City of Simi Valley

SEMS Multi-Hazard Functional Plan (Emergency Plan)

March 2001 (CPG-3)

FOREWORD

This SEMS Multihazard Functional Plan (MHFP) addresses the City of Simi Valley's planned response to extraordinary emergency situations associated with natural disasters, technological incidents and national security emergencies. The plan does not address less than catastrophic emergencies or the well-established and routine procedures used in coping with them. Instead, the operational concepts of this plan focus on potential large-scale disasters that can generate unique situations requiring unusual emergency responses.

This plan is a preparedness document designed to be read, understood, and exercised prior to an emergency. It includes the City of Simi Valley as part of the California Standardized Emergency Management System (SEMS). ***(CPG-12)***

Each element of the emergency management organization is responsible for assuring the preparation and maintenance of appropriate and current standard operating procedures (SOPs), resource lists and checklists that detail how assigned responsibilities are performed to support SEMS MHFP implementation and to ensure successful response during a major disaster. ***(CPG-32/105)*** Such SOPs should include the specific emergency authorities that designated officials and their successors can assume during emergency situations. ***(CPG-51)***

ASSUMPTIONS (CPG-18):

- The City of Simi Valley is primarily responsible for emergency actions on its jurisdiction and will commit all available resources to save lives, minimize injury to persons, and minimize damage to property.
- The City of Simi Valley will utilize SEMS in emergency response operations.
- The Director of Emergency Services will coordinate the City's disaster response in conformance with its Emergency Services Ordinance.
- The City of Simi Valley will participate in the Ventura County Operational Area. ***(SEMS-3)***
- The resources of the City of Simi Valley will be made available to local agencies and citizens to cope with disasters affecting this area.
- The City will commit its resources to a reasonable degree before requesting mutual aid assistance.
- Mutual aid assistance will be requested when disaster relief requirements exceed the City's ability to meet them.

EMERGENCY MANAGEMENT GOALS *(CPG-4)*:

- Provide effective life safety measures and reduce property loss.
- Provide for the rapid resumption of impacted businesses and community services.
- Provide accurate documentation and records required for cost recovery efforts.

ORGANIZATION OF THE SEMS MHFP *(CPG-9)*:

- **Part One - Basic Plan**. Contains overall organizational and operational concepts relative to response and recovery, as well as an overview of potential hazards. Intended audience—EOC Management Team.

- **Part Two - Emergency Organization Functions**. Describes the emergency response organization and emergency action checklists. Intended audience - EOC staff.

- **Part Three** - Supporting and legal documents to the SEMS MHFP. Intended audience - All elements of the SEMS staff.

ACTIVATION OF THE SEMS MHFP:

- By order of the official designated by the City of Simi Valley's Ordinance No. 578, provided that the existence or threatened existence of a Local Emergency has been proclaimed in accordance with the ordinance.

- When the Governor has proclaimed a State of Emergency in an area including this jurisdiction.

- Automatically on the proclamation of a State of War Emergency as defined in California Emergency Services Act (Chapter 7, Division 1, Title 2, California Government Code).

- Upon a Presidential declaration of a National Emergency.

- Automatically, on receipt of an attack warning or the observation of a nuclear detonation.

HAZARDOUS MATERIALS:

The Ventura County Environmental Health Division is designated as the Administering Agency for hazardous materials for the City of Simi Valley. This SEMS MHFP complies with and relies upon the City's hazardous materials response plan as required by NRT1-A. ***(CPG-8/16b/16d/41/59/93/103/140/162/176/207/228/250)***

APPROVAL AND PROMULGATION:

This SEMS MHFP will be reviewed by all departments/agencies assigned a primary function in the Emergency Responsibilities Matrix (**Part Two, Management Section**). Upon completion of review and concurrence by these departments/agencies, the SEMS MHFP will be submitted to the State Office of Emergency Services for review and then to the City Council for review and approval. Upon concurrence by the City Council, the plan will be officially adopted and promulgated. ***(CPG-42)***

TRAINING, EXERCISING, AND MAINTENANCE OF SEMS MHFP:

The Emergency Services Coordinator is responsible for coordination and scheduling of training and for exercising this plan. The City of Simi Valley's Emergency Management Organization will conduct regular exercises of this plan to train all necessary City staff in the proper response to disaster situations.

An exercise is a simulation of a series of emergencies for identified hazards affecting the City. During these exercises, emergency response organizations are required to respond as though a real emergency is occurring. The public will be made aware of these exercises through normal media communications.

The SEMS MHFP will be reviewed annually to ensure that plan elements are valid and current. ***(CPG-46)*** Each responsible organization or agency will review and upgrade its portion of the SEMS MHFP and/or modify its SOP as required based on identified deficiencies experienced in drills, exercises or actual occurrences. ***(CPG-44)*** Changes in government structure and emergency response organizations will also be considered in the SEMS MHFP revisions. The Emergency Services Coordinator is responsible for making revisions to the SEMS MHFP that will enhance the conduct of response and recovery operations. **(CPG-43)** The Emergency Services Coordinator will prepare, coordinate, publish and distribute any necessary changes to the plan to all City departments and other agencies as shown on the distribution list on page I-7 of this SEMS MHFP. **(CPG-45)**

In order to conform with SEMS requirements, the Emergency Services Coordinator will review documents that provide the legal basis for emergency planning and will modify them as necessary. **(SEMS-1)**

March 2001

LETTER OF PROMULGATION *(CPG-1)*

TO: OFFICIALS, EMPLOYEES, AND CITIZENS OF CITY OF SIMI VALLEY

The preservation of life and property is an inherent responsibility of local, state, and federal government. The City of Simi Valley has prepared this SEMS Multihazard Functional Plan (MHFP) to ensure the most effective and economical allocation of resources for the maximum benefit and protection of the civilian population in time of emergency.

While no plan can prevent death and destruction, good plans carried out by knowledgeable and well-trained personnel can and will minimize losses. This plan establishes the emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts of the various emergency staff and service elements utilizing the Standardized Emergency Management System (SEMS).

The objective of this plan is to incorporate all the facilities and personnel of the City into an efficient and coordinated organization capable of responding to any emergency.

This SEMS Multihazard Functional Plan is an extension of the California Emergency Plan. It will be reviewed and exercised periodically and revised as necessary to meet changing conditions.

The City Council gives its full support to this plan and urges all officials, employees, and citizens, individually and collectively, to do their share in the total emergency response effort of the City of Simi Valley.

Concurrence of this promulgation letter constitutes the adoption of the Standardized Emergency Management System by the City of Simi Valley. ***(SEMS-2)*** This SEMS MHFP will become effective on approval by the City Council.

Bill Davis, Mayor
City of Simi Valley

RECORD OF REVISIONS *(CPG-11)*

Date	Page Numbers	Revision	Entered By
7-9-2001	Introduction-9	Page numbers	Randy White
1-12-2002	Part One-29 Part 3-Legal	Removed Ref. to Financial System Mutual Aid.	Randy White
3-13-2002	Part One-81	Updated Terrorism Threat Analysis	Randy White
10-26-2004	Intro-7	Electronic Updates	Randy White
10-26-2004	Part One-29	Added Ref. to HazMit Plan	Randy White
9-26-2006	Part One-1	Added NIMS pages	Randy White
9-26-2006	Part One-10B	Added NIMS Integration	Randy White
9-26-2006	Part One-29	Added Ref. to Reso No. 2006-53	Randy White
9-26-2006	Part One-7	Added reference to Hazard Mitigation Plan	Randy White
9-26-2006	Part One-30	Updated Hazard Mitigation section in compliance with Hazmit Plan.	Randy White
9-26-2006	Mgmt-M-3,4	Added NIMS integration language	Randy White
10-24-2008	Ops-O-1	Replaced Ops Section with updated Ops Section Handbook	Randy White
10-24-2008	Intro-9	Added Operations Handbook pages	Randy White
10-24-2008	Mgmt-M-33 Plan-P-9 Log-L-5 Fin-F-6	Updated SEMS Org Charts	Randy White
10-24-2008	Mgmt-M-34 Plan-P-10 Log-L-6 Fin-F-7	Updated SEMS Responsibilities Charts	Randy White
9-22-2009	Part One-29	Added Ref. to Pandemic Plan	Randy White
1-3-2011	Mgmt-M-28	Update EOC Diagram	Randy White
10-23-2012	Mgmt-M-5	Amended reference to Ordinance 573 to reference SVMC Chapter 5	Randy White
10-23-2012	Mgmt-M13	Updated Succession Info	Randy White
12-10-2013	Mgmt-M13, M16	Updated Succession Info	Randy White

DISTRIBUTION LIST *(CPG-10)*

DEPARTMENTS/AGENCIES RECEIVING COPIES OF THE SEMS MHFP:	NO. OF COPIES

Effective October 2004, updates of this plan will not be forwarded via electronic methods.

Governor's OES, Southern Region	2
Ventura County Office of Emergency Services	1
Mayor/City Council	5
Director of Emergency Services/City Manager	1
Simi Valley Police Department	10
Simi Valley City Clerk	1
Simi Valley City Attorney	1
Simi Valley Library, (Cataloged as Reference Volume)	1
Simi Valley Department of General Services	2
Simi Valley Public Works Department	5
Simi Valley Department of Environmental Services	5
Simi Valley Department of Community Services	5
Ventura County Fire Department	2
Simi Valley Hospital	1
Rancho Simi Recreation and Parks District	1
American Red Cross, Ventura Chapter	1
Simi Valley Unified School District	2

SIGNED CONCURRENCE BY PRINCIPAL DEPARTMENTS/AGENCIES *(CPG-2)*

These departments/agencies concur with the City of Simi Valley's SEMS Multihazard Functional Plan. Revisions will be submitted to each of these entities, as needed.

Governor's OES, Southern Region
Ventura County Office of Emergency Services
Director of Emergency Services/City Manager
Simi Valley Police Department
Simi Valley Department of General Services
Simi Valley Public Works Department
Simi Valley Department of Environmental Services
Simi Valley Department of Community Services
Ventura County Fire Department
Simi Valley Hospital
Rancho Simi Recreation and Parks District
Simi Valley Unified School District

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Note: Items identified with a (CPG-#) (Civil Preparedness Guide) following must remain in this plan in compliance with the Federal CPG 1-8A crosswalk.
All items identified with a (SEMS-#) following must remain in this plan in compliance with the SEMS crosswalk.

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PART ONE, SECTION ONE

BASIC PLAN

PURPOSE

The Basic Plan addresses the City's planned response to emergencies associated with natural disasters and technological incidents including both peacetime and wartime nuclear defense operations. It provides an overview of operational concepts, identifies components of the City's emergency management organization within the Standardized Emergency Management System (SEMS), and describes the overall responsibilities of the federal, state and county entities and the City for protecting life and property and assuring the overall well-being of the population.

AUTHORITIES AND REFERENCES

Disaster response and recovery operations will be conducted as outlined in Concept of Operations, and in accordance with the enabling legislation, plans, and agreements listed in **Part One, Section Two—Authorities and References.**

PREPAREDNESS ELEMENTS

The City will place emphasis on: emergency planning; training of full time, auxiliary and reserve personnel; public awareness and education; and assuring the adequacy and availability of sufficient resources to cope with emergencies. Emphasis will also be placed on mitigation measures to reduce losses from disasters, including the development and enforcement of appropriate land use, design and construction regulations (see **Part One, Section Three—Hazard Mitigation**).

CONCEPT OF OPERATIONS *(CPG-20)*

Operations during peacetime and national security emergencies involve a full spectrum of activities from a minor incident, to a major earthquake, to a nuclear detonation. There are a number of similarities in operational concepts for peacetime and national security emergencies. Some emergencies will be preceded by a build-up or warning period, providing sufficient time to warn the population and implement mitigation measures designed to reduce loss of life and property damage. Other emergencies occur with little or no advance warning, thus requiring immediate activation of the emergency operations plan and commitment of resources. All agencies must be prepared to respond promptly and effectively to any foreseeable emergency, including the provision and utilization of mutual aid (see **Part One, Section Four—Mutual Aid).**

Emergency management activities during peacetime and national security emergencies are often associated with the four emergency management phases indicated below. ***(CPG-19)*** However, not every disaster necessarily includes all indicated phases.

Preparedness Phase

The preparedness phase involves activities taken in advance of an emergency. These activities develop operational capabilities and effective responses to a disaster. These actions might include mitigation activities, emergency/disaster planning, training and exercises and public education. Those identified in this plan as having either a primary or support mission relative to response and recovery should prepare Standard Operating Procedures (SOPs) and checklists detailing personnel assignments, policies, notification rosters, and resource lists. Personnel should be acquainted with these SOPs and checklists through periodic training in the activation and execution procedures.

Increased Readiness

The receipt of a warning or the observation that an emergency situation is imminent or likely to occur soon will initiate increased readiness actions. Actions to be accomplished include, but are not necessarily limited to ***(CPG-48)***:

- Review and update of emergency plans, SOP's and resources listings.
- Dissemination of accurate and timely emergency public information.
- Accelerated training of permanent and auxiliary staff.
- Inspection of critical facilities.
- Recruitment of additional staff and Disaster Services Workers.
- Mobilization of resources
- Testing warning and communications systems.

Response Phase

Pre-Emergency

When a disaster is inevitable, actions are precautionary and emphasize protection of life. Typical responses might be:

- Evacuation of threatened populations to safe areas.
- Advising threatened populations of the emergency and apprising them of safety measures to be implemented.
- Advising the Ventura County Operational Area of the emergency.
- Identifying the need for mutual aid and requesting such through the Ventura County Operational Area via the Ventura County Emergency Operations Center.
- Proclamation of a Local Emergency by local authorities.

Emergency Response
During this phase, emphasis is placed on saving lives and property, control of the situation and minimizing effects of the disaster. Immediate response is accomplished within the affected area by local government agencies and segments of the private sector.

One of the following conditions will apply to the City during this phase:

- The situation can be controlled without mutual aid assistance from outside the City.
- Evacuation of portions of the City are required due to uncontrollable immediate and ensuing threats.
- Mutual aid from outside the City is required.
- The City is either minimally impacted, or not impacted at all, and is requested to provide mutual aid to other jurisdictions.

The emergency management organization will give priority to the following operations:

- Dissemination of accurate and timely emergency public information and warning to the public.
- Situation analysis.
- Resource allocation and control.
- Evacuation and rescue operations.
- Medical care operations.
- Coroner operations.
- Care and shelter operations.
- Access and perimeter control.
- Public health operations.
- Restoration of vital services and utilities.

When local resources are committed to the maximum and additional resources are required, requests for mutual aid will be initiated through the Ventura County Operational Area. Fire and law enforcement agencies will request or render mutual aid directly through established channels. Any action which involves financial outlay by the

jurisdiction, or a request for military assistance, must be authorized by the appropriate local official. If required, State Office of Emergency Services (OES) may coordinate the establishment of one or more Disaster Support Areas (DSAs) where resources and supplies can be received, stockpiled, allocated, and dispatched to support operations in the affected area(s).

Depending on the severity of the emergency, a Local Emergency may be proclaimed, the local Emergency Operating Center (EOC) may be activated, and Ventura County Operational Area will be advised. The State OES Director may request a gubernatorial proclamation of a State of Emergency. Should a State of Emergency be proclaimed, state agencies will, to the extent possible, respond to requests for assistance. These activities will be coordinated with the State OES Director.

State OES may also activate the State Operations Center (SOC) in Sacramento to support State OES Regions, state agencies and other entities in the affected areas and to ensure the effectiveness of the state's SEMS. The State Regional EOC (REOC) in Los Alamitos, or an alternate location, will support the Ventura County Operational Area.

If the Governor requests and receives a Presidential declaration of an Emergency or a Major Disaster under Public Law 93-288, he will appoint a State Coordinating Officer (SCO). The SCO and an appointed Federal Coordinating Officer (FCO) will coordinate and control state and federal recovery efforts in supporting local operations. All emergency response efforts and initial recovery support will be coordinated by the REOC.

Sustained Emergency
In addition to continuing life and property protection operations, mass care, relocation, registration of displaced persons, and damage assessment operations will be initiated.

Recovery Phase

As soon as possible, the State OES Director, operating through the SCO, will bring together representatives of federal, state, county, and city agencies, as well as representatives of the American Red Cross, to coordinate the implementation of assistance programs and establishment of support priorities. Disaster Application Centers (DACs) may also be established, providing a "one-stop" service to initiate the process of receiving federal, state *and local* recovery assistance.

The recovery period has major objectives that may overlap, including:

- Reinstatement of family autonomy.
- Provision of essential public services.
- Permanent restoration of private and public property.
- Identification of residual hazards.
- Plans to mitigate future hazards.
- Recovery of costs associated with response and recovery efforts.

Mitigation Phase

Mitigation efforts occur both before and following disaster events. Post-disaster mitigation is part of the recovery process. Eliminating or reducing the impact of hazards which exist within the City and are a threat to life and property are part of the mitigation efforts. Mitigation tools include:

- City of Simi Valley Multi-Hazard Mitigation Plan ***(Added October 2004)***
- Local ordinances and statutes (zoning ordinance, building codes and enforcement, etc.).
- Structural measures.
- Tax levee or abatements.
- Public information and community relations.
- Land use planning.
- Professional training.

Peacetime Emergencies

The type and magnitude of the emergency will dictate the City's partial or total response to natural disasters or technological incidents. Generally, response to a major peacetime emergency situation will progress from local, to county, to state, to federal involvement.

For planning purposes, State OES has established three levels of emergency response to peacetime emergencies, which are based on the severity of the situation and the availability of local resources. (Note: These levels do not directly correlate with the four classifications of nuclear power emergencies.)

Level One—Decentralized Coordination and Direction
A minor to moderate incident wherein local resources are adequate and available. A Local Emergency may or may not be proclaimed. The City EOC may or may not be activated. Off-duty personnel may be recalled.

Level Two—Centralized Coordination and Decentralized Direction
A moderate to severe emergency wherein local resources are not adequate and mutual aid may be required on a regional or even statewide basis. Key management level personnel from the principal involved agencies will co-locate in a central location to provide jurisdictional or multi-jurisdictional coordination. The EOC should be activated. Off-duty personnel may be recalled. A Local Emergency will be proclaimed and a State of Emergency may be proclaimed.

Level Three—Centralized Coordination and Direction
A major local or regional disaster wherein resources in or near the impacted area are overwhelmed and extensive state and/or federal resources are required. A Local Emergency and a State of Emergency will be proclaimed and a Presidential Declaration of an Emergency or Major Disaster will be requested. All response and early recovery activities will be directed from the EOC. All off-duty personnel will be recalled.

Specific operational concepts, to include the emergency response actions of the various elements

Specific operational concepts, to include the emergency response actions of the various elements of the Standardized Emergency Management System, are reflected in **Part Two** of this Plan.

National Security Emergencies

National security emergencies may range from minor inconveniences such as food and petroleum shortages to a worst-case scenario involving an attack on the United States utilizing nuclear weapons. Protective measures to be employed in the event of a threatened or actual attack on the United States include:

- In-place protection.
- Spontaneous evacuation by an informed citizenry may be considered a viable option within the context of this plan.

HAZARD IDENTIFICATION AND ANALYSIS

A hazard analysis has indicated that the City may be at risk to certain incidents and to national security emergencies. These hazards are identified in **Part One, Section Five—Threat Assessments**, which also provide general and specific information on their possible impact on the jurisdiction.

STANDARDIZED EMERGENCY MANAGEMENT SYSTEM (SEMS)

In an emergency, governmental response is an extraordinary extension of responsibility and action, coupled with normal day-to-day activity. Normal governmental duties will be maintained, with emergency operations carried out by those agencies assigned specific emergency functions. The Standardized Emergency Management System (SEMS) has been adopted by the City of Simi Valley for managing response to multi-agency and multi-jurisdiction emergencies and to facilitate communications and coordination between all levels of the system and among all responding agencies. Chapter 1 of Division 2 of Title 19 of the California Code of Regulations establishes the standard response structure and basic protocols to be used in emergency response and recovery. ***(CPG-55)***

Fully activated, the SEMS consists of five levels: field response, local government, operational areas (countywide), OES Mutual Aid Regions, and state government. ***(SEMS-6)***

Field Response Level

The field response level is where emergency response personnel and resources, under the command of an appropriate authority, carry out tactical decisions and activities in direct response to an incident or threat. SEMS regulations require the use of the Incident Command System (ICS) at the field response level of an incident. The ICS field functions to be used for emergency management are: command, operations, planning/intelligence, logistics, and finance/administration.

Local Government Level *(CPG-55)*

Local governments include cities, counties, and special districts. Local governments manage and coordinate the overall emergency response and recovery activities within their jurisdiction. Local governments are required to use SEMS when their emergency operations center is activated or a local emergency is proclaimed in order to be eligible for state funding of response-related personnel costs. In SEMS, the local government emergency management organization and its relationship to the field response level may vary depending upon factors related to geographical size, population, function and complexity. Local governmental levels shall provide the following functions: management, operations, planning/intelligence, logistics, and finance/administration. Local jurisdictions are responsible for overall direction of personnel and equipment provided for emergency operations through mutual aid (Government Code Section 8618). Additional details relative to the organization and responsibilities of the SEMS elements at each of the levels are provided in **Part Two, Management System.**

Operational Area

Under SEMS, the operational area is defined in the Emergency Services Act as an intermediate level of the state's emergency services organization consisting of a county and all political subdivisions within the county area. Political subdivisions include cities, a city and county, counties, district or other local governmental agency, or public agency as authorized by law. The operational area is responsible for:

- Coordinating information, resources and priorities among local governments within the operational area,
- Coordinating information, resources and priorities between the regional level and the local government level, and
- Using multi-agency or inter-agency coordination to facilitate decisions for overall operational area level emergency response activities.

SEMS regulations specify that all local governments within a county geographic area be organized into a single operational area and that the county board of supervisors is responsible for its establishment. The County of Ventura is the lead agency for the Ventura County Operational Area which includes the City of Simi Valley. All local governments should cooperate in organizing an effective operational area, but the operational area authority and responsibility is not affected by the nonparticipation of any local government.

Activation of the Operational Area during a State of Emergency or a Local Emergency is required by SEMS regulations under the following conditions:

1) A local government within the operational area has activated its EOC and requested activation of the operational area EOC to support their emergency operations.

2) Two or more cities within the operational area have proclaimed a local emergency.

3) The county and one or more cities have proclaimed a local emergency.

4) A city, city and county, or county has requested a governor's proclamation of a state of emergency, as defined in the Government Code Section 8558(b).

5) A state of emergency is proclaimed by the governor for the county or two or more cities within the operational area.

6) The operational area is requesting resources from outside its boundaries. This does not include resources used in normal day-to-day operations which are obtained through existing mutual aid agreements.

7) The operational area has received resource requests from outside its boundaries. This does not include resources used in normal day-to-day operations which are obtained through existing mutual aid agreements.

If the Ventura County Operational Area is activated, the Sheriff of Ventura County will be the Director of Emergency Operations (Operational Area Coordinator) for the Ventura County Operational Area and will have the overall responsibility for coordinating and supporting emergency operations within the county. The Area Coordinator and supporting staff will constitute the Operational Area Emergency Management Staff. The County of Ventura EOC will fulfill the role of Operational Area EOC.

Regional

Because of its size and geography, the state has been divided into six mutual aid regions. The purpose of a mutual aid region is to provide for the more effective application and coordination of mutual aid and other emergency related activities.

State OES has also established three Administrative Regions (Coastal, Inland and Southern). These Administrative Regions are the means by which State OES maintains day-to-day contact with emergency services organizations at local, county and private sector organizations.

In SEMS, the regional level manages and coordinates information and resources among operational areas within the mutual aid region and also between the operational areas and the state level. The regional level also coordinates overall state agency support for emergency response activities within the region.

