City of Menlo Park

Emergency Operation Plan

V2

Basic Plan

January 2011/Master Copy

Disclaimer

The material presented in this publication has been written in accordance with federal and state guidelines to meet current industry standards. However, this plan cannot anticipate all possible emergency events and situations or emergency responses. Therefore, it should not be used without competent review, verification, and correction (where appropriate) by qualified emergency management professionals. It should be tested by the Emergency Operations Center (EOC) team after they have received appropriate emergency management training. Conditions will develop in operations where standard methods will not suffice and nothing in this manual shall be interpreted as an obstacle to the experience, initiative, and ingenuity of the officers in overcoming the complexities that exist under actual emergency conditions. Users of this plan assume all liability arising from the plan's use.

Prepared for the use by the City of Menlo Park

By

Emergency Management Consultants
&
City of Menlo Park
Menlo Park Fire Protection District
Menlo Park Police Department

Note:
The original document template has been edited by the staff of the San Mateo County Sheriff's Area Office of Emergency Services and Homeland Security and the staff of the City of Menlo Park.

This plan was partly funded through a grant from the US Department of Homeland Security.

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EXECUTIVE SUMMARY

BACKGROUND

The City of Menlo Park Emergency Operations Plan (EOP) describes how the jurisdiction will manage and coordinate resources and personnel responding to emergency situations.

The City of Menlo Park EOP contains two volumes. The City of Menlo Park EOP is designed to be consistent with Homeland Security Presidential Directive (HSPD)-5, National Incident Management System (NIMS) and the California Standardized Emergency Management System (SEMS) requirements. The plan:

- Conforms to the National Incident Management System (NIMS) and the Standardized Emergency Management System (SEMS)
- Provides Emergency Operations Center (EOC) responders with procedures, documentation, and user friendly checklists to effectively manage emergencies
- Provides detailed information of supplemental requirements such as Public Information, Damage Assessment, and Recovery Operations.

The City of Menlo Park Emergency Operations Plan is a document that will be continually evolving. Recommendations for improvement are solicited and will be carefully considered for future revisions.

ORGANIZATION OF THE City of Menlo Park EMERGENCY OPERATIONS PLAN

The City of Menlo Park Emergency Operations Plan is composed of Volume One – EOC Guidebook and Section Checklists and Volume Two - NIMS/SEMS Basic Plan and support Annexes. The City of Menlo Park Emergency Operations Plan provides a comprehensive emergency response document that includes detailed information covering Emergency Operations Center procedures, documentation and reference and support information.

VOLUME ONE - EOC GUIDEBOOK AND SECTION CHECKLISTS

- **Immediate Action Checklists**
  This section provides guidelines on City of Menlo Park Crisis Action Team and Emergency Operations Center activation. It also provides lists of key points-of-contact for activation of the EOC and coordination of the initial emergency response.

- **Executive Summary**
  This section provides a quick overview of the Emergency Operations Plan (EOP) and how to use the plan.

- **Chapter One - Emergency Operations Center (EOC) Activation Procedures**
  This chapter provides general material on *Who, What, When, Where* and *How* to activate the City of Menlo Park Emergency Operations Center. Additional information is provided on the City of Menlo ParkCrisis Action Team, the Standardized Emergency Management System (SEMS) and EOC organization and responsibilities.

- **Chapter Two - Emergency Operations Center (EOC) Section Checklists**
  This chapter contains Emergency Operations Center Section specific information including Section overview information and individual EOC position checklists. The City of Menlo Park EOC Section Chiefs are responsible for ensuring each member within their Section reads and follows the checklist for their position.

- **Chapter Three - Emergency Operations Center (EOC) Documentation**
  This chapter provides Emergency Operations Center support documentation and essential information used in the completion of individual and Section responsibilities. The accurate completion of this documentation is essential for the timely dissemination of information within the City of Menlo Park EOC and to other EOC(s), and to maximize cost recovery after the response is completed. Section Chiefs are responsible for ensuring that their staff understand and use the documentation properly.

  Note: During the initial response, the completion of documentation is not more important than responding to save lives and property. However, as the initial response is completed and additional responders assume their positions in the City of Menlo Park, EOC accurate completion of documentation must commence.

VOLUME TWO – City of Menlo Park BASIC PLAN

- **Chapter One – Basic Plan**
  This chapter provides supplemental detailed information related to the plan assumptions, goals, training and exercises, maintenance of the plan, preparedness elements, the Standardized Emergency Management System (SEMS), the Incident Command System (ICS), Alerting and Notification procedures, continuity of operations, awareness and education, and hazardous materials response.

- **Chapter Two – Authorities and References**
  This chapter contains federal, state, and city authorities that provide the legal basis for the City of Menlo Park Emergency Operations Plan.

- **Chapter Three – Threat Summary and Assessments**
  This chapter provides threat summaries and hazard analysis for the City of Menlo Park.

- **Chapter Four - Recovery**
  This chapter provides detailed information relating to federal, state, and local jurisdiction recovery categories and procedures.

- **Appendices**
  Appendix A – Glossary of Terms
  Appendix B – Acronyms and Abbreviations
  Appendix C – Legal Documents

- **City of Menlo ParkTERRORISM ANNEX**

FORWARD

BACKGROUND

This Emergency Operations Plan (EOP) addresses the City of Menlo Park planned response to extraordinary emergency situations associated with natural disasters and technological incidents. The plan does not address normal day-to-day emergencies or the well-established and routine procedures used in coping with such emergencies. Instead, the operational concepts reflected in this plan focus on potential large-scale disasters which can generate unique situations requiring expanded emergency responses. Effective response requires that the City of Menlo Park EOC responders remember to communicate, collaborate, coordinate, and cooperate with each other and with the field responders and other jurisdictions.

This plan is a preparedness document designed to be read, understood, and exercised prior to an emergency. It is designed to include the City of Menlo Park as part of the National Incident Management System (NIMS), the California Standardized Emergency Management System (SEMS) and the Incident Command System (ICS). For area-wide emergencies, such as a major earthquake, it becomes part of the San Mateo County emergency response.

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 the EOP implementation and to ensure successful response during a major disaster. These SOPs should include the specific emergency authorities that officials and their successors assume during emergency situations.

ASSUMPTIONS

The City of Menlo Park Emergency Operations Plan and emergency response procedures are based on a set of assumptions which include:

- The City of Menlo Park is primarily responsible for emergency actions within its jurisdiction and will commit all available resources to save lives, minimize injury to city staff and the public, and minimize property damage.
- The City of Menlo Park will utilize NIMS/SEMS/ICS in emergency response operations.
- The City of Menlo Park EOC Director will coordinate the disaster response in conformance with the City of Menlo Park emergency response policy.
- The City of Menlo Park will coordinate emergency response with San Mateo County.
- The resources of the City of Menlo Park will be made available to local jurisdictions and citizens to cope with disasters.
- The City of Menlo Park 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 of Menlo Park ability to meet them.
- This EOP does not guarantee a perfect response for all situations. The plan outlines hazards that are treated as hypothesis rather than fact and identifies recommended guidelines to coordinate response activities. Users of this plan assume all liability arising from the plans use.
- The EOP is NOT intended for day-to-day emergencies, but rather for disaster situations where normal resources are exhausted or have reached very low levels.

EMERGENCY MANAGEMENT GOALS

The City of Menlo Park has established a set of Emergency Management Goals for emergency response which includes:

- Provide effective life safety measures and reduce property loss
- Provide for the rapid resumption of the City of Menlo Park basic services
- Provide accurate documentation and records required for cost recovery efforts

ACTIVATION OF THE EMERGENCY OPERATIONS PLAN

The City of Menlo Park Emergency Operations Plan will be activated under the following conditions:

- The EOP can be activated on the order of any member of the City of Menlo Park Crisis Action Team. (Volume Two, Chapter 1, page 4 - Who can Activate).
- When the governor has proclaimed a state of emergency in an area including the City of Menlo Park.

