publicize Citizen Corps initiatives and volunteer events in the OA
Cost	Costs for the 2004 Grant Year: OEM Administrative expenses: $11,745 OA CERT Coordinator (Salary & Benefits): $143,166 (per year) Website hosting, maintenance, refinements: $35,000 Consultant fees for website population: $30,000 Travel and maintenance: $2,000 (2004 grant year) Medical Reserve Corps training equipment: $10,000 Neighborhood Watch and VIPS: $30,000 CERT expansion and Spanish language CERT: $29,610 Equipment and supplies for the Citizen Corps programs with the 8 Disaster Management Areas: $100,000 Total Grant amount for 2004 = $379,776
Timeline/Schedule	Ongoing.
Responsible Agency	Los Angeles County/CAO Office of Emergency Management manages both the Citizen Corps grant and overall Citizen Corps program with key OA partners. The OA CERT Coordinator is a Captain with the Los Angeles County Fire Department. LA County Fire oversees the development of the CERT program on behalf of the OA. The Sheriff's department oversees the expansion of the Neighborhood Watch and Volunteers in Police Service (VIPS) program in the OA. The Medical Reserve Corps program is managed by the Department of Health Services – Public Health.
Financing	The Citizen Corps program is fully funded by the Homeland Security-Citizen Corps Program grants. The LA County OA began receiving Citizen Corps grants in 2002. We are on our third grant year.
Goal Addressed	The mission of the Los Angeles County Operational Area Citizen Corps program is to engage in collaborative efforts aimed at helping cities and communities become safer, stronger, and better prepared for preventing and handling terrorism, crime and disasters.
Related Hazard	Natural disasters such as earthquakes and wildfires. Terrorism

Strategy AH-40 – (Preparedness)

Program/Project Description	**Countywide Exercise Program** Los Angeles County conducts major emergency exercises each year. This mitigation strategy describes the 2004 exercise, but similar ex ercises are done every year. Los Angeles County is committed to effective planning, training, and exercises. The 2004 exercise program is one of a series over a period of several years focused on providing the County of Los Angeles' Office of Emergency Management (OEM) and the greater Los Angeles County Operational Area's public safety agencies with exercise events tailored to emphasize readiness for Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) Weapons of Mass Destruction (WMD) incidents within the County of Los Angeles. Operational Area WMD Terrorism Response Exercise Program for the next 3 years: Phase 1 – Radiological Exercise Response Program - Year 2004 Phase 2 – Bio-Terrorism Incident Response Exercise Program - Year 2005 Phase 3 – Chemical Incident Response Exercise Program - Year 2006 Phase 4 – High Explosives Response Exercise Program - Year 2007 This series of emergency management exercises is being developed in coordination with an existing series of tabletop, functional, and field exercises for first-responders. All exercises will focus on a similar scenario in order to measure the response and coordination capabilities of multiple agencies and departments. The final exercise will combine a full-scale field exercise with a full activation of the County Emergency Operations Center (CEOC). This program will include exercises for first-responders, intelligence gathering agencies, local non-profit groups, local business sector, CEOC responders, city emergency management personnel, County Business Continuity Planning Coordinators, Department Emergency Coordinators, and the County Office of Education.
Cost	Approximately $1.5 million per year
Timeline/Schedule for 2004	Emergency Network Los Angeles (ENLA) tabletop exercise- July 8th Tabletop exercises for cities - September 16th, 22nd, and 23rd Business and Industry Council on Emergency Planning and Preparedness (BICEPP) tabletop exercise- October 7th County Emergency Operations Center (CEOC) tabletop exercises - October 21st, 26th, and 28th County Office of Education tabletop exercise- November 4th Functional exercises for cities - November 4th, 10th, and 16th Business Continuity Planning (BCP)/ Department Emergency Coordinators (DEC's) tabletop exercise- November 18th CEOC functional exercises - December 2nd (B/C shift) December 9th (A shift, with full-scale)
Responsible Agency	Office of Emergency Management SRA/EG&G firms (contractors)
Financing	Federal Homeland Security funds.
Goal Addressed	Increase the County's effectiveness in coordinating multiple resources that will respond to large Weapons of Mass Destruction event in the County.
Related Hazard	All hazards – any emergency exercise prepares the county for any hazard.

Strategy AH-41 – (Response)

Program/Project Description	**Enhance the Emergency Management Information System (EMIS).** EMIS is the disaster incident management software used by the Los Angeles County Operational Area. The system serves the County departments, 88 incorporated cities, and the school districts. There is a Geographical Information System (GIS) component in EMIS that displays the data graphically. The software and hardware components of EMIS were upgraded recently. Currently, OEM is in the analysis stage to upgrade EMIS to a portal-based system to provide specific content based, full functional interactive system that may be customized for all users and management alike. The GIS software will be upgraded and further integrated within the EMIS software.
Cost	Implementation costs for the EMIS portal upgrade are estimated at $1,000,000
Timeline/Schedule	The implementation time frame would be 1-2 years
Responsible Agency	The lead agency would be the Los Angeles County OEM
Financing	Funding would be the County General Fund, OEM, DHS Bio-terrorism Grant funds, and Homeland Security Grants
Goal Addressed	Increase effectiveness of Emergency Services
Related Hazard	All hazards

Strategy AH-42 – (Response)

Program/Project Description	**Establish IT Disaster Recovery and EOC Remote Locations.** A cluster of servers identical to our production servers has been configured. Data is replicated to these servers so that they may be used for disaster recovery or to serve as the primary servers if necessary. The remote location will be the City of Denver, Colorado. The design for an Alternate EOC vehicle/trailer is in process. It will contain all the necessary hardware that we would need to setup a temporary EOC at one of the pre-determined locations.
Cost	Implementation costs for the EMIS IT Disaster Recovery and EOC Remote Locations project is estimated at $500,000
Timeline/Schedule	The implementation time frame would be 6 months to a year
Responsible Agency	The lead agency would be the Los Angeles County OEM
Financing	Funding would be the County General Fund, OEM, and Homeland Security Grants
Goal Addressed	Increase effectiveness of emergency services
Related Hazard	All hazards

Strategy AH-43 – (Mitigation)

Program/Project Description	**Virtual Private Network** Install a secure satellite communications Virtual Private Network (VPN) throughout the County. The satellite VPN has been purchased and is in the initial implementation process.
Cost	Implementation costs for the EMIS satellite VPN are estimated at $1,050,000.
Timeline/Schedule	The implementation time frame would be 6 months
Responsible Agency	The lead agency would be the Los Angeles County OEM
Financing	Funding would be the County General Fund, OEM, DHS Bio-terrorism Grant funds, and Homeland Security Grants
Goal Addressed	Increase effectiveness of emergency services
Related Hazard	All hazards

Strategy AH-44 – (Preparedness)

Program/Project Description	**Grant Application Systems Consolidation.** OEM has been tasked with the administration of the Homeland Security Grant Administration programs since 2001. County Departments and cities apply thru OEM to receive grant funds. OEM has created several on-line internet based applications since 2001 to automate the grant processes. As requirements for each grant varied, and processes grew increasingly more complicated, a new system had to be developed for each grant. The consolidation process will merge all of the grant systems data into one data source that is managed by one grant management system. Accounting modules are also being added to assist OEM with the tracking and the accountability of the purchased items.
Cost	Implementation costs for the Grant Application Systems Consolidation project are estimated at $250,000.
Timeline/Schedule	The implementation time frame would be 6 months to a year
Responsible Agency	The lead agency would be the Los Angeles County OEM
Financing	Funding would be the County General Fund, OEM, and Homeland Security Grants
Goal Addressed	Increase effectiveness of emergency services
Related Hazard	All hazards

Strategy AH-45 – (Response)

Program/Project Description	**DPSS/Red Cross Certified Shelter Management Training Program** DPSS maintains a cadre of trained shelter staff to be deployed as Red Cross shelter managers and workers after a disaster occurs. Our certified shelter managers play a crucial role in meeting our Department's disaster mission for providing care and shelter to L.A. County residents after disaster. The last shelter management training sessions were completed in April, 2001. Due to natural attrition, many of the original 300 DPSS employees certified as Red Cross Shelter managers remain on our active participant roster. The training program will consist of ten, two-day training sessions beginning the week of March 14, 2005, and will run through the week of June 3, 2005. The training sessions will be located at four different sites located throughout the County.
Cost	$3500.00
Timeline/Schedule	March 2004 - June 2004
Responsible Agency	DPSS, Red Cross
Financing	Staff Time Training materials provided by the Red Cross
Goal Addressed	To mitigate potential delays in deploying staff to disaster sites. by ensuring trained care and shelter staff are immediately available to work in Red Cross Shelters after a local disaster or emergency.
Related Hazard	All Hazards

Strategy AH-46 – (Recovery)

Responsible Agency	Los Angeles County Coroner
Program Name	Business Continuity Plan
Project Description	Under the direction of the Department of Emergency Services, develop a business continuity plan for each of the Coroner's facilities (Forensic Science Center, Santa Clarita Valley Regional Office, Antelope Valley Regional Office, South Bay Regional Office).
Related Hazard(s)	All Hazards
Estimated Cost	TBD
Funding Source	General Fund
Implementation Date	FY-05-06
Goal Addressed	More effective emergency services
Priority Ranking	High

Strategy AH-47 – (Mitigation)

Responsible Agency	Los Angeles County Coroner
Program Name	Wrap, Tag and Hold Program
Project Description	Review the existing program to train employees of large companies to deal with mass fatality incidents (wrap, tag and hold). This review will include listing organizations that have participated, developing criteria for organizations that should participate, and discussion of the role of funeral directors in mass fatality incidents.
Related Hazard(s)	All Hazards
Estimated Cost	TBD
Funding Source	General Fund
Implementation Date	FY-05-06
Goal Addressed	More effective emergency services
Priority Ranking	High

Strategy AH-48 – (Preparedness)

Responsible Agency	Los Angeles County Coroner
Program Name	Staff Training
Project Description	Ensure that all staff members are briefed on their role in the Department's disaster plan. This will include developing leaflets, posters, and new employee training on disaster preparedness. Conduct disaster drills for critical employees.
Related Hazard(s)	All Hazards
Estimated Cost	Staff Time
Funding Source	General Fund
Implementation Date	FY-05-06
Goal Addressed	More effective emergency services
Priority Ranking	High

Strategy AH-49 – (Mitigation)

Responsible Agency	Los Angeles County Coroner
Program Name	Mobile Morgue
Project Description	Purchase equipment to set up an off-site mobile morgue. This equipment would be incorporated into the business continuity plan in case the main facility is unusable, and would help to avoid unnecessary exposure of employees or the public to biological, radiological or chemical agents.
Related Hazard(s)	All Hazards
Estimated Cost	TBD
Funding Source	General Fund
Implementation Date	FY-05-06
Goal Addressed	More effective emergency services
Priority Ranking	High

Strategy AH-50 – (Preparedness)

Responsible Agency	Los Angeles County Coroner
Program Name	Integration with DMORT
Project Description	Review the Department of Coroner's proc edures for decedent processing, data handling, identification and notification. Evaluate the compatibility of existing Department procedures with DMORT procedures *as well as reviewing existing mutual aid plans* .
Related Hazard(s)	All Hazards
Estimated Cost	TBD
Funding Source	General Fund
Implementation Date	FY-05-06
Goal Addressed	More effective emergency services
Priority Ranking	High

Strategy AH-51 – (Preparedness)

Responsible Agency	Los Angeles County Coroner
Program Name	Database of Employee Skills
Project Description	Develop a list of employees who have received County-provided disaster training (such as urban search and rescue, level A suit, etc.) and immunizations.
Related Hazard(s)	All Hazards
Estimated Cost	TBD
Funding Source	General Fund
Implementation Date	FY-05-06
Goal Addressed	More effective emergency services
Priority Ranking	High

Strategy AH-52 – (Response)

Responsible Agency	Los Angeles County Coroner
Program Name	GIS
Project Description	Integrate and utilize Geographical Information System software and technologies in disaster planning for the department to clearly map and plan possible high probability targets or sites with large numbers of potential fatalities, map potential alternate operational sites and their proximity to evacuation and transportation routes, and possible alternative storage facilities.
Related Hazard(s)	All Hazards
Estimated Cost	TBD
Funding Source	General Fund
Implementation Date	FY-05-06
Goal Addressed	More effective emergency services
Priority Ranking	High

Strategy AH-53 – (Mitigation)

Responsible Agency	Los Angeles County Administrative Office
Program Name	Geographical Risk Matrix for County-owned Facilities
Project Description	This mitigation strategy is to take the list of facilities and develop a geographical matrix that would delineate with risks each facility is vulnerable to and, if possible, better estimate potential damages. Every facility in Los Angeles County is vulnerable to damage from Earthquakes and the plan makes that factquite clear; however, predicting more accurate future losses from floods, wildfires and other natural hazards required further study and development.
Related Hazard(s)	All Hazards
Estimated Cost	$50,000 STAPLEE
Funding Source	General Fund – Grant opportunities
Implementation Date	FY-06-07
Goal Addressed	Decrease losses from natural hazards
Priority Ranking	High

Strategy AH-54 – (Mitigation)

Responsible Agency	Los Angeles County Administrative Office
Program Name	Develop a specific plan, based on engineering studies, for demolition and replacement of buildings determined to be unsafe or not economically feasible for refurbishment.
Project Description	The decision which specifies which county-owned facilities to demolish and/or replace must be made after a significant survey by qualified engineers is made and presented to County Officials.
Related Hazard(s)	All Hazards
Estimated Cost	$150,000 STAPLEE
Funding Source	General Fund – Grant opportunities
Implementation Date	FY-06-07
Goal Addressed	Decrease losses from natural hazards
Priority Ranking	High

Earthquake (EQ)

	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
STRATEGY	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
EQ1	P																			
EQ2	P																			
EQ3	P		X								X								X	
EQ4	P										X									X
EQ5	P										X									X
EQ6	P										X									X
EQ7	P										X									X
EQ8	P										X									X
EQ9	P																			X
EQ10	P																			X
EQ11	P																			
EQ12	P																	X		
EQ13	P		X		X					X	X									
EQ14	P										X									
EQ15	P										X									
EQ16	P		X				X										X			
EQ17	P		X				X													
EQ18	P		X				X													
EQ19	P										X									

Strategy EQ-P1 – (Mitigation)

(Not listed in matrix above)

Responsible Agency	Los Angeles County Administrative Office
Program Name	Update HAZUS.
Project Description	Update the current HAZUS study information to reflect accurate, up-to-date replacement cost values. The County proposes to work with other jurisdictions including the City of Los Angeles to update the HAZUS information for the region
Related Hazard(s)	Earthquake
Estimated Cost	$150,000 STAPLEE
Funding Source	General Fund – Grant opportunities
Timeline	36 months
Implementation Date	FY-06-07
Goal Addressed	Decrease losses to county-owned facilities from earthquakes
Priority Ranking	High

Strategy: EQ-1 - Seismic Safety light fixture bracing (Mitigation)

The Internal Services Division Headquarters at 9230 E. Imperial Hwy. Downey, CA. has a need to seismically brace a number of the buildings' light fixtures. The project is to seismically secure the identified fixtures.

- **Total Cost:** $6,000.00
- **Time Frame:** 1 to 5 years
- **Responsible Agency:** Internal Services Division
- **Financing:** County General Fund
- **Goal Addressed:** Protect life and property
- **Related Hazard:** Earthquake

Strategy: EQ-2 - Seismic Bracing (Mitigation)

Perform feasibility and cost study for seismic bracing for the interior lighting and T-bar ceilings in the ISD FOS District Headquarters at 11236 Playa Court

- **Cost:** $3,000.00
- **Time Frame for Implementation:** 1 to 5 years
- **Responsible Agency:** Internal Service Department
- **Funding Source:** Los Angeles County Budget
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Earthquake

Strategy EQ-3 (Mitigation)

Develop, equip, and deploy a surge capacity staffing plan for one Urban Search and Rescue (USAR) vehicle

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** LA County Fire – Technical Services Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** WMD/Terrorism, Explosion, Large Venue Fire

Strategy EQ-4 (Mitigation)

Conduct a survey for Asbestos & Lead Abatement in County-owned Building

- **Location**: 1100 North Eastern Avenue, ISD Administration Building A – 80,000 sq ft
- **Cost:** $11,200
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** Internal Services Department - FOS
- **Funding Source/Financing:** Special Funding
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Severe Weather, Large Venue Fire

Strategy EQ-5 (Mitigation)

Conduct a survey for Asbestos & Lead Abatement in County-owned Building

- **Location**: 1102 North Eastern Avenue, ISD Shops Building B – 168,584 sq ft
- **Cost:** $23,602
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** Internal Services Department - FOS
- **Funding Source/Financing:** Special Funding
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Severe Weather, Large Venue Fire

Strategy EQ-6 (Mitigation)

Conduct a survey for Asbestos & Lead Abatement in County-owned Building

- **Location**: 1104 North Eastern Avenue, ISD Automotive Building CD – 230,031 sq ft
- **Cost:** $32,205
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** Internal Services Department - FOS
- **Funding Source/Financing:** Special Funding
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Severe Weather, Large Venue Fire

Strategy EQ-7 (Mitigation)

Conduct a survey for Asbestos & Lead Abatement in County-owned Building

- **Location**: 1106 North Eastern Avenue, ISD Special Services Building – 13,260 sq ft
- **Cost:** $1,875
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** Internal Services Department - FOS
- **Funding Source/Financing:** Special Funding
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Severe Weather, Large Venue Fire

Strategy EQ-8 (Mitigation)

Conduct a survey for Asbestos & Lead Abatement in County-owned Building

- **Location**: 1110 North Eastern Avenue, ISD Telecom Building – 37,742 sq ft
- **Cost:** $5,284
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** Internal Services Department - FOS
- **Funding Source/Financing:** Special Funding
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Severe Weather, Large Venue Fire

Strategy EQ-9 (Mitigation)

Seismic bracing for interior lighting and T-bar ceilings in County-owned Building

- **Location**: 11236 Playa Ct, Culver City, ISD FOS Dist 3 Headquarters –
- **Cost:** TBD
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** Internal Services Department
- **Funding Source/Financing:** TBD
- **Goal Addressed:** Increase effectiveness of emergency services
  Protect Life & Property
- **Related Hazard:** Severe Weather

Strategy EQ-10 (Mitigation)

Repair masonry block perimeter walls surrounding District Manager's Headquarters

- **Location**: 11236 Playa Ct, Culver City, ISD FOS Dist 3 Headquarters –
- **Cost:** TBD
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** Internal Services Department
- **Funding Source/Financing:** TBD
- **Goal Addressed:** Increase effectiveness of emergency services
  Protect Life & Property
- **Related Hazard:** Severe Weather

Strategy EQ-11 (Mitigation)

Evaluate and develop plans to address the mitigation of non-structural hazards in County facilities. This is a complex and expensive project, since there are over 2500 occupied buildings within Los Angeles County.

- **Cost:** All costs for these projects are salaries for OEM staff and are part of the normal county budget.
- **Time Frame for Implementation:** This plan is scheduled for completion in 2006.
- **Responsible Agency:** Los Angeles County Office of Emergency Management, Department of Public Works, Internal Services Division.
- **Goal Addressed:** Protect lives and property. Increase effectiveness of emergency services.

Strategy EQ-12 (Mitigation)

Responsible Agency	Department of Public Works Design Division
Program Name	Bridge Seismic Retrofit Program
Project Description	To strengthen bridge structures to withstand the maximum credible earthquakes.
Related Hazard(s)	Collapse of bridges due to earthquake causing loss of life and property and disrupting traffic.
Estimated Cost	Estimated cost for the analysis, design and construction of the remaining 61 bridge retrofit projects is $77,000.000. Note that the analysis and design of these 61 projects have been completed at the cost of $5,800,000 and 13,200,000 respectively , but construction at the cost of $58,000,000 have not started.
Funding Source	Federal and local agencies.
Implementation Date	The bridge retrofit program started in 1989 following the Loma Prieta earthquake and may be completed by 2007 if the funding can be provided by local agencies.
Goal Addressed	Protect life and property.
Priority Ranking	High

Strategy EQ-13 (Mitigation)

Responsible Agency	Department of Public Works Environmental Programs Division
Program Name	Mass Debris Removal (MDR) Program
Project Description	The County of Los Angeles Department of Public Works (Public Works) must coordinate the management of debris following a disaster. Public Works is preparing for this responsibility by revising/updating the MDR Plan (1996), establishing partnerships, and providing public awareness and staff education/training consistent with FEMA, State, and local guidelines. Immediately following a major disaster within the County of Los Angeles, Public Works will be prepared to effectively take emergency action and implement a plan for the removal of disaster-generated debris.
Related Hazard(s)	Debris generated from terrorism, flood, fire, civil unrest, etc.
Estimated Cost	TBD- To be determined later
Funding Source	General Fund State/Federal Disaster Assistance
Implementation Date	Ongoing - education and organization efforts are ongoing, Mass Debris Removal Plan to be implemented after a disaster
Goal Addressed	Increase effectiveness of emergency services, protect life and property, incorporate environmental preservation, provide public awareness and training programs
Priority Ranking	High

Strategy EQ-14 (Mitigation)

Responsible Agency	Department of Public Works Environmental Programs Division
Program Name	Hazardous Materials Underground Storage Tank Program
Project Description	Inspections are conducted on sites which have underground storage tanks. Inspections are conducted to enforce federal, state, and local regulations. Inspections are done of tank removals to verify compliance and to check for soil contamination. On an annual basis approximately 2500 inspections are conducted.
Related Hazard(s)	Earthquake and Fire
Estimated Cost	TBD- To be determined later
Funding Source	Possible Federal and/or State assistance.
Implementation Date	Ongoing program inspections are done annually
Goal Addressed	Prevention of hazardous materials from contaminating the soil and ground water.
Priority Ranking	Medium

Strategy EQ-15 (Mitigation)

Responsible Agency	Department of Public Works Environmental Programs Division
Program Name	Industrial Waste Disposal Program
Project Description	Inspections are conducted on commercial and industrial sites for compliance with local, state, and Federal regulations on disposal of industrial waste. Inspections are conducted to enforce proper collection, storage, treatment, and disposal of industrial waste or hazardous materials either to the sewer system for compliance with local limits or for offsite disposal. On an annual basis approximately 7500 inspections are conducted.
Related Hazard(s)	Earthquake and Fire
Estimated Cost	TBD- To be determined later
Funding Source	Possible Federal and/or State assistance.
Implementation Date	Ongoing program inspections are done at a minimum on an annual basis.
Goal Addressed	Prevention of waste material from entering the storm drain system and prevention of damage to the sewer system or sewer stoppages.
Priority Ranking	Medium

Strategy EQ-16 (Mitigation)

Responsible Agency	Department of Public Works Waterworks & Sewer Maintenance Division
Program Name	Encinal Canyon Interconnection Project - Waterworks District No. 29
Project Description	Install approximately 9,000 linear feet of 12-inch diameter steel watermain to introduce a new water source into Waterworks District No. 29 and provide system redundancy through an interconnection with Las Virgenes Municipal Water District along Encinal Canyon Road. This project would provide emergency water supplies in the event the primary source of water, a feeder along Pacific Coast Highway, was interrupted due to earthquake, land movement, or terrorist act.
Related Hazard(s)	Earthquake, Terrorism, Water Outage, or Landslide
Estimated Cost	$3.0 million
Funding Source	Capital Outlay Funds, Grants
Implementation Date	FY 06-07
Goal Addressed	Protection of Life and Property; Increase effectiveness of emergency services
Priority Ranking	High

Strategy EQ-17 (Mitigation)

Responsible Agency	Department of Public Works Waterworks and Sewer Maintenance Division
Program Name	Lower Busch Tank
Project Description	Design and construct a 380,000-gallon steel tank to replace an existing aging 300,000-gallon cylindrical concrete tank which has not been seismically retrofitted. Tank located at 5731 Busch Drive, Malibu.
Related Hazard(s)	Earthquake, Terrorism, Water Disruption
Estimated Cost	$1,460,000
Funding Source	Capital Improvement Budget
Implementation Date	FY 06/07
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy EQ-18 (Mitigation)

Responsible Agency	Department of Public Works Waterworks and Sewer Maintenance Division
Program Name	Wells 4-69 & 4-72
Project Description	Equip 2 drinking water wells 4-69 and 4-72 located in the Antelope Valley. These wells are to be used as a secondary source of water supply and also are an important alternative source in case of any damage to the AVEK Aqueduct - Antelope Valley's primary source of water supply.
Related Hazard(s)	Earthquake, Terrorism, Water Disruption
Estimated Cost	$800,000
Funding Source	Capital Improvement Budget
Implementation Date	FY 05/06
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy EQ-19 (Mitigation)

Responsible Agency	Los Angeles County Coroner
Program Name	Building Upgrades
Project Description	As detailed in a facility audit of March 2002, upgrade the Forensic Science Center buildings to improve fire life safety and earthquake resistance. Provide a backup power source sufficient for the facility to operate during power outages.
Related Hazard(s)	Earthquake, Fire
Estimated Cost	TBD
Funding Source	General Fund
Implementation Date	FY-05-06
Goal Addressed	More effective emergency services
Priority Ranking	High

Wild Land Urban Interface Fires (WF)

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest (CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
WF1	X	P																		
WF2	X	P	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WF3		X									X									
WF4	X	P									X	X	X						X	
WF5	X	P									X								X	
WF6		P									X									
WF7		P									X									
WF8		P									X									
WF9		P									X									
WF10		P									X									
WF11		P									X									
WF12		P																		
WF13	X	P		X																
WF14	X	P		X																
WF15		P		X																

Strategy WF-1 (Mitigation)

Develop a policy that will address issues related to limited construction under transmission lines.