State

The state level of SEMS manages state resources in response to the emergency needs of the other levels and coordinates mutual aid among the mutual aid regions and between the regional level and state level. The state level also serves as the coordination and communication link between the state and the federal disaster response system.

NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS) INTEGRATION

In addition to the Standardized Emergency Management System (SEMS), the state and its political subdivisions are responsible for compliance with the requirements of the National Incident Management System (NIMS) as defined in the Homeland Security Presidential Directives. The Simi Valley City Council adopted NIMS by resolution on 9/25/2006 (***see part 3, Legal Documents***).

The State promotes and encourages NIMS adoption by associations, utilities, Non-Governmental Organizations (NGO), private sector emergency management and incident response organizations to enhance emergency management effectiveness. SEMS and NIMS are designed to be compatible and are based on similar organizational principles.

CalEMA is designated as the principal coordinator for NIMS implementation statewide. Annually, CalEMA administers the process to communicate, monitor and implement NIMS requirements in cooperation with affected state agencies and departments, local governments other critical stakeholders. The City utilizes the National Incident Management System Compliance Assistance Support Tool (NIMSCAST) for measuring progress and facilitating reporting.

FEDERAL EMERGENCY MANAGEMENT

The Federal Emergency Management Agency (FEMA) serves as the main federal government contact during emergencies, major disasters and national security emergencies.

CONTINUITY OF GOVERNMENT

A major disaster or national security emergency could result in the death or injury of key government officials and/or the partial or complete destruction of established seats of government, and public and private records essential to continued operations of government. Government at all levels is responsible for providing continuity of effective leadership, authority and adequate direction of emergency and recovery operations. The California Government Code Section 8643(b) and the Constitution of California provide the authority for state and local government to reconstitute itself in the event incumbents are unable to serve. **Part Two, Management Section** provides complete details on the Continuity of Government Program in California.

PUBLIC AWARENESS AND EDUCATION

The public's response to any emergency is based on an understanding of the nature of the emergency, the potential hazards, the likely response of emergency services and knowledge of what individuals and groups should do to increase their chances of survival and recovery.

Public awareness and education prior to any emergency are crucial to successful public information efforts during and after the emergency. The pre-disaster awareness and education programs must be viewed as equal in importance to all other preparations for emergencies and receive an adequate level of planning. These programs must be coordinated among local, state and federal officials to ensure their contribution to emergency preparedness and response operations. Emergency Public Information procedures are addressed in **Part Two, Management Section.**

TRAINING AND EXERCISES

Training and exercises are essential at all levels of government to make emergency operations personnel operationally ready. All emergency plans should include provision for training.

The objective is to train and educate public officials, emergency response personnel and the public. The best method for training staff to manage emergency operations is through exercises.

Exercises are conducted on a regular basis to maintain the readiness of operational procedures. Exercises provide personnel with an opportunity to become thoroughly familiar with the procedures, facilities and systems which will actually be used in emergency situations. There are several forms of exercises:

- Tabletop exercises provide a convenient and low-cost method designed to evaluate policy, plans and procedures and resolve coordination and responsibilities. Such exercises are a good way to see if policies and procedures exist to handle certain issues.

- Functional exercises are designed to test and evaluate the capability of an individual function such as evacuation, medical, communications or public information.

- Full-scale exercises simulate an actual emergency. They typically involve complete emergency management staff and are designed to evaluate the operational capability of the emergency management system.

ALERTING AND WARNING

Warning is the process of alerting governmental forces and the general public to the threat of imminent extraordinary danger. Dependent upon the nature of the threat and the population group at risk, warning can originate at any level of government.

Success in saving lives and property is dependent upon timely dissemination of warning and emergency information to persons in threatened areas. Local government is responsible for warning the populace of the jurisdiction. Government officials accomplish this using warning devices located within the community or mounted on official vehicles. The warning devices are normally activated from a point staffed 24 hours a day.

There are various mechanical systems in place, described below, whereby an alert or warning may originate or be disseminated. Following the description of the systems is an explanation of the "Emergency Conditions and Warning Actions" through which these system may be accessed. ***(CPG-97)***

FEDERAL ALERTING AND WARNING SYSTEMS

EAS Emergency Alerting System

The Emergency Alerting System (EAS) is designed for the broadcast media to disseminate emergency public information. This system enables the President, and federal, state and local governments to communicate with the general public through commercial broadcast stations.

This system uses the facilities and personnel of the broadcast industry on a volunteer basis. EAS is operated by the broadcast industry according to established and approved EAS plans, standard operating procedures and within the rules and regulations of the Federal Communications Commission (FCC). FCC rules and regulations require all participating stations with an EAS operating area to broadcast a common program. Each broadcast station volunteers to participate in EAS and agrees to comply with established rules and regulations of the FCC.

EAS can be accessed at federal, state, and local levels to transmit essential information to the public. Message priorities under Part 73.922(a) of the FCC's rules are as follows:

- Priority One — Presidential Messages (carried live)
- Priority Two — EAS Operational (Local) Area Programming
- Priority Three — State Programming

- Priority Four — National Programming and News

Presidential messages, national programming and news will be routed over established network facilities of the broadcast industry. State programming will originate from the state operations center and will be transmitted through the state using the state's CLERS VHF/UHF radio relay stations.

The FCC has established committees of broadcast industry personnel at each governmental level to develop EAS plans. These include:

- Federal — The EAS Advisory Committee
- State — State Emergency Communications Committee
- Local — Operational Area Emergency Communications Committee

NAWAS National Warning System

NAWAS is a dedicated wire-line system that provides two-way voice communications between federal warning center, state warning points and local warning points. If the situation ever presents itself, NAWAS is a nationwide system developed to send warnings of impending attack throughout the nation. The system may be activated from two federal facilities that are staffed 24 hours daily: the National Warning Center (North American Air Defense Command, Colorado Springs) and the Alternate National Warning Center (Olney, Maryland).

During major peacetime emergencies, state agencies may use portions of NAWAS augmented by state and local systems. Each state has a warning point that controls the NAWAS connection within the state. See State Level CALWAS for more information.

Tests

NAWAS is tested three times daily at unscheduled times. The state warning point, OES, acknowledges the test for California. If OES does not respond, the alternate, CHP, will acknowledge the test. Immediately following the national test, the state NAWAS test is conducted.

Signals *(For informational purposes only)*

Attention or Alert

The **Attention** or **Alert** signal is a three to five-minute steady tone on sirens, horns or other devices. This signal means: "An emergency situation exists or is imminent. Listen to your local or area radio or television station for essential information."

Attack Warning Signal

The **Attack Warning** signal, a three to five-minute wavering tone on sirens or a series of short blasts on horns or other devices, are repeated as often as NAWAS instructs or as local government authorities deem necessary.

The **Attack Warning** signal indicates that an actual attack against this country has been

detected. This signal is used for the initial attack warning and subsequent attack warnings. **THIS SIGNAL WILL BE USED FOR NO OTHER PURPOSE AND WILL HAVE NO OTHER MEANING.** Everyone should immediately protect himself and listen to the area EAS station for instructions.

NWS National Weather Service

The National Weather Service transmits continuous weather information on 162.40, 162.475, and 162.55 MHZ frequencies. Weather Service severe weather broadcasts are preceded with a 1,050 MHZ tone that activates weather monitor receivers equipped with decoders. The Weather Service can also access NAWAS to announce severe weather information.

STATE ALERTING AND WARNING SYSTEMS

CALWAS California Warning System

CALWAS is the state portion of NAWAS that extends to communications and dispatch centers throughout the state. The State Office of Emergency Services headquarters ties into the federal system through the Warning Center in Sacramento. Circuits then extend to county warning points. The California Highway Patrol headquarters in Sacramento is the state's alternate warning point. Both state and federal circuits are monitored 24 hours a day at the Warning Center, the alternate point and each of the local warning points. Counties not on this system will receive warning through other means (normally over the California Law Enforcement Telecommunications System [CLETS]).

Immediately following the NAWAS test through the Warning Center, the state conducts the CALWAS test. On alternate Wednesdays, the alternate state warning point, CHP, conducts a test at 10:00 a.m. local time.

Backup systems for CALWAS includes:

- CESFRS — California Emergency Services Fire Radio System
- CESRS — California Emergency Services Radio System
- CLEMARS — California Law Enforcement Mutual Aid Radio System
- CLETS — California Law Enforcement Telecommunications System

CESFRS California Emergency Services Fire Radio System

CESFRS is the statewide communications network, available to all fire agencies. The three available channels have been designated Fire White #1, #2 and #3. White #1 is authorized for base station and mobile operations. White #2 and White #3 are for mobile and portable use only. All three white channels are designated by the Federal Communications Commission as "Intersystem" channels and are intended solely for inter-agency fire operations, i.e. mutual aid. White #2 and White #3 are intended for on-scene use only.

CESRS California Emergency Services Radio System

CESRS serves as an emergency communications system for OES and county emergency services organizations. The system assists in the dissemination of warning information and to support disaster and emergency operations. The system may be used on a day-to-day basis for administrative emergency services business. Statewide communications are provided through a number of microwave interconnected mountain top relays. It operates under appropriate FCC rules and regulations and is administered by the State of California through the Office of Emergency Services. See the "California Emergency Services Radio System, Plan and Licensing Guide," July 1990, written by OES Telecommunications Division for more information.

CLEMARS California Law Enforcement Mutual Aid Radio System

CLEMARS was established to provide common police radio frequencies for use statewide by state and local law enforcement agencies during periods of man-made or natural disasters or other emergencies where inter-agency coordination is required. It operates under appropriate FCC rules and regulations and is administered by the State of California through the Office of Emergency Services.

Participation in CLEMARS is open to all California Law Enforcement agencies which are eligible to operate on radio frequencies authorized by the FCC for the Police Radio Service. In addition, the agency's political subdivision must be a signatory to the California Disaster and Civil Defense Master Mutual Aid Agreement and have developed a mutual aid response capability with trained personnel who will respond when requested by their operational area or regional mutual aid coordinator to provide required assistance.

The system establishes four priorities for use:

I. Emergency Operations of law enforcement agencies, primarily mutual aid activities.

II. Emergency or urgent operations of above, involving a single agency.

III. Special event control activities, generally of a pre-planned nature and generally involving joint participation of two or more agencies; or two or more police divisions, stations of CHP, etc. Drills, rehearsals, command post exercises and like activities shall be considered as Priority III activities.

IV. When no traffic of a higher priority classification is in progress, agencies participating in CLEMARS may utilize the frequency for local communications as a secondary means of communication.

The Regional Law Enforcement Coordinator is responsible for coordination of use of the system within the Mutual Aid Region. The City of Simi Valley participates in CLEMARS, and is licensed for mobile and base station communications.

CLETS California Law Enforcement Telecommunications System

CLETS is a high-speed message switching system which became operational in 1970. CLETS provides law enforcement and criminal justice agencies access to various data bases and the ability to transmit and receive point-to-point administrative messages to other agencies within California or via the National Law Enforcement Telecommunications System (NLETS) to other states and Canada. Broadcast messages can be transmitted intrastate to participating agencies in the Group Bulletin Network and to regions nationwide via NLETS. CLETS has direct interface with the FBI-NCIC, NLETS, DMV, Oregon and Nevada. The State provides the computer hardware, switching center personnel, administrative personnel, and the circuitry to one point in each county. The local agencies provide the circuitry and equipment which link them to their county termination point. A number of agencies have message switching computer (MSC) systems and computer aided dispatch (CAD) systems which directly connect to CLETS. Many of these systems have mobile data terminals (MDTs) which allow an officer in the field to inquire directly into various systems. The CLETS terminal in the City of Simi Valley is housed at the Police Department. The CLETS Information Manual is located at the Police Department. The County of Ventura provides the local interface.

EAS Emergency Alerting System

Each state has been divided into a number of EAS operational areas, consisting of one or more counties within radio reception range of EAS stations serving the area. California has thirty EAS Operational Areas (OA). Almost all AM-FM and TV broadcast stations have national defense emergency authorizations and several of these are protected from fallout. The purpose of EAS in California is to provide warning, emergency information, guidance, instructions and news of a manmade or natural threat to the public safety, health and welfare.

One primary station in each OA assumes the function of the Common Program Control Broadcast Station for the OA. It is called the CPCS-1 station. If for any reason a CPCS-1 is unable to carry out this responsibility, either primary or alternate broadcast stations assigned as CPCS locations, will be activated in descending order. CPCS assignments are made by the FCC, not the State or local governments. OAs are urged to develop EAS systems that employ a system whereby the local OES feeds all the radio stations simultaneously and not just the CPCS-1 station.

See the Federal EAS description for Program Priorities. Message priorities are as follows:

- Priority One — Immediate and positive action without delay is required to save lives.
- Priority Two — Actions required for the protection of property and instructions to the public requiring expedient dissemination.
- Priority Three — Information to the public and all others.

(Reference: State EAS Operations Plan, Emergency Alerting System, March 1987.)

EDIS Emergency Digital Information System

The EDIS provides local, state and federal agencies with a direct computer link to the news media and other agencies during emergencies. EDIS supplements existing emergency public information systems such as the Emergency Alerting System. By combining existing data Input Networks with a digital radio Distribution System, EDIS gives authorized agencies a direct data link to the news media and other agencies.

The main purpose of EDIS is to distribute official information to the public during emergencies. However, a system that is not used day-to-day will not be used with confidence during an emergency. Therefore, certain non-emergency uses of EDIS are permitted so long as they do not interfere with more urgent transmissions.

EDIS may be used to transmit information in the following categories, listed in priority order:

- FLASH — Alerts and warning of immediate life-safety value to members of the public.
- NEWS — Information of immediate benefit to the public. Releases in this category may include reports of unusual natural, social or technological events; notices of government activities requiring specific action by members of the public; road and traffic information and instructions for those affected by an emergency.
- INFO — Advisory messages for coordination between government and the news media. Topics might include: times and locations of news briefings, schedules for media tours of emergency scenes, "pool coverage" arrangements, airspace restrictions.
- TEST — Transmissions to verify operation of equipment and for training of originating personnel.

Senders of EDIS messages should bear in mind that almost anyone can obtain the equipment to receive EDIS messages. Confidential or sensitive information should never be transmitted over EDIS.

(Reference: Emergency Digital Information System Plan [EDIS], July 1991, written by the OES Telecommunications Division.)

OASIS Operational Area Satellite Information System

The OASIS project, funded under the Earthquake Hazards Reduction Act of 1986, was established to create the most robust communications system possible using leased transponder space from commercial satellite operators. The result is the establishment of a system which allows virtually uninterruptable communication between state, regional and operational area level EOCs.

OASIS is a system that consists of a communications satellite, multiple remote sites and a hub.

The satellite is in a stationary or geo-synchronous orbit above the earth's equator. A high frequency (HF) radio system and a satellite communications network were constructed to link all 58 counties with State OES and other state agencies for disaster communications as well as day-to-day traffic. The system, which uses technology similar to cellular telephones, has 60 channels. When a user picks up the line, the system automatically searches for the best available channel.

The equipment necessary for the remote sites includes a six-foot diameter dish antenna using Very Small Aperture Terminal or VSAT technology. These sites were originally set up by OES and are capable of conducting six simultaneous voice conversations and one data channel at a rate of 9600 baud.

The final component is the hub. The hub is a large external dish antenna and a network control station which is managed by OES personnel. The hub provides access control for the system and can control up to 800 remote stations. OES personnel will use the hub to define the network, detect trouble and serve as an emergency alert network for other OES personnel.

OPERATIONAL AREA ALERTING, NOTIFICATION AND WARNING SYSTEMS

CUBE Caltech/U.S. Geological Survey Broadcast of Earthquakes

The CUBE system is the product of a cooperative effort between the California Institute of Technology and the United States Geological Survey. Earthquake data is collected at Caltech Seismological Laboratory in Pasadena and is reduced to provide earthquake time, location and magnitude. This information is then transmitted to a commercial paging system where it is broadcast to government and private sector subscribers' paging units. These pagers may be carried by personnel or connected to a personal computer that receives the information and displays it on a map. The CUBE project offers the following capabilities to government:

- Automatically provides near real-time locations and magnitudes of earthquakes;
- Automatically provides estimates of the distribution of ground shaking following significant earthquakes, and;
- Warns of imminent ground shaking in the seconds following an earthquake, but before waves actually reach sites that may be damaged.

Subscribers within Ventura County government include emergency management personnel from the following departments: CAO, Sheriff, Fire and Public Works. Computers are located in each of the following locations: County/Operational Area EOC, Fire and Public Works Departmental Operations Centers.

EAS Emergency Alerting System

Examples of emergencies identified by Ventura County Operational Area which may warrant either immediate or delayed response under EAS by the broadcast industry are earthquake, serious fires, heavy rains and flooding, widespread power failures, severe industrial accidents and hazardous material accidents. The context of any emergency broadcast transmitted on EAS should be of concern to a significant segment of the population of Ventura County.

EAS activation can be authorized by any one of the following parties: ***(CPG-99)***

- Sheriff of Ventura County of designate
- Chairman of the Ventura County Board of Supervisors or designate
- Mayor of the City of Simi Valley or designate
- Chief of Police of the City of Simi Valley or designate
- Authorized public official of the incorporated cities of Ventura County
- Authorized representative of the National Oceanic and Atmosphere Administration (NOAA)

The Sheriff of Ventura County, while not the originator of the EAS material, is responsible for the content and authenticity of the information broadcast over the local EAS. Local broadcast stations have the right to edit or use any or all of an EAS broadcast. Any jurisdiction may make separate programming arrangements with any broadcast station independent of the EAS.

ENN Emergency News Network

The Ventura County ENN is a communications protocol that incorporates voice, data and video transmissions. It has been developed to provide direct access from local government agencies to media and corporate organizations for the immediate dissemination of emergency information.

Printed "text" information messages may be transmitted through any available Justice Data Interface Controller (JDIC) terminal directly to the commercial broadcast media and other public subscribers. The Statewide Emergency Digital Information Service (EDIS) is used as the pathway for ENN messages and is monitored by local, state and national media. Local EAS voice and video broadcasts are accomplished at the Ventura County Operational Area Emergency Operations Center facility.

LOCAL ALERTING AND WARNING SYSTEMS (See Part Three—Operations/Alerting and Warning for Procedures) *(CPG-96)*

The City of Simi Valley does not maintain siren systems. Other local warning systems include:

Cable TV

The City has an agreement with the local cable televsion company to provide the public with alerting and notification of various disaster situations. The estimated subscriber rate is 80%. This system includes break into all TVS that are a part of this cable system. The City's Cable Channel 19 will provide directions to the citizens via scrolled information. This includes a "leader" that will scroll across any TV station that is turned on directing viewers to tune to their local cable channel for more

information.

Emergency Alerting System (EAS)

The EAS is administered by the Ventura County Sheriff. Activation of the Ventura County EAS shall be for emergency events and conditions of concern to a significant segment of the population of Ventura County. The message must be a voice message, it may be prerecorded and it must originate from the Sheriff's Communications Center.

Electronic News Network (ENN)

The ENN is a subset of the EAS. It is a digital format that allows messages to be sent via the State of California's EDIS system. The digital message will be received by the media, schools, large business and anyone who monitors the AQMD channels. It is less restrictive than an EAS broadcast and can be originated by any agency with access to a JDIC terminal. It allows for routine or test messages, in addition to emergency messages.

Low-Power Local Radio Stations

WNHI 810 (530 A.M.) is a low-power traveler's information channel. The City of Simi Valley operates the channel and broadcasts City and community information and emergency information. The channel broadcasts 24 hours a day—seven days a week.

Radio

The Ventura County Operational Area has an agreement with KHAY (100.7 F.M.) And KVEN (1450 A.M.) radio stations to provide the public with alert and notification of various disaster situations.

Other warning systems utilized by the City of Simi Valley include mobile emergency vehicle sirens and loudspeakers, helicopters using PA systems, local TV and radio and door-to-door notification by Neighborhood Watch Block Captains, Community Emergency Response Team members, law enforcement volunteers, explorers and reserve officers

Automated Telephone Notification System

The City of Simi Valley Officer of Emergency Services maintains an automated dialing system that utilizes a geographical interface. The system is capable of calling approximately 700 residential and business telephones in a one-hour period of time. A customized, incident specific digital message may be directed to call recipients using the geographical interface.

EMERGENCY CONDITIONS AND WARNING ACTIONS

Methods of warning state and local governments of specific emergency conditions are described below:

Earthquake

Earthquakes occur without warning. OES could receive notification of an earthquake as well as subsequent information, including damage reports, from various sources, such as:

- University of California Seismological Observatory, Berkeley
- California Institute of Technology, Pasadena
- Water Resources Department
- OES Regional Offices
- Local Governments
- Federal/State Agencies
- Honolulu Observatory

This information may be received through NAWAS, radio, teletype and/or telephone and would be further disseminated as appropriate using any or all of these means. The State Warning Center has a seismic alarm system that activates during earthquakes, prompting duty personnel to investigate the disturbance.

Earthquake Advisories

(Reference: California Earthquake Advisory Plan, Oct. 1990, Section 3. Procedures on the advisory can be found in Sections 6 and 7 of this document.)

Earthquake Advisories are statements by OES regarding scientific assessment that, within a specified period (usually 3-5 days) there is an enhanced likelihood for damaging earthquakes to occur in areas designated in the Advisory. Advisories are not formal predictions and are issued following earthquakes in which there is concern about subsequent damaging earthquakes. The basis of the advisories is existing knowledge of the seismic history and potential of the area under consideration.

Local Government

Upon notification of an Earthquake Advisory from OES, local government should: disseminate information to key personnel, ensure the readiness of systems essential to emergency operations; implement protective and mitigative actions; provide guidance to the public on appropriate precautionary actions.

Notification Process

The Office of Emergency Services will notify State agencies, local governments and designated Federal agencies of all Earthquake Advisories through a telecommunications and radio fan-out process.

The method of contact to State agencies, local governments and Federal agencies will vary depending upon the availability of communications. Systems to be used may include: The California Warning System (CALWAS), the California Law Enforcement Telecommunications System (CLETS), the California Emergency Services Radio System (CESRS), FAX and commercial telephone service.

OES WILL FOLLOW A FOUR-STEP PROCESS IN ISSUING AND CANCELING ADVISORIES:

1. Information regarding additional seismic activity will be disseminated in the form of an **Earthquake Advisory**. The Advisory will include information on the background of the Advisory, the areas included in the Advisory and the period of time in which the Advisory is in effect. **The Earthquake Advisory will be issued to jurisdictions determined to be located within the area of enhanced risk.** Advisories are usually issued for a 3-5 day period. OES will keep local governments advised of any updates on the situation as they become available.

   In most instances, the notification of the issuance of an Earthquake Advisory will be to the affected counties via CLETS, followed by an announcement over CALWAS. It is the responsibility of county offices that receive the Advisory to forward the information immediately to all cities within the county and county emergency services coordinators. City offices that receive the Advisory should, in turn, forward the information to the city emergency services coordinator.

2. Following the issuance of the Earthquake Advisory to jurisdictions within the area of enhanced risk, OES will issue a **Notice of Earthquake Advisory** to State departments, specified Federal agencies and all other counties in the State.

   The Notice of Earthquake Advisory is issued for informational purposes. No specific actions are recommended to jurisdictions receiving this notice, except at the discretion of local officials. It will be disseminated via the same telecommunications systems as the Earthquake Advisory.

3. OES will inform the news media and public of an Earthquake Advisory by the issue of an **Earthquake Advisory News Release.**

4. At the end of the period specified in the initial Advisory, OES will issue an **End of Earthquake Advisory Period** message. This cancellation message will be issued over the same telecommunications systems as were used to initially issue the Advisory and Notice of Advisory to State agencies, local government, specified Federal agencies, the news media and the public. An Advisory may be extended if scientific assessments continue to indicate reasons for such a continuation.