HAZARDOUS MATERIALS

The San Mateo County Hazardous Materials Response Teams is designated as the administering and response agency for Hazardous Materials (HAZMAT) response for the City of Menlo Park.

APPROVAL AND PROMULGATION

This City of Menlo Park EOP will be reviewed by the Emergency Management Coordinator and the City of Menlo Park EOC Staff. Upon completion of review and written concurrence by these individuals, the EOP will be submitted to the City of Menlo Park City Manager for approval.

TRAINING AND EXERCISES

An emergency plan is not an end in itself. Training is necessary to make the planning concepts a natural response, in addition to training on the plan itself. Training should include exercises that test the interaction between the local jurisdictional EOC, field units, Operational Area, and OES Regional Emergency Operations Centers (REOC). Exercises should be documented with after action critiques addressing corrective measures and deadlines for completion.

SEMS requires that emergency responders document training and be consistent with SEMS. The planning process provides an opportunity to identify specific SEMS training needs and to schedule appropriate training. The emergency plan may be used to define which SEMS training is required by departments and agencies that have defined emergency response roles and responsibilities. The EOP is a convenient place to document training conducted and the location of training records.

Training and exercises are essential at all levels of government to make emergency response personnel operationally ready. A goal of the City of Menlo Park is to train and educate city staff and emergency response personnel in emergency preparedness and response. The City Manager's designee is responsible for overseeing the EOP. The Emergency Services Coordinator is responsible for coordination and scheduling of training for staff and exercising of the City of Menlo Park EOP. The City of Menlo Park EOP training program should include plan orientation and EOC procedures training followed by a realistic EOC exercise program.

The best method for training emergency response personnel to manage emergency operations is through realistic exercises. An exercise is a simulation of a series of emergencies for identified hazards affecting the City of Menlo Park. During these exercises, emergency response personnel are required to respond as though a real emergency had occurred. The exercises should be designed to provide personnel with an opportunity to become thoroughly familiar with procedures that will actually be used in emergency situations.

There are several forms of exercises that should be conducted:

- Tabletop exercises provide a convenient and low-cost method designed to evaluate policy, plans and procedures, and resolve coordination and responsibility issues. 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 or to provide an opportunity for the jurisdiction Emergency Response Team to respond to a realistic scenario in the EOC environment.
- Full-scale exercises simulate an actual emergency. They typically involve the complete emergency management staff and field units and are designed to evaluate the operational capability of the entire emergency management system.

The City of Menlo Park will conduct regular exercises of this plan to train all necessary Emergency Response Team members in the proper response to disaster situations.

MAINTENANCE OF THE EMERGENCY OPERATIONS PLAN

The City of Menlo Park Emergency Operations Plan will be reviewed at least annually to ensure that plan elements are valid and current. Each responsible City of Menlo Park Emergency Response Team member will review and upgrade his/her portion of the EOP and/or modify applicable SOP/EOP(s) as required based on identified deficiencies experienced in drills, exercises or actual occurrences. Changes in local government and the City of Menlo Park emergency response organizations will also be considered in the EOP revisions. The City of Menlo Park Emergency Service Coordinator is responsible for making revisions to the EOP that will enhance the conduct of response and recovery operations. The Emergency Service Coordinator will prepare, coordinate, publish and distribute any necessary changes to the plan to all city departments and other entities as shown on the distribution list on the Records Revision Page of this Emergency Operations Plan. Minor revisions can be approved and implemented without City Councils approval by the Emergency Service Coordinator or at the discretion of the Crisis Action Team.

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Approval Date: 11/24/10

LETTER OF PROMULGATION

TO: OFFICIALS AND STAFF OF THE CITY OF Menlo Park

The preservation of life and property is an inherent responsibility of the City of Menlo Park Management Staff. The City of Menlo Park has prepared this Emergency Operations Plan to ensure the most effective and economical allocation of resources for the protection of city staff and the citizens of the City of Menlo Park in any emergency situation.

While no plan can prevent death and destruction during an emergency, 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 emergency staff and service elements utilizing the Federal National Incident Management System (NIMS), the California Standardized Emergency Management System (SEMS) and the Incident Command System (ICS).

The objective of this plan is to incorporate and coordinate all the resources, facilities, and personnel of the City of Menlo Park into an efficient organization capable of responding to any emergency.

This SEMS Emergency Operations Plan is an extension of county, state and federal emergency plans.

The City of Menlo Park City Manager gives full support to this plan and urges all City of Menlo Park staff, individually and collectively, to do their share in maintaining the total emergency preparedness and response effort of the city.

Concurrence of this promulgation letter constitutes the adoption of the Federal National Incident Management System (NIMS), the Standardized Emergency Management System (SEMS) and the Incident Command System (ICS) by the City of Menlo Park. The City of Menlo Park Emergency Operations Plan will become effective on approval by the City Manager.

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City Manager

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RECORD OF REVISIONS/ ANNUAL REVIEW

Date	**Section**	**Page Numbers**	**Revisions**	**Reviewed By**
11-01-09	Volume 1 &2	All	None	ESC- R.Zollicoffer
08-09-10	Volume 1 &2		Various	ESC- R.Zollicoffer
08-25-10	Volume 1 &2		Various	Sgt. M. Bacon
01-06-11	Volume 1 & 2	All	Various	ESC - Cmdr. Burt

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DISTRIBUTION LIST

City of Menlo Park DEPARTMENTS RECEIVING COPIES OF THE ICS EMERGENCY OPERATIONS PLAN:	**NO. OF COPIES**
▪ Emergency Services Coordinator – 701 Laurel Street, Menlo Park, CA	2
▪ City Manager – 701 Laurel Street, Menlo Park , CA	1
▪ City Council Office -701 Laurel Street, Menlo Park, CA	1
▪ Menlo Park Police Chief -701 Laurel Street Menlo Park, CA	1
▪ Public Works Department-701 Laurel Street, Menlo Park, CA	1
▪ Fire Protection District -300 Middlefield Road, Menlo Park, CA	1
▪ Primary Emergency Operation Center-701 Laurel St., Menlo Park, CA	1
▪ Alternate Emergency Operation Center-1346 Willow Rd, MP, CA	1
▪ San Mateo Sheriff's Office OES – 400 County Center, RWC, CA	1
	NO. OF EOP
▪ Emergency Services Coordinator – 701 Laurel Street, Menlo Park, CA	**1 & 2**
▪ City Manager – 701 Laurel Street, Menlo Park , CA	**3**
▪ City Council Office -701 Laurel Street, Menlo Park, CA	**4**
▪ Menlo Park Police Chief -701 Laurel Street Menlo Park, CA	**5**
▪ Public Works Department-701 Laurel Street, Menlo Park, CA	**6**
▪ Fire Protection District -300 Middlefield Road, Menlo Park, CA	**7**
▪ Primary Emergency Operation Center-701 Laurel St., Menlo Park, CA	**8**
▪ Alternate Emergency Operation Center-1346 Willow Rd, MP, CA	**9**
▪ San Mateo Sheriff's Office OES – 400 County Center, RWC, CA	**10**
Total	**10**

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CHAPTER ONE BASIC PLAN

PURPOSE

The City of Menlo Park NIMS/SEMS Emergency Operations Plan (EOP) addresses the City's planned response to emergencies associated with natural disasters and technological incidents. The Emergency Operations Plan provides an overview of operational concepts, and identifies components of the City of Menlo Park Emergency Response Team established by the Federal National Incident Management System (NIMS), the California Standardized Emergency Management System (SEMS) and the Incident Command System (ICS).

AUTHORITIES AND REFERENCES

Disaster response and recovery operations will be conducted as outlined in Concept of Operations of this Chapter and in accordance with the enabling legislation, plans, and agreements listed in Volume Two, Chapter Two - Authorities and References.