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** Prevention Bureau
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Earthquake

Strategy WF-2 (Response)

Develop a comprehensive response plan and protocols to define philosophy, resources, guidelines and contacts for large-scale events such as terrorism or disasters

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** Prevention Bureau
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** All Hazards

Strategy WF-3 (Response)

Develop a helispot directory to include helispots, snorkel sites, and portable tank sites to enhance our ability to safely deploy our helicopter fleet and double the number of available water access sites at wildland fire incidents.

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** North Operations Bureau
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Large Venue Fires

Strategy WF-4 (Preparedness)

Ensure the completion of the specific assigned portions of the Emergency Operations Directory including resource information and guidelines for incident management

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** All Regional Operations Bureaus & Field Divisions
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Earthquake, Large Venue Fires, Explosions, Hazardous Materials Incidents, Transportation Accidents

Strategy WF-5 (Preparedness)

Develop and implement a plan for the physical plant including headquarters (RFP and funding) and heliport

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** Support Services Bureau, Maintenance & Construction Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Earthquake, Large Venue Fires, Explosions,

Strategy WF-6 (Response)

Complete the implementation of the Infrared Command Unit

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** Forestry Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- Related Hazard: Large Venue Fires

Strategy WF-7 (Mitigation)

Expand customer/stakeholder outreach through the reassessment and development of recommendations for the existing Very High Fire Hazard Severity Zone in the unincorporated area of Los Angeles County

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** Forestry Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Large Venue Fires

Strategy WF-8 (Response)

Identify and correct delay points in the procurement process for Aircraft on Ground (AOG) resulting in a 25% reduction in turn around time

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** Air & Wildland Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Large Venue Fires

Strategy WF-9 (Response)

Develop and recommend a proposal for implementing a third 24-hour air squad in the Antelope Valley

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** Air & Wildland Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Large Venue Fires

Strategy WF-10 (Response)

Lead and direct all aspects of the acquisition of a Sikorsky Firehawk helicopter, including funding, specifications and leasing, and operational use

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** North Operations Bureau
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Large Venue Fires

Strategy WF-11 (Preparedness)

Install two additional Remote Automated Weather Stations to provide more cost effective augmented staffing

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** Forestry Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Large Venue Fires

Strategy WF-12 (Mitigation)

Road Maintenance Projects for Fire Access.

The following list of road maintenance projects are designed to enhance the ability to access areas prone to fire:

ROAD	LOCATION	WORK DESCRIPTION	BUDGET	COMMENTS
553	Placerita Cyn. Rd. @ M.M. 2.57	Install trash/debris rack	$8,724	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 2.67	Install 36" CMP stand pipe & trash rack	$10,971	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 2.77	Install 36" CMP stand pipe	$10,971	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 2.94	Install 36" CMP stand pipe & trash rack	$10,971	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 3.04	Install 36" CMP stand pipe	$10,971	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 3.10	Clear pipe	$19,990	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 3.15	Install 36" CMP stand pipe	$10,971	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 3.21	Install trash/debris rack & clear pipe	$10,971	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 3.23	Install trash/debris rack & clear pipe	$8,724	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 3.57	Clear pipe	$11,000	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 3.35	Remove 60 CY sediment and debris from inlet area; Remove and replace existing inlet standpipe with 60" CMP; Install CMP elbow and downpipe on outlet to direct flows; Install rip rap at outlet.	$19,561	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 3.42	Remove 500 CY sediment from inlet area; Upgrade existing standpipe to 60"; Install vertical beam trash rack.	$19,972	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 3.82	Remove 400 CY sediment and debris from inlet area; Clear and re-stabilize existing standpipe; Upgrade existing standpipe to 60" if necessary.	$17,653	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 4.18	Remove fallen oak tree on access road; Install 60" CMP standpipe over existing inlet; Install vertical beam trash rack.	$13,912	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 4.30	Remove 400 CY of alluvial material at toe of slope. Place k-rail along shoulder as necessary.	$16,440	Protective measures as result of the Foothill Fire

ROAD	LOCATION	WORK DESCRIPTION	BUDGET	COMMENTS
553	Placerita Cyn. Rd. @ M.M. 4.33	Remove 800 CY sediment and debris from inlet area; Remove and replace existing 36" culvert with 48" CMP; Construct inlet and outlet headwalls; Fill and compact outlet area with material removed from inlet area; Install 100 tons of 2-ton rip rap at outlet.	$19,184	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 4.35	Remove 400 CY of alluvial material at toe of slope. Place k-rail along shoulder as necessary.	$14,980	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 4.64	Install 60" CMP standpipe over existing inlet; Remove interfering burned trees from work area if necessary; Install 48" CMP bypass culvert with downpipe to toe of slope.	$19,933	Protective measures as result of the Foothill Fire
553	Placerita Cyn. Rd. @ M.M. 4.97	Remove 100 CY sediment and debris from inlet area; Install 60" CMP standpipe over existing inlet; Remove interfering burned trees from work area if necessary; Install 48" CMP bypass culvert; Fill and compact outlet area with material removed from inlet ar	$19,914	Protective measures as result of the Foothill Fire
557	Mt. Emma Road @ M.M. 0.11	Install vertical beam trash rack.	$18,800	Protective measures as result of the Crown Fire
557	Mt. Emma Road @ M.M. 0.33	Install 12'x5' vertical beam trash rack.	$3,100	Protective measures as result of the Crown Fire
557	Mt. Emma Road @ M.M. 1.03	Install 12'x5' vertical beam trash rack.	$5,143	Protective measures as result of the Crown Fire
557	Mt. Emma Road @ M.M. 1.44	Install 12'x5' vertical beam trash rack.	$3,100	Protective measures as result of the Crown Fire
557	Mt. Emma Road @ M.M. 1.78	Install 12'x5' vertical beam trash rack.	$3,100	Protective measures as result of the Crown Fire
557	Mt. Emma Road @ M.M. 1.84	Install 12'x5' vertical beam trash rack.	$3,100	Protective measures as result of the Crown Fire
557	Mt. Emma Road @ M.M. 1.86	Install 12'x5' vertical beam trash rack.	$2,305	Protective measures as result of the Crown Fire
557	Mt. Emma Road @ M.M. 2.19	Install 12'x5' vertical beam trash rack.	$3,100	Protective measures as result of the Crown Fire
557	Mt. Emma Road @ M.M. 2.27	Install 12'x5' vertical beam trash rack.	$3,100	Protective measures as result of the Crown Fire
557	Mt. Emma Road @ M.M. 2.34	Install 12'x5' vertical beam trash rack.	$3,100	Protective measures as result of the Crown Fire
557	Mt. Emma Road @ M.M. 2.48	Install 12'x5' vertical beam trash rack.	$5,143	Protective measures as result of the Crown Fire
557	Mt. Emma Road @ M.M. 3.56	Install 12'x5' vertical beam trash rack.	$3,100	Protective measures as result of the Crown Fire

ROAD	LOCATION	WORK DESCRIPTION	BUDGET	COMMENTS
557	Aliso Canyon Road @ M.M. 2.28	Install 12'x5' vertical beam trash rack.	$2,579	Protective measures as result of the Crown Fire
557	Aliso Canyon Road @ M.M. 2.32	Install 12'x5' vertical beam trash rack.	$2,579	Protective measures as result of the Crown Fire
557	Aliso Canyon Road @ M.M. 3.15	Install 12'x5' vertical beam trash rack.	$2,579	Protective measures as result of the Crown Fire
557	Aliso Canyon Road @ M.M. 3.52	Install 12'x5' vertical beam trash rack.	$2,579	Protective measures as result of the Crown Fire
Total			$342,320	

Strategy WF-13 (Mitigation)

Responsible Agency	DEPARTMENT OF PUBLIC WORKS WATERWORKS AND SEWER MAINTENANCE
Program Name	ADEQUATE FIRE FIGHTING WATER SUPPLY
Project Description	Constructing additional water reservoir throughout the District for fire fighting
Related Hazard(s)	Fire Protection, Earthquake, Utility Loss.
Estimated Cost	$ 30 million
Funding Source	SPECIAL FUND
Implementation Date	NOT SCHEDULED
Goal Addressed	PROTECT LIFE AND PROPERTY
Priority Ranking	HIGH

Strategy WF-14 (Mitigation)

Responsible Agency	Department of Public Works Waterworks and Sewer Maintenance Division
Program Name	Water System Upgrades in District 21
Project Description	Replace deteriorated and undersized water system to meet the customers need for a safe, reliable water supply and provide minimum flow required by the Fire Department for residential fire protection. Upgrading the system will reduce the leaks and potential flooding of the homes in the Kagel Canyon Community. The upgrades also includes interconnection with the DWP water system to provide for a alternative secondary source of water supply in case of damage to the existing water system in the area.
Related Hazard(s)	Fire Protection,Earthquake, Utility Loss.
Estimated Cost	$5,000,000.00
Funding Source	Capital Improvement Projects.
Implementation Date	FY 2007/08
Goal Addressed	Protect Life and Property.
Priority Ranking	High

Strategy WF-15 (Mitigation)

Responsible Agency	DEPARTMENT OF PUBLIC WORKS WATERWORKS AND SEWER MAINTENANCE
Program Name	BRUSH CLEARING
Project Description	Clearing the brush around all waterworks facilities to reduce fire hazard
Related Hazard(s)	Fire Protection, Utility Loss.
Estimated Cost	$100,000.00
Funding Source	General Fund
Implementation Date	EVERY FISCAL YEAR
Goal Addressed	PROTECT LIFE AND PROPERTY
Priority Ranking	HIGH

WMD / Terrorism (WT)

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
WT1			P																	
WT2			P																	
WT3			P																	
WT4	X	X	P	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WT5			P																	
WT6			P																	
WT7			P																	
WT8			P																	
WT9			P																	
WT10			P																	
WT11			P																	
WT12			P																	
WT13			P																	
WT14			P			X														
WT15			P			X														
WT16			P								X								X	
WT17			P																	
WT18			P																	
WT19			P																	
Wt20			P			X														

Strategy WT-1 (Mitigation)

Design and implement a system of large vehicle barricades in the front and rear of the Emergency Operations Center. This would protect the building from vehicular intrusion into the building and vehicle bombs from approaching the building.

- The lead Agency would be the Los Angeles County OEM and the Sheriff's Department.
- The implementation Time frame would be 1-3 years for the design and installation of the security barriers.
- This is a Terrorism hazard mitigation strategy
- Design, engineering and installation costs are estimated to be $250,000.00
- Funding source would be the County General Fund and the Homeland Security Grants

Strategy: WT-2 WMD/Terrorism (Preparedness)

Operational Area WMD Terrorism Response Exercise Program

Phase 1 – Radiological Exercise Response Program - Year 2004

Phase 2 – Bio-Terrorism Incident Response Exercise Program - Year 2005

Phase 3 – Chemical Incident Response Exercise Program - Year 2006

Phase 4 - High Explosives Response Exercise Program - Year 2007

- **Cost:** $1,591,279. for Phase 1 and projected cost per year
- **Time Frame for Implementation:** 1 to 4 years
- **Responsible Agency:** Office of Emergency Management and Sheriff's Department Lead with Fire, Health Services and Mutual Aid Partners
- **Funding Source:** Grant Funds from Homeland Security and in 2005 Center for Disease Control Grants
- **Goal Addressed:** Protect Life and Property, Terrorism Prevention with objective of practicing first responder coordinating roles
- **Related Hazard:** WMD/Terrorism

Strategy: WT-3 WMD Terrorism Citizen Corp (Mitigation)

Support the development and capacities of Citizens Corps and other community based organizations to support public terrorism preparedness. Enhance public education and training efforts to address terrorism events. Evaluate Citizen Corp program for long term effectiveness

- **Cost:** $379,776.00
- **Time Frame for Implementation:** 1 to 4 years
- **Responsible Agency:** Sheriff's Department and Office of Emergency Management
- **Funding Source**: 80% Urban Areas Security Initiative Grant Program (UASI) 20% Los Angeles County Budget
- **Goal Addressed:** Protect Life and Property in a terrorism event
- **Related Hazard:** WMD/Terrorism

Strategy: WT-4 WMD/Terrorism Intelligence, Analysis, Management (Mitigation)

Develop an effective information gathering analysis and sharing capability to enhance event and incident management. Enhance threat assessment sharing and evaluation efforts to deter, prevent and respond to terrorism events. Enhance threat assessment sharing and evaluation efforts to deter, prevent and respond to terrorism events. Evaluate program with training and exercise needs

- **Cost:** $5,201,338
- **Time Frame for Implementation:** 1 to 4 years
- **Responsible Agency:** Office of Emergency Management and Sheriff's Department
- **Funding Source:** Urban Areas Security Initiative Grant Program, Los Angeles County Budget
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** WMD Terrorism, and this strategy will enhance preparedness to all hazards

Strategy: WT-5 Multi-jurisdictional Terrorism Center (Response)

Establish a joint Federal, State and local multi-jurisdictional terrorism Taskforce located at a central location for intelligence gathering and sharing, early warning, incident response coordination and integration. Enhance threat assessment sharing and evaluation efforts to deter, prevent and respond to terrorism events. Enhance the ability of key law enforcement and health agencies to continually collect, analyze and share appropriate intelligence information and knowledge to allow organizations and individuals to anticipate requirements and act/react effectively. Support the ability to rapidly gain access to intelligence developed by State, Federal and international agencies and conduct intelligence fusion and analysis to determine potential impact on the Los Angeles County Operation Area.

- **Cost**: $**2,000,000**
- **Time Frame for Implementation:** 1 to 4 years
- **Responsible Agency:** Agency Participation is confidential information
- **Funding Source:** Urban Area Security Initiative Grant Program, Los Angeles County Budget
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** WMD/Terrorism

Strategy: WT-6 WMD Terrorism Public Information (Mitigation)

To Provide Public Information Educational materials for terrorism dangers and actions the public can take to protect themselves. Enhance public outreach, education and community training to address terrorism events. Support the capabilities developed through Citizen Corp and other community based organizations. Provide resident and family preparedness plans and programs

- **Cost:** $52,600.00
- **Time Frame for Implementation:** 1 to 4 years
- **Responsible Agency:** Los Angeles County Sheriff's Department
- **Funding Source:** Urban Area Security Initiative Grant Program, Los Angeles County Budget
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:**WMD/Terrorism

Strategy: WT-7 WMD/Terrorism Equipment and Preparedness (Response)

Ensure emergency responders have the equipment necessary for multi-discipline response to terrorism events. Enhance threat assessment sharing and evaluation efforts and evaluation efforts to deter, prevent and respond to terrorism events. Support threat assessment collection, analysis and dissemination operations.

- **Cost:** $7,008,766.00
- **Time Frame for Implementation:** 1 to 4 years
- **Responsible Agency:** Los Angeles County Sheriff's Department, Office of Emergency Management and other Agency Participation is confidential information
- **Funding Source:** Urban Area Security Initiative Grant Program, Los Angeles County Budget
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:**WMD/Terrorism

Strategy: WT-8 WMD/Terrorism Regional Response (Response)

Establish regional terrorism response teams throughout the Operation Area. These teams would strengthen the ability of response agencies to quickly and safely secure a WMD incident and enhance safety to both the responders and the public. This strategy would ensure reduction in property losses while supporting the investigation of the potential causes of the incident.

- **Cost:** $11,446,242.00
- **Time Frame for Implementation:** 1 to 4 years
- **Responsible Agency**: Los Angeles County Sheriff's Department, Office of Emergency Management and other Agency Participation is confidential information
- **Funding Source:** Urban Area Security Initiative Grant Program, Los Angeles County Budget
- **Goal Addressed:** Regional Preparedness and Protection of Life and Property
- **Related Hazard:** WMD/Terrorism

Strategy: WT-9 Multi-jurisdictional Communications Regional and State interoperability (Response)

Develop and interoperable communications system in accordance with the Operation Area's Interoperable Communications Plan. This would include the implementation of a comprehensive voice and data interoperability Communications Plan and coordination system for all jurisdictions within the State of California. Conduct a feasibility study for existing capabilities in the State and local lst. Responder agencies which would produce a Statewide Interoperability Voice Communications Plan with required training and operational job assistance materials

- **Cost:** $3,592,409.00
- **Time Frame for Implementation:** 1 to 4 years
- **Responsible Agency:** Agency Participation is confidential information
- **Funding Source:** Urban Area Security Initiative Grant Program, Los Angeles County Budget
- **Goal Addressed:** Enhance Emergency Response and Protect Life and Property
- **Related Hazard:** WMD/Terrorism

Strategy: WT-10 (Contact submitting authority for more information)

- **Cost**: TBD
- **Time Frame for Implementation:** 1 to 4 years
- **Responsible Agency:** Agency Participation is confidential information
- **Funding Source:** Urban Area Security Initiative Grant Program, Los Angeles County Budget
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** WMD/Terrorism

Strategy: WT-11 (Contact submitting authority for more information)

- **Cost**: TBD
- **Time Frame for Implementation:** 1 to 4 years
- **Responsible Agency:** Agency Participation is confidential information
- **Funding Source:** Urban Area Security Initiative Grant Program, Los Angeles County Budget
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** WMD/Terrorism

Strategy: WT-12 WMD/Terrorism Planning (Preparedness)

Develop terrorism response plans that effectively utilize the resources of the operational area, and compliment other existing terrorism response plans that now exist. Provide for the institutionalization of terrorism emergency planning in a multi-hazard emergency planning and response process. Update the Emergency Plan Terrorism Annex as required and update local planning guidance on terrorism for the operational area

- **Cost**: $892,218.00
- **Time Frame for Implementation:** 1 to 4 years
- **Responsible Agency:** Agency Participation is confidential information
- **Funding Source:** Urban Area Security Initiative Grant Program, Los Angeles County Budget
- **Goal Addressed:** Enhance Operational Area Preparedness and Protect Life and Property
- **Related Hazard:** WMD/Terrorism

Strategy: WT-13 WMD/Terrorism (Mitigation)

Development of Federally Approved Training Programs and Courses to coordinate WMD response activities with emergency medical and the public health discipline. These course would include training exercise programs and scenarios

- **Cost**: $823,658.00
- **Time Frame for Implementation:** 1 to 4 years
- **Responsible Agency:** Emergency Management, Sheriff's Office, Public Health and the Emergency Medical Community
- **Funding Source:** Urban Area Security Initiative Grant Program, Los Angeles County Budget
- **Goal Addressed:** WMD Preparedness and Protect Life and Property
- **Related Hazard:** WMD/Terrorism

Strategy: WT-14 (Mitigation)

Program/Project Description Local Pharmaceutical Caches

The County of Los Angeles Department of Health Services Emergency Medical Services Agency has established six local pharmaceutical caches, that are maintained by the EMS Agency staff.

Additionally, 9 private hospitals are establishing pharmaceutical caches that are maintained at that facility. These caches are available for use throughout the County at the direction of the EMS Agency.

These pharmaceuticals would be used initially in the response to a terrorism event until additional supplies would be obtained through the Strategic National Stockpile Program

- **Cost** SALARIES

  F/T EMS-Agency Staff: Disaster Medical Officer, Sr. EMS Program Head, Pharmacy Technician

  F/T Bioterrorism Preparedness Program Staff: SNS Coordinator (Pharmacist)

- **Timeline/Schedule** Ongoing
- **Responsible Agency** County Department of Health Services-Emergency Medical Services Agency, State and Federal government and the Center for Disease Control
- **Financing** Operating Budget initially $450,000 budgeted for the six County caches and $150,000 budgeted annually to sustain them. Salaries and EB for

staff listed above, Metropolitan Medical Response System grant used to purchase select pharmaceuticals, National Bioterrorism Hospital Preparedness Program grant (HRSA grant) used to purchase antibiotics to treat 50,000 people for 7 days and to establish the caches at the private hospitals.

- **Goal Addressed** Increase Effectiveness of Emergency Services, Protection of Life and Property

- **Related Hazard** Health Issues, Terrorism

Strategy: WT-15 (Mitigation)

Program/Project Description Strategic National Stockpile (SNS) prepares the county for requesting, receiving, storing, staging, distributing, dispensing, and recovering SNS materiel.

SNS materiel consists of pharmaceuticals, vaccines, and related equipment LAC OA may need to respond to a large-scale chemical or biological attack that would require this materiel in greater quantities than locally available on short notice. The initial shipment of SNS materiel will be received in LAC within 12-hours after it is released by the Federal Government.

The SNS Plan for the LAC OA is a regularly updated, operational working document in which the preparedness phase, including planning, training, exercising, and evaluating is **currently being implemented and the response phase would be implemented in the event of an emergency requiring the use of SNS materiel.**

- **Cost** SALARIES, $35,000-$40,000 (added costs for all positions and projection for O/T)

  F/T EMS-Agency Staff: Disaster Medical Officer, Sr. EMS Program Head, Deputy Commander ; Communications staff (2 positions)

  F/T Bioterrorism Preparedness Program Staff: SNS Coordinator, Sr. Typist Clerk, Disaster Services Analyst

  P/T Bioterrorism Preparedness Program Staff: Student Intern

- **Transportation** - $100,000 (estimated cost) this would be to pay for the transportation of SNS products to hospitals, clinics and dispensing/vaccination centers.