(See Part Three—Operations/Alerting and Warning for sample mitigation checklists for local governments in responding to an Advisory issued by OES.)

Earthquake Prediction (Short-Term)

The Short-Term Earthquake Prediction Response Plan provides direction and guidance to State agencies for responding to (1) a prediction that an earthquake may occur within a few hours to a few days or (2) issuance of an Advisory regarding an increase likelihood that a damaging

earthquake may occur. When implemented, the actions recommended within this Plan will result in increased operational readiness and preparedness of Stage agencies to deal effectively with a short-term earthquake prediction and with the predicted earthquake, should it occur.

Formal predictions include specific identification of expected magnitude, location, time and likelihood of occurrence (i.e., probability), that have been rigorously reviewed and confirmed by the California Earthquake Prediction Evaluation Council (CEPEC). **(See California Short-Term Earthquake Prediction Response Plan, Oct., 1990.)**

Fire

Initial warnings of major conflagrations are normally issued by the affected area through the Operational Area and/or OES Regional Fire Coordinator, using whatever means of communications are appropriate and available. Requests for mutual aid follow the same channels.

Flood

A flood emergency is normally preceded by a buildup period that permits marshaling of forces as required to combat the emergency. During the buildup period, OES cooperates with the National Weather Service and the State Department of Water Resources by relaying pertinent weather information and river bulletins to local government officials in the affected areas. OES receives this information over selected circuits and relays it to OES Regions through the OES private line teletype system and to law enforcement agencies via CLETS.

Flood Stages and Bulletins

During periods of potential flooding in Southern California, the National Weather Service, Los Angeles, will issue the appropriate bulletins typically from Oxnard. After receiving these messages, the state Warning Center transmits these messages immediately on CLETS to local governments in areas that are likely to be affected.

Hazardous Materials

Potential hazardous materials situations are identified during the planning phase by the *Ventura County Environmental Health Division.* Area Plans address in detail the specifics for hazardous materials planning for the local area. **(Reference: Ventura County Hazardous Materials Response Plan)**

Initial notifications of an incident are made by the responsible party or the responding agency to the **California Warning Center in Sacramento at 800/852-7550** as soon as the incident occurs. The Warning Center then makes notifications to various state agencies and the regional duty officer.

Seismic Sea Wave (Tsunami)

NAWAS is an integral part of the Tsunami alerting system. Reports of major earthquakes occurring at any point in the Pacific Basin which may generate seismic sea waves are transmitted

to the Honolulu Observatory for evaluation.

The Observatory staff determines action to be taken and relays it over the NAWAS circuits to inform the West Coast states. The State NAWAS circuit is used to relay the information to local Warning Points in coastal counties. This information is also transmitted to local jurisdictions over appropriate radio systems, teletype and telephone circuits to ensure maximum dissemination.

A Tsunami **Watch Bulletin** is issued if an earthquake has occurred in the Pacific Basin and could cause a tsunami. A Tsunami **Warning Bulletin** is issued when an earthquake has occurred and a tsunami is spreading across the Pacific Ocean. When a threat no longer exists, a **Cancellation Bulletin** is issued.

Severe Weather Warning

These include severe weather bulletins and statements relating to special weather conditions. Bulletins are issued by National Weather Service offices in California when severe weather is imminent. By agreement, the National Weather Service office issues the bulletin and transmits the information to the state Warning Center on the National Weather Service teletype circuit. The Warning Center, in turn, relays the information to the affected areas. **(See Part Three—Operations/NWS for NWS Issuances.)**

PART ONE, SECTION TWO

AUTHORITIES AND REFERENCES

GENERAL *(CPG-13)*

The California Emergency Services Act (Chapter 7 of Division 1 of Title 2 of the Government Code), hereafter referred to as the Act, provides the basic authorities for conducting emergency operations following a proclamation of Local Emergency, State of Emergency or State of War Emergency by the Governor and/or appropriate local authorities, consistent with the provisions of the Act.

The Standardized Emergency Management System (SEMS) Regulations (Chapter 1 of Division 2 of Title 19 of the California Code of Regulations), hereafter referred to as SEMS, establishes the SEMS to provide an effective response to multi-agency and multi-jurisdiction emergencies in California. SEMS is based on the Incident Command System (ICS) adapted from the system originally developed by the Firefighting Resources of California Organized for Potential Emergencies (FIRESCOPE) program. SEMS incorporates the use of ICS, the Master Mutual Aid Agreement and existing mutual aid systems, the Operational Area concept, multi-agency or inter-agency coordination and OASIS.

The California Emergency Plan, which is promulgated by the Governor, is published in accordance with the Act and provides overall statewide authorities and responsibilities, and describes the functions and operations of government at all levels during extraordinary emergencies, including wartime. Section 8568 of the Act states, in part, that "the State Emergency Plan shall be in effect in each political subdivision of the state, and the governing body of each political subdivision shall take such action as may be necessary to carry out the provisions thereof". Local emergency plans are, therefore, considered to be extensions of the California Emergency Plan. The 1990 California Emergency Plan is generally compatible with SEMS but will be updated.

The California Civil and Government Codes contain several references to liability release (Good Samaritan Act) for those providing emergency services. These references are contained in **Part Three—Legal Documents.**

EMERGENCY PROCLAMATIONS **(See Part Three—Legal Documents)**

Local Emergency *(CPG-14)*

A Local Emergency may be proclaimed by the City Council or by the Director of Emergency Services as specified by ordinance adopted by the City Council. A Local Emergency proclaimed by the Director of Emergency Services must be ratified by the City Council within seven days. The Local Emergency must be terminated by resolution as soon as conditions warrant. Proclamations are normally made when there is an actual incident or threat of disaster or extreme peril to the safety of persons and property within the city, caused by natural or man-made situations.

The proclamation of a Local Emergency provides the governing body with the legal authority to:

- If necessary, request that the Governor proclaim a State of Emergency.
- Promulgate or suspend orders and regulations necessary to provide for the protection of life and property, including issuing orders or regulations imposing a curfew within designated boundaries.
- Exercise full power to provide mutual aid to any affected area in accordance with local ordinances, resolutions, emergency plans, or agreements.
- Request state agencies and other jurisdictions to provide mutual aid.
- Require the emergency services of any local official or employee.
- Requisition necessary personnel and materials from any local department or agency.
- Obtain vital supplies and equipment and, if required, immediately commandeer the same for public use.
- Impose penalties for violation of lawful orders.
- Conduct emergency operations without incurring legal liability for performance, or failure of performance. (Note: Article 17 of the Emergency Services Act provides for certain privileges and immunities.)

State of Emergency

A State of Emergency may be proclaimed by the Governor when:

- Conditions of disaster or extreme peril exist which threaten the safety of persons and property within the state caused by natural or man-made incidents.
- He is requested to do so by local authorities.
- He finds that local authority is inadequate to cope with the emergency.

Whenever the Governor proclaims a State of Emergency:

- Mutual aid shall be rendered in accordance with approved emergency plans when the need arises in any county, city and county, or city for outside assistance.
- The Governor shall, to the extent he deems necessary, have the right to exercise all police power vested in the state by the Constitution and the laws of the State of California within the designated area.

- Jurisdictions may command the aid of citizens as deemed necessary to cope with an emergency.

- The Governor may suspend the provisions of orders, rules or regulations of any state agency; and any regulatory statute or statute prescribing the procedure for conducting state business.

- The Governor may commandeer or make use of any private property or personnel (other than the media) in carrying out the responsibilities of his office.

- The Governor may promulgate, issue and enforce orders and regulations deemed necessary.

State of War Emergency

Whenever the Governor proclaims a State of War Emergency, or if a State of War Emergency exists, all provisions associated with a State of Emergency apply, plus:

- All state agencies and political subdivisions are required to comply with the lawful orders and regulations of the Governor which are made or given within the limits of his authority as provided for in the Emergency Services Act.

AUTHORITIES

The following provides emergency authorities for conducting and/or supporting emergency operations:

Federal

Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 (Public Law 93-288, as amended).

Federal Civil Defense Act of 1950 (Public Law 920), as amended.

NRT-1, Hazardous Materials Emergency Planning Guide and NRT-1A Plan Review Guide (Environmental Protection Agency's National Response Team).

State

Standardized Emergency Management System (SEMS) Regulations (Chapter 1 of Division 2 of Title 19 of the California Code of Regulations) and (Government Code Section 8607(a).

Standardized Emergency Management System (SEMS) Guidelines.

California Emergency Services Act (Chapter 7 of Division 1 of Title 2 of the Government Code).

"Good Samaritan" Liability **(see Part Three—Legal Documents).**

California Emergency Plan.

California Natural Disaster Assistance Act (Chapter 7.5 of Division 1 of Title 2 of the Government Code).

California Hazardous Materials Incident Contingency Plan.

California Health and Safety Code, Division 20, Chapter 6.5, Sections 25115 and 25117, Chapter 6.95, Sections 2550 et seq., Chapter 7, Sections 25600 through 25610, dealing with hazardous materials.

Orders and Regulations which may be Selectively Promulgated by the Governor during a State of Emergency (**see Part Three—Legal Documents**).

Orders and Regulations Promulgated by the Governor to Take Effect upon the Existence of a State of War Emergency (**see Part Three—Legal Documents**).

California Master Mutual Aid Agreement (**see Part Three—Legal Documents**).

Local (see Part Three—Legal Documents)

1. City of Simi Valley Public Emergency Ordinance No. 578 of July 31, 1984.

2. City of Simi Valley Resolution No. 71-91, adopting the California Master Mutual Aid Agreement.

3. City of Simi Valley Resolution No. 71-100, appointing the City Manager as Civil Defense Director and Mutual Aid Representative.

4. City of Simi Valley Resolution No. .71-112, Workmans' Compensation benefits for registered volunteer Disaster Service Workers.

5. City of Simi Valley Resolution No. 71-114, County of Ventura Unified Disaster Agreement and cities signatory thereto.

6. City of Simi Valley Emergency Organization and Functions (Simi Valley Municipal Code, Title 4, Chapter 5, Section .01-.09), Ordinance 94, September 13, 1971.

7. City of Simi Valley Resolution No. 72-70, joining the Region IA Law Enforcement Mutual Aid Pact and approving the Region 1A Mutual Aid Operational Plan.

8. County of Ventura Dam Failure Response Plan, April 1983.

11. Safety and Seismic Safety Elements Comprehensive General Plan City of Simi Valley, September 1992.

12. Earthquake Planning Scenario for a Magnitude 8.3 Earthquake on the San Andreas Fault in Southern California, California Division of Mines and Geology, Special Publication 60, 1982.

13. City of Simi Valley Resolution No. 93-2 delegating authority for the management of hazardous materials incidents to the Ventura County Fire Protection District.

14. Ventura County/Cities Operational Area Agreement, December 1995

15. ~~City of Simi Valley/City of Camarillo Financial Computer System Mutual Aid Agreement, June 1996~~. *Removed 1-12-2002, City migrated to SAP system*

16. Building and Safety Mutual Aid Agreement, February 1997.

18. Public Works Mutual Aid Agreement, January 1998

17. City of Simi Valley Resolution No. 2001-37 adopting the SEMS Multihazard Functional Plan, June 2001.

18. City of Simi Valley Multihazard Mitigation Plan (2005)

19. City of Simi Valley Resolution No. 2006-53 adopting the National Incident Management System, September 2006

20. Pandemic Response and Preparedness Plan (draft), October 2009

REFERENCES

Federal Response Plan (FEMA).
Disaster Assistance Procedure Manual (State OES).
California Emergency Resources Management Plan.
California Master Mutual Aid Agreement.
California Law Enforcement Mutual Aid Plan.
California Fire and Rescue Operations Plan.

PART ONE, SECTION THREE

Hazard Mitigation Programs

Hazard Mitigation Overview

Emergency management activities consist of four overlapping phases: Mitigation, Preparedness, Response and Recovery. During the mitigation phase, action is taken to reduce or eliminate the long-term risk to human life and property from natural and human-caused hazards. Mitigation efforts occur both before and after an event.

- **Pre-Disaster Mitigation** focuses on projects that address natural or man-made hazards in order to reduce the risks to the population and structures. This is primarily accomplished by strengthening the resilience of California's infrastructure. A FEMA-commissioned study recently concluded that each dollar spent on mitigation activities saves an average of $4.00 in post-disaster costs.

- **Post-Disaster Mitigation** efforts are designed to reduce future damage in a stricken area and decrease the loss of life and property due to incidents. The essential steps of hazard mitigation are:

  - Hazard identification.
  - Vulnerability analysis.
  - Defining a hazard mitigation strategy.
  - Implementation of hazard mitigation activities and projects.

More information on City hazard mitigation programs can be accessed at the City website: www.simivalley.org/hazmit

Simi Valley Multi-Hazard Mitigation Plan

The City's mitigation activities are guided by the *Simi Valley Multi-Hazard Mitigation Plan*. This plan is the City's official statement on hazard mitigation goals, strategies and priorities and provides a comprehensive assessment of the City's hazards and vulnerabilities.
The goals of City's mitigation efforts are to:

- Reduce life loss and injuries.
- Minimize damage to structures and property, as well as disruption of essential services and human activities.
- Protect the environment.
- Promote hazard mitigation as an integrated public policy.

Pages: 31-33 were omitted in 2006 update

PART ONE, SECTION FOUR
MUTUAL AID

INTRODUCTION

The foundation of California's emergency planning and response is a statewide mutual aid system which is designed to ensure that adequate resources, facilities and other support is provided to jurisdictions whenever their own resources prove to be inadequate to cope with a given situation(s). The basis for the system is the California Disaster and Civil Defense Master Mutual Aid Agreement (**see Part Three—Legal Documents**), as provided for in the California Emergency Services Act. This Agreement was developed in 1950 and has been adopted by the state, all 58 counties and most incorporated cities in the State of California. The Master Mutual Aid Agreement creates a formal structure wherein each jurisdiction retains control of its own facilities, personnel and resources, but may also receive or render assistance to other jurisdictions within the state. State government is obligated to provide available resources to assist local jurisdictions in emergencies. It is the responsibility of the local jurisdiction to negotiate, coordinate and prepare mutual aid agreements. ***(CPG-112)*** Mutual aid agreements exist in law enforcement, fire services, medical and public works and are currently in progress for emergency managers (EMMA).

MUTUAL AID SYSTEM *(CPG-23)*

A statewide mutual aid system, operating within the framework of the Master Mutual Aid Agreement, allows for the progressive mobilization of resources to and from emergency response agencies, local governments, operational areas, regions and state with the intent to provide requesting agencies with adequate resources. ***(CPG-132)*** The general flow of mutual aid resource requests and resources within mutual aid systems are depicted in the diagram in **Chart 1.**

The statewide mutual aid system includes several discipline-specific mutual aid systems, such as fire and rescue, law, medical and public works. The adoption of SEMS does not alter existing mutual aid systems. These systems work through local government, operational area, regional and state levels consistent with SEMS.

Mutual aid may also be obtained from other states. Interstate mutual aid may be obtained through direct state-to-state contacts, pursuant to interstate agreements and compacts, or may be coordinated through federal agencies.

MUTUAL AID REGIONS

Mutual aid regions are established under the Emergency Services Act by the Governor. Six mutual aid regions numbered I-VI have been established within California. The City of Simi Valley is within Region I which is divided into two Regions for Law Enforcement Mutual Aid—Regions I and Region IA. Each mutual aid region consists of designated counties. Region I is in the OES Southern Administrative Region. **(See Chart 3)**

MUTUAL AID COORDINATORS

To facilitate mutual aid, discipline-specific mutual aid systems work through designated mutual aid coordinators at the operational area, regional and state levels. The basic role of a mutual aid coordinator is to receive mutual aid requests, coordinate the provision of resources from within the coordinator's geographic area of responsibility and pass on unfilled requests to the next level.

Mutual aid requests that do not fall into one of the discipline-specific mutual aid systems are handled through the emergency services mutual aid system by emergency management staff at the local government, operational area, regional and state levels. The flow of resource requests and information among mutual aid coordinators is illustrated in **Chart 2.**

Mutual aid coordinators may function from an EOC, their normal departmental location or other locations depending on the circumstances. Some incidents require mutual aid but do not necessitate activation of the affected local government or operational area EOCs because of the incident's limited impacts. In such cases, mutual aid coordinators typically handle requests from their normal work location. When EOCs are activated, all activated discipline-specific mutual aid systems should establish coordination and communications with the EOCs:

- When an operational area EOC is activated, operational area mutual aid system representatives should be at the operational area EOC to facilitate coordination and information flow.

- When an OES regional EOC (REOC) is activated, regional mutual aid coordinators should have representatives in the REOC unless it is mutually agreed that effective coordination can be accomplished through telecommunications. State agencies may be requested to send representatives to the REOC to assist OES regional staff in handling mutual aid requests for disciplines or functions that do not have designated mutual aid coordinators.

- When the State Operations Center (SOC) is activated, state agencies with mutual aid coordination responsibilities will be requested to send representatives to the SOC.

Mutual aid system representatives at an EOC may be located in various functional elements (sections, branches, groups or units) or serve as an agency representative, depending on how the EOC is organized and the extent to which it is activated.

PARTICIPATION OF VOLUNTEER AND PRIVATE AGENCIES

Volunteer agencies and private agencies may participate in the mutual aid system along with governmental agencies. For example, the disaster medical mutual aid system relies heavily on private sector involvement for medical/health resources. Some volunteer agencies such as the American Red Cross, Salvation Army and others are an essential element of the statewide emergency response to meet the needs of disaster victims. Volunteer agencies mobilize volunteers and other resources through their own systems. They also may identify resource

needs that are not met within their own systems that would be requested through the mutual aid system. Volunteer agencies with extensive involvement in the emergency response should be represented in EOCs.

Some private agencies have established mutual aid arrangements to assist other private agencies within their functional area. For example, electric and gas utilities have mutual aid agreements within their industry and established procedures for coordinating with governmental EOCs. In some functional areas, services are provided by a mix of special district, municipal and private agencies. Mutual aid arrangements may include both governmental and private agencies.

Liaison should be established between activated EOCs and private agencies involved in a response. Where there is a need for extensive coordination and information exchange, private agencies should be represented in activated EOCs at the appropriate SEMS level.

EMERGENCY FACILITIES USED FOR MUTUAL AID

Incoming mutual aid resources may be received and processed at several types of facilities including: marshaling areas, mobilization centers and incident facilities. Each type of facility is described briefly below.

Marshaling Area: Defined in the Federal Response Plan as an area used for the complete assemblage of personnel and other resources prior to their being sent directly to the disaster affected area. Marshaling areas may be established in other states for a catastrophic California earthquake.

Mobilization Center: Off-incident location at which emergency service personnel and equipment are temporarily located pending assignment, release or reassignment. For major area-wide disasters, mobilization centers may be located in or on the periphery of the disaster area.

Incident Facilities/Staging Areas: Incoming resources may be sent to staging areas, other incident facilities or directly to an incident, depending on the circumstances. Staging areas are temporary locations at an incident where personnel and equipment are kept while awaiting tactical assignments.

POLICIES AND PROCEDURES

- Mutual aid resources will be provided and utilized in accordance with the California Master Mutual Aid Agreement.

- During a proclaimed emergency, inter-jurisdictional mutual aid will be coordinated at the county, operational area or mutual aid regional level.

- Because different radio frequencies are in use among most agencies, local agencies should provide incoming mutual aid forces with portable radios having local frequencies.

- The City of Simi Valley will make mutual aid requests through the Ventura County Operational Area via the Ventura County Inter-Agency Coordination Group in the Ventura County Operational Area EOC. Requests should specify, at a minimum:

  - Number and type of personnel needed.
  - Type and amount of equipment needed.
  - Reporting time and location.
  - Authority to whom forces should report.
  - Access routes.
  - Estimated duration of operations.
  - Risks and hazards.

AUTHORITIES AND REFERENCES

Mutual aid assistance may be provided under one or more of the following authorities:

- California Master Mutual Aid Agreement.
- California Fire and Rescue Emergency Plan.
- California Law Enforcement Mutual Aid Plan.
- Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288, as amended)—provides federal support to state and local disaster activities.

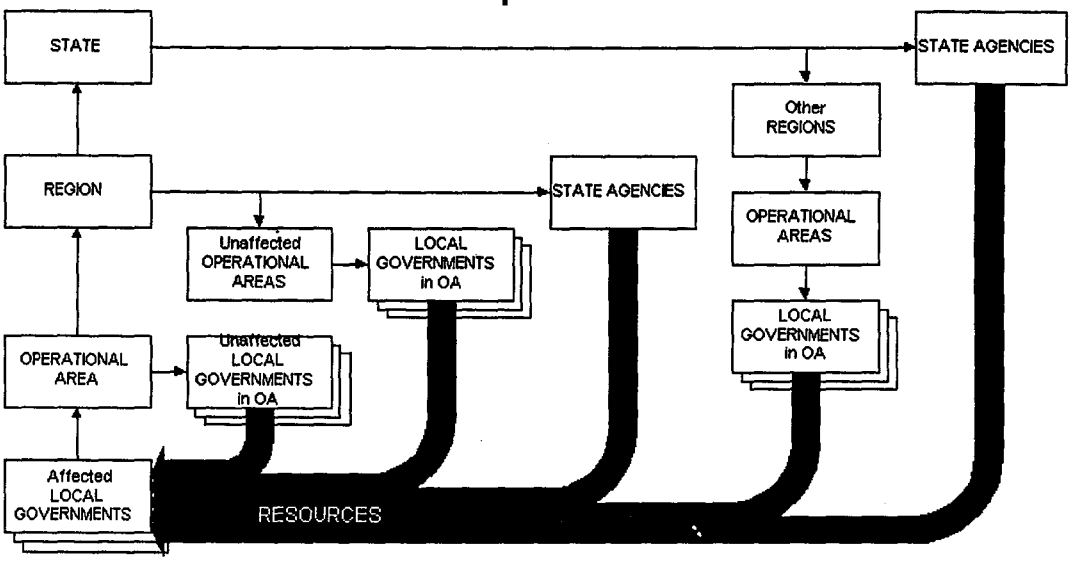
CITY OF SIMI VALLEY MUTUAL AID AGREEMENTS *(CPG-24)*

WITH	FOR	DATE
State of California	Master Mutual Aid **(Part Three, Legal Documents)**	1971
Ventura County/Cities	Unified Disaster Agreement **(Part Three, Legal Documents)**	1971
Law Enforcement Mutual Aid Region 1A	Region 1A Mutual Aid Operational Plan **(Part Three, Legal Documents)**	1972
Ventura County Law Enforcement Agencies	Ventura County Law Enforcement Mutual Aid **(Part Three, Legal Documents)**	July 1992
Ventura County/Cities	Unified Disaster Agreement **(Part Three, Legal Documents)**	January 1984
Ventura County /Cities	Operational Area Agreement **(Part Three, Legal Documents)**	December 1995
California Cities and Counties	California Building and Safety Mutual Aid Agreement **(Part Three, Legal Documents)**	February 1997
State of California	Emergency Managers Mutual Aid **(Part Three, Legal Documents)**	November 1997
Southern California Cities and Counties	Public Works Mutual Aid **(Part Three, Legal Documents)**	January 1998

Chart 1

MUTUAL AID SYSTEM FLOW CHART

Mutual Aid System Concept:
General Flow of Requests and Resources



→ Resource Requests

OA Operational Area

Notes: Local governments may request mutual aid directly from other local governments where local agreements exist.

Discipline-specific mutual aid systems may have procedures that provide additional methods of obtaining state resources.