PREPAREDNESS ELEMENTS

In the City of Menlo Park, planning ahead for emergencies is part of normal government operations, and all city staff share responsibility for preparedness. An emergency can strike anytime or anywhere and a disaster will affect the entire community. The City of Menlo Park places emphasis on several aspects of preparedness including:

- Conducting comprehensive emergency operations planning
- Training emergency response team personnel
- Providing awareness training on emergency response
- Assuring the adequacy of resources to respond to emergencies

CONCEPT OF OPERATIONS

Operations during emergencies involve a full spectrum of response levels. Some emergencies will be preceded by a warning period which provides sufficient time to notify the community 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 City of Menlo Park Emergency Operations Plan and commitment of city response resources. The City of Menlo Park Emergency Response Team must be prepared to respond promptly and effectively to any foreseeable emergency.

City of Menlo Park EMERGENCY MANAGEMENT SYSTEM

The City of Menlo Park emergency management system consists of four levels:

- "On-scene" (field response)
- Crisis Action Team
- Emergency Operations Center (EOC) Emergency Response Team
- Policy/Advisory Group

The four management levels provide an efficient means of establishing and carrying out the different activities required to:

- Coordinate city-wide support of "On-scene" response personnel and equipment
- Manage and coordinate resources and mutual aid
- Coordinate response efforts with the other local jurisdictions and San Mateo County

"On-Scene" or Field Response Level

The "On-Scene" or field response level is where emergency response personnel and resources, under the command of an appropriate fire or law enforcement authority, carry out tactical decisions and activities in direct response to an incident or threat. The Incident Command System is the "On-Scene" management structure used for emergency response. ICS, like SEMS, provides for five functions: Command (Incident Commander), Operations, Planning, Logistics, and Finance. Note: Tactical "On-Scene" response decisions are made at the field Incident Commander level - NOT in the EOC.

City of Menlo Park Crisis Action Team

Depending on the nature of the emergency, the Crisis Action Team can meet at the City Manager's office or confer by telephone to make immediate decisions about an emergency response. The precise composition and activities of the Crisis Action Team will depend on the specific emergency circumstances and functions needed. Other assisting jurisdiction/agency representatives may be included in the Crisis Action Team discussions/meetings as needed. Standing members of the Crisis Action Team include the following City of Menlo Park Officials:

- City Manager, City of Menlo Park
- Police Chief*
- Fire Chief*
- Public Works Director*
- Public Information Officer

* Authorized senior management staff if principal official is unavailable.

Any member of the City of Menlo Park Crisis Action Team may call a meeting or initiate a conference call. The Crisis Action Team records its decisions. Possible options may include:

- A decision to do nothing
- A decision to proceed with "watchful waiting" while being prepared to either meet again or mobilize the EOC in response to the situation
- A decision to partially activate the EOC
- A decision to fully activate the EOC

City of Menlo Park Emergency Operations Center Response Team

The City of Menlo Park Emergency Operations Center (EOC) Response Team coordinates the overall city emergency response and recovery activities utilizing the SEMS organization. SEMS, like ICS, provides for five functions: Management (EOC Director), Operations, Planning, Logistics, and Finance. Note: Tactical "On-Scene" response decisions are made at the field Incident Commander level - NOT by members of the EOC Response Team. The EOC provides a centralized location for the strategic decisions and planning for the city's various response and recovery activities, and for support of field operations.

City of Menlo Park Policy/Advisory Group

The Policy/Advisory Group is made up of the members of the City of Menlo Park Mayor and City Council. The City Manager will normally request the Policy/Advisory Group to convene when needed and establish a regular meeting/briefing schedule. The Policy/Advisory Group may convene to develop executive level policies, facilitate multi-jurisdictional coordination and ratify the declaration of the state of emergency or other official documents. The Policy/Advisory Group provides a forum for consideration of extraordinary policy issues that are above the authority of the EOC Director and/or City Manager. The Policy/Advisory Group can assist the EOC Director through advice and policy direction and by creating a conduit to other government officials and the public. The Policy/Advisory Group will meet at the City Council Chambers to avoid the congestion of the EOC and provide a secure quiet location for discussion of sensitive issues.

The City of Menlo Park Policy/Advisory Group may request assistance or advice from any county, state or federal official. Any other city, county department/agency, or assisting organization (e.g, hospital, utility, etc.) may also be solicited for advice.

EMERGENCY RESPONSE PHASES

Emergency management activities are often associated with the four emergency management phases indicated below; however, not every disaster necessarily includes all phases.

Preparedness Phase

The preparedness phase involves activities taken in advance of an emergency. These activities develop operational capabilities and pre-established response procedures to an emergency. These actions might include mitigation activities, emergency/disaster planning, training and exercises, and staff preparedness education. Those city staff identified as members of the Emergency Response Team, having either a primary or support roles relative to emergency response, should review this EOP and prepare appropriate supplemental Standard Operating Procedures (SOPs)/Emergency Operating Procedures (EOPs) and Checklists detailing personnel assignments, policies, notification rosters, and resource lists.

Increased Readiness

Increased readiness actions will be initiated after the receipt of a warning or the observation that an emergency situation is imminent or soon likely to occur. Actions to be accomplished include, but are not necessarily limited to the points listed below:

- Review and update of Emergency Operations Plans, SOPs/EOPs, and resources listings
- Dissemination of accurate and timely emergency public information
- Inspection of critical facilities
- Recruitment of additional staff
- 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 appraising them of safety measures to be implemented
- Advising San Mateo County and the Mayor and City Council of the emergency
- Identifying the need for mutual aid and requesting such through the San Mateo County Office of Emergency Services
- Requesting a emergency proclamation by government authorities and/or San Mateo County

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 in the City of Menlo Park by timely and effective deployment of local government agencies (fire, law enforcement, EMS etc.). 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 of Menlo Park.
- Evacuation of portions of the City of Menlo Park are required due to uncontrollable immediate and ensuing threats
- Mutual aid from outside the City of Menlo Park is required
- The City of Menlo Park is either minimally impacted or not impacted at all and is requested to provide mutual aid to other jurisdictions

The City of Menlo Park will give priority to the following operations:

- Dissemination of accurate and timely emergency information and warning to the citizens of the City of Menlo Park
- Situation analysis
- Resource allocation and control
- Evacuation and rescue operations
- Care and shelter operations
- Restoration of vital services

When the City of Menlo Park resources are committed to the maximum and additional resources are required, requests for mutual aid will be initiated through the San Mateo County Office of Emergency Services or the San Mateo County EOC. The City of Menlo Park Police, Fire, and Public Works Departments will request or render mutual aid directly through established channels. Any action which involves financial outlay by the city or a request for military assistance must be authorized by appropriate officials. If required, the California Office of Emergency Services (OES) may be requested by San Mateo County to 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 affected area(s).

Depending on the severity of the emergency, the City of Menlo Park Emergency Operating Center (EOC) may be activated, and the San Mateo County OES will be advised. A state of emergency may be proclaimed at the city and/or county levels. Should a gubernatorial 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 and/or Governor. State OES may also activate the State Operations Center (SOC) in Sacramento to support local jurisdictions and other entities in the affected areas and to ensure the effectiveness of the state's emergency response.

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 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. The general public can obtain individual disaster assistance through the FEMA telephone coordination center by dialing 1 800 462-9029 or 1 800 462-7585 (for the hearing impaired).

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

- Resumption of City of Menlo Park services
- Restoration of essential utility services
- Permanent restoration of City of Menlo Park property
- Identification of residual hazards
- Plans to mitigate future hazards
- Recovery of costs associated with response and recovery efforts
- Cleanup and waste disposal

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 that exist within the City of Menlo Park that threaten life and property are part of mitigation efforts. There are various mitigation tools:

- Coordination with local and state officials to change ordinances and statutes (zoning ordinance, building codes and enforcement, etc.)
- Structural measures
- Public information and community relations
- Land use planning
- Professional training

EMERGENCY LEVELS

The magnitude of the emergency will dictate the City of Menlo Park response level. Response levels are used to describe the type of event, extent of coordination or assistance needed, and degree of participation from the city departments.