- **Timeline/Schedule** Ongoing

- **Responsible Agency** County Department of Health Services-Emergency Medical Services Agency, State and Federal government and the Center for Disease Control

- **Financing** Operating Budget, Staff Time, CDC BT Preparedness Cooperative Agreement and the City Readiness Initiative

- **Goal Addressed** Increase Effectiveness of Emergency Services, Protection of Life and Property
- **Related Hazard** Health Issues, Terrorism

Strategy WT-16 (Response)

Implement First Responder: Operations-Terrorism Consequences Management (FRO-TCM) training for all sworn personnel

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** LA County Fire – Technical Services Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Explosion, Large Venue Fires

Strategy WT-17 (Mitigation)

Responsible Agency	Department of Public Works Waterworks & Sewer Maintenance Division
Program Name	Water System Security Upgrades - Waterworks District No. 29
Project Description	Install security upgrade measures for sites that were assign a rating of H(high) for risk. The project includes the following upgrades: site hardening, physical security upgrades, and access control systems, electronic monitoring devices such as digital video cameras, motion sensors, microwave and infrared detectors, intrusion detection equipment on doors, hatches, and vault lids.
Related Hazard(s)	Terrorism
Estimated Cost	$1.0 million
Funding Source	Capital Outlay Funds, Grants
Implementation Date	FY 07-08
Goal Addressed	Protection of Life and Property
Priority Ranking	High

Strategy WT-18 (Mitigation)

Responsible Agency	Department of Public Works Waterworks & Sewer Maintenance Division
Program Name	Water System Security Upgrades - Waterworks District No. 40
Project Description	Install security upgrade measures for nine sites that were assign a rating of H(high) for risk. The project includes the following upgrades: site hardening, physical security upgrades, access control systems, electronic monitoring devices such as digital video cameras, motion sensors, microwave and infrared detectors, an intrusion detection equipment on doors, hatches, and vault lids .
Related Hazard(s)	Terrorism
Estimated Cost	$1.8 million
Funding Source	Capital Outlay Funds, Grants
Implementation Date	FY 06-07
Goal Addressed	Protection of Life and Property
Priority Ranking	High

Strategy WT-19 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Implementation of Threat Assessment recommendations
Project Description	Install security enhancements at the high hazard dams per recommendations from the threat assessments.
Related Hazard(s)	WMD/Terrorism
Estimated Cost	$300,000 for first dam
Funding Source	Unknown
Implementation Date	2005 - Pending completion of specifications for standard video surveillance and alarm system
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy WT-20 (Preparedness)

Responsible Agency	Los Angeles County Coroner
Program Name	Bioterrorism Plan
Project Description	Develop a plan for dealing with agents of bioterrorism, including precautions to be taken during transportation, storage and autopsy. Evaluate the availability of biosafety level 4 facilities.
Related Hazard(s)	Biological/Health
Estimated Cost	TBD
Funding Source	General Fund
Implementation Date	FY-05-06
Goal Addressed	More effective emergency services
Priority Ranking	High

Utility Loss (UL)

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
UI1	X			P																X
UI2	X			P																X

Strategy UL-1 (Mitigation)

Install Emergency Generator

- **Location**: 11236 Playa Ct, Culver City, ISD FOS Dist 3 Headquarters –
- **Cost:** TBD
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** Internal Services Department
- **Funding Source/Financing:** TBD
- **Goal Addressed:** Increase effectiveness of emergency services
  Protect Life & Property
- **Related Hazard:** Earthquake, Severe Weather

Strategy UL-2 (Mitigation)

Install Emergency Generator

- **Location**: 9230 E Imperial Hwy, Downey, ISD FOS Dist 4 Headquarters –
- **Cost:** **$**31,000
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** Internal Services Department
- **Funding Source/Financing:** TBD
- **Goal Addressed:** Increase effectiveness of emergency services
  Protect Life & Property
- **Related Hazard:** Earthquake, Severe Weather

Flood (FL)

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest (CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
FL1					P															
FL2					P															
FL3	X	X			P												X			X
FL4					P															
FL5	X	X			P															
FL6	X	X			P															
FL7	X	X			P															
FL8					P											X				
FL9					P															
FL10					P											X				
FL11	X	X			P															
FL12					P													X		
FL13	X			X	P															
FL14					P												X			
FL15					P												X			
FL16					P												X			
FL17					P												X			
FL18					P												X			
FL19					P												X			
FL20					P												X			
FL21					P												X			
FL22					P												X			
FL23					P												X			
FL24					P												X			
FL25					P												X			
FL26					P												X			
FL27					P												X			
FL28					P												X			
FL29					P												X			
FL30					P												X			
FL31					P												X			
FL32					P													X		

Strategy FL-1 (Mitigation)

Background: New development in watersheds usually increases the ground area covered by impermeable surfaces, reducing infiltration, increasing runoff, and potentially raising flood levels.

Enforce the National Flood Insurance (NFIP) cumulative impact analysis requirements: The NFIP should develop criteria for the enforcement of existing requirements for the cumulative impacts of further development. Local jurisdictions should consider tightening regulations so that the new structures must accommodate flooding at least one foot higher then the current regulations require.

- **Lead Agencies:** NFIP, California Department of Water Resources, local jurisdictions, California Reclamation Board
- **Funding Sources:** Federal Flood Insurance Program, FEMA Grants
- **Implementation time** 1 to 3 years

Strategy FL-2 (Mitigation)

Initiate studies of areas where landslides, threaten or are already damaging existing development and prepare plans for controlling the hazard. Once plans are developed, encourage the formation of geologic hazard abatement districts through the State to provide funding for mitigation measures to stabilize the areas.

Background: California law (CPRC Sections 26500-26654) provides for the creation of a geologic Hazard Abatement District (GHADS). GHADS are empowered to raise money from property owners to fund geologic hazard mitigation measures such as the construction and maintenance of drainage and dewatering facilities to maintain slope stability.

Once a property has been identified as a geologic hazard this information must be disclosed to future buyers of the property.

- **Funding Sources**: FEMA Hazard Mitigation Grant Funds, Local Assessments, State funding support.
- **Lead Agencies:** State and Local governments
- **Implementation:** 1 to 9 years

Strategy FL-3 (Mitigation)

HIGH PRIORITY Building & Code Restrictions in Flood Hazard Zones. (See supporting documentation for project specifics.)

- **Location**: 11236 Playa Ct, Culver City, ISD FOS Dist 3 Headquarters –
- **Cost:** Varies dependent on construction code applications
- **Time Frame for Implementation:** Ongoing
- **Responsible Agency:** Department of Public Works Building & Safety Division
- **Funding Source/Financing:** Fees for services – General Fund
- **Goal Addressed:** Protect lives and property
- **Related Hazard:** Earthquake, Large Venue Fires, Severe Weather, Land Slides

Supporting documentation for Strategy FL-3

Under the provisions of the "Building Code" Title 26 of the Los Angeles County Code minimum standards to preserve the public peace , health and safety for the design construction , quality of materials, use, occupancy, location and maintenance of all buildings , structures , grading and certain equipment are regulated.

Under Section 110. 1 of the Building Code (see attached) buildings and other structures are not permitted in an area determined by the Building Official to be Subject to Flood Hazard by reason of inundation , overflow or erosion. The placement of the building and other structures (including walls and fences) on the building site shall be such that water or mud flow will not be a hazard to the building or adjacent property.

Subject to the conditions of Subsection 110, this prohibition shall not apply when provision is made to eliminate such hazard to the satisfaction of the Department of Public Works by providing adequate drainage facilities by protective walls , suitable fill , raising the floor level of the building, a combination of these methods or by other means. The Department of Public Works, in the application of this Subsection, shall enforce, as a minimum, the current Federal Flood Plain Management Regulations defined in Title 44, Code of Federal Regulations, Section 60. (Ord. 95-0065 ~ 3 (part), 1995.

Under Section 110 of the Building Code (see attached) portions of the unincorporated territory of the County of Los Angeles subject to severe flood hazard by reason of inundation , overflow, erosion or deposition of debris are established as floodways by Chapter 11. 60 of Title 11 of the Los Angeles County Code. A person shall not perform work for which a building or grading permit is required within the boundaries of an established floodway if such work increases the flood hazard to adjacent properties by either increasing the capital flood water surface elevation , deflecting flows or increasing bank erosion. Such work may be performed within an established floodway, and a building or grading permit therefore may be issued, where provisions are made to the satisfaction of the Building Official to avoid such an increase in the flood hazard. (Ord. 95-0065 ~ 3

(part), 1995. All buildings, structures, and grading plans are reviewed for compliance with the Building Code. For your reference attached are copies of the grading and building plan review sheets used by this Department. Including Chapter 11.6 of Title 11 of the Los Angeles Code.

Strategy FL-4 (Mitigation)

Responsible Agency	Department of Public Works Environmental Programs Division
Program Name	Stormwater Program
Project Description	Inspections are conducted of commercial and industrial sites for compliance with state and local regulations on stormwater issues. During the inspections handouts are given to the public on best management practices. Approximately 1500 inspections are conducted during the permit period.
Related Hazard(s)	Flood
Estimated Cost	TBD- To be determined later
Funding Source	Possible Federal and/or State assistance.
Implementation Date	Ongoing program inspections are done on a routine basis based on the permit requirement.
Goal Addressed	Prevention of pollutants entering the storm drain system. Improve quality of runoff from inspection site.
Priority Ranking	Medium

Strategy FL-5 (Mitigation)

Responsible Agency	Department of Public Works Flood Maintenance Division
Program Name	F002 - EMERGENCY FLOOD CONTROL
Project Description	This program is used for activities related to the inspection of flood control facilities where storm-related problems are likely to occur. Support services are also provided.
Related Hazard(s)	FLOOD, EARTHQUAKE, FIRE
Estimated Cost	$618,400 (FMD 2004/05 Budget)
Funding Source	Flood Fund
Implementation Date	TBD
Goal Addressed	Protection of Lives and Property
Priority Ranking	High

Strategy FL-6 (Mitigation)

Responsible Agency	DEPARTMENT OF PUBLIC WORKS FLOOD MAINTENNACE DIVISION
Program Name	F005- O&M OF CHANNEL IMPROVEMENTS
Project Description	This program is used to operate and maintain open channel and underground storm drains, that involve activities of routine nature. Work performed under this program includes contract administration, inspection of maintenance contracts, services, geotechnical investigations, material testing and analysis, various mapping and property management services, survey services, and electrical and craft services. Environmental documents and mitigation measures necessitated by the O&M activities are also under this program. Expenditures by both field and office personnel are included as well as contract payments for ordinary maintenance work (catch basin cleaning, trash and debris removal, right-of-way clearing, etc).
Related Hazard(s)	FLOOD, EARTHQUAKE, FIRE
Estimated Cost	$23,326,700 (FMD 2004/05 Budget)
Funding Source	Flood Fund
Implementation Date	TBD
Goal Addressed	Safety of Lives and Property
Priority Ranking	TBD

Strategy FL-7 (Mitigation)

Responsible Agency	DEPARTMENT OF PUBLIC WORKS FLOOD MAINTENNACE DIVISION
Program Name	F007- O&M OF RUNOFF REGULATION FACILITIES
Project Description	This program is used for activities related to the operation and maintenance of flood control facilities (dams and retention/detention facilities) and their appurtenances. Work performed under this program includes maintenance service contract administration, material testing and analysis, geotechnical investigations, various mapping and property management functions, electrical and craft services, and surveying. Other work performed under this program includes collecting, processing, and maintaining hydrologic data; preparing operation plans; maintaining related instruments; conducting surveillance activities at dams; repair of telemetry and alarm systems; developing reservoir management plans; implementing sediment removal projects; preparing hydrologic analysis; preparing environmental documents; and conducting reservoir routing studies and dam break analyses. Work also includes drainage and removing debris from reservoirs.
Related Hazard(s)	FLOOD, EARTHQUAKE, FIRE
Estimated Cost	$10,519,500 (FMD 2004/05 Budget)
Funding Source	Flood Fund
Implementation Date	TBD
Goal Addressed	Safety of Lives & Property
Priority Ranking	High

Strategy FL-8 (Mitigation)

Responsible Agency	DEPARTMENT OF PUBLIC WORKS FLOOD MAINTENACE DIVISION
Program Name	F056- O&M OF PUMPING PLANTS
Project Description	This program is used for activities related to the operations and maintenance of pumping plants designed to pump storm runoff. Activities performed under this program include maintaining and repairing instruments, equipment, and craft services. Environmental documents and mitigation measures necessitated by the O&M activities are also under this program.
Related Hazard(s)	Dam Failure
Estimated Cost	$2,315,700 (FMD 2004/05 Budget)
Funding Source	Flood Fund
Implementation Date	TBD
Goal Addressed	Safety of Lives and Property
Priority Ranking	High

Strategy FL-9 (Mitigation)

Responsible Agency	DEPARTMENT OF PUBLIC WORKS FLOOD MAINTENNACE DIVISION
Program Name	F068- HAZARDOUS MATERIAL CLEANUP
Project Description	This program is used for all costs and activities associated with the unplanned cleanup of hazardous materials discharged into Flood Control District facilities and/or from site assessment.
Related Hazard(s)	
Estimated Cost	$815,200 (FMD 2004/05 Budget)
Funding Source	Flood Fund
Implementation Date	TBD
Goal Addressed	Safety of Lives & Property
Priority Ranking	High

Strategy FL-10 (Mitigation)

Responsible Agency	DEPARTMENT OF PUBLIC WORKS FLOOD MAINTENNACE DIVISION
Program Name	F010 - O&M OF DEBRIS CONTROL FACILITIES
Project Description	This program is used for activities related to the operation and maintenance of debris basins and sediment placement sites, drainage and removal of vegetation, and debris from debris basins. Work performed under this program includes geotechnical (geology and soils) investigations, material testing and analysis, various mapping and property management functions, craft and electrical services, preparation of environmental documents and ensure compliance with regulatoryrequirements, sediment removal, and surveying. Other work performed under this program includes monitoring debris inflow and preparing recommendations on cleanouts, developing sediment placement site re-vegetation plans for cleanout activities, coordinating the acquisition of permits, and conducting safety surveillance at debris basins.
Related Hazard(s)	Dam Failure
Estimated Cost	$6,168,800 (FMD 2004/05 Budget)
Funding Source	Flood Fund
Implementation Date	TBD
Goal Addressed	Safety of Lives and Property
Priority Ranking	High

Strategy FL-11 (Mitigation)

Responsible Agency	DEPARTMENT OF PUBLIC WORKS FLOOD MAINTENNACE DIVISION
Program Name	F207- O&M OF STORM DRAIN IMPROVEMENTS
Project Description	This program is used to operate and maintain underground storm drains which includes all catch basins. Work performed under this program includes contract administration, work and services performed under a maintenance contract, geotechnical investigations, material testing and analysis, various mapping and property management services and survey services. Expenditures by both field and office personnel are included as wells as contract payments for ordinary maintenance work.
Related Hazard(s)	FLOOD, EARTHQUAKE, FIRE
Esitmated Cost	$3,000,000
Funding Source	Flood Fund
Implementation Date	TBD
Goal Addressed	Safety of Lives and Property
Priority Ranking	High

Strategy FL-12 (Mitigation)

Responsible Agency	Department of Public Works Road Maintenance
Program Name	Special Road District Fund (Sup-district Projects - SR11)
Project Description	See Mitigation Strategy WF-12'
Related Hazard(s)	Roadwaywashout
Esitmated Cost	See Mitigation Strategy WF-12'
Funding Source	464 (Special Road District 5 - CP5)
Implementation Date	by the end of 04/05 Fiscal Year
Goal Addressed	To prevent drainage pipes from being plugged up by debris generated from the burned slopes. Subsequently, this will help minimizing the potential washout done to the roadway.
Priority Ranking	High

Strategy FL-13 (Mitigation)

Responsible Agency	Department of Public Works Waterworks and Sewer Maintenance Division
Program Name	Tank Site Modifications
Project Description	Design and construct water diverting systems to retrofit 16 tank sites in Malibu and Antelope Valley to prevent flooding of the homes and businesses surrounding the tank sites in case of a tank rupture due to a significant seismic occurrence or other disaster. The diverting systems, would include the construction of retaining walls, flood gates, drainage systems and drainage courses, weep holes, etc., to control the flow of water and divert water safely away from homes and businesses surrounding the tank sites.
Related Hazard(s)	Flood, Earthquake, Utility Loss.
Estimated Cost	$1,300,000.00
Funding Source	Capital Improvement Projects.
Implementation Date	FY 2007/08
Goal Addressed	Protect Life and Property.
Priority Ranking	High

Strategy FL-14 (Preparedness)

Responsible Agency	Department of Public Works Watershed Management Division
Program Name	FEMA - Community Rating System
Project Description	Under the FEMA's Community Rating System requirement, conduct an outreach program to educate the general public and especially residents living in a flood prone unincorporated areas of the County of Los Angeles.
Related Hazard(s)	Floods
Esitmated Cost	$30, 000
Funding Source	Flood - (F006)
Implementation Date	June 31, 2006
Goal Addressed	The goal is to increase the level of flood dangers awareness on the public.
Priority Ranking	High

Strategy FL-15 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Debris Basin Enlargement Program
Project Description	Aliso Debris Basin Enlargement Project: modification to the facility by raising the spillway elevation and over-excavating to increase sediment storage capacity to design debris requirement.
Related Hazard(s)	Potential basin sediment overflow causing mudflow/flooding hazard to downstream development.
Estimated Cost	TBD = Cost Information To be Determined Later
Funding Source	General Fund
Implementation Date	Not Scheduled
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-16 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Debris Basin Enlargement Program
Project Description	Big Briar Debris Basin Enlargement Project: modification to the facility by raising the spillway elevation and over-excavating to increase sediment storage capacity to design debris requirement.
Related Hazard(s)	Potential basin sediment overflows causing mudflow/flooding hazard to downstream development.
Estimated Cost	TBD = Cost Information To be Determined Later
Funding Source	General Fund
Implementation Date	Not Scheduled
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-17 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Debris Basin Enlargement Program
Project Description	Dry Canyon South Fork Debris Basin Enlargement Project: modification to the facility by raising the spillway elevation and overexcavating to increase sediment storage capacity to design debris requirement.
Related Hazard(s)	Potential basin sediment overflow causing mudflow/flooding hazard to downstream development.
Estimated Cost	TBD = Cost Information To be Determined Later
Funding Source	General Fund
Implementation Date	Not Scheduled
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-18 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Debris Basin Enlargement Program
Project Description	Emerald East Debris Basin Enlargement Project: modification to the facility by raising the spillway elevation and over-excavating to increase sediment storage capacity to design debris requirement.
Related Hazard(s)	Potential basin sediment overflows causing mudflow/flooding hazard to downstream development.
Estimated Cost	TBD = Cost Information To be Determined Later
Funding Source	General Fund
Implementation Date	Not Scheduled
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-19 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Debris Basin Enlargement Program
Project Description	Englewild Debris Basin Enlargement Project: modification to the facility by raising the spillway elevation and over-excavating to increase sediment storage capacity to design debris requirement.
Related Hazard(s)	Potential basin sediment overflows causing mudflow/flooding hazard to downstream development.
Estimated Cost	TBD = Cost Information To be Determined Later
Funding Source	General Fund
Implementation Date	Not Scheduled
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-20 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Debris Basin Enlargement Program
Project Description	Goss Debris Basin Project: Construct new debris basin to replace existing storm drain inlet
Related Hazard(s)	Mudflow/flooding hazard to downstream development.
Estimated Cost	TBD = Cost Information To be Determined Later
Funding Source	General Fund
Implementation Date	Not Scheduled
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-21 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Debris Basin Enlargement Program
Project Description	Hog Debris Basin Enlargement Project: modification to the facility by raising the spillway elevation and over-excavating to increase sediment storage capacity to design debris requirement.
Related Hazard(s)	Potential basin sediment overflow causing Mudflow/flooding hazard to downstream development.
Estimated Cost	TBD = Cost Information To be Determined Later
Funding Source	General Fund
Implementation Date	Not Scheduled
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-22 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Debris Basin Enlargement Program
Project Description	Linda Vista Debris Basin Project: modification to the facility by raising the spillway elevation and over-excavating to increase sediment storage capacity to design debris requirement.
Related Hazard(s)	Mudflow/flooding hazard to downstream development.
Estimated Cost	TBD = Cost Information To be Determined Later
Funding Source	General Fund
Implementation Date	Not Scheduled
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-23 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Debris Basin Enlargement Program
Project Description	Mull Debris Basin Enlargement Project: modification to the facility by raising the spillway elevation and over-excavating to increase sediment storage capacity to design debris requirement.
Related Hazard(s)	Potential basin sediment overflow causing Mudflow/flooding hazard to downstream development.
Estimated Cost	TBD = Cost Information To be Determined Later
Funding Source	General Fund
Implementation Date	Not Scheduled
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-24 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Debris Basin Enlargement Program
Project Description	Pickens Debris Basin Enlargement Project: modification to the facility by raising the spillway elevation and Over-excavating to increase sediment storage capacity to Design debris requirement.
Related Hazard(s)	Potential basin sediment overflow causing Mudflow/flooding hazard to downstream development.
Estimated Cost	TBD = Cost Information To be Determined Later
Funding Source	General Fund
Implementation Date	Not Scheduled
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-25 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Debris Basin Enlargement Program
Project Description	Sombrero Debris Basin Enlargement Project: modification to the facility by raising the spillway elevation and over-excavating to increase sediment storage capacity to design debris requirement.
Related Hazard(s)	Potential basin sediment overflow causing Mudflow/flooding hazard to downstream development.
Estimated Cost	TBD = Cost Information To be Determined Later
Funding Source	General Fund
Implementation Date	Not Scheduled
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-26 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Debris Basin Enlargement Program
Project Description	Starfall Debris Basin Enlargement Project: modification to the facility by raising the spillway elevation and over-excavating to increase sediment storage capacity to design debris requirement.
Related Hazard(s)	Potential basin sediment overflow causing Mudflow/flooding hazard to downstream development.
Estimated Cost	TBD = Cost Information To be Determined Later
Funding Source	General Fund
Implementation Date	Not Scheduled
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-27 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Debris Basin Enlargement Program
Project Description	Sullivan Debris Basin Enlargement Project: modification to the facility by raising the spillway elevation and over-excavating to increase sediment storage capacity to design debris requirement.
Related Hazard(s)	Potential basin sediment overflow causing Mudflow/flooding hazard to downstream development.
Estimated Cost	TBD = Cost Information To be Determined Later
Funding Source	General Fund
Implementation Date	Not Scheduled
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-28 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Debris Basin Enlargement Program
Project Description	Sunnyside Debris Basin Enlargement Project: modification to the facility by raising the spillway elevation and over-excavating to increase sediment storage capacity to design debris requirement.
Related Hazard(s)	Potential basin sediment overflow causing Mudflow/flooding hazard to downstream development.
Estimated Cost	TBD = Cost Information To be Determined Later
Funding Source	General Fund
Implementation Date	Not Scheduled
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-29 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Debris Basin Enlargement Program
Project Description	Verdugo Debris Basin Enlargement Project: modification to the facility by raising the spillway elevation and over-excavating to increase sediment storage capacity to design debris requirement.
Related Hazard(s)	Potential basin sediment overflow causing Mudflow/flooding hazard to downstream development.
Estimated Cost	TBD = Cost Information To be Determined Later
Funding Source	General Fund
Implementation Date	Not Scheduled
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-30 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Debris Basin Enlargement Program
Project Description	William S. Hart Park Debris Basin Enlargement Project: modification to the facility by raising the spillway elevation and over-excavating to increase sediment storage capacity to design debris requirement.
Related Hazard(s)	Potential basin sediment overflow causing Mudflow/flooding hazard to downstream development.
Estimated Cost	TBD = Cost Information To be Determined Later
Funding Source	General Fund
Implementation Date	Not Scheduled
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-31 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Post-Burn Mudflow Protection Advice
Project Description	Mudflow Protection Advice: evaluate potential mudflow hazard to occupied properties within/below burned areas and provide mudflow protective advice to property owners potentially impacted by mudflow and flooding. Determine the phase potential of an impending storm and issue debris and mudflow potential forecasts to emergency response agencies and impacted Divisions.
Related Hazard(s)	Potential mudflow/flooding damage to properties.
Estimated Cost	$50,000 per year
Funding Source	General Fund
Implementation Date	Ongoing
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy FL-32 (Mitigation)

Responsible Agency	Department of Public Works Road Maintenance Division – Maintenance District 1
Program Name	Upgrade drainage culverts
Project Description	Upgrade the four culverts on Mt Baldy Rd at MMs 1.34, 1.65, 1.96, and 8.85 to provide adequate and higher protection than the <1 year flow burned and bulked flood rates. The above mentioned culverts failed during the big storm events of December 2003 subsequent to the wildfire, causing 50 feet or road lane and 100 feet of shoulders to be washed.
Related Hazard(s)	Road and shoulders failures
Estimated Cost	$1,200,000
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Provide higher flood protection to our roadway and its embankments.
Priority Ranking	High

Biological / Health (BH)

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
BH1	X		X		X	P														
BH2	X		X		X	P														
BH3	X		X		X	P	X					X	X	X						
BH4	X		X		X	P	X					X	X	X						
BH5			X			P														
BH6	X		X		X	P	X					X	X	X						
BH7	X		X		X	P	X					X	X	X						
BH8	X		X		X	P	X					X	X	X						
BH9	X		X		X	P	X					X	X	X						
BH10	X		X		X	P	X					X	X	X						
BH11			X			P							X	X						
BH12			X			P							X	X						

Strategy BH-1 (Response)

Program Name

Mobile Emergency Control Center (ECC):

Project Description

A Command Post trailer is being purchased to be use as the Public Health Emergency Control Center:

- It will be equipped with CWIRS radios, and other communication systems.
- The mobile ECC will have an area designated for the Public Health Incident Command System and will be in compliance with the Statewide Standardized Emergency Management System (SEMS) which is in conformance with the National Incident Management System (NIMS).
- The mobile ECC will also be deployed to respond to local emergency/disaster situations, as a Command Post.

Estimated Cost - Fund allocated to this project is approximately of $100,000.

Funding Source - General Fund

Implementation Date - End of CY 2004

Goal Addressed - More effective emergency services

Related Hazards - WMD/Terrorism, Earthquake, Flood

Responsible Agency

The mobile ECC will be deployed with the DHS Mobile Departmental Operations Center (DOC) and will collect epidemiological information to be shared with the mobile DOC.

Priority - High

Strategy BH-2 (Response)

Program Name

County Wide Integrated Radio System (CWIRS)

Project Description

120 radios were purchased to replace the first model, MP-A Scan radios, which are no longer manufactured.

Estimated Cost

The cost of the new radios was over $240,000.