Volunteer and private agencies may be involved at each level.

Chart 2

MUTUAL AID COORDINATORS FLOW CHART

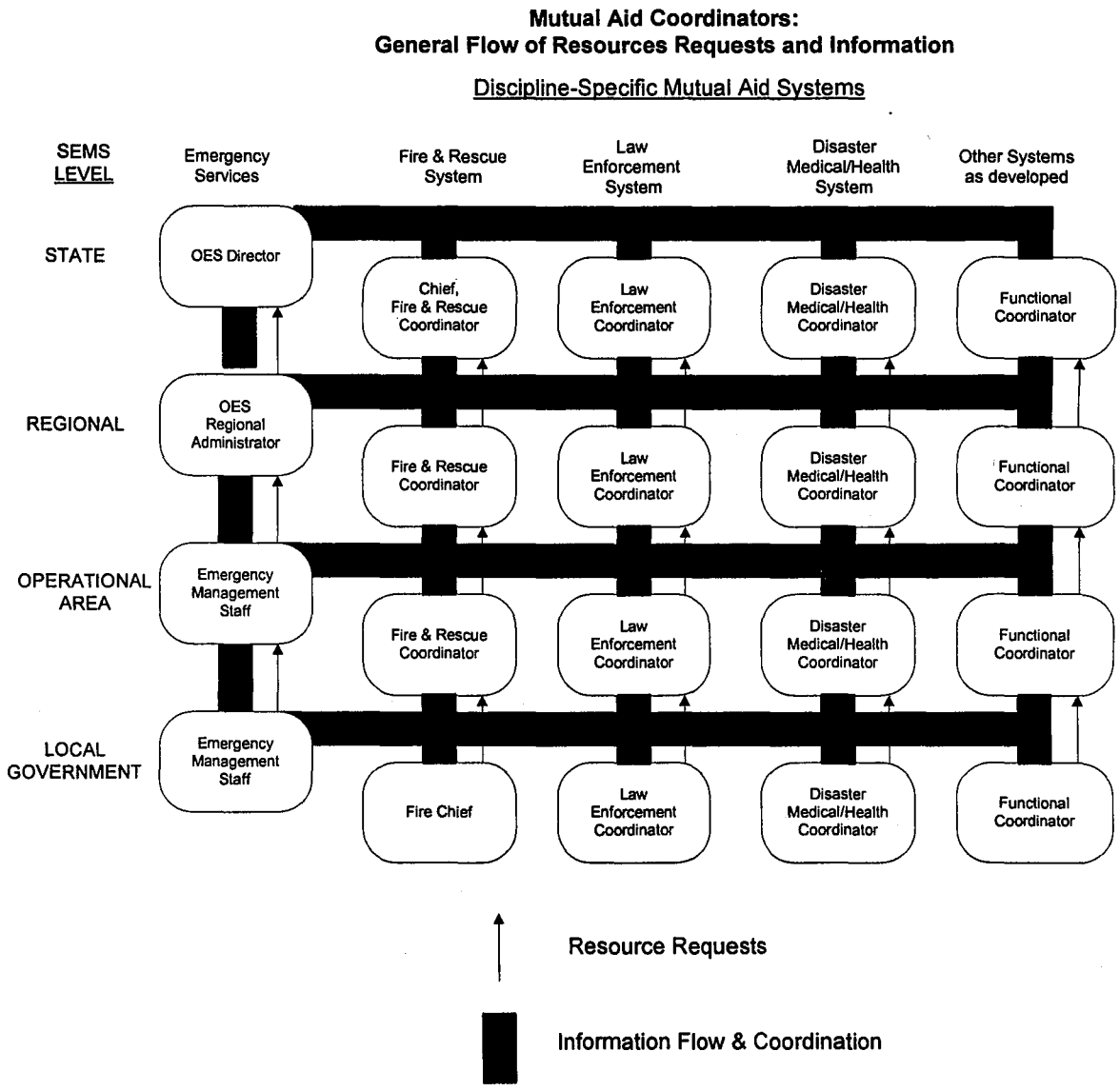
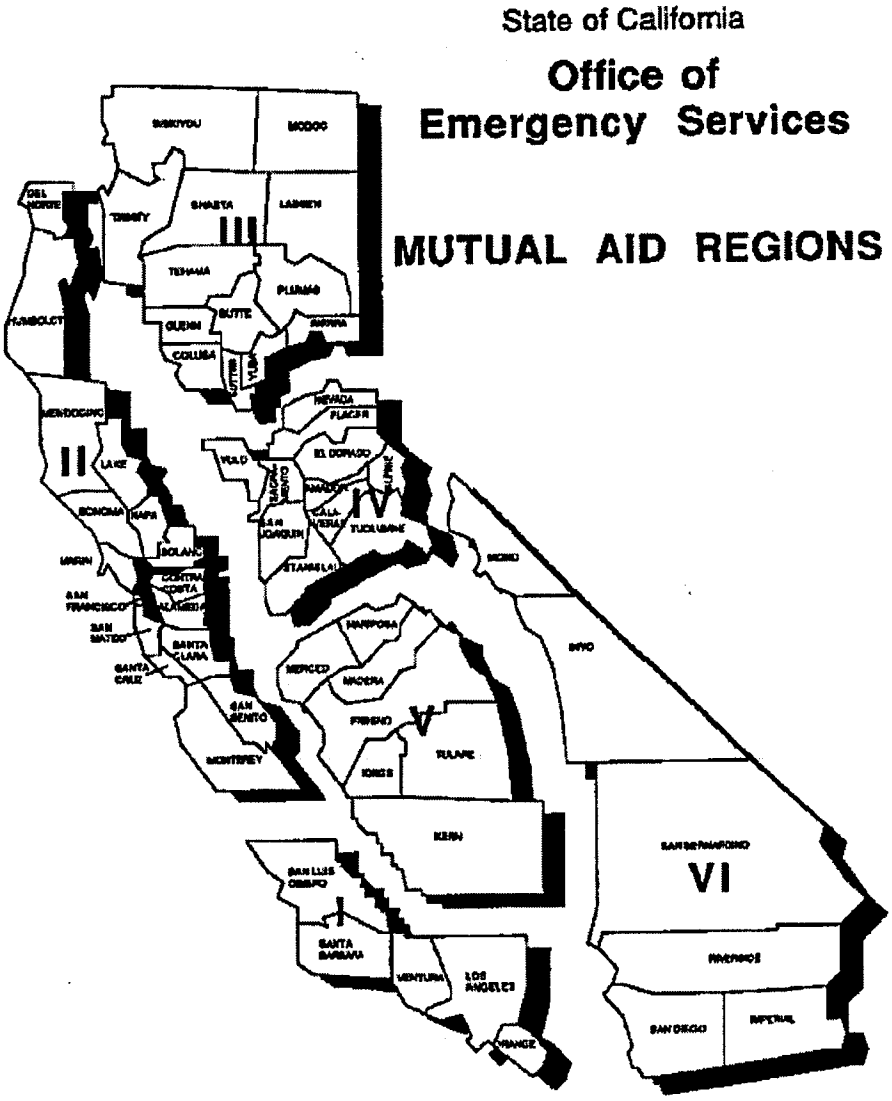


CHART 3

STATE TUAL AID REGION MAP



Map 1

PART ONE, SECTION FIVE

THREAT SUMMARY FOR CITY OF SIMI VALLEY

Background

This section of the Basic Plan (Part One) consists of a series of threat summaries based on the results of the City of Simi Valley's hazard analysis. **This hazard analysis study was conducted in September 1996 by the Simi Valley Office of Emergency Services. (CPG-6)** The current analysis is mostly a compilation of previously conducted analyses by various experts, including Fugro-McClelland, Incorporated (Fugro), City planners, and the Simi Valley Police Department Criminal Intelligence Unit. Fugro prepared the Safety Element of the City's General Plan. The purpose of the assessment is to describe the area at risk and the anticipated nature of the situation, which could result should the event threaten or occur. For further details, refer to the Safety Element of the City's General Plan.

Geographic Characteristics, population at risk to each identified hazard, and potential hazard considerations on which the plan is based (CPG-15): The City of Simi Valley is located within Ventura County (northeast section), Region I, Southern Administrative Region of State Office of Emergency Services. It has a residential population of approximately 104,000 and a day-time population of 80,000. The City is bordered on the west by the City of Moorpark, the southwest by the City of Thousand Oaks, and the east by the City of Los Angeles. The northern and southern border remain undeveloped open space. Simi Valley consists of 54 square miles and is approximately 70% residential 20% open space and 10% commercial/industrial.

The city is served by one major hospital, the Simi Valley Hospital which maintains a 24 hour emergency room. The City is served by the Simi Valley Unified School District which has 28 separate schools and/or facilities.

Highway 118 runs through the City's east-west diameter providing access to the City of Los Angeles on the west and the rest of Ventura County on the east.

The Southern Pacific Transportation Company (SPTC) maintains a rail line which also runs the east-west diameter of the City, mostly south of the 118 freeway.

Both the Unocal Corporation and Shell Oil maintain underground pipelines that are used to transport a variety of petroleum products. The Shell Pipeline is also used to transport other, non-petroleum products as well.

The Simi-Santa Rosa fault runs through the City along the northern foothills. The fault is known to begin in the north eastern section of the City, just north of the Texas tract development and run across the east-west diameter of the City crossing under the 118 freeway at First Street.

Bard Reservoir is located just southwest of the city next to the Wood Ranch Development. The 11,000 acre-foot reservoir is owned and operated by the Calleguas Municipal Water District (CMWD). Bard is filled by underground supply lines that run across the east-west diameter of the City. In the 1994 Northridge Earthquake, these supply lines were severed at the easternmost point in the City. The reservoir itself sustained no damage in the temblor, and the water in the reservoir, which normally does not supply Simi Valley, was backfed into City water lines and tanks.

THREAT SUMMARY

- An earthquake could impact either segments of or the total population.

- The City has some industry and faces the potential for hazardous materials incidents from stationary hazardous materials users as well as transportation accidents, pipeline ruptures, and illegal dumping.

- The City is subject to dam inundation in two areas. The western most end of the City is subject to dam failure inundation from the Bard Reservoir. The central part of the City is subject to inundation from the Las Llajas detention dam. ***(CPG-229)***

- Portions of the City along the Arroyo Simi and its tributaries as well as some other parts of the City are subject to stormwater flooding. The City has not historically been vulnerable to storm surge inundation associated with hurricanes and tropical storms. **(CPG-229/230)**

- A transportation incident such as a major air crash, train derailment or trucking incident could impact areas within the City.

- A civil unrest incident could impact areas within the City or the entire City.

- The entire City is considered as a risk area for a nuclear event or act of terrorism; therefore both sheltering and evacuation should be considered. Neither the City nor the County of Ventura has the capability to plan for the organized evacuation of the City; therefore, the extent of planning at this time is restricted to assisting and expediting spontaneous evacuation. **(CPG-226)** In the increased readiness stage, expedient shelters will be utilized as appropriate and information will be provided to the public as the City does not maintain public fallout shelters. **(CPG-7/85/172/242/243/244/245/248)**

- The City of Simi Valley is not within the planned range of a radioactive plume of a nuclear power plant. **(CPG-227)**

Any single incident or a combination of events could require evacuation and/or sheltering of the population. **(CPG-17/208)**

The City has its own police department. The Ventura County Fire Protection District provides

fire protection services in the City.

The City has established a dedicated amateur radio station in the City's Emergency Operations Center, staffed by Ventura County Radio Amateur Civil Emergency Services (RACES) volunteers. The City has also trained numerous residents and businesses in the FEMA recognized Community Emergency Response Team (CERT) program. The City will utilize these volunteers for assistance in emergency communications and other necessary emergency services.

City staff has been designated to coordinate all SEMS functions.

During the response phase of an emergency, the Ventura County Sheriff's Department is the coordination and communication point and the access to the Ventura County Operational Area.

The following threat assessments identify and summarize the hazards which could impact the City of Simi Valley.

Threat Assessment 1 Major Earthquake

Attachment 1: General Area Fault Map
Attachment 2: Northern City Area Fault Map
Attachment 3: Southern City Area Fualt Map
Attachment 4: Liquefaction Potential Map
Attachment 5: Modified Mercalli Scale

Threat Assessment 2 Hazardous Materials

Attachment 1: Transportation Routes Map
Attachment 2: Pipeline Map

Threat Assessment 3 Flooding

Attachment 1: Flood Hazard Areas Map

Threat Assessment 4 Dam Failure

Attachment 1: Bard Inundation Map

Threat Assessment 5 Transportation

Major Air Crash
Train Derailment
Trucking Incident

Threat Assessment 6 Civil Unrest

Threat Assessment 7 National Security Emergency

Threat Assessment 8 Terrorism

Threat Assessment 9 Urban Fire

Attachment 1: Urban Fire Map

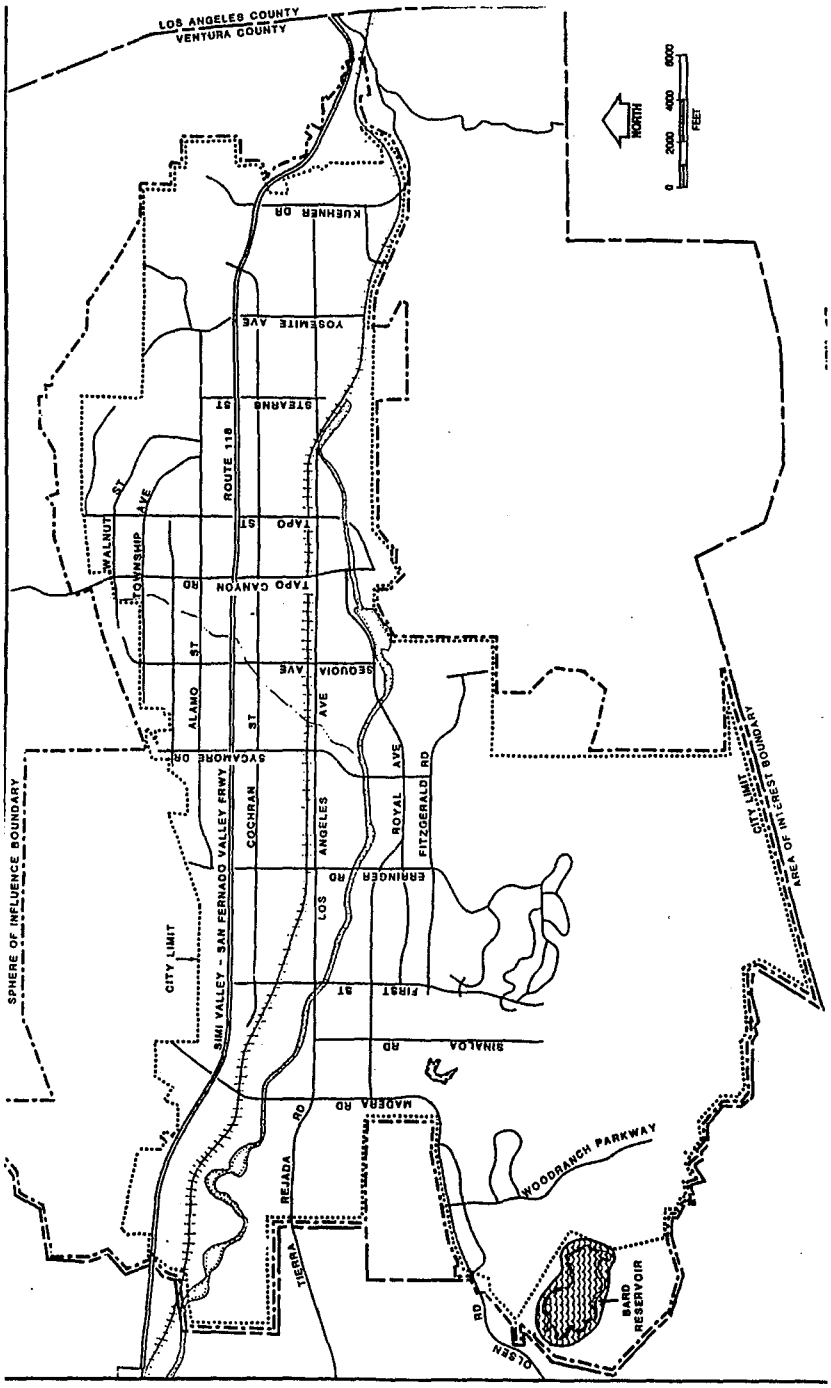
Threat Assessment 10 Wild Fire

Attachment 1: Wild Fire Map

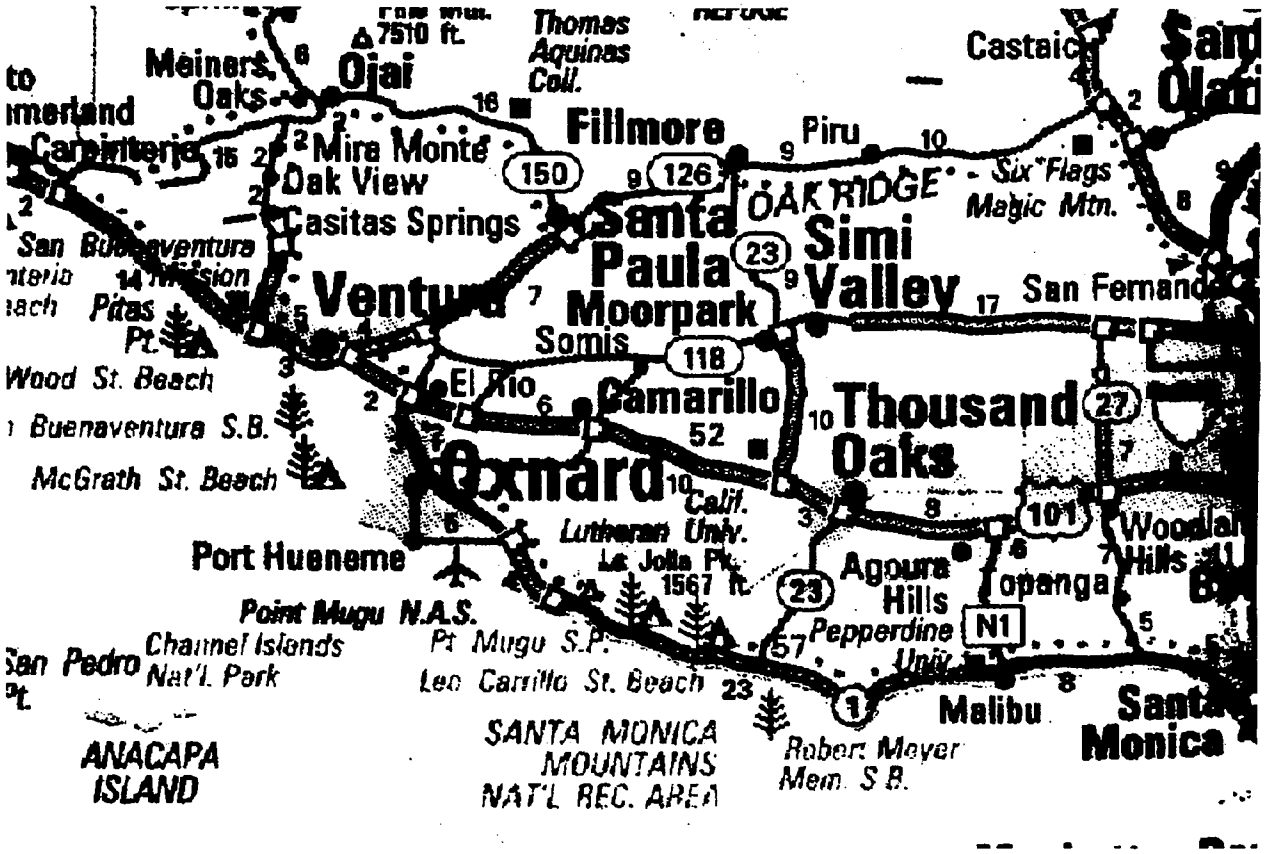
Threat Assessment 11 Landslide

Attachment 1: Landslide Area Map

CITY MAP


LOS ANGELES COUNTY
VENTURA COUNTY
NORTH
0 2000 4000 6000
FEET
KUEHNER DR
YOSEMITE AVE
STEARNS ST
ROUTE 118
TAPO ST
TAPO CANYON RD
SEQUOIA AVE
SYCAMORE DR
WALNUT ST
TOWNSHIP AVE
ALAMO ST
COCHRAN ST
LOS ANGELES AVE
ROYAL AVE
FITZGERALD RD
ERRINGER RD
FIRST ST
SIMI VALLEY - SAN FERNADO VALLEY FRWY
CITY LIMIT
SPHERE OF INFLUENCE BOUNDARY
SINALOA RD
MADERA RD
TIERRA REJADA RD
WOODRANCH PARKWAY
OLSEN RD
BARD RESERVOIR
CITY LIMIT
AREA OF INTEREST BOUNDARY

CITY MAP—ADJACENT JURISDICTIONS *(CPG-16c)*



THREAT ASSESSMENT 1, PART ONE

MAJOR EARTHQUAKE

GENERAL SITUATION

The City of Simi Valley is in the vicinity of several known active and potentially active earthquake faults including the San Andreas, Sierra Madre, Malibu Coast, Oak Ridge, Newport-Inglewood, Simi Santa Rosa and Santa Susana (see **Attachment 1, map**). New faults within the region are continuously being discovered. Scientists have identified almost 100 faults in the Los Angeles area known to be capable of a magnitude 6.0 or greater earthquake. The January 17, 1994 magnitude 6.7 Northridge Earthquake (thrust fault) which produced severe ground motions, caused 57 deaths, 9,253 injuries and left over 20,000 displaced. Scientists have stated that such devastating shaking should be considered the norm near any large thrust earthquake.

Recent reports from scientists of the U.S. Geological Survey and the Southern California Earthquake Center say that the Los Angeles Area could expect one earthquake every year of magnitude 5.0 or more for the foreseeable future.

A major earthquake occurring in or near this jurisdiction may cause many deaths and casualties, extensive property damage, fires and hazardous material spills and other ensuing hazards. The effects could be aggravated by aftershocks and by the secondary affects of fire, hazardous material/chemical accidents and possible failure of the waterways and dams. The time of day and season of the year would have a profound effect on the number of dead and injured and the amount of property damage sustained. Such an earthquake would be catastrophic in its affect upon the population and could exceed the response capabilities of the individual cities, Ventura County Operational Area and the State of California Emergency Services. Damage control and disaster relief support would be required from other local governmental and private organizations, and from the state and federal governments.

Extensive search and rescue operations would be required to assist trapped or injured persons. Emergency medical care, food and temporary shelter could be required by injured or displaced persons. Identification and burial of many dead persons would pose difficult problems; public health would be a major concern. Mass evacuation may be essential to save lives, particularly in areas downwind from hazardous material releases. Many families would be separated particularly if the earthquake should occur during working hours, and a personal inquiry or locator system could be essential to maintain morale. Emergency operations could be seriously hampered by the loss of communications and damage to transportation routes within, and to and from, the disaster area and by the disruption of public utilities and services.

The economic impact on the City of Simi Valley from a major earthquake would be considerable in terms of loss of employment and loss of tax base. Also, a major earthquake could cause serious damage and/or outage of computer facilities. The loss of such facilities could curtail or seriously disrupt the operations of banks, insurance companies and other elements of the financial community. In turn, this could affect the ability of local government, business and the population to make payments and purchases.

SPECIFIC SITUATION

The potential conditions that the City of Simi Valley may face in an earthquake include the following:

Ground Shaking

The most significant earthquake action in terms of potential structural damage and loss of life is ground shaking. Ground shaking is the movement of the earth's surface in response to a seismic event. The intensity of the ground shaking and the resultant damages are determined by the magnitude of the earthquake, distance from the epicenter, and characteristics of surface geology. This hazard is the primary cause of the collapse of buildings and other structures.