Readiness and Routine Phase - Normal Operations

At this level, the City of Menlo Park departments respond to daily emergency situations. Stand-by and activation procedures should be issued in advance of an anticipated or planned event.

Minor Emergency - Level One - Decentralized Coordination and Direction

A Level One emergency is a minor to moderate incident wherein the City of Menlo Park resources are adequate and available. The City of Menlo Park EOC is not activated. Off-duty personnel may be recalled. City and/or mutual aid police, fire, public works, or medical responders use on-scene Incident Command System (ICS) procedures. Based on the type of emergency, the appropriate authority monitors the situation and provides assistance. The City of Menlo Park Crisis Action Team may be formed to deal with Level One emergencies.

Moderate Emergency - Level Two - Centralized Coordination and Decentralized Direction

A Level Two emergency is a moderate to severe emergency in which the City of Menlo Park resources are not adequate and mutual aid may be required. Key management personnel from the involved departments will co-locate to provide jurisdiction coordination. The City of Menlo Park EOC may be partially or fully activated based on the severity of the situation. Off-duty personnel may be recalled. A local emergency and a state of emergency may be requested and the San Mateo County OES will be notified. The San Mateo County EOC may be activated.

Major Emergency - Level Three - Centralized Coordination and Direction

A Level Three emergency is a major local or regional disaster wherein resources in or near the impacted area are overwhelmed and extensive county, state and/or federal resources are required. A declaration of emergency is usually issued at the city level and possibly at the county, state and federal levels. The overall response and early recovery activities will be managed from the City of Menlo Park EOC with the San Mateo County EOC being activated based on the situation. Off-duty City of Menlo Park response personnel will be recalled as required.

The City of Menlo Park Emergency Operations Plan is based on the Federal National Incident Management System (NIMS), the Standardized Emergency Management System (SEMS) and the Incident Command System (ICS).

The City of Menlo Park has fully adopted the provisions of NIMS/SEMS/ICS and requires its implementation at the Emergency Operations Center (EOC) and on-scene by all responders.

NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS)

On February 11, 2003, the President of the United States issued Homeland Security Presidential Directive (HSPD)-5, which directed the Secretary of Homeland Security to develop and administer a National Incident Management System (NIMS). State, County and City level jurisdictions are required to comply with NIMS.

STANDARDIZED EMERGENCY MANAGEMENT SYSTEM (SEMS)

SEMS is the system required by Chapter 7 of Division 2 of the Government Code §8607, which became law for all jurisdictions and districts in California in 1996. The standard organizational model is based on an approach called the Incident Command System (ICS) that was developed by fire departments to give them a common language when requesting personnel and equipment from other agencies, and to give them common tactics when responding to emergencies.

The system is designed to minimize the problem common to many emergency response efforts-duplication of effort-by giving each person a structured role in the organization, and each organization its piece of the larger response. SEMS and ICS can be used by any combination of agencies and districts in emergency response. These systems clearly define the chain of command and limit the span of control of any one individual.

INCIDENT COMMAND SYSTEM (ICS)

The Incident Command System (ICS) is a standard, on-scene, all hazard incident management system used in field operations. The Incident Command System has been utilized for field response operations for over 30 years.

It should be noted that NIMS, SEMS and ICS are all based on the same principals and response functions. Therefore, jurisdictions within California are covered by all three emergency management systems.

NIMS/SEMS/ICS PRINCIPLES

The NIMS/SEMS/ICS systems cover the following kind of operations:

- Single jurisdictional/agency involvement
- Single jurisdictional responsibility with multiple agency involvement
- Multiple jurisdictional responsibility with multiple agency involvement

The Standardized Emergency Management System/Incident Command System is flexible and structured so that:

- The system's organizational structure adapts to any emergency or incident to which emergency response agencies would expect to respond
- The system will be applicable and acceptable to all user agencies
- The system is readily adaptable to new technology
- The system expands in a rapid and logical manner from an initial response to a major incident and contracts just as rapidly as organizational needs or the situation decrease
- The system has basic common components in organization, terminology and procedures

COMPONENTS OF NIMS/SEMS/ICS

The components of NIMS/SEMS/ICS are designed to provide for:

- Common terminology
- Modular organization
- Unified Command structure
- Consolidated action plans
- Manageable span-of-control
- Multi-agency or Inter-agency Coordination
- Multi-agency or inter-agency coordination Group

Common Terminology

Common terminology refers to the establishment of common titles for organizational functions, resources, and facilities within NIMS/SEMS/ICS.

Modular Organization

Modular organization is the method by which the NIMS/SEMS/ICS organizational structure, based upon the type and size of an incident, develops. The NIMS/SEMS/ICS organization staff builds from the top down as the incident grows, with responsibility and performance placed with the Incident Commander.

NIMS/SEMS/ICS is made up of five functions: Management; Operations; Planning; Logistics; and Finance. These functions may, as the incident grows, be organized and staffed into Sections. Initially, the Director of Emergency Services may be performing all five functions. Then, as the incident grows, each function may be established as a Section with several Units under each Section. Only those functional elements that are required to meet current objectives will be activated. Those functions which are needed but not staffed will be the responsibility of the next higher element in the organization.

Unified Command

Unified command structure is a unified team effort which allows all agencies with responsibility for the incident, either geographical or functional, to manage an incident by establishing a common set of incident objectives and strategies. This is accomplished without losing or abdicating agency authority, autonomy, responsibility or accountability. The City of Menlo Park, East Palo Alto, and Atherton will operate under a joint unified command system during the activation of level 3 criteria; subdividing the communication into manageable divisions eliminating duplicated resources from the Operational Area Emergency Operation Center if functioning independently.

Consolidated Action Plans

Consolidated Action Plans identify objectives and strategy determinations made by the Director of Emergency Services for the incident based upon the requirements of the affected jurisdiction. In the case of Unified Command, the incident objectives must adequately reflect the policy and needs of all the jurisdictional agencies. The consolidated Action Plan documents the tactical and support activities that will be implemented during an operational period.

Manageable Span-of-Control

Manageable span-of-control within NIMS/SEMS/ICS is a limitation on the number of emergency response personnel who can effectively be supervised or directed by an individual supervisor. The position title “Section Chief” refers to the lead person of each functional element in the EOC. The type of incident, the nature of the response or task, distance and safety will influence the span-of-control range. Each activated function will have a person in charge of it, but a supervisor may be in charge of

more than one functional element. Every individual will have a supervisor and each supervisor should be responsible for no more than seven employees with the ideal span-of-control being three to five persons.

Multi-Agency or Inter-Agency Coordination

Multi-agency or inter-agency coordination is important for:

- Establishing priorities for response
- Allocating critical resources
- Developing strategies for handling multi-agency response problems
- Sharing information
- Facilitating communications

Multi-Agency or Inter-Agency Coordination Group

- May be established formally
- Should develop consensus on priorities, resource allocation and response strategies
- May function within the EOC, at another location or through conference calls - but should remain in contact with the EOC
- The EOC Action Plan should incorporate group priorities and objectives
- Group objectives should be implemented through the EOC
- The jurisdiction may participate with other local governments and agencies in a multi-agency coordination group organized by another local government(s) or at the State Level.

Coordination with Volunteer and Private Agencies and Businesses

The EOC will be a focal point for coordination of response activities with volunteer and private agencies and businesses. Based on the tactical situation the appropriate Section Chiefs may establish communication with private and volunteer agencies providing services with the jurisdiction. Agencies that have county-wide response roles and cannot respond to the jurisdiction EOC may be represented at the County EOC level. Requests for support should be coordinated through the County EOC.