Funding Source

General Fund

Implementation Date

End of CY 2004

Goal Addressed

More effective emergency services

Related Hazards

WMD/Terrorism, Earthquake, Flood

Responsible Agency

Some of the new radios have been assigned to designated staff who will be performing different functions upon activation of the Public Health Incident Command System.

Priority

High

Strategy BH-3 (Response)

Program Name

Permanent location for the Emergency Control Center

Project Description

Design and build a permanent location for the Emergency Control Center (ECC). Currently two conference rooms, one at Public Health Headquarters and one at one Clinic adjacent to headquarters are "wired" to become an ECC location if needed. Issues of security, continuity of emergency coordination work (monitoring activities and amenities for around the clock work shifts), accommodation for emergency command staff, and accessibility, underscored the need for a permanent location. Funds for this location are lacking.

Estimated Cost

The estimated funds needed to conduct this project is TBD

Funding Source

TBD

Implementation Date

TBD

Goal Addressed

More effective emergency services

Related Hazards

All hazards with health-related indications

Responsible Agency

Department of Public Health

Priority

Moderate

Strategy BH-4 (Mitigation)

Program Name

Visual Confidential Morbidity Report (in place)

Project Description

Implementation of the web-secured system Visual Confidential Morbidity Report (VCMR), which allows real time electronic disease reporting, tracking , investigation and employs multiple channels for routine communications by automatically alerting key staff via phone, pager, and/or e-mail.

Estimated Cost

Estimated cost is of $1.5 million

Funding Source

This project is CDC funded.

Implementation Date

TBD

Goal Addressed

More effective emergency services

Related Hazards

All hazards with health-related indications

Responsible Agency

Department of Public Health

Priority

High

Strategy BH-5 (Mitigation)

Program Name

Smallpox vaccination (executed)

Project Description

Vaccinated Public Health Response and Healthcare Response Team staff for Smallpox and trained staff on mass vaccination.

Estimated Cost

Not Available

Funding Source

This project is CDC funded.

Implementation Date

Completed

Goal Addressed

Protect lives

Related Hazards

WMD/Terrorism

Responsible Agency

Department of Public Health

Priority

High

Strategy BH-6 (Preparedness)

Program Name

Public Health Laboratory (in progress)

Project Description

Renovation of a new Public Health Laboratory facility in order to meet the standards for advanced biological (level C) and chemical (level 2) testing.

Estimated Cost

Approximate budget of $9 million

Funding Source

Funded by CDC

Implementation Date

End of CY 2004

Goal Addressed

More effective emergency services

Related Hazards

All hazards with health-related indications

Responsible Agency

Department of Public Health

Priority

High

Strategy BH-7 (Response)

Program Name

Health Alert System Training and Educational Network (HASTEN)

Project Description

Construction of a secure communication platform and portal for healthcare professionals and emergency response partners. This communication channel provides the capability for rapid distribution of critical health alerts and broadcasted advisories through a variety of mechanisms such as blast fax, mobile devices, and two-way pagers. The Health care Data Exchange (HEDEX) is included in HASTEN.

Estimated Cost

Estimated cost is of $2 million

Funding Source

General Fund

Implementation Date

Mid CY 2005

Goal Addressed

More effective emergency services

Related Hazards

All hazards with health-related indications

Responsible Agency

Department of Public Health

Priority

High

Strategy BH-8 (Preparedness)

Program Name

Learning Management System.

Project Description

This system it will be able to register, track, and administer training to Public Health professionals and emergency response partners via the web.

Estimated Cost

Estimated cost is of $900,000.

Funding Source

General Fund

Implementation Date

(Implemented August 2004)

Goal Addressed

More effective emergency services

Related Hazards

All hazards with health-related indications

Responsible Agency

Department of Public Health

Priority

High

Strategy BH-9 (Mitigation)

Program Name

Field-based hardware

Project Description

All-in-one" offices equipment (4) to be used by Special Teams such as PHERRT.

Estimated Cost

Estimated cost of $65,000.00

Funding Source

TBD

Implementation Date

TBD

Goal Addressed

More effective emergency services

Related Hazards

All hazards with health-related indications

Responsible Agency

Department of Public Health

Priority

Moderate

Strategy BH-10 (Mitigation)

Program Name

LINK and SNS (in development)

Project Description

Enhancing the Los Angeles Immunization Network (LINK) registry to support data management needs of mass vaccinations/prophylaxis situations. Additional modules to support the receipt, storage, and staging of the Strategic National Stockpile and other medical assets within the jurisdictions.

Estimated Cost

Estimated cost is of $2.2 million

Funding Source

TBD

Implementation Date

TBD

Goal Addressed

More effective emergency services

Related Hazards

All hazards with health-related indications

Responsible Agency

Department of Public Health

Priority

High

Strategy BH-11 (Mitigation)

Program/Project Description	**Mass Casualty/Shelter/evacuation: Shelter Screening Process** Establish a process for screening potentially contaminated victims of a public health disaster as a pre-admission requirement prior to being allowed into a Red Cross shelter. Victims of an incident which involves any level of contamination (Biological, radiological or chemical) and thus a public health threat will be assessed and triaged at the secured incident site (red zone). Victims of an incident which involves any level of contamination (Biological, radiological or chemical) and thus a public health threat will be assessed and triaged at the secured incident site (red zone). Fire and other First responders will determine if the incident victims have been exposed to contaminants. If the victims have not been exposed to the contaminants they be identified a such and released to go home or to a Red Cross (green zone) shelter (depending on the severity of the incident). If the victims are determined to be exposed to contaminants, they will be assessed by public health staff and either decontaminated or transported to an appropriate medical facility. Decontaminated victims and victims originally determined to be "clean" wishing to enter a Red Cross Shelter will be screened at the shelter by a public health nurse and security staff prior to admittance. Shelters are for "healthy" victims only. If this screening process identifies victims in need of further medical treatment, Red Cross staff will call for medical assistance from appropriate public health or emergency medical professionals. All otherwise "healthy" victims will be allowed to enter the shelter. This process has been adopted by the American Red Cross and is part of the Federal National Emergency Response Plan for processing victims of public health disasters.
Cost	Full Time Equivalent currently funded
Timeline/Schedule	Start time: August 2004 Finish Time: March 2005.
Responsible Agency	American Red Cross, DPSS, Department of Health Services, L.A. County Fire, L.A. County Sheriff, City of Los Angeles Fire
Financing	Staff time
Goal Addressed	Protect Lives and Property Increase effectiveness of Emergency Services Strengthen partnerships
Related Hazard	Terrorism, Biological, Chemical and Nuclear Hazards, but applicable to all hazards.

Strategy BH-12 (Response)

Responsible Agency	Los Angeles County Coroner
Program Name	Specialized Equipment
Project Description	Purchase equipment and provide staff training to work in areas containing hazardous organisms, chemicals, or radiation sources. Develop a plan for maintaining specialized equipment.
Related Hazard(s)	HAZMAT, WMD/Terrorism, Radiological
Estimated Cost	TBD
Funding Source	General Fund
Implementation Date	FY-05-06
Goal Addressed	More effective emergency services
Priority Ranking	High

Water / Waste Water (WW)

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
WW1	X		X				P													
WW2	X		X				P													
WW3	X		X				P													
WW4	X		X				P													
WW5	X			X			P													
WW6	X			X			P													
WW7	X		X	X			P													
WW8	X		X	X			P													
WW9	X		X	X			P													
WW10	X	X	X				P			X	X									
WW11	X				X		P									X	X			
WW12	X				X		P									X	X			
WW13	X				X		P									X	X			
WW14	X				X		P									X	X			
WW15	X				X		P									X	X			
WW16	X				X		P									X	X			
WW17	X				X		P									X	X			
WW18	X				X		P							X		X	X			
WW19	X				X		P									X	X			

Strategy WW-1 (Mitigation)

Responsible Agency	Department of Public Works Waterworks and Sewer Maintenance Division
Program Name	Well 4-61, 4-63 and 4-64
Project Description	Equipping 3 drinking wells 4-61, 4-63, and 4-64 located in the Antelope Valley area. These wells are to be used as a secondary source of water supply and also are an important alternative source in case of any damage to the AVEK Aqueduct - Antelope Valley's primary source of water supply.
Related Hazard(s)	Earthquake, Terrorism, Water Disruption
Estimated Cost	$869,705.00
Funding Source	Capital Improvement Budget
Implementation Date	FY 04/05
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy WW-2 (Mitigation)

Responsible Agency	Department of Public Works Waterworks and Sewer Maintenance Division
Program Name	Well 27-7
Project Description	Design, Construction and Equipping of drinking well 27-7 located in the Antelope Valley. This well is to be used as a secondary source of water supply and also is an important alternative source in case of any damage to the AVEK Aqueduct - Antelope Valley's primary source of water supply.
Related Hazard(s)	Earthquake, Terrorism, Water Disruption
Estimated Cost	$500,410.00
Funding Source	Capital Improvement Budget
Implementation Date	FY 04/05
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy WW-3 (Mitigation)

Responsible Agency	Department of Public Works Waterworks and Sewer Maintenance Division
Program Name	Well 39-3
Project Description	Design, Construction and Equipping of drinking well 39-3 located in the Antelope Valley. This well is to be used as a primary source of water supply in District 39 and also is an important alternative source in case of any damage to other LACoDPW drinking water wells in the nearby regions in the Antelope Valley.
Related Hazard(s)	Earthquake, Terrorism, Water Disruption
Estimated Cost	$340,000.00
Funding Source	Capital Improvement Budget
Implementation Date	FY 04/05
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy WW-4 (Mitigation)

Responsible Agency	Department of Public Works Waterworks and Sewer Maintenance Division
Program Name	Cross Country Pipe Lines Replacement
Project Description	Design and replace the aging, leaking, deteriorating and undersized existing cross country lines with steel water mains in the City of Malibu and Topanga Community. Upgrading the system will provide Waterwork's customers with better and more reliable water supply system and provide adequate flow required by the Fire Department for residential fire suppression.
Related Hazard(s)	Earthquake, Terrorism, Water Disruption
Estimated Cost	$2,000,000.00
Funding Source	Capital Improvement Budget
Implementation Date	FY 08/09
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy WW-5 (Mitigation)

Responsible Agency	Department of Public Works Waterworks and Sewer Maintenance Division
Program Name	Equipping of Wells 4-62, 4-65, 4-67 and 4-68
Project Description	Equip four drinking water wells (4-62, 4-65, 4-67 and 4-68) located in the Antelope Valley. These well are to be used as a secondary source of water supply and also are an important alternative source in case of any damage to the AVEK Aqueduct, Antelope valley's primary source of water supply.
Related Hazard(s)	Earthquake, Utility Loss.
Estimated Cost	$1,300,000.00
Funding Source	Capital Improvement Projects.
Implementation Date	FY 2005/06
Goal Addressed	Protect Life and Property.
Priority Ranking	High

Strategy WW-6 (Mitigation)

Responsible Agency	Department of Public Works Waterworks and Sewer Maintenance Division
Program Name	Aquifer Storage and Recovery Project
Project Description	To Construct and operate injection/extraction facilities for an aquifer storage and recovery (ASR) project within the Lancaster Sub-basin in Antelope Valley. The project would require drilling and construction of 11 wells as well as installation of pump stations, pipelines and related facilities. The primary objective is to halt the long term decline of ground water level and associated land subsidence while meeting the growing demand for potable water. The project integrates management of local ground water basins with use of imported supplies of surface water. This project will also provide a secondary and an important alternative source of water supply in case of any damage to the AVEK Aqueduct, Antelope valley's primary source of water supply.
Related Hazard(s)	Earthquake, Utility Loss.
Estimated Cost	$7,000,000.00
Funding Source	Capital Improvement Projects.
Implementation Date	FY 2006/07
Goal Addressed	Protect Life and Property.
Priority Ranking	High

Strategy WW-7 (Mitigation)

Responsible Agency	Department of Public Works Waterworks & Sewer Maintenance Division
Program Name	Sepulveda Feeder Connection
Project Description	Install 1,000 feet of 30-inch pipeline to serve and alternate connection in the event that the primary source of water for Waterworks District No. 29, Malibu and Marina del Rey Water System are interrupted.
Related Hazard(s)	Utility Loss, Earthquake, Terrorism
Estimated Cost	$3.0 million
Funding Source	Capital Outlay Funds
Implementation Date	FY 07-08
Goal Addressed	Protection of Life and Property
Priority Ranking	High

Strategy WW-8 (Mitigation)

Responsible Agency	Department of Public Works Waterworks & Sewer Maintenance Division
Program Name	Calabasas/Topanga Feeder Connection Project
Project Description	Install 24,000 feet of 16-inch pipeline to serve and alternate connection in the event that the primary source of water for Topanga Canyon and Malibu residents.
Related Hazard(s)	Utility Loss, Earthquake, Terrorism
Estimated Cost	$12.0 million
Funding Source	Capital Outlay Funds
Implementation Date	FY 09-10
Goal Addressed	Protection of Life and Property
Priority Ranking	High

Strategy WW-9 (Mitigation)

Responsible Agency	Department of Public Works Waterworks & Sewer Maintenance Division
Program Name	AVEK Turnout at 45th Street West and Avenue N-8
Project Description	Install a new connection with Antelope Valley-East Kern Water Agency to increase the reliability and redundancy of water supplies into the Rancho Vista community located in West Palmdale.
Related Hazard(s)	Utility Loss, Earthquake, Terrorism
Estimated Cost	$400,000
Funding Source	Capital Outlay Funds
Implementation Date	FY 04-05
Goal Addressed	Protection of Life and Property
Priority Ranking	High

Strategy WW-10 (Mitigation)

Responsible Agency	Department of Public Works Waterworks & Sewer Maintenance Division
Program Name	Chlorination Facility Safety Enhancement
Project Description	The project involves improving and/or upgrading our existing chlorination facilities in the Los Angeles County Waterworks Districts
Related Hazard(s)	Earthquakes, fires, terrorism, and civil unrest
Estimated Cost	$2,500,000
Funding Source	Los Angeles County Waterworks Districts' Accumulated Capital Outlay (ACO) Funds
Implementation Date	TBD
Goal Addressed	To ensure public safety in the event that a disaster adversely affects one or more of our existing chlorination facilities.
Priority Ranking	High

Strategy WW-11 (Response)

Responsible Agency	Department of Public Health Water & Waste Water Management Bureau
Program Name	Improve information technology and communication equipment for field work situations
Project Description	Radio equipment for County Vehicles; Cell Phones with Walkie-Talkie capability; Alpha Pagers/Text Message Pagers; Satellite Phones for personal who work in very remote areas of Los Angeles County where regular cell phone use is non-existent; Hand Held GPS units (GPS Capability). Lap-Top Computers ; Printers ; Video Cameras ; Digital Cameras; Field use wireless fax machine; Internet Access Capability.
Related Hazard(s)	Earthquake, Flood, Landslide, Dam Failure
Estimated Cost	TBD
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Strategy WW-12 (Response)

Responsible Agency	Department of Public Health ater & Waste Water Management Bureau
Program Name	Enhance Personal Protec tion Equipment
Project Description	NIOSH-Approved full face powered air -purifying respirators with HEPA filters. (Scott) Respirator Storage Bags; Disposable protective Tyvek suits with integral hood and booties; Disposable Skid-resistant Shoe Covers; Disposable lightweight nitrile or vinyl gloves Steel Toed Boots; Protective Head Gear (Helmets); Eye Protection (Goggles) Self Contained Breathing Apparatus (SCBA); Emergency Escape Respirators; Level A Protective Suits; Hazmax Boots; Tychem Chem Tape; Ear Protection (Ear Plugs).
Related Hazard(s)	Earthquake, Flood, Landslide, Dam Failure
Estimated Cost	TBD
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Strategy WW-13 (Response)

Responsible Agency	Department of Public Health Water & Waste Water Management Bureau
Program Name	Medical Evaluations
Project Description	Conduct medical evaluations for determination that inspectors are fit to use and wear respirators
Related Hazard(s)	Earthquake, Flood, Landslide, Dam Failure
Estimated Cost	TBD
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Strategy WW-14 (Preparedness)

Responsible Agency	Department of Public Health Water & Waste Water Management Bureau
Program Name	Respirator Training
Project Description	Training and Fit testing for Respirator use
Related Hazard(s)	Earthquake, Flood, Landslide, Dam Failure
Estimated Cost	TBD
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Strategy WW-15 (Response)

Responsible Agency	Department of Public Health Water & Waste Water Management Bureau
Program Name	Emergency Supply Procurement
Project Description	First Aid Kits and CPR kits for County-owned vehicles
Related Hazard(s)	Earthquake, Flood, Landslide, Dam Failure
Estimated Cost	TBD
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Strategy WW-16 (Response)

Responsible Agency	Department of Public Health Water & Waste Water Management Bureau
Program Name	Detection Equipment and Supplies
Project Description	Personal Four Gas Meters; Hand Held Particle Counters; Infrared Thermometers; PH Meters; Radiation Monitoring Device; Light Meters. Sampling Equipment for Environmental Sampling.
Related Hazard(s)	Earthquake, Flood, Landslide, Dam Failure
Estimated Cost	TBD
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Strategy WW-17 (Response)

Responsible Agency	Department of Public Health Water & Waste Water Management Bureau
Program Name	Procure Navigation Equipment for County-owned vehicles
Project Description	Mapping Equipment: Compasses; Topographic maps
Related Hazard(s)	Earthquake, Flood, Landslide, Dam Failure
Estimated Cost	TBD
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Strategy WW-18 (Response)

Responsible Agency	Department of Public Health Water & Waste Water Management Bureau
Program Name	Procure special transportation vehicles for responders
Project Description	Four Wheel Drive Vehicles; NBC (Nuclear, Biological, and Chemical) Team Cruiser
Related Hazard(s)	Earthquake, Flood, Landslide, Dam Failure, Radiological Emergency
Estimated Cost	TBD
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Strategy WW-19 (Response)

Responsible Agency	Department of Public Health Water & Waste Water Management Bureau
Program Name	Miscellaneous Equipment
Project Description	Shovels for County Vehicles; Mud and Snow Tires For County Vehicles (Angeles Forest Access) ; Rechargeable Search Lights; Airtight equipment cases; Equipment Bags; Duffle bags; Fire Extinguishers for County Vehicles; Plastic Storage Containers for organizing and storing supplies
Related Hazard(s)	Earthquake, Flood, Landslide, Dam Failure
Estimated Cost	TBD
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Data/Telecommunications Disruption (DT)

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
DT1	X	X	X	X	X	X	X	P	X	X	X	X	X	X	X	X	X	X	X	X

Strategy DT-1 (Mitigation)

Responsible Agency	Los Angeles County Registrar
Program Name	Determine the most cost effective and efficient method of establishing data back up for their primary data preserving functions
Project Description	The Los Angeles County Registrars off handles almost all of the County's vital statistics and records from marriage licenses to property transac tions. At this time the Office does not have a back up system for their data management.
Related Hazard(s)	All Hazards
Estimated Cost	TBD
Funding Source	Funded out of their general fund budget and special fees.
Implementation Date	The time frame for this study is 24 months
Goal Addressed	More effective emergency services , Protect Vital Records & Infrastructure
Priority Ranking	High

Moderate Risk Priority Hazards

Large Venue Fires (LF)

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
LF1	X		X								P								X	
LF2	X		X								P								X	
LF3	X	X	X	X	X	X	X	X	X	X	P	X	X	X	X	X	X	X	X	X
LF4			X								P								X	
LF5	X	X									P	X	X						X	
LF6	X										P									X
LF7	X										P									X
LF8	X										P									X
LF9	X										P									X
LF10	X										P									X

Strategy LF-1 (Mitigation)

Evaluate non-sprinklered high-rise structures to develop code enforcement/changes to improve fire and life safety. Recommend an approach to revising code to require sprinklers in high-rise buildings

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** Prevention Bureau
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Earthquake, WMD/Terrorism, Explosion

Strategy LF-2 (Mitigation)

Identify and gain representation on appropriate NFPA technical committees regarding the adoption of the NFPA fire code

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** Prevention Bureau
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Earthquake, WMD/Terrorism, Explosion

Strategy LF-3 (Preparedness)

Develop a comprehensive response plan and protocols to define philosophy, resources, guidelines and contacts for large-scale events such as terrorism or disasters

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** Prevention Bureau
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** All Hazards

Strategy LF-4 (Mitigation)

Develop a Departmental program for Homeland Security to include: staffing, training, equipment, and funding sources to enhance public safety and to ensure first responder readiness

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** Special Operations Bureau
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** WMD/Terrorism, Explosion

Strategy LF-5 (Preparedness)

Ensure the completion of the specific assigned portions of the Emergency Operations Directory including resource information and guidelines for incident management

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** All Regional Operations Bureaus & Field Divisions
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Earthquake, Large Venue Fires, Explosions, Hazardous Materials Incidents, Transportation Accidents

Strategy LF-6 (Mitigation)

Asbestos & Lead Abatement in County-owned Building

- **Location**: 1100 North Eastern Avenue, ISD Administration Building A – 80,000 sq ft. (Abatement Fire Proofing – 4000 sq ft, Abatement Pipe Insulation – 50 linear feet)
- **Cost:** $201,350
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** Internal Services Department - FOS
- **Funding Source/Financing:** Special Funding
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Severe Weather, Earthquake

Strategy LF-7 (Mitigation)

Asbestos & Lead Abatement in County-owned Building

- **Location**: 1102 North Eastern Avenue, ISD Shops Building B – 168,584 sq ft. (Abatement Fire Proofing – 10,800 sq ft, Abatement Pipe Insulation – 3000 linear feet)
- **Cost:** $621,000
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** Internal Services Department - FOS
- **Funding Source/Financing:** Special Funding
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Severe Weather, Earthquake

Strategy LF-8 (Mitigation)

Asbestos & Lead Abatement in County-owned Building

- **Location**: 1104 North Eastern Avenue, ISD Automotive Building CD – 230,031 sq ft. (Abatement Fire Proofing – 14,400 sq ft, Abatement Pipe Insulation – 3000 linear feet)
- **Cost:** $801,000
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** Internal Services Department - FOS
- **Funding Source/Financing:** Special Funding
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Severe Weather, Earthquake

Strategy LF-9 (Mitigation)

Asbestos & Lead Abatement in County-owned Building

- **Location**: 1106 North Eastern Avenue, ISD Special Services Building – 13,260 sq ft. (Abatement Fire Proofing – 1200 sq ft, Abatement Pipe Insulation – 200 linear feet)
- **Cost:** $65,400
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** Internal Services Department - FOS
- **Funding Source/Financing:** Special Funding
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Severe Weather, Earthquake

Strategy LF-10 (Mitigation)

Asbestos & Lead Abatement in County-owned Building

- **Location**: 1110 North Eastern Avenue, ISD Telecom Building – 37,742 sq ft. (Abatement Fire Proofing – 3,600 sq ft, Abatement Pipe Insulation – 500 linear feet)
- **Cost:** $193,500
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** Internal Services Department - FOS
- **Funding Source/Financing:** Special Funding
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Severe Weather, Earthquake

Hazardous Materials (HM)

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
HM1			X			X							P	X						
HM2	X											X	P							
HM3	X										X	X	P						X	
HM4			X									X	P						X	
HM5			X									X	P						X	
HM6	X				X								P							
HM7													P							
HM8						X							P	X					X	

Strategy HM-1 (Preparedness)

Complete the HHMD-specific portions of the Emergency Operation Directory including resource information and guidelines for incident management

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** Health Hazardous Materials Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** WMD/Terrorism, Radiological, Biological/Health, Transportation Accident

Strategy HM-2 (Preparedness)

Complete and distribute the final copies of the Oil Spill Contingency Plan to the appropriate cities within Los Angeles County

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** Lifeguard Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Earthquake, Transportation Accident

Strategy HM-3 (Preparedness)

Ensure the completion of the specific assigned portions of the Emergency Operations Directory including resource information and guidelines for incident management

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** All Regional Operations Bureaus & Field Divisions
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Earthquake, Large Venue Fires, Explosions, Hazardous Materials Incidents, Transportation Accidents

Strategy HM-4 (Preparedness)

Develop, procure, equip, and regionally deploy a surge capacity staffing plan for four Hazardous Material Response Units

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** Technical Services Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Explosion, WMD/Terrorism, Transportation Accident

Strategy HM-5 (Preparedness)

Develop a comprehensive plan including staffing, training, and equipment acquisition for a hazardous materials unit in the Antelope Valley

- **Cost:** To be determined
- **Time Frame for Implementation:** End of CY 2004
- **Responsible Agency:** Technical Services Division
- **Funding Source:** TBD
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** WMD/Terrorism, Explosion, Transportation Accident

Strategy HM-6 (Mitigation)

Asbestos & Lead Abatement following phase 1 survey in County-owned Building

- **Location**: Various County-owned Buildings
- **Cost:** TBD
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** County of Los Angeles
- **Funding Source/Financing:** Special Fund
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** In the event of an earthquake of floods, these hazardous materials contaminate areas where citizens conduct business and employees work. Abatement of these materials will prevent exposure.