It is generally understood that an earthquake does not in itself present a seismic hazard, but that it becomes a hazard when it occurs in a highly urbanized area. Therefore, the significance of an earthquake's ground shaking action is directly related to the density and type of buildings and number of people exposed to its effect.

Liquefaction

Many areas may have buildings destroyed or unusable due to the phenomenon of liquefaction (see **Attachment 4**). Liquefaction is a phenomenon involving the loss of shear strength of a soil. The shear strength loss results from the increase of ground water pressure and the rearrangement of soil particles induced by shaking or vibration. Liquefaction has been observed in many earthquakes, usually in soft, poorly graded granular materials (i.e., loose sands), with high water tables. Liquefaction usually occurs in the soil during or shortly after a large earthquake. In effect, the liquefaction soil strata behave as a heavy fluid. Buried tanks may float to the surface and objects above the liquefaction strata may sink. Pipelines passing through liquefaction materials typically sustain a relatively large number of breaks in an earthquake.

Casualties

Since studies have predicted the total number of deaths and hospitalized injuries (exclusive of dam failures), for the entire Los Angeles region, it is assumed that a proportionate number of casualties will be generated in the City of Simi Valley. The total number of casualties projected in the event an 8.3 magnitude earthquake occurs at 4:30 p.m. and at 2:00 a.m. are as follows:

Time	Deaths	Hospitalized Injuries	Non-Hospitalized Injuries
4:30 p.m.	100	400	3,000
2:00 a.m.	20	100	600

Long-Term Homelessness

Based on population and demographic data, there could be approximately 5,000 long-term homeless persons.

DAMAGE TO VITAL PUBLIC SERVICES, SYSTEMS AND FACILITIES

Bed Loss in Hospitals

Simi Valley has one major medical facility. Public service agencies and volunteer personnel would be used to assist in the care of the injured.

Several of the acute care hospitals in Ventura County are expected to be lost due to structural damage. This will impair the number of beds available and create the need for several field hospitals. Most of the subscribing hospitals to the Ventura County Health Care Agency will be controlled by the Agency as to the availability of beds and transfer of patients.

Although a percentage of the remaining beds could be made available by discharging or transferring non-emergency patients, it will probably be necessary to receive an immediate influx of emergency medical aid and/or export some of the seriously injured to out-of-county facilities.

Communications

Telephone systems will be affected by system failure, overloads, loss of electrical power and possible failure of some alternate power systems. Immediately after the event, numerous failures will occur coupled with saturation overloads. This will disable up to 80% of the telephone system for one day. In light of the expected situation, emergency planners should not plan on the use of telephone systems for the first few days after the event.

Radio systems are expected to be 40 to 75% effective; microwave systems, 30% effective or less.

Dam and Flood Control Channels

Because of the current design and construction practices and ongoing programs of review and modification, catastrophic dam failure is considered unlikely. Many flood control channels are expected to suffer damage. Pumping stations in coastal communities are expected to fail due to liquefaction.

Electrical Power

Major power plants are expected to sustain some damage due to liquefaction. Up to 60% of the system load may be interrupted immediately following the initial shock. According to representatives of Southern California Edison Company, the electrical power will not be rerouted and will be lost for an undefined period of time. Much of the imported power is expected to be lost. In some areas of greatest shaking it should be anticipated that some of the distribution lines, both underground and surface, will be damaged. Much of the affected area may have service restored in days; damaged areas with underground distribution may require a longer time. Loss of Southern California Edison transmission lines is possible.

Commercial Broadcasters

All radio and Television facilities are expected to be out of operation in the Simi Valley area for 24 hours due to in-house problems, and/or power supply problems, and/or transmission line problems.

Fire Operations

Although total collapse of fire stations is not expected, possible disruption of utilities, twisted doors and loss of power can create major problems. Numerous fires due to disruption of power and natural gas networks can be expected. Many connections to major water sources may be out and storage facilities would have to be relied on; water supply could vary from little or none to inadequate. First response from fire personnel is expected to be assessment of the area to establish response and recovery needs. Operations may take days because of the disruption of transportation routes for fire department personnel and equipment.

Secondary responses by the Fire Service after assessment will be placed upon diversion of resources to accomplish search and rescue of trapped persons. Major problems the Fire Service should expect are loss of power and water, jammed doors, restricted mobility due to debris, possible loss of primary dispatch capability and delays in reaching maximum effectiveness due to personnel shortages.

Highways and Bridges

Damage to freeway systems is expected to be major. Any inner surface transportation routes could be subject to delays and detours. A major portion of surface streets in the vicinity of freeways will be blocked due to collapsed overpasses.

Natural Gas

Damage to natural gas facilities will consist primarily of (a) some isolated breaks in major transmission lines, and (b) innumerable breaks in mains and individual service connections within the distribution systems, particularly in the areas of intense ground shaking. These many leaks in the distribution system will affect a major portion of the urban areas, resulting in a loss of service for extended periods. Fires should be expected at the sites of a small percentage of ruptures both in the transmission lines and the distribution system. Transmission pipelines serving the valley floor are most vulnerable to damage.

Petroleum Fuels

There are three subsurface pipelines located in Simi Valley. Pipeline breakage is expected in areas where liquefaction potential is present. There is a possibility of fire and or a hazardous material release where pipeline failures occur.

Railroads

It is expected that 21 of the 59 route segments serving the Southern California region could be unavailable for post earthquake service; the 21 segments include all major connections with northern California. The post earthquake capacity to serve both the Los Angeles and Ventura County areas would be very small—probably no more than one train a day. This is a dramatic loss from the number of trains per day that can currently enter the area. Many railroad bridges are susceptible to damage because of age, design and construction. Some lines could be blocked because of damage to freeway overpass structures.

Sanitation Systems

The waste water treatment facility could be out of service from 4 to 6 months depending on the damage caused by liquefaction. There is a limited volume of storage available in the waste water treatment plants; if the treatment train cannot be restored before storage is exceeded, the waste water will require discharge with emergency chlorination to reduce health hazards. Overflow of sewage through manholes and from ponds can be expected due to breakage in mains and loss of power. As a result, there will be a danger of excessive collection of explosive gas in sewer mains, and flow of untreated sewage in some street gutters. Many house sewer connections will break and plug.

Water Supply

Two of the three major aqueducts serving Southern California are expected to be out of service from 3 to 6 months following the event; only the Colorado River Aqueduct is expected to remain in service. This indicates that the imported water supply to Ventura County may be only partial for a 3 to 6 months period. Several ruptures are anticipated along the water pipelines in the County. Anticipated damage to reservoir outlet works could take weeks to repair. The majority of water wells are expected to be disabled by loss of electricity and the lack of backup power sources. In addition, shear forces could render about a third of the wells inoperative for an indefinite period. Many areas could be dependent on tanker trucks to provide for their basic needs.

Water availability and distribution for needed life support, to treat the sick and injured and for fire suppression activities is of major concern to the City.

EMERGENCY RESPONSE ACTIONS

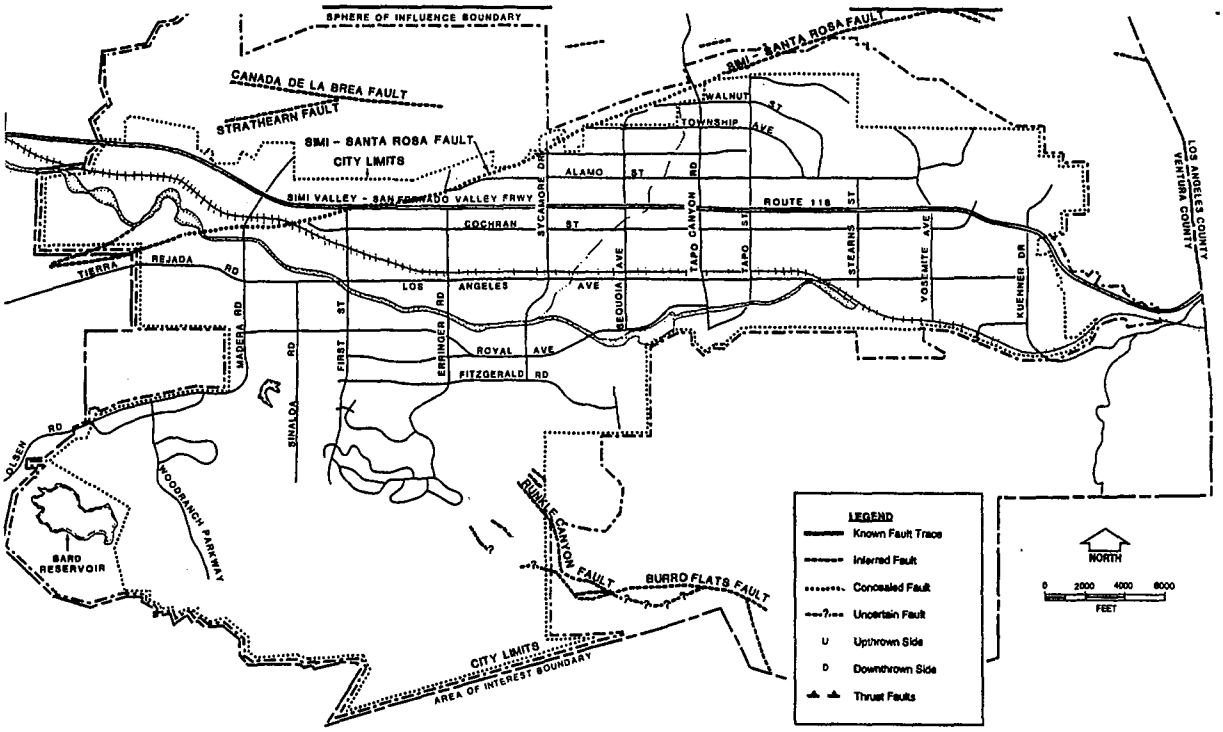
Emergency response actions applicable to all common hazards are presented in the **Checklist Actions in Part Two of this Plan.**

Attachments:

1 - City Fault Map **(CPG-16a)**
2 - Liquefaction Potential Map
5 - Modified Mercalli Intensity Scale

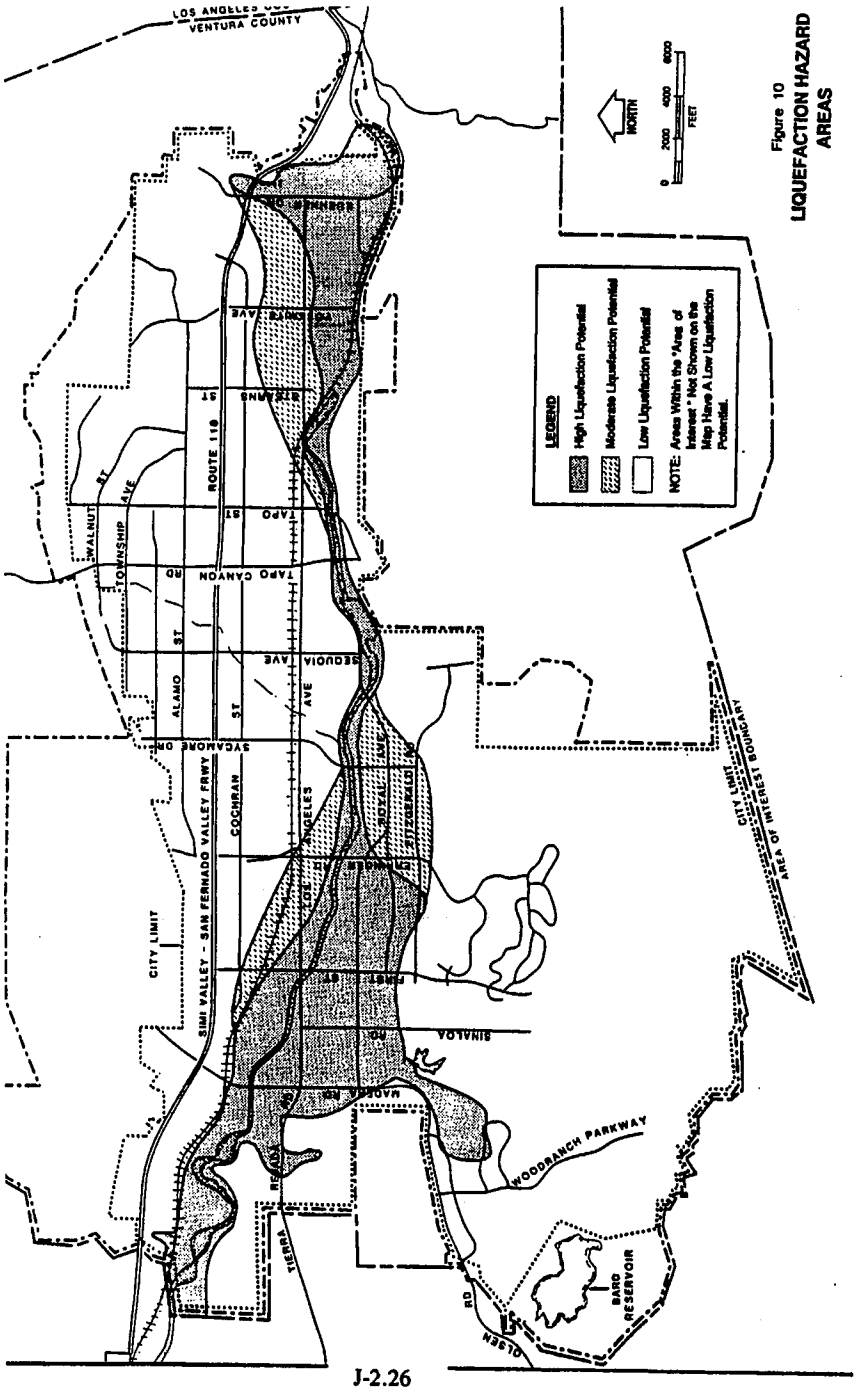
ATTACHMENT 1, THREAT SUMMARY 1

EARTHQUAKE FAULT MAP



ATTACHMENT 2, THREAT SUMMARY 1

LIQUEFACTION POTENTIAL



ATTACHMENT 5, THREAT SUMMARY 1

MODIFIED MERCALLI INTENSITY SCALE

I Not felt. Marginal and long-period effects of large earthquakes.

II Felt by persons at rest, on upper floors, or favorably placed.

III Felt indoors. Hanging objects swing. Vibration like passing of light trucks. Duration estimated. May not be recognized as an earthquake.

IV Hanging objects swing. Vibration like passing of heavy trucks; or sensation of a jolt like a heavy ball striking the walls. Standing motor cars rock. Windows, dishes, doors rattle. Glasses clink. Crockery clashes. In the upper range of IV, wooden walls and frames creak.

V Felt outdoors; direction estimated. Sleepers wakened. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Doors swing, close, open. Shutters, pictures move. Pendulum clocks stop, start, change rate.

VI Felt by all. Many frightened and run outdoors. Persons walk unsteadily. Windows, dishes, glassware broken. Knickknacks, books, etc., off shelves. Pictures off walls. Furniture moved or overturned. Weak plaster and masonry D cracked. Small bells ring (church, school). Trees, bushes shaken (visibly, or heard to rustle).

VII Difficult to stand. Noticed by drivers of motor cars. Hanging objects quiver. Furniture broken. Damage to masonry D, including cracks. Weak chimneys broken at roof line. Fall of plaster, loose bricks, stones, tiles, cornices (also unbraced parapets and architectural ornaments). Some cracks in masonry C. Waves on ponds; water turbid with mud. Small slides and caving in along sand or gravel banks. Large bells ring. Concrete irrigation ditches damaged.

VIII Steering of motor cars affected. Damage to masonry C; partial collapse. Some damage to masonry B; none to masonry A. Fall of stucco and some masonry walls. Twisting, fall of chimneys, factory stacks, monuments, towers, elevated tanks. Frame houses moved on foundations if not bolted down; loose panel walls thrown out. Decayed piling broken off. Branches broken from trees. Changes in flow or temperature of springs and wells. Cracks in wet ground and on steep slopes.

IX General panic. Masonry D destroyed; masonry C heavily damaged, sometimes with complete collapse; masonry B seriously damaged. (General damage to foundations.) Frame structures, if not bolted, shifted off foundations. Frames cracked. Serious damage to reservoirs. Underground pipes broken. Conspicuous cracks in ground. In alluviated areas, sand and mud ejected, earthquake fountains, sand craters.

X Most masonry and frame structures destroyed with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes, embankments. Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land. Rails bent slightly.

XI Rails bent greatly. Underground pipelines completely out of service.

XII Damage nearly total. Large rock masses displaced. Lines of sight and level distorted. Objects thrown into the air.

Definition of Masonry A, B, C, D:

Masonry A: Good workmanship, mortar, and design; reinforced, especially laterally, and bound together by using steel, concrete, etc.; designed to resist lateral forces.

Masonry B: Good workmanship and mortar; reinforced, but not designed in detail to resist lateral forces.

Masonry C: Ordinary workmanship and mortar; no extreme weaknesses like failing to tie in at corners, but neither reinforced nor designed against horizontal forces.

Masonry D: Weak materials, such as adobe; poor mortar; low standards of workmanship; weak horizontally.

THREAT ASSESSMENT 2, PART ONE

HAZARDOUS MATERIAL INCIDENT

GENERAL SITUATION

Hazardous materials are any substance or combination of substances which because of quantity, concentration, or characteristics may cause or significantly contribute to an increase in death or serious injury, or pose substantial hazards to humans and/or the environment. The production and use of these hazardous materials is a part of our society over which local governments have little control.

Hazardous material incidents differ from other emergency response situations because of the wide diversity of causative factors and the pervasiveness of the potential threat. Circumstances such as the prevailing wind and geographic features in the vicinity of emergency incidents are relevant factors which may greatly increase the hazardous chemical dangers. Incidents may occur at fixed facilities where, most likely, the occupants have filed site specific emergency response contingency and evacuation plans. However incidents may also occur at any place along any land, water or air transportation routes, and (in event of vessel mishaps, aircraft accidents, misuse of agricultural chemicals and illegal dumping) may occur in unpredictable areas, relatively inaccessible by ground transportation.

In Simi Valley the vast majority of hazardous material incidents are handled prior to their becoming a major disaster. Nevertheless, the emergency organization needs to be flexible and evolutionary in its response to a developing incident. This plan is designed to accommodate both the large number of relatively routine minor spill incidents and the truly catastrophic hazardous material disaster.

The increasing volume and variety of hazardous materials that are generated, stored, or transported within the City of Simi Valley is a problem of great concern to public officials and the community. A major hazmat accident and/or spill could endanger the health and safety of untold numbers of men, women and children who may be within a mile of the accident scene. A number of freight trains cross through the City hauling various types of hazardous and explosive materials including chlorine gas and LPG natural gas. Several fixed site industrial firms require potentially hazardous materials to operate their businesses. In addition there are numerous underground pipelines which carry flammable and hazardous liquids. Finally, commercial airliners overfly the City en route to the Los Angeles International and Burbank Airports which significantly increases the potential disaster threat.

SPECIFIC SITUATION

Simi Valley had its first hazardous chemical emergency involving the evacuation of approximately 11,000 persons on the west end of the City in 1989. The emergency was caused when an accidental storage tank valve ruptured at a fixed facility and released a significant amount of chlorine gas into the atmosphere.

The threat of a major hazardous material incident in Simi Valley exists from four different sources. These are commercial vehicle, rail and air transportation; pipeline; fixed facility; and clandestine dumping.

Transportation (See Map/Attachment 1)

The greatest probability of a major hazmat incident is from a transportation accident. Highway 118 runs the entire east-west diameter of the City. Heavy truck traffic travels on this route each day. Approximately one of every 10 commercial vehicles is carrying hazardous materials. Historically, hazardous material incidents frequently occur on the heaviest traveled streets and at major intersections and freeway interchanges.

The Southern Pacific Transportation Company maintains a railroad that runs the east-west diameter of the City. Although the odds of occurrence are less for a railroad hazmat incident, the severity is greater because of the numerous rail tanker cars involved and the potential for chemicals and explosive substances being mixed together.

Fixed Facility

The second most likely serious hazmat threat exists from an accidental spill and/or incident at a facility that manufactures, warehouses, and processes toxic chemicals and/or generate hazardous waste materials within or next to City boundaries. Although there are numerous facilities involved with hazardous materials they are less of a threat due to required plant contingency and evacuation plans. Also, the Waters Bill (AB 2185), effective January 1, 1987, strengthens previous emergency plans by levying heavy fines on violators who fail to supply plans and requiring industrial firms to disclose the types of chemicals being manufactured, used, and stocked (Right To Know law).

Pipelines (See Map/Attachment 2)

There are three major underground petroleum pipelines located in Simi Valley. The Unocal 4" product line runs east-west in the northwestern part of Simi Valley then runs along Avenida Simi, then connects with a second 12" Unocal line which runs north-south along Tapo Canyon Road which runs southward out of the City. The Shell Oil product line is used to transport a variety of commodities including refined and unrefined oil products. The Shell Oil line is 4" to 6" and runs east-west mostly along Los Angles Avenue.

Clandestine Dumping

Clandestine dumping is the criminal act of disposing of toxic materials and hazardous waste on public or private property. As the costs and restrictions increase for legitimate hazardous waste disposal sites, it can be anticipated that illegal dumping of hazardous materials will increase proportionately.