Why Use NIMS/SEMS?

The Homeland Security Presidential Directive (HSPD)-5, National Incident Management System (NIMS) requires compliance on a national basis by October 2006.

Per CCR, Title 19, §2401, SEMS is intended to standardize responses to emergencies involving multiple jurisdictions or multiple agencies. SEMS is intended to be flexible and adaptable to the needs of all emergency responders in California. SEMS requires emergency response agencies to use basic principles and components of emergency management including ICS, multi-agency or inter-agency coordination, the operational area concept, and established mutual aid systems. Local government (including special districts) must use SEMS by December 1, 1996 in order to be eligible for state reimbursement of response-related personnel costs pursuant to activities identified in CCR, Title 19, §2920, §2935, and §2930.

By standardizing key elements of the emergency management system, SEMS is able to achieve the following goals:

- Facilitate the flow of information and resources within and between levels of the system
- Establish emergency communication system, channels, and contacts in advance
- Facilitate coordination among all responding agencies
- Improve mobilization, use and tracking of resources
- Manage priorities with limited resources

Per California Code of Regulations (CCR), Title 19, §2443(b), compliance with SEMS shall be documented in the areas of planning, training, exercises, and performance.

SEMS Definition of Special Districts
"Local Government" means local agencies as defined in Government Code §8680.2 and special districts as defined in CCR, Title 19, Division 2, Chapter 5, NDAA, §2900(y).

CCR, Title 19, Division 2, Chapter 5, NDAA, §2900(y) defines Special Districts as a "unit of local government in the state (other than a city, county, or city and county) with authority or responsibility to own, operate or maintain a project, including a joint powers authority established under CCR Section 6500 et seq., of the Code."

For the purposes of SEMS, special districts are political subdivisions of the State of California with limited power. The Emergency Services Act defines a political subdivision as "any city, city and county, county, district or other local governmental agency or public agency authorized by law." Broadly interpreted, this means virtually all forms of government including special districts come under some or all of the provisions of the Emergency Services Act and the Standardized Emergency Management System.

Elements of NIMS/SEMS
Incident Command System

- Provides the foundation for SEMS
- Originally adopted for field response to multi-agency, multi-jurisdictional wildland fires
- Adopted by other disciplines such as law enforcement, emergency medical services, public works and others
- Utilizes management by objectives

Mutual Aid System
OES has three administrative offices encompassing six mutual aid regions. The Southern Administrative Region consists of mutual aid regions one and six. The Inland Administrative Region has mutual aid regions three, four, and five. The City of Menlo Park is in the Coastal Administrative Region and it consists of mutual aid region two. Key mutual aid concepts include:

- Used by cities, counties, special districts and the state to voluntarily provide services, resources and facilities when needed
- Uses a neighbor helping neighbor concept
- Initially used by fire and law systems, expanded to include public works, medical, hazmat and others

Multi/Inter-Agency Coordination

An integral part of SEMS is the use of multi/inter-agency coordination. Within the context of SEMS, this involves prioritizing and assigning resources, handling competing demands of various agencies, and maximizing resources. To accomplish this task, the EOP should identify how this is to be done among the various departments, agencies, and jurisdictions. The process could include task group meetings, action planning, or other means. However, the key to multi/inter-agency coordination lies in effective communications. Key aspects of multi/inter-agency coordination include:

- Coordinated decision-making among and between agencies
- Facilitate priority setting for resource allocation and response
- Facilitate communications and information sharing

Operational Area

- Government Code §8559(b) states that an "Operational Area" is an intermediate level of the state emergency services organization, consisting of a county and all political subdivisions within the county area.
- Government Code §8605 states that each county is designated as an operational area. The governing bodies of each county and of the political subdivisions in the county may organize and structure their operational area. The Operational Area may be used by the county and the political subdivisions comprising the Operational Area for the coordination of emergency activities and to serve as a link in the communications system during a state of emergency or a local emergency.
- Operational Areas are the link between local government (including special districts) and the OES regions for the purpose of managing resources and information exchange.

City of Menlo Park EMERGENCY MANAGEMENT ORGANIZATION

FUNCTION	RESPONSIBILITY
CRISIS ACTION TEAM	Made up of key City of Menlo Park management personnel who will meet or confer by phone to: • Manage emergency themselves • Activate the EOC • Identify appropriate level of EOC activation • Manage emergency while EOC is being set up • Identify beginning and ending time of 1st operational period • Develop 1st operational period Objectives and Priorities
AFTER EOC ACTIVATION TRANSITION TO STANDARDIZED EMERGENCY MANAGEMENT SYSTEM (SEMS)	
POLICY/ADVISORY GROUP	Policy level management members (such as Mayor and members of the City Council) that provide policy guidance to the City of Menlo Park Manager/EOC Director.
MANAGEMENT SECTION	This function provides the overall direction and sets priorities for an emergency.
OPERATIONS SECTION	This function coordinates the employment of the City of Menlo Park resources (law enforcement, fire/rescue, medical, etc.) to mitigate the effects of the emergency.
PLANNING/INTELLIGENCE SECTION *	This function gathers and assesses information and develops an EOC Action Plan. The EOC Action Plan sets the objectives for the operational period. The operational period is set by management.
LOGISTICS SECTION	This function provides facilities, services, personnel, equipment and supplies in support of EOC and field response operations.
FINANCE/ADMINISTRATION SECTION *	This function is responsible for all financial and cost analysis management.

Note: The titles “Planning/Intelligence” and “Finance/Administration” are shortened to “Planning” and “Finance” throughout the EOP for simplicity and to fit in the organization charts.

Organizational Structure
CCR, Title 19, §2403 specifies five levels of the SEMS organization, which are activated as necessary.

Field Response Level
Emergency response personnel with their resources, under the command of an appropriate authority, carry out tactical decisions and activities in direct response to an incident or threat. The use of ICS at this level is the standard (i.e. response to a fire, auto wreck, flood, etc.).

The use of SEMS is intended to standardize the response to emergencies involving multiple jurisdictions or multiple disciplines (i.e. fire services, law enforcement, medical, etc.). The agencies that participate in a unified command do not relinquish their jurisdictional authorities. They develop a single coordinated action plan for the agreed operational period through multi-interagency coordination.

Local Government Level
Local governments include cities, counties, and special districts. Some special districts, such as metropolitan water districts, have county or multi-county scope of authority. Local governments manage and coordinate the overall emergency response and recovery activities within their jurisdiction.

CCR, Title 19, §2407 states that SEMS shall be utilized when the local government Emergency Operation Center (EOC) is activated and when a local emergency is declared or proclaimed. It also states that local government shall use multi-agency or inter-agency coordination to facilitate decisions for overall local government level emergency response activities.

The EOC is a centralized location for decision making relating to the jurisdiction's emergency response. It can be a very elaborate facility or a conference room that is converted when needed. The EOC is where emergency response actions can be managed and resource allocations and responses can be tracked and coordinated with the field, city, operational area, and OES Region.

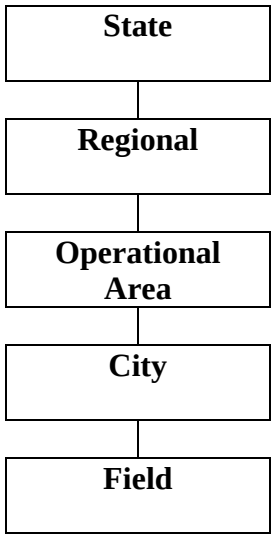
All local governments are responsible for coordinating field response level with other local governments and the operational area. Local governments are also responsible for providing mutual aid within their capabilities.