Strategy HM-7 (Mitigation)

Asbestos & Lead-based Paint Survey of County-owned Facilities built prior to 1980

- **Cost:** $4,200,000
- **Time Frame for Implementation:** TBD
- **Responsible Agency:** County of Los Angeles
- **Funding Source/Financing:** Special Fund
- **Goal Addressed:** Protect Life and Property
- **Related Hazard:** Knowing of and where these materials exist will allow a cost estimate to be prepared for abatement which will eliminate exposure to these hazardous materials.

Strategy HM-8 (Response)

Responsible Agency	Los Angeles County Coroner
Program Name	CBRNE Response Team
Project Description	Continue to develop capabilities of a Coroner Department response to any terrorist event by coordinating integration with other agencies, specialized training, participation in county wide exercises, equipment procurement, ongoing education on potential threats, and continued development of detailed response plans to chemical, biological, radiological, nuclear and high explosive events.
Related Hazard(s)	Biological/Health, Radiological, Explosion
Estimated Cost	TBD
Funding Source	General Fund
Implementation Date	FY-05-06
Goal Addressed	More effective emergency services
Priority Ranking	High

Radiological Incidents (RA)

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
RA1											X			P						
RA2											X			P						
RA3											X			P						
RA4											X			P						
RA5											X			P						
RA6											X			P						
RA7											X			P						
RA8											X			P						
RA9											X			P						

Strategy RA-1 (Mitigation)

Responsible Agency	Radiological Management Unit which is under the Environmental Health program in the Public Health Division of the Los Angeles County Department of Health Services
Program Name	Procure Radiation Portal Monitors (three)
Project Description	These are monitors people would walk through to determine if they have radioactive materials on their persons, or, using the vehicle adapter, on their vehicles.
Related Hazard(s)	Transportation Incidents
Estimated Cost	$36,000
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Strategy RA-2 (Mitigation)

Responsible Agency	Radiological Management Unit which is under the Environmental Health program in the Public Health Division of the Los Angeles County Department of Health Services
Program Name	Procure Teletectors (three)
Project Description	Instruments that measure extremely high radiation fields.
Related Hazard(s)	Transportation Incidents
Estimated Cost	$13,725
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Strategy RA-3 (Response)

Responsible Agency	Radiological Management Unit which is under the Environmental Health program in the Public Health Division of the Los Angeles County Department of Health Services
Program Name	Procure G-M Survey Meters (three more sophisticated models, and 15 more simplified units):
Project Description	General purpose survey instruments that will be utilized for many purposes, including establishing the "footprint" of a plume, an activity that will determine evacuation areas. They will also be used at evacuation centers to measure incoming people to assure they are not contaminated. If they are contaminated, staff will assist in decontaminating them.
Related Hazard(s)	Transportation Incidents
Estimated Cost	$14,262
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Strategy RA-4 (Response)

Responsible Agency	Radiological Management Unit which is under the Environmental Health program in the Public Health Division of the Los Angeles County Department of Health Services
Program Name	Procure Wipe Counters (two)
Project Description	We now have special counters to count wipes for removable contamination, & for counting air sampler filters.
Related Hazard(s)	Transportation Incidents
Estimated Cost	$5,990
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Strategy RA-5 (Response)

Responsible Agency	Radiological Management Unit which is under the Environmental Health program in the Public Health Division of the Los Angeles County Department of Health Services
Program Name	Procure Air Samplers (four)
Project Description	We now have portable air samplers to collect air, & detect airborne radioactivity
Related Hazard(s)	Transportation Incidents
Estimated Cost	$7,340
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Strategy RA-6 (Response)

Responsible Agency	Radiological Management Unit which is under the Environmental Health program in the Public Health Division of the Los Angeles County Department of Health Services
Program Name	Procure Respirators/self-contained breathing apparatus (four)
Project Description	Los Angeles County is the only radiation control office in the State who has staff qualified to wear special respiratory equipment, & who has such equipment. Use of such equipment would allow us to go into areas other radiation staff cannot enter
Related Hazard(s)	Transportation Incidents
Estimated Cost	$4,180
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Strategy RA-7 (Response)

Responsible Agency	Radiological Management Unit which is under the Environmental Health program in the Public Health Division of the Los Angeles County Department of Health Services
Program Name	Procure Self Contained Breathing Apparatus (two)
Project Description	Air tanks so that respirator approved staff can go to Level B Protection
Related Hazard(s)	Transportation Incidents
Estimated Cost	$5,114
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Strategy RA-8 (Mitigation)

Responsible Agency	Radiological Management Unit which is under the Environmental Health program in the Public Health Division of the Los Angeles County Department of Health Services
Program Name	Procure Tritium Monitor (one)
Project Description	Radiation Management now has a specialized gas proportional device to measure tritium. The instrument requires P-10 gas. We did not have the ability to detect tritium before.
Related Hazard(s)	Transportation Incidents
Estimated Cost	$6,179
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Strategy RA-9 (Mitigation)

Responsible Agency	Radiological Management Unit which is under the Environmental Health program in the Public Health Division of the Los Angeles County Department of Health Services
Program Name	Procure Exploranium Multi-Channel Analyzers (four)
Project Description	We have four additional multi-channel analyzers for nuclide identification
Related Hazard(s)	Transportation Incidents
Estimated Cost	$31,464
Funding Source	TBD
Implementation Date	TBD
Goal Addressed	Protect lives and property, more effective emergency services
Priority Ranking	High

Dam Failure (DF)

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
DF1	X				X											P				
DF2	X															P				
DF3	X				X											P				
DF4	X				X											P				
DF5	X				X											P				
DF6	X				X											P				
DF7	X				X											P				
DF8	X				X											P				
DF9	X				X											P				
DF10	X															P				
DF11	X															P				

Strategy DF-1 (Response)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Aerial Access at Dams
Project Description	Helipad installation at 6 dams (Eaton Wash, Santa Anita, Big Dalton, Live Oak, San Dimas and Puddingstone) to provide emergency access to dams during earthquake and flooding events where dam failure may be possible.
Related Hazard(s)	Earthquake, Flood
Estimated Cost	$1,300,000
Funding Source	General Fund
Implementation Date	2006
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy DF-2 (Mitigation)

Responsible Division	Water Resources Division
Program Name	Big Dalton Debris Dam
Project Description	Rehabilitate Big Dalton Debris Dam to mitigate concerns with seismic stability of the embankment, spillway walls, and outlet tower. The rehabilitation will conform to DSOD's design requirements.
Related Hazard(s)	Earthquake
Estimated Cost	Not known at this time
Funding Source	Not known at this time
Implementation Date	Not known at this time
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy DF-3 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Big Tujunga Dam Seismic Rehabilitation
Project Description	Rehabilitate Big Tujunga Dam to mitigate concerns with seismic stability of the dam and spillway inadequacy for the PMP flow rate. The rehabilitation will conform to DSOD's requirements . We are currently in the design phase of this project.
Related Hazard(s)	Earthquake, Flood, Dam Failure
Estimated Cost	$31 million
Funding Source	$5.8 million State Proposition 13 Program $5.3 million FEMA (HMGP) $1.9 million FEMA (HMGP) transferred from Santa Anita Dam project $18 General Fund
Implementation Date	2005-2006
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy DF-4 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Dams Automated Data Acquisition System (DADAS)
Project Description	Installation of Dams Automated Data Acquisition Systems at Pacoima, Live Oak, and Big Dalton Dams to monitor for safety and dam operational, structural, geotechnical, and hydraulic conditions associated with flood and earthquake events.
Related Hazard(s)	Earthquake, Flood
Estimated Cost	$373,000
Funding Source	General Fund
Implementation Date	2005-2008
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy DF-5 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Eaton Wash Outlet Tower Rehabilitation
Project Description	Outlet tower rehabilitation at Eaton Wash Dam to mitigate seismic deficiencies and ensure safe operation of the dam during major storms and safeguard the water conservation capabilities of the dam for reliable water supply after earthquake events.
Related Hazard(s)	Earthquake, Flood
Estimated Cost	$700,000
Funding Source	General Fund
Implementation Date	2006
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy DF-6 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Little Dalton Debris Dam Seismic Rehabilitation
Project Description	Rehabilitate Little Dalton Debris Dam to comply with DSOD's design requirements for seismic stability by strengthening the spillway walls and outlet tower and converting the facility to a free-draining debris dam.
Related Hazard(s)	Earthquake, Dam Failure
Estimated Cost	$1,030,000
Funding Source	FEMA (HMGP): $834,024 General Fund: $195,976
Implementation Date	Construction to be completed by December 2004
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy DF-7 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Morris Dam Water Supply Enhancement
Project Description	Modification of intake and electrical system, and replacement of 3 regulating valves. This will improve the reservoir's flood control capability, increase the operational storage capacity by 34 percent, increase the operational storm water capture ability by 5,700 acre-feet, and provide $2.6 million annual water supply benefits to ensure a safe water supply after earthquake events.
Related Hazard(s)	Earthquake, Flood
Estimated Cost	$14,000,000
Funding Source	General Fund
Implementation Date	2006
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy DF-8 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	San Gabriel Dam 84-inch Valve Replacement
Project Description	Replacement of 84-inch valve at San Gabriel Dam to ensure safe operation of the dam during major storm events and to optimize the reservoir's water conservation capabilities to help drought-proof and ensure a safe water supply after earthquake events.
Related Hazard(s)	Earthquake, Flood
Estimated Cost	$250,000
Funding Source	General Fund
Implementation Date	2005
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy DF-9 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Santa Anita Dam Seismic Rehabilitation
Project Description	Rehabilitate Santa Anita Dam to mitigate concerns with seismic stability and spillway inadequacy of the dam. The rehabilitation will comply with DSOD's design requirements. We are currently considering three concepts: 1) full rehabilitation 2) partial rehabilitation (partial buttress) 3) free-draining (riser modification)
Related Hazard(s)	Earthquake, Flood, Dam Failure,
Estimated Cost	Unknown at this time
Funding Source	Unknown at this time
Implementation Date	Concept scheduled for completion in 2005 Design and Construction dates unknown at this time
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy DF-10 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Santa Anita Debris Dam
Project Description	Rehabilitate Santa Anita Debris Dam to mitigate concerns with seismic stability of the embankment, spillway walls, and outlet tower. The rehabilitation will conform to DSOD's design requirements, will ensure safe operation of the dam during major storms, and safeguard the water conservation capabilities of the dam for reliable water supply after earthquake events.
Related Hazard(s)	Earthquake
Estimated Cost	$1 million to $7.5 million, depending on chosen concept
Funding Source	Not known at this time
Implementation Date	Not known at this time
Goal Addressed	Protect life and property
Priority Ranking	High

Strategy DF-11 (Mitigation)

Responsible Agency	Department of Public Works Water Resources Division
Program Name	Sawpit Debris Dam
Project Description	Rehabilitate Sawpit Debris Dam to mitigate concerns with seismic stability of the embankment, spillway walls, and outlet tower. The rehabilitation will conform to DSOD's design requirements.
Related Hazard(s)	Earthquake
Estimated Cost	Not known at this time
Funding Source	Not known at this time
Implementation Date	Not known at this time
Goal Addressed	Protect life and property
Priority Ranking	High

Landslides (LS)

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest (CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
LS1																	P			X
LS2																	P			X
LS3																	P			X
LS4																	P			
LS5																	P			
LS6																	P			X
LS7	X																P			X
LS8	X																P			X
LS9	X																P			
LS10	X																P			X
LS11	X				X												P			X
LS12	X				X												P			X
LS13	X				X												P			X
LS14	X				X												P			X
LS15	X				X												P			X
LS16	X				X												P			X
LS17	X				X												P			X

Strategy LS-1 (Mitigation)

Document landslide response and frequency from the 1998 winter storms and evaluate the effectiveness of current landslide and debris flow hazard maps in identifying slopes that failed.

Cost: To be determined (STAPLEE)

Timeline: 3-6 years

Agency: DPW

Financing: To be determined

Goal: Protect lives and property

Implementation Considerations

- Using a standardized procedure, collection of landslide distribution information should occur following every significant disaster.
- Information should be archived in a readily accessible system.

- Aerial photographs should be taken over areas identified as having an abundance of landslides in a wide area. After the rainy season, large-scale aerial photography could be used by geologists to map landslides in areas affected by storms.

- Involved agencies such as USGS and DMG should consider future growth implications in mapping and identifying repeat debris flow danger areas.

- Consideration should be given to apply the HAZUS earthquake system, currently used to identify and map earthquake hazard areas, to the landslide mapping effort.

Strategy LS-2 (Mitigation)

Digitize existing debris flow and landslide hazard maps.

Cost: To be determined (STAPLEE)

Timeline: 3-6 years

Agency: DPW

Financing: To be determined

Goal: Protect lives and property

Implementation Considerations

- USGS, FEMA, OES, and DMG should form a working group to develop appropriate criteria for attribution of the maps selected for digitization.

- Develop a standard map scale that is sufficient in size for site specific work that can be used by all Federal, State, and local agencies.

- Create a Landslide Clearinghouse, similar to the Earthquake Clearinghouse, for sharing landslide data among agencies.

- Use high-resolution modes of data collection.

Strategy LS-3 (Mitigation)

Develop a model for improved prediction of heavy rainfall over identified landslide and debris flow areas and an associated emergency debris flow warning and response system.

Implementation Consideration

- Gather rain gage and Doppler radar precipitation estimates from archival locations.

- Explore the feasibility of developing an emergency warning and response system specifically elated to potential landslide and debris flow areas.

Strategy LS-4 (Preparedness)

Provide regular monitoring of coastal erosion and wave activity.

Cost: To be determined (STAPLEE)

Timeline: 3-6 years

Agency: DPW

Financing: To be determined

Goal: Protect lives and property

Implementation Consideration

- Encourage FEMA, OES, USGS, and DMG to coordinate coastal erosion research efforts with ongoing programs such as that conducted vy the Department of Boating and Waterways.
- Collect data by aerial photo coverage.
- Share information among agencies and developers.
- Incorporate the data into an Internet Landslide Clearinghouse.

Strategy LS-5 (Mitigation)

Promote use of the newest monitoring technology and standardized techniques for evaluation of landslide movement.

Cost: To be determined (STAPLEE)

Timeline: 3-6 years

Agency: DPW

Financing: To be determined

Goal: Protect lives and property

Implementation Considerations

- Form an implementation team, so that those participating in monitoring can be assigned specific jobs using standard operating procedures.
- FEMA should support critical landslide event monitoring and implementation.

Strategy LS-6 (Preparedness)

Educate and inform the public about landslides and debris flows and monitoring technologies.

Cost: To be determined (STAPLEE)

Timeline: 3-6 years

Agency: DPW

Financing: To be determined

Goal: Protect lives and property

Strategy LS-7 (Mitigation)

Reinstate the Landslide Identification Program within DMG and revise the Seismic Hazard Mapping Program (headed by USGS) to include rain-induced landslides. Suggest applying the watershed-mapping approach used by USGS.

Cost: To be determined (STAPLEE)

Timeline: 3-6 years

Agency: DPW

Financing: To be determined

Goal: Protect lives and property

Strategy LS-8 (Mitigation)

Revise the standards for development of the Safety Element contained in the General Plan Guidelines to better address geologic issues and hazards.

Cost: To be determined (STAPLEE)

Timeline: 3-6 years

Agency: DPW

Financing: To be determined

Goal: Protect lives and property

Implementation Consideration

- More site-specific hazard information.
- Detailed hazard identification.

- Specific hazard/risk related implementation measures to minimize risk. This could include planning, zoning, and building practices.

- Involving emergency managers and planners, public safety officials, building and zoning staff, and land use planners in development of Safety Elements.

There is a need to convey to local decision-makers and the public the life threatening significance of natural hazards. One way to address this problem may be through the Safety Element of the General Plan.

All county and local governments in the State of California are required to adopt a general plan for the log-term physical development of their planning areas. The Plan established local land use planning policies. One of the seven mandatory elements of the General Plan is the Safety Element, whiff deals with public safety and emergency issues. During the preparation of the Safety Element, each agency must consult with the Division of Mines and Geology (DMG) of the Department of Conservation and the Office of Emergency Services (OES) for the purpose of including known and available safety and hazard information. Prior to the adoption or amendment of a Safety Element, each agency must also submit the draft element to the DMG for review and comment on matters relating to known seismic and geologic hazard information. The current statutory requirements include mapping of known seismic and other geologic hazards but do not explicitly require the identification of particular measure for mitigating hazards and reducing future risk. Addressing coordination of emergency management/public safety needs and the land use planning process in development of the Safety Element is also important. Personnel from all involved agencies should participate in creating the Safety Element.

Strategy LS-9 (Preparedness)

Promote interagency coordination in risk identification efforts. Encourage agencies to share information related to development of strategies and products that identify and address geologic and other natural hazards in the State of California.

Cost: To be determined (STAPLEE)

Timeline: 3-6 years

Agency: DPW

Financing: To be determined

Goal: Protect lives and property

Strategy LS-10 (Preparedness)

Conduct a survey of existing local policies and practices, including model ordinances, which address geologic hazards and risk reduction.

Cost: To be determined (STAPLEE)

Timeline: 3-6 years

Agency: DPW

Financing: To be determined

Goal: Protect lives and property

Strategy LS-11 (Mitigation)

Promote Internet accessibility of information on landslides, debris flows, coastal erosion and other geologic hazards.

Cost: To be determined (STAPLEE)

Timeline: 3-6 years

Agency: DPW

Financing: To be determined

Goal: Protect lives and property

Implementation Consideration

- Government and private agencies that conduct research and develop products on geologic events should make every effort to provide such information on Internet websites.

Strategy LS-12 (Mitigation)

Increase public awareness of hazards and of the risks of living in hazardous areas.

Cost: To be determined (STAPLEE)

Timeline: 3-6 years

Agency: DPW

Financing: To be determined

Goal: Protect lives and property

Implementation Considerations

- Enhance effective marketing and distribution of publications.
- Increase links across agency websites.
- Strengthen public service partnerships with media including the development and promotion of materials, articles and education programs (e.g. emergency services hazard mitigation video productions). This partnership will facilitate access to and effect dissemination of hazard mitigation information to the public through broadcast stations' public service announcements.
- Provide an outreach program to selected groups, such as developers, lenders, and insurance companies, that begin with hazard mitigation measures and explains their benefits relate to the area and its disaster history.
- Promote and foster attendance at hazard mitigation related community education meetings with participants such as planners, developers, and other local agencies.
- Create user-friendly materials written in easy-to-read language in all the primary languages, as needed, rather than technical language.

Strategy LS-13 (Mitigation)

Develop an educational outreach program for local governments, which could also be used throughout communities. Development of a "Partnership" should also include media industry partners and the cooperative production of videos and newsletters.

Cost: To be determined (STAPLEE)

Timeline: 3-6 years

Agency: DPW

Financing: To be determined

Goal: Protect lives and property

The program would provide explanation and guidance on matters related to hazard mitigation. Some of the components of the program could include:

Implementation Considerations

- Obtain information on hazard mitigation and risk avoidance information from available publications.
- Review materials that provide explanations of types of landslides.
- Investigate using a landslide video proposed by DMG.

- Obtain suggestions and guidance for fostering involvement of experts.
- Develop a list of potential funding sources, e.g. OES, USGS, NRCS and FEMA.
- Provide a source by which to obtain access to publications by OES< DMNG, USGS and FEMA.
- Identify experts who could assist in interpretation and suggested use of geologic information.
- Explore use of literature describing initiation and completion steps with follow-up surveys to measure and evaluate program and material effectiveness.
- To reduce redundancy and expedite information distribution, create a list of material, available by agency, and accessible on the Internet.
- Use a variety of written and visual communication to provide ongoing education on hazard vulnerabilities and mitigation strategies. A video on the subject of geologic hazards cold be readily available for public viewing.
- An educational program for local governments should include the necessary investments to provide telecommunications links to agencies across websites.

Strategy LS-14 (Mitigation)

Enhance program effectiveness for the citizens of California by using multilingual staff and materials.

Cost: To be determined (STAPLEE)

Timeline: 3-6 years

Agency: DPW

Financing: To be determined

Goal: Protect lives and property

Strategy LS-15 (Preparedness)

Expand state public education curricula to include landslide hazard mitigation.

Cost: To be determined (STAPLEE)

Timeline: 3-6 years

Agency: DPW

Financing: To be determined

Goal: Protect lives and property

Implementation Consideration

- Work with schools and/or districts to introduce and increase emergency management and preparedness understanding.
- Incorporate hazard mitigation and disaster resistant community principles in the curriculum.

Strategy LS-16 (Response)

Expand pre- and post-disaster services and programs through increased public/private partnerships.

Cost: To be determined (STAPLEE)

Timeline: 3-6 years

Agency: DPW

Financing: To be determined

Goal: Protect lives and property

Implementation Considerations

- Strengthen and solidify existing public/private partnerships.
- Continue DMG development of partnerships with professional associations.
- Publish examples of successful partnerships to 1) encourage understanding, creation, and strengthening of new or existing partnerships, and 2) stimulate other agencies who are having difficulties getting started.

Strategy LS-17 (Preparedness)

Improved program coordination when presenting education campaigns by public agencies.

Cost: To be determined (STAPLEE)

Timeline: 3-6 years

Agency: DPW

Financing: To be determined

Goal: Protect lives and property

Implementation Considerations

- Evaluate, measure, and coordinate public activities in a unified education campaign of hazard mitigation.
- Coordinate quarterly agency meetings to conduct a review of mitigation successes and failures, and to identify, evaluate and measure lessons learned.
- Document evidence of the value of mitigation.

Severe Weather/Drought (SW)

STRATEGY	HIGH RISK PRIORITY HAZARDS										MODERATE RISK PRIORITY HAZARDS									
	Earthquake (EQ)	Wild Land Fire (WF)	WMD/Terrorism (WT)	Utility Loss (UL)	Flooding (FL)	Biological/Health (BL)	Water/Waste Water (WW)	Economic Disruption (ED)	Data/Telecom (DT)	Civil Unrest (CU)	Large Venue Fires (LF)	Transport Incident (TI)	Hazardous Materials (HM)	Radiological (RA)	Special Events (SE)	Dam Failure (DF)	Land Slide (LS)	Transport Loss (TL)	Explosion (EX)	Severe Weather (SW)
SW1		X																		P

Strategy SW-1 (Mitigation)

Program/Project Description	Los Angeles County Area Agency on Aging (AAA) Cooling Stations--the AAA is part of the Department of Community and Senior Services. AAA Cooling Stations are triggered by the Los Angeles County Department of Health Services' health alerts during elevated temperature conditions. The stations are AAA contract agencies who have agreed to provide community residents with air conditioning relief and may include provision of water, cool nutritious snacks such as fruit, and entertainment (e.g., TV, videos); the department's 10 service centers and 4 senior centers also serve as cooling stations.
Cost	No dedicated funds are budgeted for this activity. AAA contract agencies agree to serve as cooling stations at no extra cost to the AAA; the department's service and senior centers operate as cooling stations as an administrative function. Overall, AAA contract agencies are allocated primarily Federal and state funds to administer social and nutrition services to older adults (age 60+) and functionally impaired adults (age 18+), countywide.
Timeline/Schedule	Triggered by high temperatures and unhealthy atmospheric conditions (e.g., smoke from fires)
Responsible Agency	Los Angeles County Area Agency on Aging Contact: Laura Medina, Interim AAA Director 213/351-5055
Financing	Refer to comments for Cost
Goal Addressed/Program Enhancements	To provide the basic necessities for the elderly, chronic invalids, and other members of the community in response to Heat Emergency or Extreme Caution Advisory. The AAA will pursue the development of a Cold Weather Plan through its network of contract agencies to address health and safety concerns of those in greatest need.
Related Hazard	Health and safety issues

Section 6 – Goals

Mitigation Goals and Objectives

The information in the hazard profile and loss estimation information presented in Section 4 was used as a basis for developing mitigation goals and objectives. Mitigation goals are defined as general guidelines explaining what the jurisdiction wants to achieve in terms of hazard and loss prevention. Goal statements are typically long-range, policy-oriented statements representing countywide visions. Objectives are statements that detail how the County's goals will be achieved, and typically define strategies or implementation steps to attain identified goals. Other important inputs to the development of County-level goals and objectives include performing reviews of existing local plans, policy documents, and regulations for consistency and complementary goals, as well as soliciting input from the public.