EMERGENCY RESPONSE ACTIONS

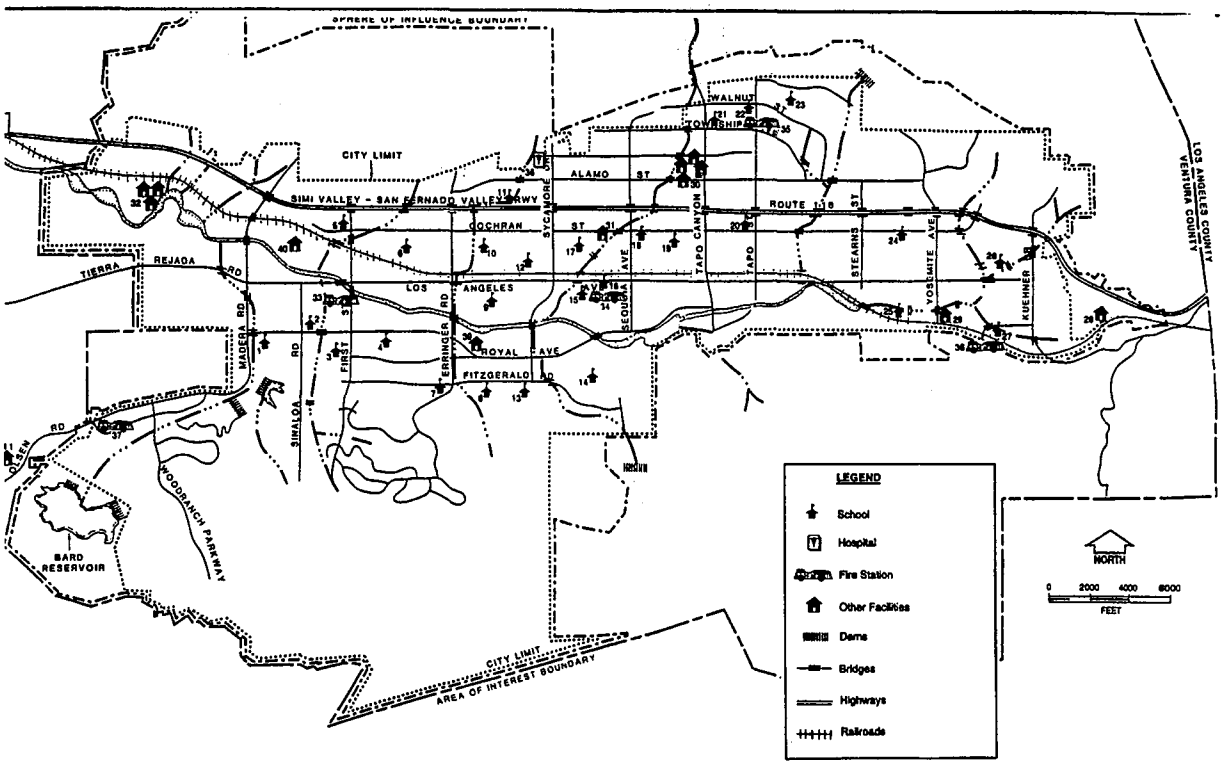
Emergency response actions applicable to all common hazards are presented in the **Checklist Actions in Part Two of this Plan.** Refer to jurisdiction's Area Plan for specific information. Appropriate facility listings and maps are contained in that plan. ***(CPG-16b/d)***

Attachments:

1 - Transportation Routes Map
2 - Pipelines Map

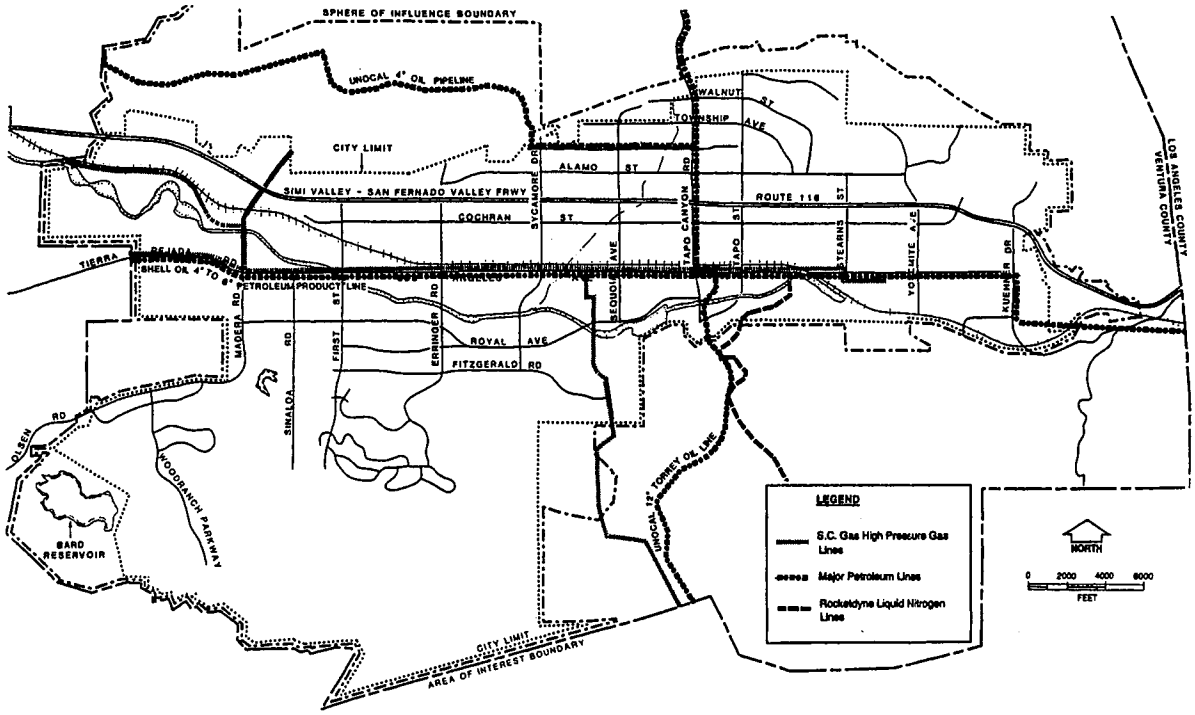
ATTACHMENT 1, THREAT SUMMARY 2

TRANSPORTATION ROUTES MAP



ATTACHMENT 2, THREAT SUMMARY 2

PIPELINE MAP



THREAT ASSESSMENT 3, PART ONE

FLOODING

GENERAL SITUATION

Floods are generally classed as either slow-rise or flash floods. Slow-rise floods may be preceded by a warning time lasting from hours, to days, or possibly weeks. Evacuation and sandbagging for a slow-rise flood may lessen flood-related damage. Conversely, flash floods are the most difficult to prepare for, due to the extremely short warning time, if any is given at all. Flash flood warnings usually require immediate evacuation within the hour. Once flooding begins, personnel will be needed to assist in rescuing persons trapped by flood water, securing utilities, condoning off flooded areas and controlling traffic. These actions may overtax local agencies, and additional personnel and resources may be required. It is anticipated that existing mutual aid resources would be used as necessary to augment local resources.

SPECIFIC SITUATION

The City of Simi Valley is located in a valley formed by the Santa Susana Mountains to the north and east and the Simi Hills to the south. The natural elevation is lower in the west end of the valley such that a westerly flowing drainage pattern has developed. Simi Valley is drained by Arroyo Simi and its major tributaries that drain the watersheds of Tapo Canyon, Las Llajas Canyon, Sycamore Canyon, Meier Canyon, and Alamos Canyon. Arroyo Simi and its tributaries have exposed much of the developed areas of Simi Valley to flooding and flood control measures have sought to minimize this exposure. Although Arroyo Simi has been improved throughout its length, its present design capacity is not adequate given either an intermediate or a standard project flood. An intermediate regional flood is defined as a flood having an average frequency of occurrence on the order of once in 50 years, although the flood may occur in any year. A standard project flood is defined as a flood that may be expected from the most severe combination of meteorological and hydrological conditions that are considered reasonably characteristic of the geographical area in which the drainage basin is located, excluding extremely rare combinations. The following table, taken from the U.S. Army Corps of Engineers report on Flood Plain Information, Calleguas Creek (Arroyo Simi), July 1970, and the Ventura County Flood Control District, also illustrates the hydrologic capacity of Arroyo Simi by comparing the two design floods with the most severe flood that has been recorded:

Flood	Peak Discharge (cfs)
March 1, 1983	10,570*
Intermediate Regional (50 yr)	19,000
Standard Project (500 yr)	31,000

*Estimate by Ventura County Flood Control District at Madera Road Bridge

The inadequate capacity of Arroyo Simi and its tributaries would be responsible for breakouts which would occur during Intermediate Regional or Standard Project floods at Stearns Street south of Los Angeles Avenue; the Fallon Court-Hollister Street area; and the area south of the Cochran Street Police Department, including Galena Avenue, Medina Avenue, and Brentwood and Atwater Avenues south of Copley Street. Some motor vehicle bridges which traverse the Arroyo Simi will be submerged by the standard project--flood as illustrated by the following table, taken from the Corps of Engineers Study of 1970 and Ventura County Flood Control District information:

Bridge	Streambed Elevation	Low Steel	Floor Elevation	Int. Reg. Flood	Std. Project Flood
Madera	701	712	716	714	719
Los Angeles	752	769	773	765	773
First	757	778	784	769	777
Erringer	814	827	830	824	835
Sycamore	847	859	863	855	861
Royal	877	888	893	884	891
Peppertree	962	978	980	971	977
Railroad	970	987	991	982	986
Stow	982	985	987	986	990
Yosemite	990	997	1,003	998	1,003
Davidson	1,009	1,017	1,018	1,016	1,020
Katherine	1,027	1,036	1,038	1,031	1,037
Kuehner	1,050	1,058	1,062	1,061	1,063

With important transportation links either damaged or rendered unusable, circulation and potential evacuation efficiency would be reduced.

Minor flooding occurs locally due to deficiencies in some drainage systems. Although not a real problem regarding safety, these problems are nuisances as related to transportation. Certain streets and intersections are more prone to flooding due to ponding water. Some of the culverts along the Arroyo and its tributaries are inadequate to handle the design floods and will cause localized flooding.

Protection from major flooding is provided by the overall flood control system on Arroyo Simi and its tributaries. At present capacities some of the flood control facilities would not adequately contain the runoff from an intermediate regional or standard project flood. Given either of these two flooding alternatives, critical facilities, namely schools and key community services could be disrupted, and their operational efficiency jeopardized. Such circumstances could be critical in an emergency situation.

EMERGENCY READINESS STAGES

Flooding in the identified risk areas can occur rapidly or slowly depending on the heaviness and severity of rainfall. Emergency preparedness will be based on four stages of response actions.

Stage I (Watch Stage)
Light to moderate rain for indefinite period. All field units (Public Works, Police, Fire Depths., etc.) are to review their procedures for flood incidents.

Stage II
Moderate to heavy rain expected for next four (4) to six (6) hours. Public information on location of sand bags, sand and flood clean-ups kits to be prepared and distributed to appropriate departments.

Stage III (Advisory Stage)
Continuation of heavy rain over next six (6) to twelve (12) hours. Identified risk areas should be closed to traffic. Public information to be distributed to residents and businesses in affected areas by all available field units.

Stage IV
Safety/Health threat to private property and persons. Areas should be evacuated should flooding constitute a safety or health hazard.

EVACUATION ROUTES

It is expected that most streets will remain open. Should it become necessary, evacuations should be easily facilitated. Other pertinent information relating to evacuation operations are in **Part Two, Operations Section.**

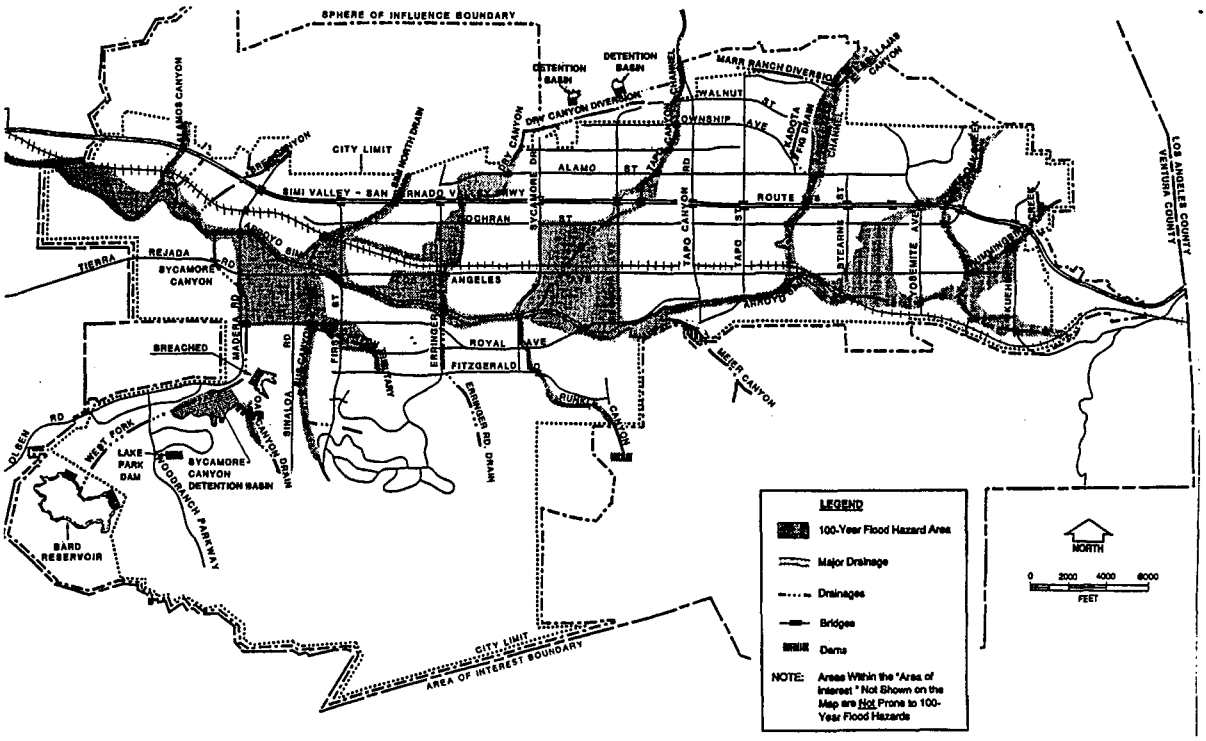
EMERGENCY RESPONSE ACTIONS

Emergency response actions applicable to all common hazards are presented in the **Checklist Actions in Part Two of this Plan.**

Attachment 1 - Potential Flooding Hazard Map (**CPG-16a**)

ATTACHMENT 1, THREAT SUMMARY 3

FLOODING MAP



THREAT ASSESSMENT 4, PART ONE

DAM FAILURE

GENERAL SITUATION

Dam failures can result from a number of natural or manmade causes such as earthquakes, erosion of the face or foundation, improper siting, rapidly rising flood waters, and structural/design flaws. There are three general types of dams: earth and rockfill, concrete arch or hydraulic fill, and concrete gravity. Each of these types of dams has different failure characteristic. The earth-rockfill type dam (represented by all four Simi Valley dams) will fail gradually due to erosion of the breach. A flood wave will build gradually to a peak and then decline until the reservoir is empty. In addition to the above characteristics, warning ability is generally determined by the frequency of inspections for structural integrity, the flood wave arrival time (the time it takes for the flood wave to reach its maximum distance of inundation), or the ability to notify persons downstream and their ability to evacuate. The existence and frequency of updating and exercising an evacuation plan that is site-specific assists in warning and evacuation functions.

A dam failure will cause loss of life, damage to property, and other ensuing hazards, as well as the displacement of persons residing in the inundation path. Damage to electric transmission lines could also impact life support systems in communities outside the immediate hazard areas. A catastrophic dam failure, depending on size of dam and population downstream, could exceed the response capability of local communities. Damage control and disaster relief support would be required from other local governmental and private organizations, and from the state and federal governments. Mass evacuation of the inundation areas would be essential to save lives, if warning time should permit. Extensive search and rescue operations may be required to assist trapped or injured persons. Emergency medical care, food, and temporary shelter would be required for injured or displaced persons. Identification and burial of many dead persons would pose difficult problems; public health would be a major concern. Many families would be separated, particularly if the failure should occur during working hours, and a personal inquiry or locator system would be essential.

These and other emergency operations could be seriously hampered by the loss of communications, damage to transportation routes, and the disruption of public utilities and other essential services. Governmental assistance could be required and may continue for an extended period. Actions would be required to remove debris and clear roadways, demolish unsafe structures, assist in reestablishing public services and utilities, and provide continuing care and welfare for the affected population including, as required, temporary housing for displaced persons.

SPECIFIC SITUATION

This plan establishes policies and procedures for warning and evacuation of populated areas in Simi Valley, which are in danger of inundation below the following dams:

- Bard Reservoir
- Las Llajas Dam
- Runkle Detention Basin
- Sinaloa Lake

An inundation map for Bard Reservoir, Runkle Detention Basin and Las Llajas Dam have been filed by there owners. The Map for the Las Llajas dam is currently (3/01) in review by the State Office of Emergency Services. The Sinaloa Lake is below the minimum size required for the production of an inundation map.

This plan will comply with Section 8589.5 of the Government Code and will address the notification, evacuation and care of evacuees required in the event of a dam failure. The primary concern is for the safety of persons in the inundation area; however, consideration will be given to property as time permits.

This plan has been developed in conjunction with the Ventura County Dam Failure Response Plan and from information and dam inundation maps provided by dam owners. The maps reveal areas of potential flooding in the event of a sudden or total dam failure, portraying the worst possible and perhaps the least likely scenario: a totally filled dam experiencing a sudden and complete failure. In the interest of full preparedness, these maps and inundation patterns have been used to determine evacuation areas.

This plan will become effective automatically upon notification and verification that a partial or total dam failure has occurred or that a condition of imminent or potential failure exists, on the order of the Mayor, the Director or Assistant Director of Emergency Services or the on-duty Police Department Watch Commander. The City's Emergency Operations Center (EOC) may be activated at the same time.

There are a total of four dams that could have significant impact of the City's residents in the event of a dam failure. As of March 1983, three of these are required to provide inundation maps. The impact area of each inundation map is based upon total fill, total collapse of the respective dam. It is anticipated and expected that threatened or actual failure notification will be received from dam owners or managers, or from the Simi Valley Police Department. Nevertheless it is possible that first notification could be from a citizen observer or from the actual arrival of waters. It is reasonable and prudent that occurrences that could result in a dam failure such as an earthquake, should prompt immediate action by the Police and Fire Departments to check by phone and by visual means each dam that could inundate the City. This

plan calls for such action to be taken.

In those cases where first waters could have a life-threatening impact within a short period of time following a dam failure, initial actions require immediate movement of people to higher ground.

The four dams in and around Simi Valley along with their respective capacities and areas of impact include:

DAM	CAPACITY (ACRE FEET)	IMPACTED AREAS
Bard Reservoir	11,000	Western portion of Simi Valley, northwest through Moorpark and Camarillo
Las Llajas	1,250	Northern and central portions of Simi Valley
Runkle Debris Basin	100	Southern and central portion of Simi Valley
Sinaloa Lake (Rebuilt)	180	Western portion of Simi Valley along Madera Road

EMERGENCY RESPONSE ACTIONS

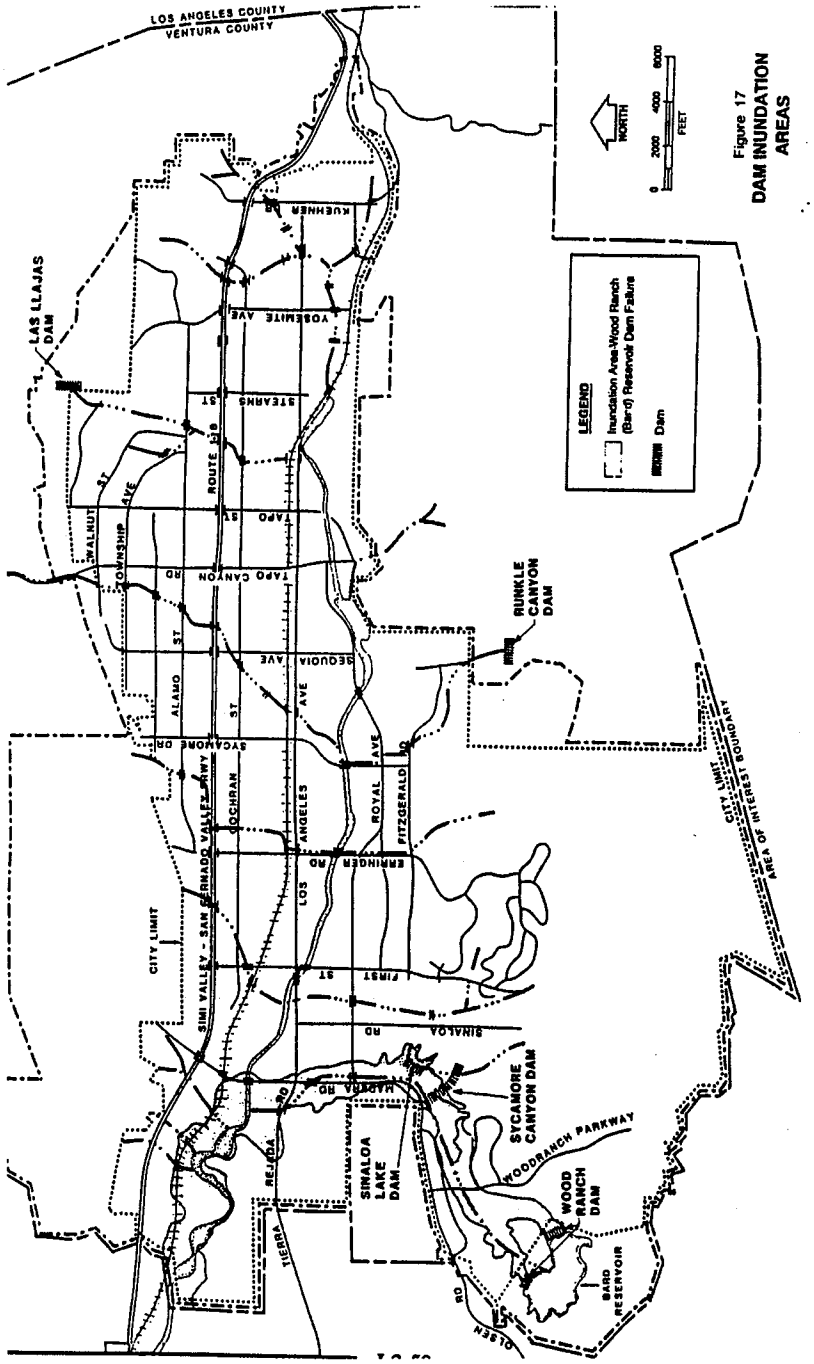
Emergency response actions applicable to all common hazards are presented in the **Checklist Actions in Part Two of this Plan.**

EVACUATION ROUTES

Pertinent information relating to evacuation operations are included in **Part Two, Operations Section.**

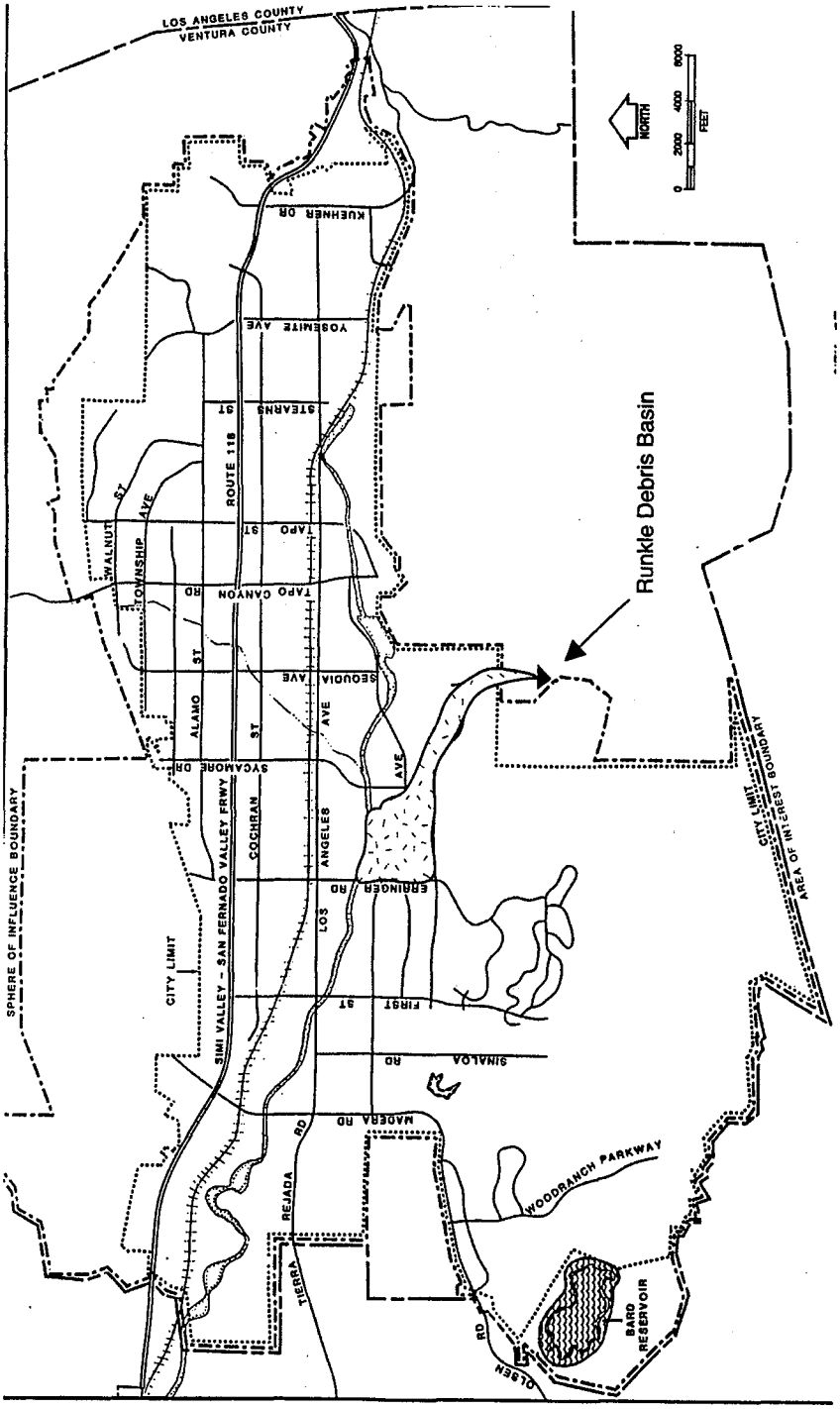
Attachment 1 - Dam Inundation Map - Bard Reservoir ***(CPG-16b)***
Attachment 2 – Dam Inundation Map – Runkle Dam

ATTACHMENT 1, THREAT SUMMARY 4
BARD INUNDATION MAP



DAM ATTACHMENT 1

ATTACHMENT 2, THREAT SUMMARY 4
RUNKLE INUNDATION MAP



THREAT ASSESSMENT 5-A, PART ONE

TRANSPORTATION: MAJOR AIR CRASH

GENERAL SITUATION

A major air crash that occurs in a heavily populated residential area can result in considerable loss of life and property. The impact of a disabled aircraft as it strikes the ground creates the likely potential for multiple explosions, resulting in intense fires. Regardless of where the crash occurs, the resulting explosions and fires have the potential to cause injuries, fatalities and the destruction of property at and adjacent to the impact point. The time of day when the crash occurs may have a profound affect on the number of dead and injured. Damage assessment and disaster relief efforts associated with an air crash incident will require support from other local governments, private organizations and in certain instances from the state and federal governments.