Operational Area Level
Operational Area (OA) means an intermediate level of the state's emergency services organization that encompasses the county and all political subdivisions within the county including special districts. SEMS regulations specify that all local governments within a county geographic area be organized into a single OA and that the county board of supervisors is responsible for its establishment. The OA coordinates information, resources, and priorities among local governments within the OA and serves as the coordination and communication link between the local government level and regional level.

Regional Level
Due to size and geography, the state has been divided into six mutual aid regions to provide for a more effective application and coordination of mutual aid and other emergency related activities.

Information and resources among operational areas within the mutual aid region, and also between the OA and the state level are managed and coordinated at this level. If an Operational Area EOC is activated, the OES Regional Emergency Operations Center (REOC) will be activated to the level necessary to coordinate emergency operations and respond to requests for resources and mutual aid.
State Level

This level manages state resources in response to the emergency needs of the other levels, and coordinates mutual aid among the regions and between the regional level and state level. It serves as the coordination and communication link between the state and federal disaster response system. When an OES Regional Administrator activates a REOC, the State Operations Center (SOC) at OES headquarters will also be activated to support the region with state agency resources.



Involvement and Coordination

One or more "Special Districts" may be located within the City of Menlo Park or San Mateo County. Examples of districts include school districts, colleges and universities, fire control districts, or utility companies. Coordination between jurisdictions and districts are an integral part of emergency management. The City of Menlo Park is classified and acknowledged by San Mateo County as a special district.

Coordination and communications should be established among special districts that are involved in the emergency response, and in other local governments, and the operational area. This may be accomplished in various ways depending on the local situation. Relationships among special districts, cities, county government, and the Operational Area are complicated by overlapping boundaries and by the multiplicity of special districts. Special districts need to work with the local governments in their service areas to determine how best to establish coordination and communications in emergencies.

The following discusses various situations and possible ways to establish coordination. The simplest situation is when a special district is wholly contained within a single city or within a county area. Usually in this case, the special district should have a representative at the EOC of the city or county in which it is located and direct communications should be established between the special district EOC and the city or county EOC. An exception may occur where there are many special districts within a large city or county.

Typically, special district boundaries cross municipal boundary lines. A special district may serve several cities and county unincorporated areas. Some special districts serve more than one county. Ideally, a special district involved in the emergency response will have representatives at all activated city or county EOCs within its service area. However, this may not be practical when many jurisdictions within its service area are affected.

One alternative may be to focus coordination at the operational area level and designate a representative to the operational area EOC to work with other local government representatives at that EOC.

When there are many special districts within one city or within the county, it may not be feasible for the city or county EOC to accommodate representatives from all special districts during area-wide disasters. In such cases, the city or county should work with the special districts to develop alternate ways of establishing coordination and communications. There are several alternatives to consider:

- One representative from each type of special district who would communicate with other special districts of the same type.
- Representatives at the EOC only from designated key special districts-linked via telecommunications with other special districts.
- Establish a special district coordination center for a particular type of special district, such as a water district coordination center, that communicates with the jurisdiction EOC. This arrangement may be established for the Operational Area.

COMMUNICATION

Operational Area Satellite Information System (OASIS)

OASIS is an information and resource tracking system for Operational Areas. It was designed to facilitate the information flow between local governments, OA's, OES regions and the SOC through the use of a satellite information link. Effective coordination of emergency response and mutual aid within an OA will require the exchange of information between local governments and the OA.

Response Information Management System (RIMS)

RIMS is a set of applications designed by the Governor's Office of Emergency Services (OES) in Lotus Notes to assist in the management of disasters in California. The goal of the RIMS project is to connect, via computers, the five levels of government outlined in SEMS. RIMS is in use by all 58 Operational Areas (counties), most cities, and 30 state and federal agencies.

RIMS has established a set of reports available to all levels of government that categorizes disaster related information in a manner that quickly provides an overview of an event or multiple events. Because RIMS allows multiple users to submit and receive information on demand, it has dramatically improved the dissemination of disaster related information statewide.

RIMS has established an electronic link between agencies requesting assistance and agencies that can provide the needed resources. It allows Operational Areas to submit requests for emergency response assistance by computer to one of the State OES' three Regional Emergency Operations Centers (REOCs). These REOCs then review the request and task the appropriate state agency to provide the requested assistance. The database has been modified so that it can be used by city and field level response organizations.

Special districts should report problems, needs, incident/status reports, etc. to the Operational Area (OA) within which they have a problem with their facilities. Special Districts may also report incidents to other locations in addition to the OA; for example, if they are a utility they may report to the Utilities Operations Center located at OES and they may also have reporting requirements to the Public Utilities Commission. If there is a disruption of services to a special district they may also have to report to the OA where the service has been impacted in addition to reporting to the OA where the facility has been impacted. The Operational Area EOC may take care of the communications from the Special District to the cities, and to a State OES REOC.

The special district may have entered into a mutual aid agreement with another special district. In this case, the district may request assistance directly in accordance with their agreement and also notify the OA of facility damage and/or service disruption. If they are a part of a statewide mutual aid system, they must follow the protocols of that particular system; for example, fire districts.

PLANNING

CCR, Title 19, §2445 states that local governments, operational areas, and state agencies shall include the use of SEMS in emergency plans and procedures pursuant to §2403, 2405, 2407, 2409, 2411, 2413 and 2415.

Special districts may be grouped together by the functions they were designed to perform, such as water purveyors, electric providers, schools, etc. An Emergency Operations Plan (EOP) should be developed to identify protocols for emergency coordinators of special districts to facilitate communications during emergency operations.

The following are some of the benefits a special district will have if it has an Emergency Operations Plan and coordinates with the OA:

- OA's need to know what special districts have or need in order to assist them
- Communication/Coordination is needed to expedite response and provide assistance
- Issues can be resolved prior to a disaster (i.e. pipe fittings, fire hydrant fittings)
- Clearinghouse to document damage/costs to prioritize damage assessment
- Compile information on resources to prioritize damage assessment
- Exercise with the EOC to identify needs
- SEMS Compliance

CONTINUITY OF OPERATIONS

A major disaster or national security emergency could result in the death or injury of key City of Menlo Park officials and/or the partial or complete destruction of established facilities, and public and private records essential to continued operations. City staff is responsible for providing continuity of effective leadership, authority and adequate direction of emergency and recovery operations. The City of Menlo Park staff *Lines of Succession* list must be established and maintained. (Volume One, Chapter 3, Tab 9)

Preservation of Vital Records

At the City of Menlo Park, the following offices are responsible for the preservation of vital records:

- The City Clerk

Vital records are defined as those records that are essential to:

- Protect and preserve the rights and interests of individuals, governments, corporations and other entities. Examples include official records, property titles, payroll and other accounting records.
- Conduct emergency response and recovery operations. Records of this type include utility system maps, locations of emergency supplies and equipment, emergency operations plans and procedures, personnel rosters, etc.
- Reestablish normal governmental functions and protect the rights and interests of government. Constitutions and charters, statutes and ordinances, court records, official proceedings and financial records would be included here.

The City of Menlo Park department managers are responsible to ensure adequate maintenance of backup "essential records and information" to enable continued operations if the primary documents or information is lost.

Record depositories should be located well away from potential danger zones and/or housed in facilities designed to withstand blast, fire, water, and other destructive forces. Such action will ensure that constitutions and charters, statutes and ordinances, court records, official proceedings, and financial records would be available following any disaster. Each department within the City of Menlo Park should identify, maintain and protect its own essential records.

City of Menlo Park STAFF AWARENESS AND EDUCATION

The City of Menlo Park community'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.

Awareness and education of the City of Menlo Park staff prior to any emergency are crucial to successful city information and response 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 officials to ensure their contribution to emergency preparedness and response operations.

ALERTING AND WARNING

Warning is the process of alerting the City of Menlo Park responders and the city staff to the threat of imminent extraordinary danger. Dependent upon the nature of the threat, 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 systems may be accessed.