Identification and Prioritization of Mitigation Actions

Mitigation actions that address the goals and objectives developed in the previous step were identified, evaluated, and prioritized. These actions form the core of the mitigation plan. The County conducted a capabilities assessment, reviewing existing local plans, policies, and regulations for any other capabilities relevant to hazard mitigation planning. An analysis of their capability to carry out these implementation measures with an eye toward hazard and loss prevention was conducted. The capabilities assessment required an inventory of the County's legal, administrative, fiscal and technical capacities to support hazard mitigation planning. After completion of the capabilities assessment, mitigation strategies were evaluated and prioritized. The social, technical, administrative, political, legal, economic, and environmental opportunities and constraints of implementing a particular mitigation action were considered. This step resulted in a list of acceptable and realistic actions that address the hazards identified.

A full suite of goals, objectives and action items is presented in this Plan. The County then identified and prioritized actions with the highest short to medium term priorities. An implementation schedule, funding sources and coordinating individuals or agencies are identified for each prioritized action item.

Preliminary Goals & Actions

Listed below are the County's preliminary hazard mitigation goals and related potential actions. For each goal, one or more action items are identified. Where appropriate, the County has identified a range of specific actions to achieve the goals.

The goals and actions were developed by considering the risk assessment findings, localized hazard identification and loss/exposure estimates, and an analysis of the jurisdiction's current Capabilities Assessment. These preliminary goals and actions were developed to represent a vision of long-term hazard reduction or enhancement of capabilities.

In addition, County representatives met with the consultant staff and County Departments to specifically discuss these hazard-related goals and actions as they apply to the overall Plan. Those Departments are listed specifically in the minutes of the meetings.

Four Public meetings were held throughout the County to present these preliminary goals and actions to citizens and to receive public input. At these meetings, specific consideration was given to hazard identification/profiles and the vulnerability assessment results.

Preliminary Goals

The County of Los Angels has developed the following Preliminary Goals for their Hazard Mitigation Plan Program:

Goal 1 - Promote Disaster-resistant future development.

Goal 2. - Increase public understanding and support for effective hazard mitigation.

Goal 3. - Enhance hazard mitigation coordination and communication with federal, state, local and tribal governments.

Goal 4 - Build internal and external local County support and commitment to become less vulnerable to hazards.

Goal 5 - Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and County-owned facilities, due to:

- Dam Failure.
- Earthquake.
- Coastal Storm/Erosion/Tsunami.
- Landslide.
- Flood.
- Structural Fire/Wildland Urban Interface Fire
- Severe Weather & Drought
- Biological and Disease-caused Hazards
- Human-Caused Hazards.

Prioritization and Implementation of Action Items

Once the list of County goals listed above was developed, the proposed mitigation action items were prioritized by the Planning Executive Committee. This step resulted in a list of acceptable and realistic specific actions that address the hazards identified in the County.

The Disaster Mitigation Action of 2000 (at 44 CFR Parts 201 and 206) requires the development of an action plan that not only includes prioritized actions but one that includes information on how the prioritized actions will be implemented.

Implementation consists of identifying who is responsible for which action, what kind of funding mechanisms and other resources are available or will be pursued, and when the action will be completed.

Action Items

The top 10 prioritized mitigation action items as well as an implementation strategy for each are:

Action Item #1: Coordinate the development of a Multi-Hazard DMA 2000 plan. Coordinating Individual/Organization: Office of Emergency Services (OEM) will work together with the members of the Los Angels County Multi Hazard Mitigation Plan Advisory Committee.

- Coordinating Individual/Organizations: Office of Emergency Management
- Potential Funding Source: FEMA Grants/ General Funds for County and Cities.
- Implementation Timeline: 1-2 Years

Action Item #2: .Review and update plans that would include coordination with cities, special districts and county departments.

- Coordinating Individual/Organizations: Office of Emergency Management
- Potential Funding Source: General Fund/ State and Federal Grants
- Implementation Timeline: 1-2 Years

Action Item #3: Update the County Fire Code every three years.

- Coordinating Individual/Organization: Department of Planning and Urban Development
- Potential Funding Source: General Fund/Federal or State Grants.
- Implementation Timeline: 1 - 3 years

Action Item #4: Promote Cooperative Vegetation Management Programs that incorporate hazard mitigation.

- Coordinating Individual/Organization: OEM / County Fire and DPW / Watershed Management.
- Potential Funding Source: General Fund/Federal or State grants
- Implementation Timeline: 1 - 3 years

Action Item #5: Publicize and encourage the adoption of appropriate hazard mitigation actions.

- Coordinating Individual/Organization: OEM/ Los Angeles County Hazard Mitigation Advisory Committee Members
- Potential Funding Source: General Fund/Federal or State grants.
- Implementation Timeline: 1 - 3 years

Action Item #6: Update Building Codes to reflect current earthquake standards.

- Coordinating Individual/Organization: Department of Planning and Urban Development
- Potential Funding Source: General Fund/Federal or State Grants.
- Implementation Timeline: 2 - 5 years

Action Item #7: Review and compare existing flood control standards, zoning and building requirements.

- Coordinating Individual/Organization: Department of Public Works (DPW)/
- Potential Funding Source: General Fund/Federal or State Grants
- Implementation Timeline: 1 - 3 years

Action Item #8: Develop a Business Continuity Plan for each County Department.

- Coordinating Individual/Organization: All County Departments
- Potential Funding Source: General Fund/Federal or State Grants.
- Implementation Timeline: 1 - 3 years

Action Item #9: Develop partnerships for a Countywide Vegetation Management Program.

- Coordinating Individual/Organization: OEM/ County Fire, DPW / Watershed Management.
- Potential Funding Source: General Fund/Federal or State grants.
- Implementation Timeline: 1 - 3 years

Action Item #10: Encourage the public to prepare and maintain a 3-day preparedness kit for home and work.

- Coordinating Individual/Organization: OEM/ Media & Public Relations/IT
- Potential Funding Source: General Fund/Federal or State grants
- Implementation Timeline: 1 - 3 years

Long-term Goals, Objectives Actions

The County of Los Angels developed the following broad list of objectives and actions to assist in the implementation of each of their 18+ identified long term goals. The County of Los Angels developed objectives to assist in achieving their hazard mitigation goals. For each of these objectives, specific actions were developed that would assist in their implementation.

Goal 1: Promote disaster-resistant future development.

Objective 1.: Facilitate the development or updating of general plans and zoning ordinances to limit development in hazard areas.

Action 1. Update General Plan every 10 years.

Action.2 Attract and retain qualified, professional and experienced staff.

Action 3 Identify high hazard areas.

Objective 1.A: *Facilitate the adoption of building codes that protect existing assets and restrict new development in hazard areas.*

Action 4 Review Codes every 3 years.

Action 5 Establish emergency review procedures for codes.

Objective 2: Facilitate consistent enforcement of general plans, zoning ordinances, and building codes.

Objective 3: Limit future development in hazardous areas

Action 1 Development should be in harmony with existing topography.

Action 2 Development patterns should respect environmental characteristics.

Action 3 Development should be limited in areas of known geologic hazards.

Action 4 Development in floodplains shall be limited to protect lives and property.

Action 5 High fire hazard areas shall have adequate access for emergency vehicles.

Objective 4: Address identified data limitations regarding the lack of information about new development and build-out potential in hazard areas.

Action 1 Coordinate existing Geographic Information Systems (GIS) capabilities to identify hazards throughout the County including cities and special districts

Action 2 Develop the data sets that are necessary to test hazard scenarios and Mitigation tools including HAZUS MH

Action 3 Utilize the Internet as a communication tool, as well as an educational tool.

Objective 5: Increase public understanding, support and demand for hazard mitigation for new developments.

Action 1 Gain public acceptance for avoidance policies in high hazard areas.

Goal 2: Increase public understanding & support for effective mitigation.

Objective 1: Educate the public to increase awareness of hazards and opportunities for mitigation actions.

Action 1 Publicize and encourage the adoption of appropriate hazard mitigation actions.
Action 2 Provide information to the public on the County website.
Action 3 Heighten public awareness of hazards by using the County Media & Public Relations Office.
Action 4 Gain public acceptance for avoidance policies in high hazard areas.

Objective 2: Gain public interest by supporting already existing public programs.

Action 1 Identify hazard specific issues and needs.
Action 2 Help create demand for hazard resistant construction and site planning.

Objective 3: Promote partnerships between the state, counties, local and tribal governments to identify, prioritize, and implement mitigation actions.

Action 1 Develop, Maintain and improve lasting partnerships.
Action 2 Support the County Fire Safe Council.
Action 3 Promote cooperative vegetation Management Programs that incorporate hazard mitigation.

Objective 4.: Promote hazard mitigation in the business community.

Action 1 Utilize BICEP to Increase awareness and knowledge of hazard mitigation principles and practices.
Action 2 Encourage businesses to develop and implement hazard mitigation actions.
Action 3 Identify hazard-specific issues and needs.

Objective 5 Monitor and publicize the effectiveness of mitigation actions Implemented countywide.

Action 1 Use the County Office of Emergency Management website to publicize mitigation actions.
Action 2 Utilize existing risk data and Create marketing campaign.
Action 3 Establish budget and identify funding sources for mitigation outreach.
Action 4 Develop and distribute brochures, CDs and other publications.

Objective 6: Provide education on hazardous conditions.

Action 1 Support public and private sector symposiums.

Action 2 Coordinate production of brochures, informational packets and other handouts.

Goal 3: Enhance hazard mitigation coordination and communication **with federal, state, local and tribal governments.**

Objective 1 Establish and maintain closer working relationships with state agencies, local and tribal governments.

Action 1 Develop multi-jurisdictional/ multi-functional training and exercises to enhance hazard mitigation.

Goal 4: Build internal and external local County support and commitment to become less vulnerable to hazards.

Objective 1 Encourage other organizations to incorporate hazard mitigation activities.

Action 1 Leverage resources and expertise that will further hazard mitigation efforts.

Action 2 Update the County multi-hazard mitigation plan on a regular basis

Action 3 Encourage all local governments and tribal governments to formulate a Multi-Hazard Mitigation Plan

Action 4 Establish and maintain lasting partnerships through existing County Organization and the County Emergency Management Council.

Action 5 Streamline policies to eliminate conflicts and duplication of effort where feasible

Objective 2: Improve the County's capability and efficiency at administering pre- and post-disaster mitigation.

Action 1 Maintain coordination, communication and cooperation with the State in administering recovery programs.

Action 2 Continue to exchange resources and work with local and regional partners.

Objective 3. Utilize the County Operational Area to : Coordinate recovery activities while restoring and maintaining public services.

Objective 4. Utilize the Los Angeles County Business Continuity Plan to prioritize the restoration and maintenance of County services.

Goal 5: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to catch basin or dam failure.

Objective 1: Develop a comprehensive approach to reducing the possibility of damage and losses due to dam failure.

Action 1 Update inundation maps every 10 years as feasible

Action 2 Participate in community awareness meetings when feasible

Action 3 Develop and distribute printed publications to the communities concerning hazards.

Action 4 Identify hazard-prone structures.

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Objective 2: Coordinate with and support existing efforts to mitigate dam failure (e.g., US Army Corps of Engineers, US Bureau of Reclamation, California Department of Water Resources).

Action 1 Incorporate and maintain valuable wetlands in open space preservation programs.

Action 2 Review and revise, when appropriate necessary, sediment and erosion control regulations.

Objective 3: Protect floodplains from inappropriate development.

Action 1 Strengthen existing development regulations to discourage land uses and activities that create hazards.

Action 2 Plan and zone for open space, recreational, agricultural, or other low-intensity uses within floodway fringes.

Goal 6: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to Drought. Recognizing that drought is a low priority hazard, Los Angeles County recognizes the need to include drought in its long range goals and objectives.

Objective 1: Develop a comprehensive approach to reducing the possibility of damage and losses due to long term drought conditions

Action 1 Encourage and require water conservation where ever feasible

Action 2 Explore the development of new water resources

Action 3 Encourage the recharge of underground aquifers

Action 4 Encourage the Federal Government to complete the decontamination of all underground water resources currently identified as Superfund sites

Objective 2: Encourage citizen participation in drought mitigation strategies

Action 1 Implement public information programs on water conservation and drought resistant landscaping

Goal 7: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to earthquakes.

Objective 1: Develop a comprehensive approach to reducing the possibility of damage and losses due to earthquakes.

Action 1 Maintain Building Codes to reflect current earthquake standards.

Action 2 Encourage and participate in community awareness meetings.

Action 3 Distribute printed publications to the communities concerning hazards.

Objective 2: Protect existing assets with the highest relative vulnerability to the effects of earthquakes.

Action 1 Identify hazard-prone structures through GIS modeling.

Action 2 Build critical facilities to ensure that they function after a major earthquake.

Action 3 Encourage and continue the study ground motion, landslide, and liquefaction.

Objective3: Coordinate with and support existing efforts to mitigate earthquake hazards

Action 1 Identify projects for pre-disaster mitigation funding.

Action 2 Design and implement an ongoing public seismic risk assessment program.

Action 3 Collaborate with Federal, State, universities and local agencies' mapping efforts.

Objective 4: Address identified data limitations regarding the lack of information about the relative vulnerability of assets from earthquakes.

Action 1 Assess countywide utility infrastructure with regard to earthquake risk, including public and private utilities.

Action 2 Encourage the public to prepare and maintain a 3-day preparedness kit for home and work for all hazards

Goal 8: Reduce the possibility of damage and losses to existing assets, including people, critical facilities /infrastructure, and public facilities due to landslide. While landslide is a moderate priority risk, it is can be triggered by both floods and earthquakes which are high priority risks.

Objective 1: Develop a comprehensive approach to reducing the possibility of damage and losses due to landslide.

Action 1 Identify potential areas based upon historical data.

Action 2 Participate in community awareness meetings.

Action 3 Develop and distribute printed publications to the communities concerning hazards.

Objective 2: Protect existing assets with the highest relative vulnerability to the effects of landslide.

Action 1 Study and improve storm drains for landslide prone areas.

Action 2 Develop, adopt and enforce effective bldg codes and standards.

Action 3 Seek pre-disaster mitigation funding for landsides prevention projects.

Objective 3: Coordinate with and support existing efforts to mitigate landslide.

Action 1 Review and update plans that would include coordination with cities, special districts and county departments.

Action 2 streamline policies to eliminate conflicts and duplication of effort.

Action 3 develop and publish evacuation procedures to the public

Objective 4: Address identified data limitations regarding the lack of information about the relative vulnerability of assets from landslide.

Action 1 Identify hazard-prone structures through GIS modeling.

Action 2 Develop and implement hazard awareness program.

Goal 9: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to floods.

Objective 1: Develop a comprehensive approach to reducing the possibility of damage and losses due to floods.

Action 1 Review and compare existing flood control standards, zoning and building requirements.
Action 2 Identify and update flood-prone areas by using GIS.
Action 3 Adopt policies that discourage growth in flood-prone areas.

Objective 2: Protect existing assets with the highest relative vulnerability to the effects of floods within the 100-year floodplain.

Action 1 Assure adequate funding where feasible to restore damaged facilities to 100-year flood design.
Action 2 Update storm water system plans and improve storm water facilities in high-risk areas.
Action 3 Ensure adequate evacuation time in case of major hazard event.

Objective 3: Coordinate with and support existing efforts to mitigate floods (e.g., US Army Corps of Engineers, US Bureau of Reclamation, California Department of Water Resources).

Action 1 Develop a flood control strategy that ensures coordination with Federal, State and local agencies.
Action 2 Improve hazard warning and response planning.

Objective 4: Minimize repetitive losses caused by flooding.

Action 1 Identify those communities that have recurring losses.
Action 2 Develop project proposals to reduce flooding and improve control in flood prone areas.
Action 3 Seek pre-disaster mitigation funding.
Action 4 Follow the recommendations of the Los Angeles Count Flood Mitigation Plan and its on going updates.

Objective 5: Address identified data limitations regarding the lack of information about the relative vulnerability of assets from flooding.

Action 1 Encourage the public to prepare and maintain a 3-day preparedness kit for home and work.
Action 2 Increase participation and improve compliance with the National Flood Insurance Program (NFIP).
Action 3 Maintain, develop and implement hazard awareness program.

Goal 9A: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to flooding including coastal storms/erosion/tsunami.

Objective 1: Develop a comprehensive approach to reducing the possibility of damage and losses due to coastal storms/erosion.

Action 1 Coordinate with coastal cities to assist in the development a comprehensive plan.
Action.2 Participate in community awareness meetings as feasible
Action 3 Distribute printed publications to the communities concerning hazards.

Objective 2: Protect existing assets with the highest relative vulnerability to the effects of coastal storms/erosion.

Action 1 Seek pre-disaster mitigation funding for coastal erosion projects.

Objective 3: Coordinate with and support existing efforts to mitigate severe coastal storms/erosion.

Action 1 Review and update plans that would include coordination with cities, special districts and county departments.
Action 2 Streamline policies to eliminate conflicts and duplication of effort.
Action 3 Develop and publish evacuation procedures to the public.

Objective 4: Address identified data limitations regarding the lack of information about the relative vulnerability of assets from coastal storms/erosion.

Action 1 Identify hazard-prone structures through GIS modeling.
Action 2 Incorporate information and recommendations from coastal cities into the hazard mitigation plan.

Goal 10: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to structural fire and /wildland fire.

Objective 1: Develop a comprehensive approach to reducing the possibility of damage and losses due to structural fire/wildland fire.

Action 1 Update the County Fire Code every three years as feasible
Action 2 Update County model Weed Abatement and Fuel Modification Ordinances as needed.
Action 3 Utilize GIS and the Internet as information tools.

Objective 2: Protect existing assets with the highest relative vulnerability to the effects of structural fire/wildfire.

Action 1 Enforce Standardized Defensible Space Clearance distances.
Action 2 Establish community-based groups to promote chipping programs.
Action 3 Research options to provide low cost insurance to cover landowners

who allow prescribed burning on their lands.

Objective 3: Coordinate with and support existing efforts to mitigate structural fire/wildfire.

Action 1 Support Los Angeles County's wildland fire technical working group.

Action 2 Develop partnerships for a countywide vegetation management program.

Action 3 Report annually to the Board of Supervisors on the progress of fire mitigation strategies.

Objective 4: Address identified data limitations regarding the lack of information about the relative vulnerability of assets from structural fire/wildfire.

Action 1 Continue to identify and update Urban/wildland fire interface areas.

Action 2 Use GIS to map fire risk areas.

Action 3 Implement public education program to address fire dangers and corrective measures.

Goal 10A: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to Civil Unrest.

Objective 1: Support the Los Angeles County Sheriff's Department analysis and identification of Civil Unrest risk factors.

Action 1 Take social actions as feasible to address risk demographics.

Action 2 Support mitigation efforts to reduce the risk of civil unrest

Action 3 Support a ongoing Public Information Program to reduce the tensions that lead to higher risks of civil unrest

Goal 11: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to Utility Loss.

Objective 1: Develop and implement a joint planning and risk assessment partnership with all existing utilities that serve Los Angeles County including both private and public utilities.

Action 1 Support ongoing efforts of the Utility and Infrastructure Hazard Advisory Committee sub-committee to establish and data sharing standard between the private and public sector.

Action 2 Support laws and regulations that require utilities and local governments to plan jointly for the protection of the Utility Infrastructure

Objective 2: Work to remove the constraint of the lack of availability of l utility risk data from privately owned companies to the County to serve mutual interest mitigation of utility loss.

Action 1 Continue to identify weakness in the utility risk analysis in order to identify a means of overcoming the lack of risk analysis data needs.

Goal 12: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to Economic Disruption.

Objective 1: Implement the strategies identified in this plan to protect Los Angeles County against and reduce the impact of disasters on the Economy of Los Angeles County.

Objective 2: Conduct the appropriate Cost Benefit Analysis for hazard mitigation strategies as feasible to identify economic viability for mitigation

Goal 13: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities by conducting timely cost benefit analysis for hazard mitigation strategies.

Objective 1:. Recognize the constraint to timely Cost-Benefit Analysis due to the rapidly changing economic factors in the economy based on the production of Oil, Steel and job markets, and political instability.

Objective 2: Do not conduct Cost Benefit Analysis that will not be appropriate for less then a 90 day time frame until the strategy is within that time frame for implementation.

Action 1: Conduct Cost Benefit Analysis as project timelines will assure the continued accuracy of the Cost Benefit Analysis.

Goal 14: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to Data Telecommunication loss/disruption.

Objective 1: Conduct the appropriate feasibility studies to identify the potential long term data telecommunication risks beyond those discussed in this document.

Goal 15: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to Acts of Terrorism and Weapons of Mass Destruction being Utilized.

Objective 1: Support the Los Angeles County Terrorism Early Warning Group (TEW)in all aspects of their ongoing role.

Goal 16: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to Waste Waster caused disasters.

Goal 17: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to Biological/Health risks.

Objective 1: Support the Los Angeles County Health Department in its mission and response to biological risks.

Objective 2: Educate the public in their ability to reduce the potential threat of biological risks.

Objective 3: Coordinate the terrorism and biological health risks in those areas where they overlap as a threat.

Goal 18: Utilize the County of Los Angeles All Hazard Mitigation Plan as historic and detailed data base for future planning and grant writing in regards to risk analysis and hazard mitigation for the County, cities, special jurisdictions and public information.

Objective 1: Make this plan and its resource documentation available to all jurisdictions and special districts within the County as a reference data base for future hazard mitigation planning efforts.

Action 1: Maintain the Plan and its supporting documentation in the Los Angeles County Office of Emergency Management's Emergency Operations Center.

Action 2: Establish a system to allow for the use and reference of the data and documents I included in this plan.

Objective 2: Update this Plan on annual basis to support hazard mitigation efforts in Los Angeles County.

Action 1: Assign dedicated staff to update and maintain the plan as needed

Objective 3: Gather other hazard mitigation plans from Los Angeles County Jurisdictions to add to the Hazard Mitigation data library.

Objective 4: Support where feasible hazard mitigation strategies of other jurisdictions in the County of Los Angeles who are formulating or have a hazard mitigation plan.

Capabilities Assessment

The Hazard Mitigation Planning Advisory Committee identified current capabilities available for implementing hazard mitigation activities. The Capability Assessment (Assessment) portion of the mitigation plan identifies administrative, technical, legal and fiscal capabilities. This includes a summary of departments and their responsibilities associated to hazard mitigation planning as well as codes, ordinances, and plans already in place associated to hazard mitigation planning. The second part of the Assessment provides the County's fiscal capabilities that may be applicable to providing financial resources to implement identified mitigation action items.

Benefit-cost Review

Benefit-cost review (BCR) is an abbreviated quantitative method of comparing the projected benefits to projected costs of a project or policy. It is used as a measure of cost effectiveness. A modified process called "STAPLEE" will be used to methodically review the benefit as opposed to the cost of each strategy and action listed where that information was attainable. The STAPLEE process considers the following:

SOCIAL	Community Acceptance	Effect on Segment of Population		
TECHNICAL	Technical Feasibility	Long-term Solution	Secondary Impacts	
ADMINISTRATIVE	Staffing	Funding Allocated	Maintenance/Operations	
POLITICAL	Political Support	Local Champion	Public Support	
LEGAL	State Authority	Existing Local Authority	Potential Legal Challenge	
ECONOMIC	Benefit of Action	Cost of Action	Contributes to Economic Goals	Outside Funding Required
ENVIRONMENTAL	Effects on Land/Water	Effect on Endangered Species	Effect on HAZMAT / Waste Sites	Consistent with Community Environmental Goals	Consistent with Federal Laws

Because projects are planned for 1-3+ years in the future, the County of Los Angeles decided that it would not be efficient to do cost-benefit reviews at this stage in the planning process for the strategies listed in Section 5. BCRs using the STAPLEE process will be conducted when funding is earmarked and scheduling is firm for mitigation projects.

Existing Institutions, Plans, Policies and Ordinances

Section 3 contains a summary of existing departments in the County and their responsibilities related to hazard mitigation planning and implementation. The administrative and technical capabilities of the County (in the table below), provides an identification of the staff, personnel, and department resources available to implement the actions identified in the mitigation section of the Plan. Specific resources reviewed include those involving technical personnel such as planners/engineers with knowledge of land development and land management practices, engineers trained in construction practices related to building and infrastructure, planners and engineers with an understanding of natural or human-caused hazards, floodplain managers, surveyors, personnel with GIS skills and scientists familiar with hazards in the community.