It can be expected that few, if any, airline passengers will survive a major air crash. The intense fires, until controlled, will limit search and rescue operations. Police barricades will be needed to block off the affected area. The crowds of onlookers and media personnel will have to be controlled. Emergency medical care, food and temporary shelter will be required by injured or displaced persons. Many families may be separated, particularly if the crash occurs during working hours; and a locator system should be established at a location convenient to the public. Investigators from the National Transportation and Safety Board and the Ventura County Coroners Office will have short-term jurisdiction over the crash area and investigations will be completed before the area is released for clean up. The clean-up operation may consist of the removal of large debris, clearing of roadways, demolishing unsafe structures and towing of demolished vehicles.

It can be anticipated that the mental health needs of survivors and the surrounding residents will greatly increase due to the trauma associated with such a catastrophe. A coordinated response team, comprised of mental health professionals, should take a proactive approach toward identifying and addressing mental health needs stemming from any traumatic disaster.

It is impossible to totally prepare, either physically or psychologically, for the aftermath of a major air crash. However, since Southern California has become one of the nation's most overcrowded airspaces, air crash incidents are no longer a probability but a reality. Therefore, air crash incidents must be included among other potential disasters.

SPECIFIC SITUATION

The City of Simi Valley is located in the southeast portion of Ventura County. The City is comprised of residential, commercial and industrial areas. The skies above Simi Valley are heavily occupied by aircraft operating out of a number of airports located in Southern California. The airports nearest to Simi Valley which handle the greatest amount of air traffic are as follows:

The **Los Angeles International Airport (LAX)**—It is the fourth busiest airport in the world and has experienced a four percent air traffic growth rate. Planes arrive and depart at a rate of one per minute.

The **Burbank Airport**—It is ranked 53rd busiest airport nationally in terms of air traffic that it handles and has experienced a 9.4 percent growth rate since 1993. Also, airport hours of operation are restricted to 7:00 AM to 10:00 PM.

Given that Simi Valley is located near the San Fernando Valley and the Oxnard plain, numerous private and commercial aircraft transition into and out of nearby airports over the City. This results in a mix of commercial aircraft arriving and departing from Burbank airport and LAX and private aircraft arriving and departing from Van Nuys, Burbank, Whiteman, Camarillo and Oxnard airports. A large percentage of the small aircraft flying over Simi Valley are not in communication with air traffic controllers. Addtionally, Simi Valley is considered a desirable area for private student pilots to practice basic flight maneuvers in light private aircraft. While it is incumbent upon controllers to keep commercial aircraft separated from uncontrolled aircraft, the potential exists for a mid-air collision over Simi Valley.

EMERGENCY RESPONSE ACTIONS

Emergency response actions applicable to all common hazards are presented in the **Checklist Actions in Part Two of this Plan.**

THREAT ASSESSMENT 5-B, PART ONE

TRANSPORTATION: TRAIN DERAILMENT

GENERAL SITUATION

A major train derailment that occurs in a heavily populated area can result in considerable loss of life and property. Potential hazards could be overturned rail cars, direct impact into an industrial or residential building or entering into normal street traffic.

Each of these hazards encompass many threats, such as a hazardous materials incident, fire, severe damage to either adjacent buildings or vehicles and loss of life of those in either adjacent buildings or vehicles and pedestrians.

SPECIFIC SITUATION

On any given day approximately 25 trains pass through the City of Simi Valley. Each train averages around 40 cars. Many of the average 1000 cars traversing Simi Valley daily are either passenger cars or hazardous materials haulers. Both present significant potential problems. The Southern Pacific Railway line travels through the center of Simi Valley, crossing nearly all of the major streets in the city. The tracks pass within a few feet of hundreds of homes, four schools, shopping centers, and light industrial complexes. There is approximately eleven miles of single track going through the city with no unprotected grade crossings. Depending on the specific cargo of a train and a specific location on the eleven miles of track where an accident occurs, mass casualties and mass evacuations could easily be the by-products of the accident. Two of the City's five fire stations are also adjacent to the track, and are thus available for fast response or could possibly be the first victims of an accident. Depending on wind direction and speed, very few areas of the City are positively immune to the effects of any given rail disaster.

EMERGENCY RESPONSE ACTIONS

Emergency response actions applicable to all common hazards are presented in the **Checklist Actions in Part Two of this Plan.**

THREAT ASSESSMENT 5-C, PART ONE

TRANSPORTATION: TRUCKING INCIDENT

GENERAL SITUATION

A major truck incident that occurs in a heavily populated industrial area or residential area can result in considerable loss of life and property. Potential hazards could be overturned tank trailers, direct impact either into a residence or industrial building, or entering into the normal flow of traffic.

Each of these hazards encompass many threats, such as hazardous materials incident, fire, severe damage to either adjacent buildings or vehicles, and loss of life of pedestrians or those in either the adjacent buildings or vehicles.

SPECIFIC SITUATION

The City of Simi Valley is located in the westernmost section of Ventura County, adjacent to the City of Los Angeles. It is served by the 118 freeway which is a significant truck route. The California Highway Patrol has determined that illegally loaded trucks (overweighted or illegal material) often will attempt to transition through Ventura County via the 118 Freeway/Highway to avoid the mandatory truck scales on Interstate 101. This condition creates the potential for a significant trucking accident.

EMERGENCY RESPONSE ACTIONS

Emergency response actions applicable to all common hazards are presented in the **Checklist Actions in Part Two of this Plan.**

THREAT ASSESSMENT 6, PART ONE

CIVIL UNREST

GENERAL SITUATION

The spontaneous disruption of normal, orderly conduct and activities in urban areas, or outbreak of rioting or violence that is of a large nature is referred to as civil unrest. Civil unrest can be spurred by specific events, such as large sporting events or criminal trials, or can be the result of long-term disfavor with authority. Civil unrest is usually noted by the fact that normal on-duty police and safety forces cannot adequately deal with the situation until additional resources can be acquired. This is the time period when civil unrest can grow to large proportions.

Threat to law enforcement and safety personnel can be severe and bold in nature. Securing of essential facilities and services is necessary. Looting and fires can take place as a result of perceived or actual non-intervention by authorities.

SPECIFIC SITUATION

The City of Simi Valley faced civil unrest in various forms following the 1992 Rodney King verdicts. All of the activity revolved around organized demonstrators and counter demonstators some weeks after the Los Angeles riots. Interestingly, despite the fact that the LAPD/King trial was held in Simi Valley, none of the Los Angeles rioting spilled over in the City.

The entire City, consisting of residential, industrial and commercial properties, remains vulnerable to the effects of civil unrest depending upon the issue and social conditions..

The City of Simi Valley is bordered on the east side by the City of Los Angeles. Transportation routes used for normal traffic movements (streets, freeways, rail, etc.) are vulnerable and can also facilitate the movement of potential rioters.

EMERGENCY RESPONSE ACTIONS

Emergency response actions applicable to all common hazards are presented in the **Checklist Actions in Part Two of this Plan.**

THREAT ASSESSMENT 7, PART ONE

NATIONAL SECURITY EMERGENCY

GENERAL SITUATION

As a result of the recent restructuring of the Soviet Union, the likelihood of nuclear war is significantly reduced. Therefore, identifying likely targets in the event of a nuclear war is not pertinent. However, terrorist activities and radiological materials accidents are still very possible. Terrorist activities could result in nuclear weapons being detonated.

The following is provided for information and planning purposes:

Air Burst
An air burst, by definition, is when a nuclear weapon is detonated and the fireball does not touch the surface of the earth. Usually, the weapon is set to detonate at a height of between 5,000 and 15,000 feet. Air bursts are generally selected for their capability to generate high over-pressure and shock effect over large areas, as well as to ignite fires for great distances. Neither radiation nor radioactive fallout is considered to be a significant factor in the event of an air burst.

Surface Burst
A nuclear detonation is considered to be a surface burst when the fireball generated touches the surface of the earth. Surface bursts could include water bursts, under-water bursts and underground bursts.

Surface bursts produce large amounts of radioactive fallout. Therefore, some targets may be selected not only for the purpose of destroying facilities, but to also use the downwind fallout to prevent access or restrict movement in large geographical areas.

Detonation of a nuclear bomb can produce various damaging effects. Included are blast and over-pressure, intense heat and light, nuclear radiation (fission and fusion), electromagnetic pulse, and for surface bursts, radioactive fallout.

Blast
When the weapon is detonated, a tremendous pressure is developed. This over-pressure rapidly expands outward in all directions, creating extremely high winds. The expansion continues until the over-pressure is reduced to normal pressure. The rapid outward expansion of air creates a vacuum which must equalize. The winds then reverse to the opposite direction and continue until the air pressure is equalized. Damage and injury are caused not only by the outward expansion phase of the wind and pressure, but also in the opposite direction when the air is rushing back to fill the vacuum. It is believed that

an ordinary California home would be destroyed at about 1.5 to 2 psi, often 2 to 5 miles from the detonation.

NOTE: Over-pressure is rated in pounds per square inch (psi). Normal pressure at sea level is 14.7 pounds per square inch. Therefore, if the pressure is increased to 15.7 psi, the over-pressure would be 1 psi.

Thermal Radiation
A burst of intense light and heat. This phenomenon can initiate fires as well as produce casualties. A one-megaton explosion can produce flash-blindness up to 13 miles on a clear day, or 53 miles on a clear night. Thermal radiation can cause skin and retinal burns many miles from the point of detonation. A one-megaton explosion can cause first-degree burns at distances of approximately 7 miles, second-degree burns at approximately 6 miles, and third- degree burns at approximately 5 miles from ground zero. Detonation of a single thermonuclear weapon could cause many thousands of burn casualties.

Initial Radiation
Defined as that radiation emitted during the first minute after detonation, it is comprised of gamma rays and neutrons. For large yield weapons, the range of the initial radiation is less than that of the lethal blast and thermal radiation effects. However, with respect to small yield weapons, the initial radiation may be the lethal effect with the greatest range.

Fallout
Produced by surface debris drawn into and irradiated by the fireball, then rising into the atmosphere and eventually returning to earth. When a nuclear detonation occurs, fission products and induced radioactive material from the weapon casing and debris that was pulled up into the fireball returns to earth as fallout. A source of ionizing radiation, fallout may be deposited miles from the point of detonation and thus affect people otherwise safe from the other effects of the weapon. The radiation danger associated with fallout decreases as the radioactive material decays. Decay rates range from several minutes to several years.

Electromagnetic Pulse (EMP)
Intense electric and magnetic fields that can damage unprotected electronic equipment. This effect is most pronounced in high altitude bursts (above 100,000). Surface bursts typically produce significant EMP up to the 1 psi over-pressure range, while air bursts produce somewhat less. No evidence exists suggesting that EMP produces harmful effects in humans.

EMERGENCY RESPONSE ACTIONS

Response activities to the nuclear materials threat will consist of in-place protection measures, relocation and spontaneous evacuation.

The population at risk is approximately 104,000 night-time residents and slightly less during the day time. The City has insufficient fallout shelter spaces for its residents. The fallout shelter identification program is no longer maintained and utilized within the State of California.

Emergency response actions applicable to all common hazards are presented in the **Checklist Actions in Part Two of this Plan.**

THREAT ASSESSMENT 8, PART ONE
TERRORISM

(Updated 3-13-02)

GENERAL SITUATION

Terrorism is defined as the use of fear for intimidation, usually for political goals. Terrorism is a crime where the threat of violence is often as effective as the commission of the violent act itself. Terrorism affects us through fear, physical injuries, economic losses, psychological trauma, and erosion of faith in government. Terrorism is not an ideology. Terrorism is a strategy used by individuals or groups to achieve their political goals.

Terrorists espouse a wide range of causes. They can be for or against almost any issue, religious belief, political position, or group of people of one national origin or another. Because of the tremendous variety of causes supported by terrorists and the wide variety of potential targets, there is no place that is truly safe from terrorism. Throughout California there are a nearly limitless number of potential targets, depending on the perspective of the terrorist. Some of these targets include: abortion clinics, religious facilities, government offices, public places (such as shopping centers), schools, power plants, refineries, utility infrastructures, water storage facilities, dams, private homes, prominent individuals, financial institutions and other businesses.

Terrorism

The 9-11 attacks on the World Trade Center and the Pentagon by Islamic radicals redefined the scope and terms of United States security. In light of these attacks and the subsequent response by the United States, the country remains highly vulnerable to future terrorist strikes.

The United States led response to terrorist groups has been successful in suppressing the activity of particular groups. Unfortunately, that same pressure has caused some groups to splinter and mutate into more covert, but no less active entities.

With the availability of a variety of weapons of mass destruction (WMD), i.e., chemical, biological and nuclear weapons, the threat from terrorist and otherwise hostile states, the terrorism hazard is of utmost national and local concern deserving of comprehensive planning for response coordination. The federal government recognizes this national security threat and has undertaken and unprecedented domestic preparedness program that has infused funding into the City to purchase equipment for emergency management and field level responders.

Domestic Terrorism
Within the United States there are a wide variety of individuals and groups who are highly dissatisfied with various issues within the United States. Abortion, privacy issues, federal law enforcement actions and the federal government in general are some of the issues that have spurred domestic terrorism actions.. Some of those individuals engage in their own brand of resistance by

refusing to: possess a driver license; possess a social security number; or pay taxes. Many of these people are referred to as part of the Patriot, Freemen, Sovereign Citizen, or militia movements. Some of the militia type groups engage in various degrees of preparation for what is considered to be the eventual armed conflict with the Federal government and/or foreign troops. Some of these activities are unlawful, and information has been developed detailing plans by some groups to engage in a variety of terrorist activities.

In the Midwest, two different groups of individuals espousing militia type rhetoric have been arrested for engaging in conspiracies to kill police officers, government employees and politicians. One plot involved the use of the poison ricin. The second plot involved radioactive materials.

Southern California has a number of groups and individuals who espouse a variety of anti-federal government rhetoric.

SPECIFIC SITUATIONS

International Terrorism - Outlook for Simi Valley

There are potential targets in Simi Valley, as in most U.S. cities. Utility infrastructure, government buildings, and other facilities could become targets of international terrorism. A list of potential targets has been developed by the Police Department, in conjunction with the Ventura County Terrorism Working Group and other state and federal agencies. The list is considered sensitive material is therefore not listed in this document.

Domestic Terrorism - Outlook for Simi Valley

The area surrounding Simi Valley is known to have persons who are interested and involved in the patriot/militia movements. Presently, no known unlawful activity is occurring in Simi Valley. There is no reason to conclude that Simi Valley is any more likely to experience domestic terrorism than any other Southern California community.

EMERGENCY READINESS STAGES

Because a terrorist attack is generally sudden and without any prior warning, there are no stages of Emergency Readiness.

THREAT ASSESSMENT 9, PART ONE

URBAN FIRE

GENERAL SITUATION

The risk of life or property loss resulting from fires in urban settings is influenced by a variety of factors. Some factors include building construction materials, the type of occupancy and the type of items stored within the structure, fire response time, the availability of adequate fire flows of water and adequate emergency ingress and egress. The following paragraphs discuss the various factor which influence the urban fire hazard.

Potential high loss of life may result in hotels, nursing homes, theaters, libraries, etc. where large groups of people tend to gather. Businesses, factories and shopping areas etc. may suffer a large property or monetary loss due to a major fire. Other areas may also have the potential for high, fire-related losses. Hillside and Canyon areas are also high fire hazard areas due to the following factors:

- Structures in the hillside/canyon areas are frequently located adjacent to or within grassland, chaparral, or coastal sage scrub plant communities that can create an extreme fire hazard, particularly in summer months.
- Hillside/canyon development is frequently located away from the urban center areas where fire protection services are located. Therefore, fire station response times to these outlying areas can be longer than optimal.
- Access to hillside/canyon areas is frequently along steep, narrow, or winding roads that can hinder Fire District access. This can seriously affect response time due to the increase in time it takes heavy apparatus to climb steep streets.
- Hillside locations often have marginal or inadequate fire flow capabilities that can hinder fire protection efforts.

Inadequate fire flow (water available to fight a fire) can also hamper the Fire District's success in suppressing a fire. Peak fire flows must be included when determining the peak load water supply requirements for the City.

SPECIFIC SITUATION

Residential neighborhoods with large concentrations of houses with wood shingle or shake roofs are at a greater fire risk than neighborhoods where the majority of the residences utilize fire retardant roofing material. **Attachment 1** depicts areas throughout the City that have large concentrations of residences with wood shingle/shake roofs.

A regional weather phenomenon, the "Santa Ana" winds, can aggravate an already hazardous fire situation. When a low pressure trough develops off the coast and high pressure settles over the Great Basin of Nevada and Utah and over the deserts of eastern California and Arizona, the normal

westerly wind flow is reversed and air pours in from the deserts to the north and east. The desert "Santa Ana" winds arrive as seasonally warm, dry, and charged with static electricity. The Santa Ana winds can contribute to the "spotting" or spread of structure fires from one structure to those downwind. The subsequent urban firestorm would result in numerous injuries and displacement of people.

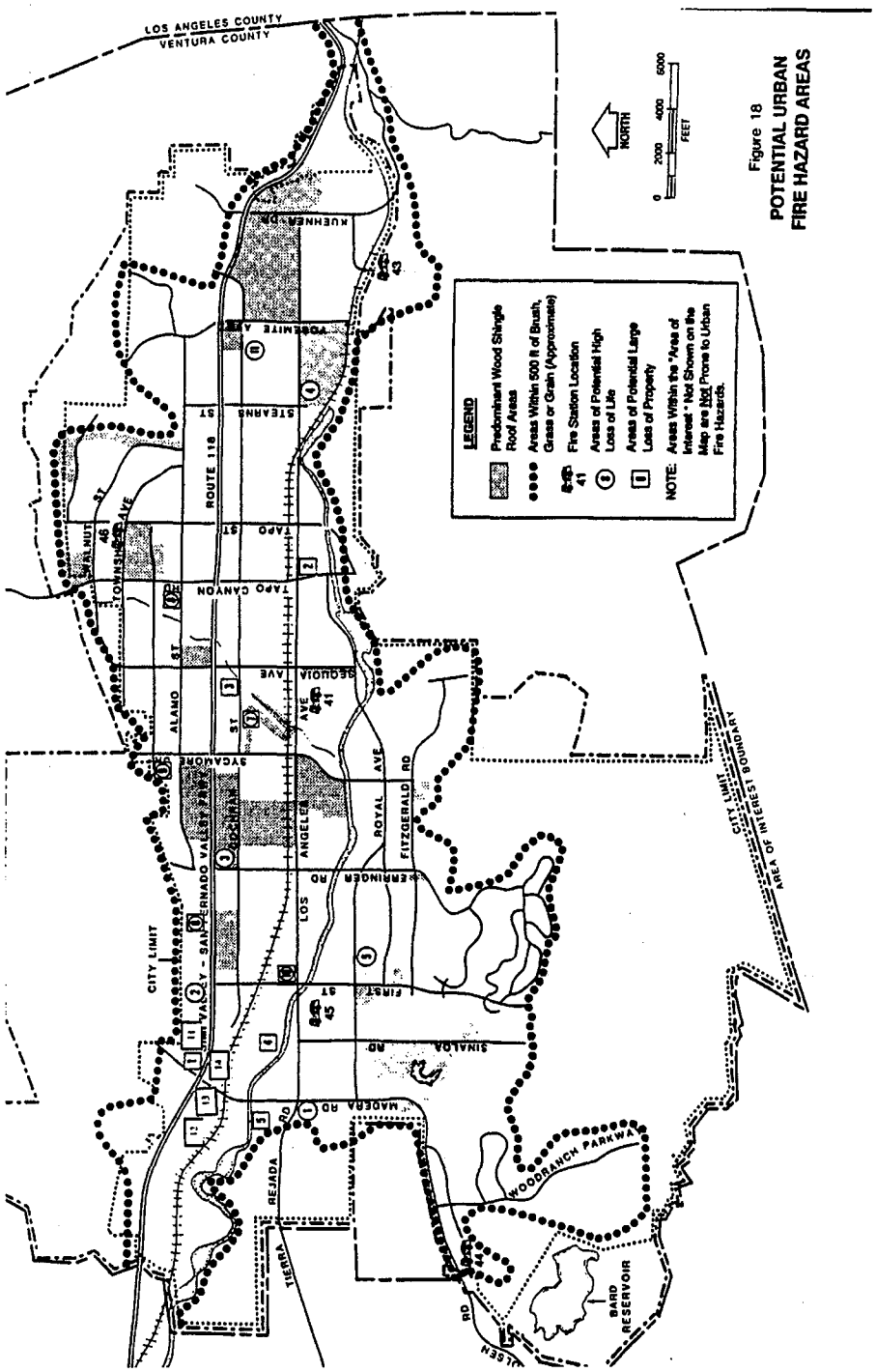
Fire suppression and prevention services within Simi Valley are provided by the Ventura County Fire Protection District. In 1996, 20 members of the Ventura County Fire Protection District are assigned to Simi Valley for any one shift. Five fire stations are located throughout the City (see **Attachment 1**).

The following table identifies areas of potential loss of life and property from urban fires. The numbers correspond to Attachment 1, Potential Urban Fire Hazard Area Map.