ALERTING AND WARNING SYSTEMS

Federal - EAS - Emergency Alerting System

The Emergency Alert System (EAS) is designed for the broadcast media to disseminate emergency public information. This system enables the City Manager, 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 the rules and regulations of the Federal Communications Commission (FCC). FCC rules and regulations require all participating stations within 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 - City Managerial Messages (carried live)
- Priority Two – EAS Operational (Local) Area Programming
- Priority Three – State Programming
- Priority Four – National Programming and News

City Managerial 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 throughout the state using the state's CLERS VHF/UHF radio relay stations.

Appropriate authorities at the City of Menlo Park can activate a warning using EAS though the San Mateo County Office of Emergency Services. A representative for the San Mateo County Office of Emergency Services will make contact with the appropriate radio link.

City – ENS – Emergency Notification System

The City of Menlo Park has an Emergency Notification System which can be used by City staff to send personalized voice and data messages to residents and businesses within Menlo Park. The system has the capability of sending thousands of messages in minutes using a single announcement.

The system can be activated by City personnel from any computer with Internet access, or by telephone. The system can send voice messages to home phones, work phones, and cell phones. Text messages can be sent to cell phones, PDAs, and other text-based devices. Messages can also be sent to TTY/DD receiving devices for the hearing impaired.

CHAPTER TWO AUTHORITIES AND REFERENCES

PURPOSE

Emergency response, like all governmental action, is based on legal authority. The City of Menlo Park Emergency Operations Plan follows state and federal guidelines for conducting emergency operations planning, training, emergency response, and recovery.

California Emergency Services Act

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 state-wide 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 California Civil and Government Codes contain several references to liability release (Good Samaritan Act) for those providing emergency services.

EMERGENCY PROCLAMATIONS

Local Emergency

A local emergency may be proclaimed by the Menlo Park City Manager. San Mateo County should be notified immediately if a Local Emergency is proclaimed in the City of Menlo Park. The Local Emergency must be terminated 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 jurisdiction, caused by natural or man-made situations.

The proclamation of a local emergency provides the governing body with the legal authority to take the following actions:

- 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/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 in the following situations:

- 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/she is requested to do so by local authorities.
- He/she 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. Additionally, 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

- Homeland Security Presidential Directive (HSPD)-5
- Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 (Public Law 93-288, as amended)
- Federal Response Plan
- 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)
- Debris Removal Guidelines for State and Local Officials (FEMA DAP-15)
- A Guide to Federal Aid and Disasters (DAP-19)
- Digest of Federal Assistance (DAP-21)

State

- California Emergency Services Act, Chapter 7 of Division 1 of Title 2 of the Government Code;
- California Code of Regulations Title 19, Chapter 2, Subchapter 3, §2620 et seq.;
- Standardized Emergency Management System (SEMS) Regulations, Chapter 1 of Division 2 of Title 21 of the California Code of Regulations (CCR); and
- California Government Code §8607(a).
- Debris Removal Guidelines for State and Local Officials (FEMA DAP-15);
- A Guide to Federal Aid and Disasters (DAP-19);
- Digest of Federal Disaster Assistance (DAP-21); and others.
- California Constitution;
- State Emergency Plan;
- California Hazardous Materials Incident Contingency Plan;
- California Oil Spill Contingency Plan;
- Standardized Emergency Management System (SEMS) Regulations (CCR §2400 et seq.); and
- Standardized Emergency Management System (SEMS) Guidelines

- SEMS Approved Courses of Instruction - Training courses for emergency response personnel at field and Emergency Operations Center (EOC) levels developed pursuant to SEMS Regulations. The approved courses include an introductory course, field level course (incident command system), EOC course, and executive course.
- Emergency Planning Guidance for local government - Guidance document intended to provide local governments with tools to develop emergency plans.

County

- City of Menlo Park Resolution adopting the city's approved Emergency Operations Plan and portions* of the San Mateo County Emergency Plan.
- City of Menlo Park City Charter and related ordinances, articles and resolutions.
- Worker's Compensation for Disaster Workers 185-85.

Local

- City of Menlo Park Municipal Code

REFERENCES

National Response Plan (FEMA).

CHAPTER THREE THREAT SUMMARY AND ASSESSMENTS

Background

The following threat summaries are the product of a historical, meteorological, geographical, geological and visual assessment of San Mateo County. Natural and technological risks are described in gross terms for the San Francisco Bay Area with specific references to the San Mateo area, when appropriate. No order of importance is meant to be implied by the order of listing and this list is not meant to be all inclusive, but seeks only to identify the most likely risks with potential to impact the area. Threats to public health and safety covered in this document include:

Earthquake

- Exhibit 1 – Fault Map
- Exhibit 2 – Liquefaction Potential
- Exhibit 3 – Modified Mercalli Intensity Scale

Hazardous Materials Incident

- Exhibit 1 - HAZMAT High Risk Areas in San Francisco Bay
- Exhibit 2 - San Mateo County HAZMAT High Risk Areas (Fixed Sites)
- Exhibit 3 - San Mateo County HAZMAT High Risk Areas (Pipeline, Transportation Corridors)

Flooding

Exhibit 1 - Pescadero and San Gregorio Creeks Stream flow

- Exhibit 2 - Flood Control District Zones
- Exhibit 3 - Coastside Creeks
- Exhibit 4 - Bayside Creeks

Dam Failure

- Exhibit 1 –Dam Information

Major Air Crash

- Exhibit 1 – Airport Grid Map

Train Crash

Landslides

Wildland Fire

- Exhibit 1 - Composite Fire Hazard Severity Ratings for Vegetative Fuel Loading, Slope and Weather Conditions
- Exhibit 2 - County Fire/CDF Department Summary of Facilities, Personnel and Equipment Serving the Unincorporated Area
- Exhibit 3 - Fire Protection Agencies Serving Unincorporated Areas

Oil Spill

Tsunami

Civil Unrest

National Security Emergency

- Exhibit 1 - Terrorism
- Exhibit 2 – Nuclear Weapons Accident

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MAJOR EARTHQUAKE

GENERAL SITUATION

The State of California is one of the most active earthquake regions on the surface of the earth and, along with the State of Alaska, by far the most active region of the United States. California's geographic features are dominated by juncture of two of the world's tectonic plates. The long scare, where the North American plate meets to Pacific plate and either grind alongside each other or subduct one under the other side, is the notorious San Andreas Fault, which runs the entire length of the state, north to south. The San Andreas Fault is not the only fault system capable of causing considerable loss of life, property and environmental damage. The western half of the state, particularly in the southern and northern regions, are honeycombed with smaller fracture faults and small to moderate independent fault systems, each capable of causing significant damage. Over time, the theory of "small faults equals small earthquakes and larger fault systems equals proportionately larger quakes" has succumbed to research which indicates that small, independent fault systems are capable of "linking" together to produce significant earth movement.

Historically, there has been regular activity along these faults. In any given year, California experiences between 2,000 and 6,000 seismic events, however, most of these "shakers" are of low enough magnitude and surface effect as to go unnoticed. There have been significant events over the last couple of centuries, particularly in the southern and south-central section of the state.

CONSIDERATIONS FOR THE SAN MATEO COUNTY

San Mateo County is in the vicinity of several known active and potentially active earthquake faults. These include the San Andreas and the Hayward faults (Exhibit 1, Fault Map). New faults within the region are continuously being discovered. Scientists have indicated that there is a 66% chance of a major earthquake (magnitude 6.0 or greater) in the Bay Area within the next 30 years.