Administrative and Technical Capacity

Staff/Personnel Resources	Y/N	Department/Agency and Position
A. Planner(s) or engineer(s) with knowledge of land development and land management practices	Y	Department of Public Works
B. Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Department of Public Works
C. Planners or Engineer(s) with an understanding of natural and/or human-caused hazards	Y	Department of Public Works
D. Floodplain manager	Y	Department of Public Works
E. Surveyors	Y	Department of Public Works
F. Staff with education or expertise to assess the community's vulnerability to hazards	Y	Department of Public Works Office of Emergency Management (OEM)
G. Personnel skilled in GIS and/or HAZUS	Y	GIS Mangers - DPW OEM
H. Scientists familiar with the hazards of the community	Y	County Science Advisory Board
I. Emergency manager	Y	Office of Emergency Management
J. Grant writers	Y	OEM and other departments determine their own level of service.

Legal and Regulatory Capability

The legal and regulatory capabilities of the County are shown in the table below, which presents the existing ordinances and codes that affect the physical or built environment of the County. Examples of legal and/or regulatory capabilities can include: the County's building codes, zoning ordinances, subdivision ordnances, special purpose ordinances, growth management ordinances, site plan review, general plans, capital improvement plans, economic development plans, emergency response plans, and real estate disclosure plans.

Regulatory Tools (ordinances, codes, plans)	Local Authority (Y/N)	Does State Prohibit (Y/N)
Building code	Y	N
Zoning ordinance	Y	N
Subdivision ordinance or regulations	Y	N
Special purpose ordinances (floodplain management, storm water management, hillside or steep slope ordinances, wildfire ordinances, hazard setback requirements)	Y	N
Growth management ordinances (also called "smart growth or anti-sprawl programs)	Y	N
Site plan review requirements	Y	N
General or comprehensive plan	Y	N
A capital improvements plan	Y	N
An economic development plan	Y	N
An emergency response plan	Y	N
A post-disaster recovery plan	Y	N
A post-disaster recovery ordinance	N	N
Real estate disclosure requirements	Y	N
2001 Flood Hazard Mitigation Plan	Y	N

Fiscal Resources

The table below shows specific financial and budgetary tools available to the County such as community development block grants; capital improvements project funding; authority to levy taxes for specific purposes; fees for water, sewer, gas, or electric services; impact fees for homebuyers or developers for new development; ability to incur debt through general obligations bonds; and withholding spending in hazard-prone areas.

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community Development Block Grants (CDBG)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
Fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers for new developments/homes	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax and revenue bonds	Yes
Yes Incur debt through private activity bonds	Yes
Withhold spending in hazard-prone areas	Yes

Plan Development Resource List

ITEM	TITLE	PUBLISHER	DATE
1.	LACO Local Annex to the State Flood Hazard Mitigation Plan for the 1995 Winter Storms	Los Angeles Public Works	None
2.	Southern California Floods Hazard Mitigation Report	FEMA Interagency Task Force	9/90
3.	LACO GIS Long Range Plan	Plan Graphics Inc.	7/90
4.	State Flood Hazard Mitigation Plan	FEMA	3/29/99
5.	The Southern Region Highway 41 Fire Aug 14-22,94	Richard Andrews, Ph.D. Director Governor's Office of Emergency Services	
6.	Hazard Mitigation Report for East Bay Fire in the Oakland Berkeley Hills Alameda County	FEMA 919-DR-CA	10/91
7.	Southern California Earthquake Center	SC/EC	Volume 4 number 4
8.	Reducing the Risks of Nonstructural Earthquake Damage. A Practical Guide	FEMA	9/94
9.	Pepper; Pre Earthquake Planning for Post Earthquake Rebuilding	Southern CA. Earthquake Preparedness Project FEMA	1987
10.	The Emergency Survival Handbook American Red Cross	Red Cross	1985
11.	Earthquake Preparedness for Seniors	Emergency Services Division Riverside Police Department Camen Nieves, ESC, City of Riverside, CA	10/91
12.	Business and Industry Council for Emergency Planning and Preparedness Resource Directory		1991
13.	Five Year Prepared Plan	Auditor Controller LACO	8/90
14.	The Legacy of Northridge 5 years Later	FEMA	1/27-28/99
15.	.NO WAY OUT The Dangers of Flood Control Channels educational Guide	LACO Office of Education	1997
16.	State Capability Assessment for Readiness. A Report to the United States Senate Committee on Appropriations	FEMA	No date found
17.	Earthquake Prepared. Securing Your Home Protecting Your Family	Studio 4 Productions Joel Leach	6/10/95
18.	National Mitigation Strategy. Partnerships for Building Safer Communities	FEMA International Decade for Natural Disaster Reduction	12/6/95
19.	Governor's Office of Emergency Services. Origins and Development A Chronology 1917-1999	Vincent Montane, Chief Resource Planning Unit: OES Information and Public Affairs	6/99
20.	The City in Crisis; 2 volumes, A report by the Special Advisor to the Board of Police Commissioners on the Civil Disorder in Los Angeles	Special Advisor William H. Webster Deputy Special Advisor Hubert Williams	10/21/92
21.	NAPA; Coping with Catastrophe; Building an Emergency Management System to meet People's Needs in Natural and Manmade Disasters.	National Academy of Public Administration. U.S. Congress for FEMA	2/93
22.	LACO 2000-01 Proposed Budget Capital Projects/Refurbishments Addendum	Board of Supervisors	4-2000
23.	Homeland Defense and Homeland Security in the 21st Century Regional, State and Local Strategies and Grants Workshop	Market*Access International, Inc	Jan 14-16, 2003
24.	Be Prepared Disaster Recovery Handbook: A complete Guide to Disaster	Recovery and Preparedness. Los Angeles Fire Dept. Laurel S. Courtney	2000.
25.	"The Real Meaning of Seismic Risk: Part 1". A symposium Sponsored by LACO Emergency Preparedness Commission. The Business and Industry Council on Planning and Preparedness and the Southern California Earthquake Center. SCEC	Southern California Earthquake Center	11- 9, 99
26.	Practical Lessons from the Loma Prieta Earthquake	National Research Council National Academy Press	1994
27.	California Earthquake Loss Reduction Plan	The California Seismic Safety Commission	1997-2001
28.	Northridge Earthquake 1 year later: Health Care Facilities and Services	David Abbott, R.E. State Department of Health Services	1/95
29.	The Oakland Hills Firestorm After Action Report	FEMA Interagency Report	10/20/91

ITEM	TITLE	PUBLISHER	DATE
30.	The Law Enforcement Response to Natural Disaster Hurricane Hugo	FEMA Interagency Report	9/21/89
31.	Liability of Local Governments for Earthquake Hazards & Losses	Research Reports Association of Bay Area Governments	10/88
32.	State of California; Hazardous Material Incident Contingency Plan California	State of California	1/91
33.	Hazard Mitigation Planning Course State Level, G 376		7/94
34.	County of LA: Recovery Reconstruction Plan 2 volumes	LACO	
35.	Northridge Earthquake Recovery Procedures	FEMA Interagency Report	
36.	Recovery and Reconstruction Plan	City of Los Angeles	5/91
37.	Southern California Emergency Services Association; Disasters and People with Disabilities Issues & Considerations	Southern California Emergency Services	9/14/95
38.	Energy Shortage Contingency Plan	FEMA Report	10/92
39.	United States Forest Service; Angeles National Forest Disaster Plan	United States Forest Service	4/93
40.	Preparing for Earthquake; It's Your Business. A model Earthquake Preparedness and Recovery Plan for Central Business Districts	Alameda Main Street Project	2/90
41.	Public Safety Issues from the Northridge Earthquake of January 17, 1994. A compendium of Issue Statements by the Commissioners of the Seismic Safety Commission	State of California	SSC 95.03 March, 1995
42.	Northridge Earthquake: Turning Loss to Gain Seismic Safety Commission State of California	Report to the Governor, Governor's Executive Order W-78-94	SSC Report # 95-01 Sacramento, CA 1995
43.	California Terrorism Response Plan: An Annex to the State Emergency Plan	Dallas Jones Director Governor's Office of Emergency Services	3/99
44.	Leadership Essentials for County Managers, County Technical Information	County of Los Angeles	2001?
45.	Identification & Reduction of Nonstructural Earthquake Hazards in California Schools: Post-Earthquake Damage Evaluation for California Schools	Bay Area Regional Earthquake Preparedness Project	3/1995
46.	LACO Department of Mental Health Project Rebound Firestorms: Immediate Services Grant, Final Report FEMA Grant 1005-DR-CA	LACO Mental Health	Oct 26, 93-Jan 31, 94
47.	Department Emergency Plan LACO	Public Defender	10/01
48.	Department Emergency Plan LACO	Public Social Services	4/2/97
49.	Department Emergency Plan LACO	Registrar Recorder	2001
50.	Department Emergency Plan LACO	Marshal of Municipal Courts: Robert F. Mann	1988
51.	Disaster Preparedness Plan LACO	Children's Services	6/88
52.	Department Emergency Plan LACO	Ombudsman	2/02
53.	Department Emergency Plan LACO	Museum of Art	10/27/00
54.	Department Emergency Plan LACO	Hall of Records	1992
55.	Department Emergency Plan LACO	District Attorney	10/27/00
56.	Department Emergency Plan LACO	Agricultural Commission Weights and Measures	11/12/01
57.	Department Emergency Plan LACO	Los Angeles County Fire	10/01/01
58.	Department Emergency Plan LACO	Mental Health	2/11/02
59.	Department Emergency Plan LACO	Community Development Commission	10/02/01
60.	Department Emergency Plan LACO	Human Resources	11/29/01
61.	Department Emergency Plan LACO	Board of Supervisors Larry J. Monteich	9/13/89
62.	Department Emergency Plan LACO	Chief Administrative Office	1/99
63.	Department Emergency Plan LACO	Children and Family Services	10/27/00
64.	Department Emergency Plan LACO	Lacera	10/02/01
65.	Department Emergency Plan LACO	Animal Care & Control	12/01
66.	Department Emergency Plan LACO	Coroner's Office	3/01
67.	Heat Emergency Operational Plan	LACO	8/7/98
68.	Emergency Procedures Manual Guidelines for County Buildings	Chief Administrative Office of Emergency Management w/cooperation LACO Fire Department	1991

ITEM	TITLE	PUBLISHER	DATE
69.	Interagency Hazard Mitigation Team Report in Response to El Nino' 98 Storms	FEMA 1203-DR-CA	2/9/98
70.	Emergency Preparedness for People with Disabilities	City of Los Angeles	4/2001
71.	Water District Identification Report LACO	David M. Griffith & Associates, ltd. Jan Rogala, Senior Project Manager, Kenneth Olson, Analyst	6/29/94
72.	Addressing Seismic Hazards in Southern California: Establishing Dialogue Among Academia, The Insurance Industry, and risk Assessment Professionals	Southern California Earthquake Center; National Science Foundation	Nov 9-10, 1995 USC LA,CA
73.	Hazard Mitigation Strategies; Terrorism Agent Information & Treatment Guidelines for Clinicians & Hospitals	LACO Department of Health Services- Public Health	6/2003
74.	Northridge Earthquake; The Hospital Response January 17, 1994	Donald H. Cheu, M.D.	1/17/94
75.	The Los Angeles-Whittier Narrows Earthquake of October 1, 1987: Federal/State Hazard Mitigation Survey Team Report	In response to the Oct.7, 1987 Disaster Declaration FEMA-799-DR-CA Covering Los Angeles and Orange Counties	11/ 1987
76.	Northridge Earthquake: January 17, 1994; Interim Report	California Governor's Office of Emergency Services Richard Andrews, Director State Coordinating Officer, Northridge Earthquake	4/4/94
77.	Southern California Firestorms; Hazard Mitigation Survey Team Report	State of California; Governor's Office of Emergency Services; FEMA-1005-DR-CA	8/94
78.	Hazard Mitigation Report; with Early Implementation Strategy	State of California, Governor's Office of Emergency Services; FEMA-1044-DR-CA declared January 10, 1995	2/95
79.	Hazard Mitigation Grant Program Handout	FEMA	No Date Listed.
80.	Disaster Assistance Branch Risk Management Section; Joint FEMA/OES Section 406 Hazard Mitigation Policy Statement	State of California; Governor's Office of Emergency Services	9/16/94
81.	Hazard Mitigation Early Implementation Strategy; Northridge Earthquake	FEMA DR-1008-CA	2/94
82.	Interagency Hazard Mitigation Team Report including Early Implementation Strategy Progress Report; California Winter Storms of 1995	FEMA-DR-1044-CA declared Jan. 10,95; FEMA-DR-1046-CA declared March 12, 95	1995
83.	Hazard Mitigation Opportunities For California; The State/Federal Hazard Mitigation Survey Team Report for the Loma Prieta Earthquake	The State/Federal Hazard Mitigation Survey Team	1/90
84.	Interagency Hazard Mitigation Team Report for the California Severe Winter Storms Jan.5-March 20, 1993	FEMA979-DR-CA	3/29/93
85.	Hazard Mitigation Report for the Southern California Floods: In Response to the Feb.25,92	FEMA-935-DR-CA	1992
86.	Interagency Hazard Mitigation Team Report: In Response to El Nino '98 Storms	FEMA1203-DR-CA DECLARED Feb. 9,98	1998
87.	Gilmore Commission 5th Annual Report on Terrorism	George Town University Gilmore Commission	December 2003
88.	Guide For All-Hazard Emergency Operations Planning	FEMA	September 1996
89.	Report to the Board of Supervisors on the Non-Structural Earthquake Hazard Mitigation Survey	LACO Office of Emergency Management	June 3, 1997
90.	Floodplain Management Plan for Repetitive Loss Properties; Los Angeles County Malibu Lake Area	LACO Public Works2 volumes	September 2001
91.	Floodplain Management Plan for Repetitive Loss Properties; Los Angeles County Santa Monica Mountains & San Gabriel Mountains & Quartz Hill	LACO Public Works 2 Copies	September 2001
92.	92. Floodplain Management Plan for Repetitive Loss Properties; Los Angeles County Santa Monica Mountains, San Gabriel Mountains, Quartz Hill: Appendix A Hydrology	LACO Public Works	September 2001
93.	Floodplain Management Plan for Repetitive Loss Properties: Los Angeles County, Santa Monica Mountains, San Gabriel Mountains, Quartz Hill: Appendix B: RLP Site Information	LACO Public Works	September 2001

ITEM	TITLE	PUBLISHER	DATE
94.	Floodplain Management Plan for Repetitive Loss Properties: Los Angeles County, Santa Monica Mountains, San Gabriel Mountains, Quartz Hill: Appendix C Environmental Overview	LACO Public Works	September 2001
95.	Floodplain Management Plan for Repetitive Loss Properties: Los Angeles County, Santa Monica Mountains, San Gabriel Mountains, Quartz Hill: Appendix D Public Involvement Process	LACO Public Works	September 2001
96.	Floodplain Management Plan for Repetitive Loss Properties: Los Angeles County, Santa Monica Mountains, San Gabriel Mountains, Quartz Hill: Appendix E Economic Assessment	LACO Public Works	September 2001
97.	Public Assistance Policy Digest	FEMA	October 2001
98.	California Fire Plan	State of California	2003
99.	The California Wildfire Problem and Recommended Solutions	State of California, Rich Schell, Ch. Of Fire Code and Engineering	2003
100.	The California Wildfire Problem and Recommended Solutions	State of California, Rich Schell, Ch. of Fire Code and Engineering	1-05-04
101.	Local Planning Guidance on Tsunami Response	A supplement to the Emergency Planning Guidance for Local Governments: California Tsunami Steering Committee Members	1997
102.	Fuel Modification Plan Guidelines	LACO Fire Dept Prevention Bureau Forestry Division	Adopted January 1998
103.	Wildfire Risk Reduction and Recovery Tips for Homeowners	United States Department of Agricultural	June 2002
104.	A Report to the Council of Western State Forestry	Western State Fire Managers	September 1999
105.	Report to the Los Angeles County Board of Supervisors: Wildfire Safety Panel	LACO Fire Department	June 17, 1994
106.	Help for Businesses Recovering from the Wildfires: Handout	FEMA/The Small Business Administration	No date listed
107.	Los Angeles County Operational Area Strategic Plan for Emergency Management	CAO	January 29, 2002
108.	Los Angeles Fire Department Notice of Interest #037-00000-02xxxx Seismic Retrofit	Los Angeles Fire Dept. Support Services	02/24/04
109.	Los Angeles Public Works Department Notice of Interest #037-91012 Palmer Canyon Storm Drains	Los Angeles Public Works Dept Kathi Delegal	No Date 2004
110.	Los Angeles Public Works Notice of Interest #307-91012, Flood Control Tank Site Modifications	Los Angeles Public Works Dept. Kathi Delegal	No Date 2004
111.	Los Angeles Public Works Notice of Interest #307-91012 Palmer Canyon Acquisition	Los Angeles Public Works Dept. Scott Schales	No Date 2004
112.	The Homeowner's Guide to Earthquake Safety	Seismic Safety Commission SSC No. 02-04	2002
113.	Los Angeles County Department of Health Services Bio Terrorism Preparedness Readiness Report	Los Angeles County of Health Services	03-04
114.	The Latest News from Disaster Research	University of Delaware; Disaster Research	01/21/04
115.	Learn how to maximize state and federal funding and other assistance for your community follow ing a disaster; Disaster Recovery and Mitigation Training	State of California: Office of Emergency Services	2-06-04
116.	Flood Maintenance Facilities-Summary Sheet 69 pages	Los Angeles County Dept.of PublicWorks	Current Document
117.	Hazard Mitigation Gr ant Program Status Report	Los Angeles County Dept.of PublicWorks	Received 03/16/04
118.	Hazard Mitigation Grant Program-Summary	Los Angeles County Dept.of PublicWorks	11/27/02
119.	Hazard Mitigation Grant Program; 1994 Northridge Earthquake Disaster FEMA-1008-DR; Water Tank Seismic Retrofit District Nos. 21, 29, & 36	Los Angeles County Dept. of Public Works	Post 1994

ITEM	TITLE	PUBLISHER	DATE
120.	Hazard Mitigation Grant Program 1994 Northridge Earthquake Disaster FEMA-1008-DR; Big Dalton Dam Seismic Safety Modification And Capacity Enlargement	Los Angeles County Dept. of Public Works	Post 1994
121.	Hazard Mitigation Grant Program 1994 Northridge Earthquake Disaster FEMA-1008-DR; Water Tank Seismic Retrofit District Nos. 37 & 40	Los Angeles County Dept. of Public Works	Post 1994
122.	Hazard Mitigation Grant Program 1994 Northridge Earthquake Disaster FEMA-1008-DR; Eaton Wash Dam Seismic Safety Modification	Los Angeles County Dept. of Public Works	Post 1994
123.	Hazard Mitigation Grant Program 1994 Northridge Earthquake Disaster FEMA-118-DR; Headquarters Building and Emergency Operations Center Seismic Retrofit	Los Angeles County Dept. of Public Works	Post 1994
124.	Hazard Mitigation Grant Program 1994 Northridge Earthquake Disaster FEMA-1008-DR; Big Tujunga Dam Seismic Safety Modification	Los Angeles County Dept. of Public Works	Post 1994
125.	Hazard Mitigation Grant Program 1994 Northridge Earthquake Disaster FEMA-1008-DR; Big Dalton Debris Dam Seismic Safety Modification	Los Angeles County Dept. of Public Works	Post 1994
126.	Hazard Mitigation Grant Program 1994 Northridge Earthquake Disaster FEMA-1008-DR; Santa Anita Debris Dam Seismic Safety Modification	Los Angeles County Dept. of Public Works	Post 1994
127.	Hazard Mitigation Grant Program 1994 Northridge Earthquake Disaster FEMA-1008-DR; Santa Anita Dam Seismic Safety Modification	Los Angeles County Dept. of Public Works	Post 1994
128.	Hazard Mitigation Grant Program 1994 Northridge Earthquake Disaster FEMA-1008-DR; Thompson Creek Dam Seismic Safety Modification	Los Angeles County Dept. of Public Works	Post 1994
129.	Hazard Mitigation Grant Program 1994 Northridge Earthquake Disaster FEMA-1008-DR; Little Dalton Debris Dam Seismic Safety Modification	Los Angeles County Dept. of Public Works	Post 1994
130.	Hazard Mitigation Grant Program Notice of Interest FEMA-1203-DR; Acquisition Relocation/ 1919, 1931, 1949 McCray Lane, Malibu, and N. Topanga Canyon Bl. Topanga	Los Angeles County Dept. of Public Works	Post 1994
131.	Hazard Mitigation Grant Program 1995 Storm Disasters FEMA-1044 & 1046-DR; Elevate Homes in Flood-Prone Areas	Los Angeles County Dept. of Public Works	Post 1995
132.	Los Angeles County Department of Health Services Emergency Plan Handout	Los Angeles County Dept. of Health Services; Emergency Medical Services Agency	3/15/04
133.	Los Angeles County Department of Health Services Emergency Pan Volume One	Los Angeles County Dept. of Health Services; Emergency Medical Services Agency	3/15/04
134.	GIS Layers CD	City of Burbank	3/19/04
135.	Health Services CD	LACO Dept of Health Services /Public Health	3/22/04
136.	Contracted City Services Agreement Matrix	LACO Dept. of Public Works	June, 23, 2003
137.	Summary of North Maintenance Area Reservoirs	LACO Dept of Public Works Waterworks District	4/19/2004
138.	Summary of Wells	LACO Dept of Public Works Waterworks District	4/19/2004
139.	North Maintenance Area Booster Pumping Stations	LACO Dept. of Public Works Waterworks District	4/19/2004
140.	South Maintenance Area Booster Pumping Stations	LACO Dept of Public Works Waterworks District	4/19/2004
141.	Dept. of Public Works Strategic Plan	LACO Dept of Public Works	4/19/2004
142.	Los Angeles County Sheriff Services/Contract Cities	LACO Sheriff Dept.	
143.	List of Riots/Historical Data	Wikipedia	(supplied by LACO Sheriff Dept.
144.	Statistics from the Civil Unrest	www.usc.deu/isd/archives/cityinstress/newinit/part7.html	(supplied by LACO Sheriff Dept.)
145	Matrix for Contract Cities by Station	LACO Sheriff Department	Revised 10/26/99

ITEM	TITLE	PUBLISHER	DATE
146.	Region 1-111 Matrix Contract Cities Personnel Inventory	LACO Sheriff Department	No date listed
147.	School Resource Personnel	LACO Sheriff Department	03/23/04
148	Contract Cities Emergency and Disaster Contacts	LACO Sheriff Department	Revised 9/00
149	Department Budget/Positions	LACO Sheriff Department	12/01/2003
150	Just the Facts	LACO Sheriff Department	Fiscal Year 2003-04
151	Breakdown Personnel Cost/hours	LACO Sheriff Department	Fiscal Year 2003-04
152	Major Natural Gas Pipelines	Federal Energy Regulatory Commission	Sept. 30, 1997
153	Los Angeles County Emergency Operations Center Staff Planning Guide	Los Angeles County Operational Area	2/21/2003
154	Protecting the Vital Electric Infrastructure	Bob Sypult/ Southern California Edison	May 12, 2004
155.	Office of Public Safety Asset List and Values	Dept. of Human Resources/ Office of Public Safety	9/12/02
156	List of County Departments that Office of Public Safety provides either law enforcement protection to, and /or security services.	Dept. of Human Resources/ Office of Public Safety	Fiscal Year 2003-04
157	Budget Report/Mission Statement/Strategic Plan/Critical Plan	Dept of Human Resources/ Office of Public Safety	Fiscal Year 2003-04
158	Office of Public Safety Department Emergency Plan	County of Los Angeles Office of Public Safety County Police Bayan Lewis, Chief	Revised 03/04/03
159	Computer Hardware Inventory Form and Cost Estimates	LACO Fire Department/ Gil Garcia	March 4, 2004
160	Los Angeles Fire Department Station Replacement Cost	LACO Fire Department/Gil Garcia	April 20, 2004
161	Los Angeles Fire Department Pacoima Replacement Cost	LACO Fire Department/Gil Garcia	April 20, 2004
162	Los Angeles Fire Department Camp Replacement Cost	LACO Fire Department/Gil Garcia	April 20, 2004
163	Los Angeles Fire Department LAO Replacement Cost	LACO Fire Department/Gil Garcia	April 21, 2004
164	Los Angeles Fire Department LEPC Plan/ 2 CD Region 1, Area 1	LACO Fire Department/ Walt Uroff	April 13, 2004
165	Computer Hardware Inventory Form and Cost Estimates	LACO Fire Department/ Gil Garcia	March 4, 2004
166	Los Angeles Fire Department Station Replacement Cost	LACO Fire Department/Gil Garcia	April 20, 2004
167	Los Angeles Fire Department Pacoima Replacement Cost	LACO Fire Department/Gil Garcia	April 20, 2004
168	Los Angeles Fire Department Camp Replacement Cost	LACO Fire Department/Gil Garcia	April 20, 2004
169	Los Angeles Fire Department LAO Replacement Cost	LACO Fire Department/Gil Garcia	April 21, 2004
170	Los Angeles Fire Department LEPC Plan/ 2 CD Region 1, Area 1	LACO Fire Department/ Walt Uroff	April 13, 2004
171	Los Angeles Fire Department Contract City Services Matrix	LACO Fire Department/Chief Robert Hook	March 23, 2004
172	Los Angeles Fire Department Hazard Mitigation Grant Program Application DR-1498 Tonner Canyon Fuels Management Project	LACO Fire Department/Assistant Chief Frank Vidales	April 2004
173	Los Angeles Fire Department Hazard Mitigation Grant Program Application DR-1498 Whittier Hills Hazardous Mitigation Project	LACO Fire Department/ Assistant Chief Frank Vidales	April 2004
174	Tenant Facility Report by Department/Building Type/Use	LACO/Department of Health Services	June 4, 2002
175	Los Angeles County Department of Health Services/Closed Health Centers	LACO Department of Health Services	2003
176	Los Angeles County Department of Health Services Major Hospital Facilities	LACO Department of Health Services	July, 2003
177	Licensed Ambulance Operators-Los Angeles County	Los Angeles County Department of Health Services	10-212-2003
178	California Surveillance And Facts About West Nile Virus	Greater Los Angeles County Vector Control District	April 2002
179	Mosquito and / or Vector Control Districts Incorporated and Unincorporated Areas of Los Angeles County (Map)	Local Agency Formation Commission for LA County	03/01/04