AREAS OF HIGH POTENTIAL LOSS OF LIFE		**AREAS OF POTENTIAL LARGE LOSS OF PROPERTY**	
1.	Clarion Inn	1.	Bugle Boy Industries
2.	Radisson Hotel	2.	Los Angeles Ave/Peppertree Complex
3.	Travelodge of Simi Valley	3.	Farmers' Insurance Regional Office
4.	Hallmark Nursing Center	4.	Easy Street Complex
5.	Royal High School Theater	5.	Moreland/Union Complex
6.	Regional Mall Theaters (proposed)	6.	Simi Valley Regional Shopping Center (proposed)
7.	Sycamore Plaza Mann Theaters	7.	Sycamore Plaza Target Center Mervyn's Center
8.	Simi Valley Library Senior Citizens Center Civic Center	8.	Civic Center
9.	Simi Valley Hospital	9.	Simi Valley Hospital
10.	MountainGate Plaza Theaters Home Base Plaza Theaters	10.	MountainGate Plaza Home Base Plaza
11.	Simi High School Theater		

Attachment 1, Urban Fire Map

ATTACHMENT 1, THREAT SUMMARY 9
URBAN FIRE MAP



Attachment 1

THREAT ASSESSMENT 10, PART ONE

WILD FIRE

GENERAL SITUATION

Rugged hills and mountains surrounding the City are covered mostly with grasses, brush, and scattered oaks. The climate in this area is generally referred to as "Mediterranean" with rainfall concentrated during the cool winter months. The rains usually cease sometime in May and resume in November. The summer drought causes vegetation to become extremely dry. Hillside areas of the City therefore become hazardous fire areas.

A regional weather phenomenon, the "Santa Ana" winds, can aggravate an already hazardous fire situation. When a low pressure trough develops off the coast and high pressure settles over the Great Basin of Nevada and Utah and over the deserts of eastern California and Arizona, the normal westerly wind flow is reversed and air pours in from the deserts to the north and east. The desert "Santa Ana" winds arrive as seasonally warm, dry, and charged with static electricity. The extreme dryness, often 5 percent or less relative humidity, further desiccates the vegetation. Finally, "Santa Ana Winds" tend to be downslope winds, causing fires to move very fast downwind and downhill, creating very difficult fire fighting conditions.

Other factors also increase the fire hazard. Dense vegetation growth and large accumulations of dead plant material in areas that have not been burned for many years increase the wildfire hazard. Steep terrain compounds the wildfire risk because fires will normally burn much faster uphill. Rugged terrain will also hinder fire suppression attempts by hampering the mobility and effectiveness of firefighters and equipment.

Wildfires are ignited 90 percent of the time by human action. Over one-third of all wildland fires originate alongside roads and highways, probably as a result of cigarettes or matches being thrown from passing automobiles. Despite rising penalties, approximately 22 percent of all fires recorded statewide result from the act of arson.

Other causes of wildfires include the following: Approximately 23 percent of all the wildfires that burn over 5,000 acres are caused by power line failure. Wildfires can be ignited by sparks from off-road vehicles, construction equipment, and other power-driven equipment used in industry, agriculture, and recreation. In developed areas, wildfires can start from children playing with matches, bonfires, rubbish burning, sparks from chimneys, and fireworks. Natural causes, primarily lightning, are now relatively minor causes of local fires.

Responsible public agencies in California and Ventura County have developed elaborate systems for fighting brush fires. When weather conditions become severe, all fire fighting personnel are put on alert. When a fire starts, all available personnel are rushed to the scene to keep the fire from developing into a major blaze. If the fire does get out of control and more than the County's own resources are required, mutual aid agreements are in effect with neighboring cities, counties, and

State and Federal agencies (i.e., California Office of Emergency Services and U.S. Forest Service).

Effects of the Wild Fires

Wildfires generally have the most impact on the natural environment. Although some ecosystems are dependent upon recurrent fire to survive, these communities are unique. Watershed, wildlife, and recreation areas are lost due to wildfire. After the fire has been extinguished, the burned land is laid bare of its protective vegetation cover and is susceptible to excessive run-off and erosion. The fire will often destroy the root systems of shrubs and grasses that aid in stabilizing slope material. When the winter rains come, the possibility of severe landslides and debris/mud flows is greatly increased.

Public utilities are often strained by the impacts of wildfire. Water reserves are depleted, power lines are downed, telephone service can be disrupted, roads can be blocked, etc. Flood control facilities may be inadequate to handle an increase in storm runoff, sediment and debris from barren, burned-over hillsides.

SPECIFIC SITUATION

Large wild fires occur in the Simi Valley area every 2 to 5 years. Fire in the hilly areas surrounding the valley have occurred frequently according to records dating back to 1897. Many of these fires have resulted in significant property losses and have proven disruptive to both life and commerce. The number and frequency of fires in the Santa Susana Knolls area demonstrates the importance of the human proximity element in fires. The large Clampett Fire in 1970 which began in Newhall and spread into the Simi Hills area, resulted from industrial activities. In general, wildfire hazard exists in the vegetated hillside and canyon areas surrounding the city. The high wildfire hazard area is shown on **Attachment 1, Wild Fire Map**. Hillside developments within natural brush areas are particularly susceptible to destruction by wildfires.

The only existing critical structures located in the high wildfire hazard zone are Edison Company distribution lines. Oil production and storage facilities are also located in areas susceptible to high fire hazards. Numerous residential areas are, however, in and adjacent to the hazard wildfire area and could be exposed to wildfires and related damage.

The seriousness of a wildfire is dependent upon the conditions present at the time of fire occurrence. The most hazardous fire conditions exist during periods of low humidity and elevated temperatures when dry, strong Santa Ana winds push the wildfire downslope into the developed portions of the City.

Chamise chaparral, which is common on the south flank of Simi Valley, is the plant with the most significant fire fuel potential. Chamise contains a large percentage of volatile oils which ignite with great vigor. Fires in overgrown chamise areas are characteristically very hot and burn intensely. Chamise is a root-sprouter and this capability allows the community to reestablish itself such that in the span of four years few signs of the original burn can be seen. Coastal sage scrub is the most common vegetation type found in Simi Valley. It is a somewhat lesser fire hazard than chamise chaparral, however, it does present a substantial hazard because it too can renew itself in a short time

interval after a burn (within three years). Grassland areas can be found in scattered locations throughout Simi Valley. The major fire risk associated with grassy areas involves the fuse potential such areas provide for larger, more damaging chaparral and sagebrush fires.
The integration of five fire determinants (human proximity, vegetation, access, slope, wind direction) has delineated four natural fire hazard potential zones in the City. These zones appear on **Attachment 1, Wild Fire Map** and are labeled as High, Medium, Low and Nil. High risk equates to areas lying to the immediate west of developed areas; chaparral or dense sage scrub cover; very steep (40%) slope; and somewhat limited access. Medium risk equates to areas fronting developments and back country; sage scrub and less developed chaparral cover; moderate (20% - 40%) slope; and somewhat limited access. Low risk equates to areas in the vicinity of developed property; grassland and less developed sage scrub cover; level to gentle (0-20%) slope; and available access. Nil risk equates to developed areas; cultivated urban cover; flat slope; and available urban access.

In general, fire is not a major problem in the flat, developed areas of Simi Valley. However, fire is a major problem in the fringe-urban and hill areas that surround the valley. The south flank of Simi Valley has a greater risk exposure to fire. This increased risk is due primarily to the predominance of north-facing slopes that are characteristically more-thickly vegetated than those of a more southern aspect. Within the south flank of Simi Valley, the highest fire risk areas are located in the hilly regions southwest of Santa Susana Knolls. All major determinants of fire risk point to this area as being the most critical within the Simi Valley area.

The major risk involving loss of life or property lies in those developed areas along the interface between the valley and the hills. Here, property damage is not an uncommon occurrence. These interface and transitional areas are constantly vulnerable. As developments extend more and more into the foothill areas, the situation becomes increasingly acute.

EVACUATION ROUTES

Evacuation routes are included in Part 2, Operations, of this plan.

EMERGENCY RESPONSE ACTIONS

Emergency response actions common to all hazards are presented in the **Checklist Actions in Part Two of this plan.**

Attachment 1: Fire Risk Map

ATTACHMENT 1, THREAT SUMMARY 10
WILD FIRE MAP

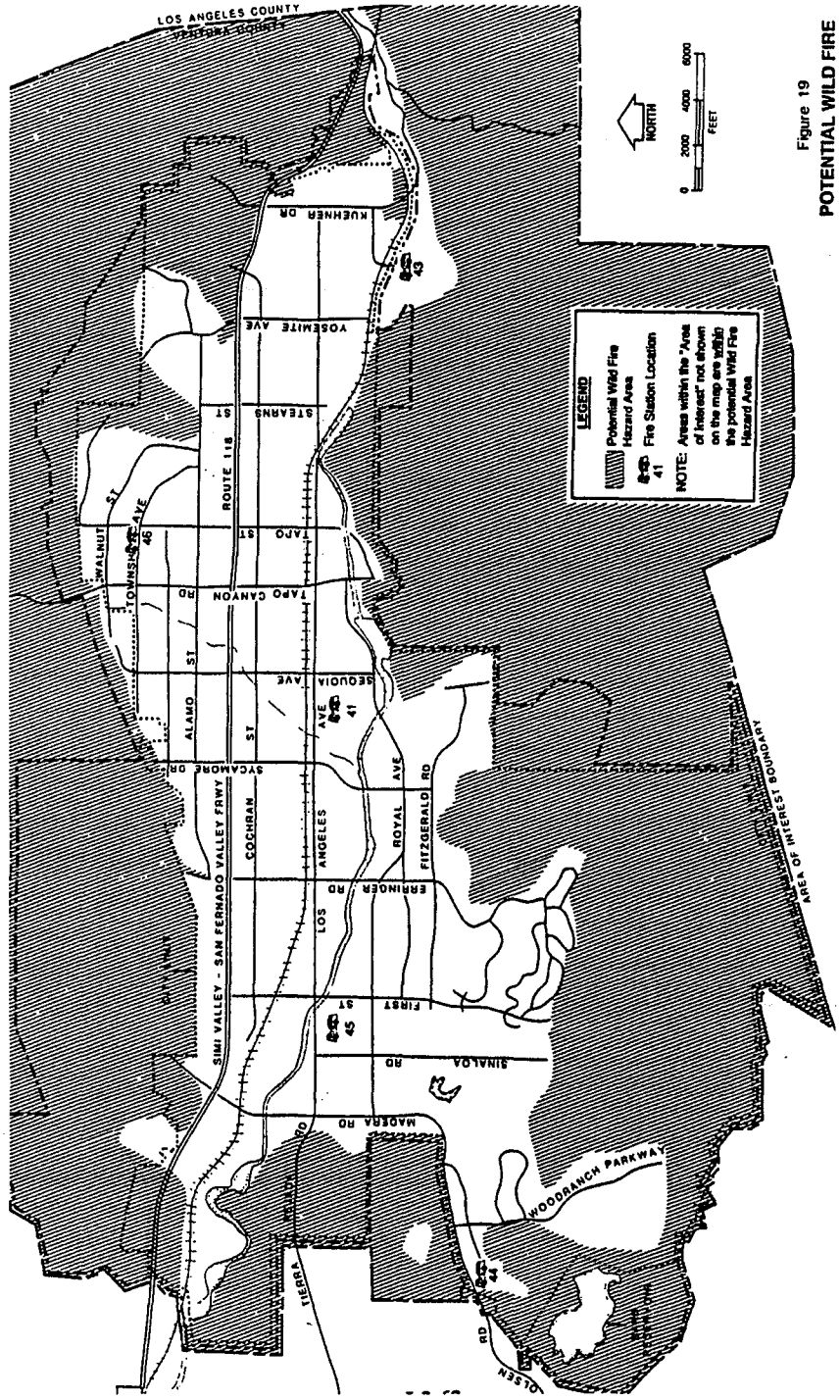


Figure 19
POTENTIAL WILD FIRE HAZARD AREA

Attachment 1

THREAT ASSESSMENT 11, PART ONE

LANDSLIDES

GENERAL SITUATION

Landslides represent only one step in the continuous, natural erosional process. They demonstrate in a dramatic way the tendency of natural processes to seek a condition of equilibrium. The steep slopes of mountainous and hillside terrains are not in a state of equilibrium, and various erosional processes act to gradually reduce then to a base level. Landsliding is an important agent in this cycle.

Four types of landslides commonly encountered include block glides, arcuate failures, mudflows, and rockfalls. A description each follows:

Block Glides

Block glides are the largest, most impressive types of slide. The basal failure plane is controlled by planar zones of weakness such at bedding planes, Joint planes, or formational contacts. Block glides typically occur in layered rocks of sedimentary or metamorphic origin where lateral support is removed by erosion or grading.

Arcuate Failures

Arcuate failures are common in massive, unstructured material with relatively little resistance to shearing. These materials include thick sections of clayey soil, and poorly compacted artificial fills. The zone of failure typically describes an arc rather than a plane. Small arcuate failures, called slumps are common along steep banked streams, where the stream has cut through an existing soil zone.

Mudflows

Mudflows involve very rapid downslope movement of saturated soil. They originate in hillside areas where the soil horizon is well developed, but the soil has poor drainage characteristics. Large mud flows may have the energy to uproot trees and to carry along boulders several feet in diameter. Because of the speed with which they move, mudflows can be quite destructive, especially along the bottoms and at the mouths of canyons.

Rockfalls

Rockfalls, much like in avalanche of loose rock, cascade down a steep slope, disturbing more material as it passes, becoming more widespread, until it reaches the bottom of the slope. Rockfalls are prevalent where natural slope gradients exceed 50%, and where natural weathering produces angular fragments of material with little. soil cover.

All types of landslides are geologic hazards which can be triggered by earthquake, heavy rains, or by grading on a construction project. The prime ingredients are a triggering force, an unstable earth mass, and downslope movement. Landsliding is basically controlled by three factors; the rock type or geologic formation; the amount of rainfall influences the strength of a potential failure surface and also adds to the weight of the unstable mass; and topographic slope.,

SPECIAL SITUATION

The appraisal of landslide risk in Simi Valley takes into account the general relationships discussed above but is based primarily on empirical relationships. Detailed (11 - 4,0001) mapping by the California Division of Mines and Geology includes the delineation of many of the large and moderate size landslides. They are significant not only as individual areas of instability, but also as indicators of the stability of the particular geologic units involved given the topography and rainfall characteristics of that part of the City.

Four risk categories have been assigned to the City of Simi Valley. Areas having a Negligible risk rating include the areas of low topographic relief in the alluvial valley bottoms. They are delineated on **Attachment 1** as Zone Q.- Areas assigned a Low risk rating include the incised Pleistocene terrace deposits along the margins of the valley. Although not subject to massive failures, these deposits are prone to local slumping along stream channels. These areas are shown on **Attachments 1 & 2** as Zone P. Areas having a Moderate risk rating are comprised of the generally steep, rugged terrain underlain by the Cretaceous Chico Formation along the east and southeastern portion of the study area. While this formation represents the most resistant rocks within the city, the effects of weathering have produced many extremely steep slopes. Many large boulders and blocks, probably loosened by previous earthquakes, are scattered over these slopes, or remain perched precariously on ledges or upon the tops of pinnacles. It is conceivable that renewed seismic activity, particularly along the Santa Susana fault, could result in many of those loose blocks being dislodged. They are shown as Zone K on **Attachments 1 & 2**. Areas designated as having a High risk rating include the Tertiary sediments and volcanics underlying the majority of the steep, hilly terrain surrounding Simi Valley. The areas exhibit many large and moderate size landslides, as well as numerous smaller slides and mudflow scars. The relatively thin bedding 'and moderate to high degree of fracturing in these rocks produce the inherent weaknesses necessary for failure. These areas are marked as Zone's T and V on **Attachments 1 & 2**.

These evaluations are based primarily on natural conditions, and does not include an adjustment for

an effective change in rainfall that may accompany development. Such a change may occur due to the removal of impervious soils and increased irrigation of crops or landscaping.

EVACUATION ROUTES

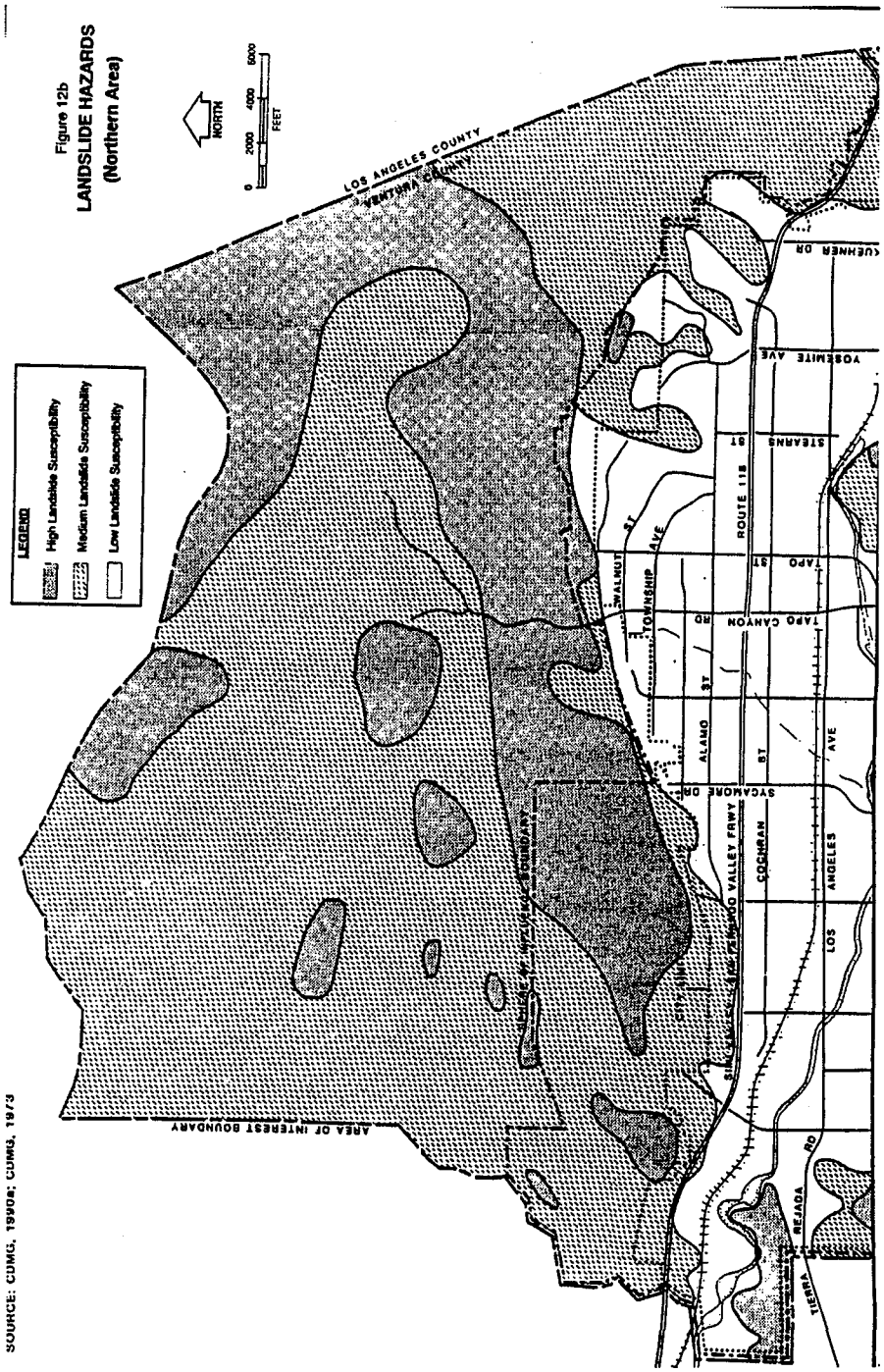
Evacuation routes and other pertinent infomation relating to movement operations are included in **Part Two, Operations Section.**

EMERGENCY RESPONSE ACTIONS

Emergency response actions common to all hazards are presented in **Checklist Actions in Part Two of this Plan.**

Attachment 1: Landslide Map – Northern Area
Attachment 2: Landslide Map – Southern Area

ATTACHMENT 1, THREAT SUMMARY 11
LANDSLIDE AREA MAP – NORTHERN AREA



Attachment 1

ATTACHMENT 2, THREAT SUMMARY 11
LANDSLIDE AREA MAP – NORTHERN AREA

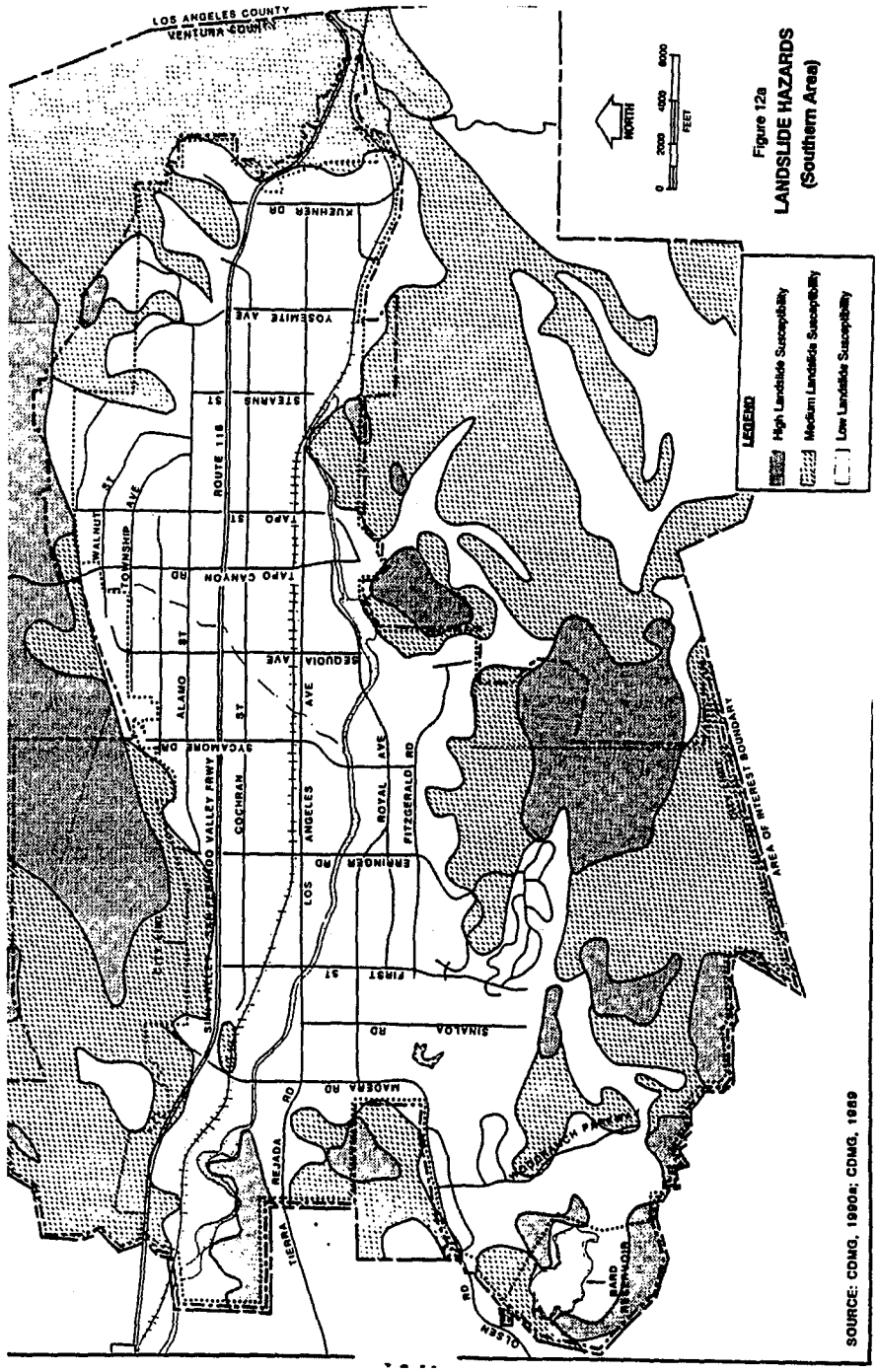


Figure 12a
LANDSLIDE HAZARDS
(Southern Area)

Attachment 2