ITEM	TITLE	PUBLISHER	DATE
180.	Volunteer Opportunity! Bioterrorism Preparedness/ Mass Smallpox Vaccination Clinic Exercise	LACO Department of Health Services	04/2004
181.	Public Health Emergency Responsibilities Form During an Epidemic or Outbreak	County of Los Angeles Department of Health Services Public Health	02/17/2004
182	Los Angeles County Department of Health Services Bio terrorism Preparedness Readiness Report	County of Los Angeles Department of Health Services Public Health	03-04
183	LAC+USC Health Network Policy/Mitigation of Vulnerability/Vulnerability Analysis	LAC=USC General Hospital Women's and Children's Hospital	2-12-2004
184	Emergency Management Environment of Care/ Emergency Management Plan	ValleyCare	Last revised date:3/02
185	Summary of Medical Center Hazard Vulnerabilities	ValleyCare	3/02
186	Emergency Management/ Emergency Preparedness Implementation Plan	ValleyCare	Last revised date:3/02
187	Los Angeles County Department of Health Services Public Health/ Bio terrorism Preparedness and Response Program/Mitigation Assessment	Los Angeles Department of Health Services Public Health	01/15/04
188	Medical Management of CBRNE Casualties for Health Care Providers	Los Angeles Department of Health Services Public Health/ Emergency Medical Services Agency	No date
189	Hazard Vulnerability Information	Rancho Los Amigos National Rehabilitation Center	2003
190	Safety Plan	Los Angeles Department of Health Services Public Health	
191	Road Maintenance Division Road Codes	Los Angeles County Dept of Public Works	Received June 3, 2004
192	Emergency Red Book Water Resources Division	Los Angeles County Dept of Public Works	Received June 3, 2004
193	Seawater Barrier Projects Observation Wells Site List	Water Resource Division Los Angeles County Dept of Public Works	Received June 3, 2004
194	Maintenance Management System Bridge Inventory by Jurisdiction	Road Maintenance Division Los Angeles County Dept of Public Works	Received June 3, 2004
195	Road Maintenance Division Facilities List	Road Maintenance Division Los Angeles County Dept of Public Works	Received June 3, 2004
196	Road Maintenance Division Emergency Response Manual	Road Maintenance Division Los Angeles County Dept of Public Works	March 2004
197	LHMP LA County CD	Administrative Service Division (ASD) & Water Service Maintenance	6-01-04
198	Operational Services Division Facility Inventory List	Operational Services Division Los Angeles County Dept of Public Works	Received June 3, 2004
199	Employee's Emergency Response Manual	Operational Services Division Los Angeles County Dept of Public Works	September 2003
200	Los Angeles County Traffic Signal Inventory (Alpha)	Operational Services Division Los Angeles County Dept of Public Works	05/18/2004
201	Directory of the County of Los Angeles And Contract City Building and Safety Offices	Building & Safety Division Los Angeles County Dept of Public Works	04/10/03
202	Blackout Contingency Plan	Internal Services	8/2001
203	Emergency Response/Damage Reporting Procedures	Building & Safety Division Los Angeles County Dept of Public Works	08/06/03

ITEM	TITLE	PUBLISHER	DATE
204	Airport Layout Plans: Brackett Field, Compton/Woodley Airport, El Monte Airport, General William J. Fox Airfield, Whitman Airport CD	Aviation Division Los Angeles County Dept of Public Works	05/27/2004
205	Aerial Photography of Brackett Field Airport, Compton/Woodley Airport, El Monte Airport, General William J. Fox Airfield, Whitman Airport	Aviation Division Los Angeles County Dept of Public Works	05/24/2004
206	Aviation Division Emergency/Terrorist Response Plan	Aviation Division Los Angeles County Dept of Public Works	Received 6/03/04
207	Building Survey Facility List	Aviation Division Los Angeles County Dept of Public Works	11/05/90
208	Airport Layout Plan Blueprints for Brackett Field La Verne, CA; Compton/Woodley Airport Compton, CA; El Monte Airport El Monte CA; Whitman Airport Pacoima, CA; Gen. William J. Fox Airfield Lancaster, CA	Aviation Division Los Angeles County Dept of Public Works	11/05/90
209	Catch Basin Cleanout 2004 Ballona Creek Watershed Project ID No. FMD0003062 7,981 Participation Catch Basins	Los Angeles County Construction Division	05/18/2004
210	Catch Basin Cleanout 2004 Dominguez Channel Watershed, 10,147 Participating Catch Basin Project ID No. FMD0003063	Los Angeles County Construction Division	05/18/2004
211	Catch Basin Cleanout 2004 Los Angeles River Watershed 37,189 Participating Catch Basins Project ID NO. FMD0003060 Volume 1	Los Angeles County Construction Division	05/10/2004
212	Catch Basin Cleanout 2004 Santa Clara River Watershed, ET AL. 8,611 Participating Catch Basins, Project ID NO. FMD0001035	Los Angeles County Construction Division	05/11/2004
213	Catch Basin Cleanout 2004 Los Angeles River Watershed 37,189 Participating Catch Basins Project ID NO. FMD0003060 Volume 11	Los Angeles County Construction Division	05/10/2004
214	Catch Basin Cleanout 2004 Los Angeles River Watershed 37,189 Participating Catch Basins Project ID NO. FMD0003060 Volume 111	Los Angeles County Construction Division	05/10/2004
215	Catch Basin Cleanout 2004 Los Angeles River Watershed 37,189 Participating Catch Basins Project ID NO. FMD0003060 Volume 1V	Los Angeles County Construction Division	05/10/2004
216	Catch Basin Cleanout 2004 San Gabriel River Watershed, ET AL. Approximately 22,053 Participating Catch Basins Project ID FMD0003061	Los Angeles County Construction Division	05/11/2004
217	Martin Luther King/Drew Medical Center History	Department of Health Services County of Los Angeles	5/21/2004
218	King/Drew Medical Center Emergency Management Hazard Vulnerability Analysis Worksheet	King/Drew Medical Center	2/04
219	Los Angeles County King/Drew Medical Center Medical Center Emergency Management Hazard Vulnerability Analysis-Calendar Year 2003	King/Drew Medical Center	2003
220	Harbor-UCLA Medical Center Mission Statement	Los Angeles County Department of Health Services	5/21/2004
221	LAC + USC Medical Center	Los Angeles County Department of Health Services	5/21/2004
222	The Burden of Disease in Los Angeles County; A study of the Patterns of Morbidity and Mortality in the County Population	Los Angeles County Department of Health Services and The UCLA Center for Health Policy Research	January 2000
223	Acute Communicable Disease Control Special Studies Report 2001	Los Angeles County Department of Health Services Public Health	2001
224	Transit Cooperative Research Program; Public Transportation Security: Volume 1; Communication of Threats : A Guide	Transportation Research Board National Research Council National Academy Press, Washington D.C	2002
225	San Gabriel Dam Inundated Area Map	Water Resources Division LACO Department of Public Works	08/03
226	San Gabriel Dam Hydroelectric Project Emergency Action Plan	Water Resources Division LACO Department of Public Works	08/31/2003
227	Geotechnical & Materials Engineering Division Facilities List	Geotechnical & Materials Engineering Division LACO Department of Public Works	2004

ITEM	TITLE	PUBLISHER	DATE
228	Department's Operations Center (DOC) Information Handbook	Disaster Services Group LACO Department of Public Works	08/12/2003
229	Inventory of Unincorporated Area Services Volume 1; Reports and Survey Responses	Department of Public Works	June 24, 1999
230	Fleet Asset List	LACO Fire Gil Garcia	June 22,2004
231	Communications Asset List	LACO Fire Gil Garcia	June 14, 2004
232	National Local Wildfire Hazard Mitigation Program	United States Forest Service	
233	Healthy Forests- An Initiative for Wildfire Prevention and Stronger Communities	United States Forest Service	8/22/02
234	County of Los Angeles 2002-2003 Final Budget	Los Angeles County Board of Supervisors	October 1, 2002
235	County of Los Angeles 2004-05 Budget Capital Projects/Refurbishments Addendum	Los Angeles County Board of Supervisors	April 2004
236	County of Los Angeles 2004-05 Proposed Budget - Children and Families Budget Addendum	Los Angeles County Board of Supervisors	April 2004
237	County of Los Angeles 2004-05 County Budget Volume 1	Los Angeles County Board of Supervisors	April 2004
238	County of Los Angeles 2004-05 County Budget Volume 2	Los Angeles County Board of Supervisors	April 2004
239	Countywide Integrated Radio System Configuration Operating System At-A-Glance	Los Angeles Department of Health Services	6/21/04
240	Countywide Integrated Radio System Overview Summary	Los Angeles Department of Health Services	6/21/04
241	2002 Los Angeles County Health Survey- Food Borne Illnesses Questions	Field Research Corporation	11/15/02
242	Los Angeles County Department of Health Services/Public Health Programs and Services Disaster Plan	Los Angeles Department of Health Services/Public Health	2/01/97
243	Emergency/Disaster Response Guide	Los Angeles Department of Health Services	2/01/97
244	FEMA's Public Health Expectations (Attachment 3)	FEMA	No date given
245	Disaster Assessment and Recovery Teams (DARTS) Plan	Los Angeles County Departments: Health Services, Metal Health, Public Social Services, Children and Family Services, Community and Senior Services	July 31, 2000
246	Los Angeles County Operational Area Heat Emergency Plan; word version	Los Angeles County Departments: Health Services, Community and Senior Services, Public Social Services, Chief Administrative Office	Version 3/26/01
247	Los Angeles County Operational Area Heat Emergency Plan; PDF version	Los Angeles County Departments	Version 11/24/2003
248	DART Plan Appendix: Public Health Rapid Response Team (Confidential) version 4.1	Los Angeles County Department of Health Services/Public Health Preparedness and Response Team	February 2003
249	United States Postal Service Biohazard Detection System Response Plan	Los Angeles Department of Health Services/Public Health	08/18/03
250	Los Angeles County Department of Health Services/Public Health Bio-terrorism Surveillance and Epidemiology Response Plan	Los Angeles Department of Health Services/Public Health	January 2004
251	SARS Plan for Los Angeles County Department of Health Services/Public Health	Los Angeles Department of Health Services/Public Health	1/12/04
252	Acute Communicable Disease and Control Program: Epidemiology-Mitigation	Los Angeles Department of Health Services/Public Health	6/29/2004
253	Los Angeles County Smallpox Preparedness, Response and Recovery Plan Draft 6.10 (no longer confidential)	Los Angeles Department of Health Services/Public Health	11/26/02
254	Public Health Emergency Plan Draft Outline Version 1.2	Los Angeles Department of Health Services/Public Health	3/19/2004
255	Public Health Emergency Responsibilities Form Organizational and Programming Functions	Los Angeles Department of Health Services/Public Health	No date given

ITEM	TITLE	PUBLISHER	DATE
256	High Desert Hospital Hazard and Vulnerability Analysis Environment of Care E.C.-1.4	High Desert Hospital Safety Department	3/20/2003
257	Los Angeles County Harbor-UCLA Medical Center Emergency Management Hazard Vulnerability Analysis-Calendar Year 2004	Harbor-UCLA Medical Center Emergency Management	2004
258	HMGP Project #1008-2589 FIPS Code #037-91025, Seismic Strengthening-Central Health Center Supplement #1055	FEMA	September 22, 2003
259	HMGP Project #1008-2211 FIPS Code #037-91025 Non-structural Seismic Bracing-Henry Claude Hudson Health Center Supplement #1058	FEMA	December 9, 2003
260	HMGP Project #1008-2152 FIPS Code #037-91025 Structural and Non-Structural Bracing-El Monte Comprehensive Health Center Supplement #1056	FEMA	December 9, 2003
261	HMGP Project #1008-2131 FIPS Code #037-91025 Structural Strengthening-Parlow Library Supplement #1069 and Supplement #1070	FEMA	September 22, 2003
262	Floodplain Management Plan for Repetitive Loss Properties Appendix B- 2 of 2 RLP Site Information	` Department of Public Works	September 2001
263	Floodplain Management Plan for Repetitive Loss Properties Appendix C Environmental Overview	Department of Public Works	September 2001
264	Floodplain Management Plan for Repetitive Loss Properties Appendix D Public Involvement Process	Department of Public Works	September 2001
265	Floodplain Management Plan for Repetitive Loss Properties Appendix E Economic Assessment	Department of Public Works	September 2001
266	Big Dalton Dam and Reservoir Documentation of Inundated Area Boundary and Big Dalton Dam Map	Los Angeles County Flood Control District	August 13, 1973
267	Big Dalton Wash- Big DaltonDebris Basin Documentation of Inundated Area Boundaries and Map	Los Angeles County Flood Control District	September 20, 1973
268	Big Tujunga Dam and Reservoir Documentation of Inundated Area Boundary and Map	Los Angeles County Flood Control District	August 14, 1973
269	Cogswel lDam and Reservoir Documentation of Inundated Area Boundary and Map	Los Angeles County Flood Control District	August 17, 1973
270	Devil's Gate Dam and Reservoir Documentation of Inundated Area Boundary and Map	Los Angeles County Flood Control District	August 14, 1973
271	Eaton Wash Dam and Reservoir Documentation of Inundated Area Boundary and Map	Los Angeles County Flood Control District	October 19, 1973
272	Laguna Regulating Basin Documentation of Inundated Area Boundary	Los Angeles County Flood Control District	August 17, 1973
273	Little Dalton Debris Basin Documentation of Inundated Area Boundaries and Map	Los Angeles County Flood Control District	September 20, 1973
274	Live Oak Dam and Reservoir Documentation of Inundated Area Boundary and Map	Los Angeles County Flood Control District	August 9, 1973
275	Pacoima Dam and Reservoir Documentation of Inundated Area Boundary and 2 Maps	Los Angeles County Flood Control District	August 8, 1973
276	Puddingstone Dam and Reservoir Documentation of Inundated Area Boundary and 2 Maps	Los Angeles County Flood Control District	August 16, 1973
277	Puddingstone Diversion Dam and Reservoir Documentation of Inundated Area Boundary and Map	Los Angeles County Flood Control District	August 17, 1973
278	San Dimas Dam and Reservoir Documentation of Inundated Area Boundary and Map	Los Angeles County Flood Control District	August 9, 1973
279	San Gabriel Dams and Reservoirs-San Gabriel Dam and Reservoir Documentation of Inundated Area Boundary; Morris Dam and Map	Los Angeles County Flood Control District	October 17, 1973
280	Santa Anita Dam and Reservoir Documentation of Inundated Area Boundary and Map	Los Angeles County Flood Control District	August 13, 1973
281	Santa Anita Debris Basin Documentation of Inundated Area Boundary and Map	Los Angeles County Flood Control District	October 11, 1973
282	Sawpit Dam and Reservoir Documentation of Inundated Area Boundary and Map	Los Angeles County Flood Control District	August 27, 1973
283	Sawpit Debris Basin Documentation of Inundated Area Boundary and Map	Los Angeles County Flood Control District	October 24, 1973
284	Thompson Creek Dam and Reservoir Documentation of Inundated Area Boundaries and Map	Los Angeles County Flood Control District	August 29, 1973
285	Sierra Madre Dam Documentation of Inundated Area Boundary and Map	Los Angeles County Flood Control District	October 5, 1973

ITEM	TITLE	PUBLISHER	DATE
286	Los Angeles County Energy Conservation Plan	LA County Internal Services Department.	2003
287	Los Angeles County ISD Administration and Finance Services Strategic Plan	Internal Services Department	October 1, 2003

Section 7 – Plan Maintenance

This section of the Plan describes the formal process that will ensure that the Plan remains an active and relevant document. The plan maintenance process includes a schedule for monitoring and evaluating the Plan annually and producing a plan revision every five years. This section describes how the county and cities will integrate public participation throughout the plan maintenance process. Finally, this section includes an explanation of how jurisdictions intend to incorporate the mitigation strategies outlined in this plan into existing planning mechanisms such as the County Comprehensive Land Use Plan, Capital Improvement Plans, and Building Codes.

Monitoring, Evaluating & Updating

The Hazard Mitigation Advisory Committee participants will be responsible for monitoring the plan annually for updates to goals, objectives, and action items. If needed, these participants will coordinate through the Los Angeles County Office of Emergency Management to integrate these updates into the Plan. LA County OEM will be responsible for monitoring the overall Plan for updates on an annual basis.

Plan Evaluation

1. The Plan will be evaluated by LA County Office of Emergency Management and by each participating jurisdiction at least every two years to determine the effectiveness of programs, and to reflect changes in land development or programs that may affect mitigation priorities.

2. The Plan will also be re-evaluated by the Hazard Mitigation Advisory Committee leads (or their select representatives) based upon the initial STAPPLEE criteria used to draft goals, objectives, and action items.

3. Los Angeles County Office of Emergency Management representatives will also review the goals and action items to determine their relevance to changing situations in the county, as well as changes in State or Federal regulations and policy.

4. Los Angeles County Office of Emergency Management representatives will also review the risk assessment portion of the Plan to determine if this information should be updated or modified, given any new available data.

5. The coordinating organizations responsible for the various action items will report on the status of their projects, the success of various implementation processes, difficulties encountered, success of coordination efforts, and which strategies should be revised.

6. Any updates or changes necessary will be forwarded to LA County Office of Emergency Management for inclusion in further updates to the Plan. It is envisioned that the Hazard Mitigation Advisory Committee and each Departmental Mitigation Planning Team will meet annually to discus the status of the Plan.

Plan Updates

Los Angeles County Office of Emergency Management is the responsible agency for updates to the Plan. All Hazard Mitigation Advisory Committee participants will be responsible to provide Office of Emergency Management with departmental-level updates to the Plan when/if necessary as described above. Every five years the updated plan will be submitted to State OES and FEMA for review.

Implementing Through Existing Programs

The County will have the opportunity to implement recommended action items through existing programs and procedures that are deemed appropriate. Upon adoption of the Plan, the participants can use the Plan as a baseline of information on the natural hazards that impact the County. They will also be able to refer to existing institutions, plans, policies and ordinances as required (e.g., General Plan, Comprehensive Plan).

Continued Public Involvement

Los Angeles County Office of Emergency Management is dedicated to involving the public directly in review and updates of the Plan. LA County Office of Emergency Management and a representative from other participating organizations will be responsible for monitoring, evaluating, and updating the Plan as described above. During all phases of plan maintenance, the public will have the opportunity to provide feedback.

A copy of the Plan will be publicized and available for review on the LA County Office of Emergency Management website. In addition, copies of the plan will be catalogued and kept at all of the appropriate agencies in the county. The existence and location of these copies will also be posted on the county website. The site will contain contact information for members of the Hazard Mitigation Advisory Committee to which people can direct their comments and concerns.

All public feedback will be forwarded to the Hazard Mitigation Advisory Committee for review and incorporation (if deemed appropriate). This information will also be forwarded to LA County Office of Emergency Management personnel responsible for keeping track of public comments on the plan.

A press release requesting public comments will also be issued after each evaluation or when deemed necessary by the Hazard Mitigation Advisory Committee. The press release will direct people to the website or appropriate local agency location where the public can review proposed updated versions of the Plan. This will provide the public an outlet for which they can express their concerns, opinions, or ideas about any updates/changes that are proposed to the Plan. The Los Angeles County Office of Emergency Management will be responsible for using county resources to publicize the press releases and maintain public involvement through public access channels, web pages, and newspapers as deemed appropriate.

Glossary of Acronyms

ARC	American Red Cross
BFE	Base Flood Elevation (100 yr.)
BIA	Bureau of Indian Affairs
BICEP	Business and Industry Council for Emergency Preparedness
BLM	Bureau of Land Management
BOR	Bureau of Reclamation
CALTRANS	California Department of Transportation
CBSC	California Building Standards Commission
CCC	California Conservation Corp
CDC	Center for Disease Control
CDEC	California Data Exchange Center
CDF	California Dept. of Forestry and Fire Protection
CDFA	California Department of Food and Agriculture
CFSA	Consolidated Farm Service Agency
CFR	Code of Federal Regulations
CIS	Chemical Inventory System
CRDL	Chemical and Radiation Detection Laboratory
CLETS	California Law Enforcement Telecommunication System
CRS	NFIP Community Rating System
DMA 2000	Disaster Mitigation Act of 2000
DFG	California Department of Fish and Game
DOC/DMG	California Department of Conservation/Division of Mines and Geology
DoD	U.S. Department of Defense
DOT	U.S. Department of Transportation
DOE	U.S. Department of Energy
DPR	California Department of Parks and Recreation
DPW	Department of Public Works
DWR	California Department of Water Resources
EAL	Federal Emergency Action Levels
EIS	Early Implementation Strategy
EIS/EIR	Environmental Impact Statement &

	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
ESA	Explosive Storage Area
EXPL	Explosives
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Maps
GHAD	Geological Hazard Statement Districts
GIS	Geographic Information System
HMP	Hazard Mitigation Program
HMGP	Hazard Mitigation Grant Program
HUD	US Department of Housing and Urban Development
HVA	Hazard Vulnerability Analysis
IA	Individual Assistance Program
ICBO	International Congress of Building Officials
ICS	Incident Command System
IFGP	Individual Family Grant Program
IHMT	Interagency Hazard Mitigation Team
JFOC	Joint Flood Operations Center
JIC	Joint Information Center
JOC	Joint Operations Center
LACO	Los Angeles County
LPG	Liquefied Petroleum Gas
MSDS	Material Safety Data Sheet
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Agency
NPDES	National Pollutant Discharge Elimination System
NOAA	National Oceanic and Atmospheric Administration
NMF	National Marine Fisheries
NPGA	National Propane Gas Association
NPS	National Park Service
NRC	U.S. Nuclear Regulatory Commission
NRCS	U.S. Natural Resource Conservation Service
NWS	National Weather Service
OEM	Office of Emergency Management

OES	Office of Emergency Services
OMB	US Office of Management and Budget
PA	FEMA Public Assistance Program
PDA	Preliminary Damage Assessment
PG&E	Pacific Gas and Electric
RCD	Resource Conservation Districts
RFC	NWS River Forecast Center
SBA	U.S. Small Business Administration
SCCAG	Southern California Council of Governments
SEMS	Standard Emergency Management System
SOP	Standard Operating Procedure
SRB	State Reclamation Board
UBC	Uniform Building Code
USACE	US Army Corps of Engineers
USCG	United States Coast Guard
USDA	United States Department of Agriculture
USFS	United States Forestry Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
USNRC	U.S. Nuclear Regulatory Commission
VOLAG	Volunteer Agencies