The San Andreas Fault

The San Andreas Fault is the best known earthquake fault system in the United States and a major element of California geology. It trends northwesterly and extends more than 800 miles from the Gulf of California to an area north of San Francisco. It has been the source of many very large earthquakes, the earliest recorded one occurring in October 1800 near San Juan Bautista. The San Andreas was the source of the 1857 Fort Tejon Earthquake, estimated at magnitude 8.2. The 1838 earthquake located on the peninsula south of San Francisco had an estimated magnitude in excess of 7.0. Accounts of the 1838 earthquake describe a large fissure extending from San Francisco to an area near San Jose. The San Francisco Earthquake of April 18, 1906, one of the worlds most famous and significant earthquakes, was the next strong shock along the San Andreas. The earthquake had an estimated magnitude of 8.3 and generated strong vibratory ground motions that caused damage throughout Northern and Central California. On October 17, 1989, a magnitude 7.1 earthquake occurred on the San Andreas fault east of Santa Cruz. Severe damage in the historic central business districts of Los Gatos, Santa Cruz, and Watsonville occurred as a result. This earthquake also produced moderate to severe structural damage throughout the Bay Area, and damaged essential transportation infra-structure (the San Francisco Bay Bridge and several elevated freeways in Oakland and San Francisco). Soft soil areas of San Francisco experienced very intense ground motion and liquefaction, which resulted to the collapse of many buildings. With an estimated economic loss of more than $6 billion and over 60 killed, this earthquake ranks as the worst natural disaster in the United States.

The Hayward Fault
The Hayward Fault is located on the eastern side of the San Francisco Bay - extending approximately 55 miles from San Jose northwesterly to San Pablo. It was the source of the Hayward Earthquake of 1836, which had an estimated magnitude of 6.8 - one of the largest ever recorded in Northern California. Recent studies indicate that fissures opened along the fault from San Pablo to Mission San Jose, and that ground shaking caused damage in settlements at San Jose and Monterey. In 1868 another earthquake (with an estimated magnitude of 6.8) ruptured for 20 miles and severely damaged every building in the village of Hayward. More recent damaging earthquakes occurred in 1915, 1933, and 1937. The Hayward Fault is believed capable of producing earthquakes as large as magnitude 7.5 earthquake.

The Calaveras Fault
The Celavaras Fault is a major branch of the San Andreas Fault System. It splits from the San Andreas a few miles south of Holister and extends approximately 80 miles to an area just north of Danville. From there, several branches continue northward. The Hayward and the Calaveras Faults intersect just south of Fremont. A number of earthquakes have occurred along the Celavaras, but none of these have approximated the magnitudes and intensities of earthquakes generated by the Hayward Fault. The strongest recorded tremor on the Calaveras was the 1861 Amador Valley Earthquake. It occurred near Dublin and produced a shaking intensity on Modified Mercalli scale of VIII. The April 24, 1994, Morgan Hill Earthquake had a magnitude of 6.2 and caused damage in Morgan Hill, Gillroy, and San Jose. The Calaveras Fault is estimated to be capable of producing a magnitude 7.2 earthquake

SPECIFIC SITUATION
An 8.3 magnitude earthquake on the northern San Andreas Fault (Exhibit 2) would result in serious damage in San Mateo County. The Modified Mercalli Intensity Scale (Exhibit 3) generally describes damage resulting from the shaking.

The information presented below provides detailed estimates of potential earthquake losses in San Mateo County from an 8.3 magnitude earthquake on the northern San Andreas Fault. The data is extracted from the following studies:

- A Study of Earthquake Losses in the San Francisco Bay Area, National Oceanic and Atmospheric Administration, 1972
- Open File Report 81_113, l981, U.S. Geological Survey, Metropolitan San Francisco and Los Angeles Earthquake Loss Studies, 1980 Assessment
- Special Publication 61, 1982, California Division of Mines and Geology, Earthquake Planning Scenario for a Magnitude 8.3 Earthquake on the San Andreas Fault in the San Francisco Bay Area.

The potential hazards that San Mateo County may face in an earthquake are significant. Factors that will determine the loss of life and extent of damage include the following:

Casualties
Since studies only predict the total number of deaths and hospitalized injuries (exclusive of dam failures) for the entire San Francisco Bay Area, it is assumed that a proportionate number of casualties will be generated in San Mateo County. The total number of casualties projected in the event an 8.3 magnitude earthquake occurs at 4:30 p.m. (the time when the Bay Area rush hour traffic starts and many people are on the roads) follow:

Deaths				Injuries			
SCHOOLS	HOSPITALS	OTHER SOURCES	DEATH TOTAL	SCHOOLS	HOSPITALS	OTHER SOURCES	INJURY TOTALS
200	1,450	9,720	11,370	600	4,400	39,340	44,340

(Note: The ratio of non-hospitalized injuries to deaths is 30:1.)

Long-term homeless
There could be approximately 9,600 long-term homeless persons.

Dam Failure
Of the twenty dams in the county, thirteen are considered capable of causing injury and life loss in case of failure. The most serious potential failure would involve the Lower Crystal Springs Dam.

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 (Exhibit 2). Liquefaction is a phenomenon involving the loss of shear strength of a soil. The shear strength loss results from the increase of poor water pressure caused by 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.

Damage to Vital Public Services, Systems And Facilities

Bed Loss in Hospitals

San Mateo County has nine major hospitals (99 beds or more) with a total capacity of 2,416 beds. Approximately 1,360 (56%) of the total number of beds could be lost during a major earthquake.

Several of the acute care hospitals in San Mateo 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 San Mateo County Department of Health will be controlled by the Department 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.

Damage to Highways

U.S. 101

U.S. 101 would be closed for a major portion of the distance from Menlo Park to Candlestick Park and would not be opened within 72 hours. South of Candlestick Park to San Bruno, major land slips or movements would be distinctly possible in heavy ground motion. Major stretches of this portion of the freeway could be under water or badly damaged due to soil movements. Access to the San Francisco International Airport would be shut off and could be reestablished in about 48 hours using Route 82.

Route 1

The Devil's Slide area on the San Andreas Fault crossing near the intersection with Skyline Boulevard would be closed - even with moderate ground shaking. Landslides along the coast to the south would close the remainder of the route for at least 72 hours.

Route 82 (El Camino Real)

El Camino Real would be open but with many major detours and delays to avoid collapsed buildings and bridges. Most of the post-earthquake traffic would be on El Camino Real, although damaged and/or destroyed culverts crossing underneath the roadbed may necessitate local traffic diversions.

Route 92

Highway 92 would likely be closed from Half Moon Bay to Route 280 due to slides and faulting, and would not be opened within 72 hours.

Route 35

Route 35 would probably be closed and would not be opened within 72 hours. The northerly portion crosses the San Andreas Fault near King Drive (Daly City). There is significant landslide potential south of Route 84. Extensive damage would probably occur throughout the northern portion of this route due to fault ruptures.

Interstate 280

Interstate 280 would most likely be closed for less than 36 hours., closed at Route 92 by a bridge collapse. A detour can be made around this area in 8 hours. Significant landslide hazard exists. Although this route will be unaffected by fault rupture, its proximity to the fault may subject it to other effects that are not predictable.

Interstate 380

Interstate 380 would be closed at U.S. 101, but open from Route 280 to Route 82. Low liquefaction potential exists. Detours can be made available around the affected interchanges.

Interstate 380/U.S. 101 Interchange
The 380/101 interchange would likely be heavily damaged and would remain closed for a period of 72 hours.

Airports
San Francisco International Airport (SFO) is expected to be closed for over 72 hours to several weeks. Practical land access will not exist due to freeway and highway damage, which will effectively isolate the airport and nearby facilities.

Railroads
The Southern Pacific Railroad extends from San Jose to San Francisco. The line is expected to be closed until inspections can be completed, which could take a few days.

Marine Facilities
Marine facilities at Redwood Creek will be closed.

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 plan for alternate communications for the first few days after the event.

Key communications system facilities are located near the San Andreas Fault in areas projected to experience intense ground shaking. It is likely that the telephone systems south of San Francisco will have systemic failures not readily bypassed by alternative traffic routing. It is also probable that the recovery effort will be delayed because many telephone company employees will have difficulty getting access to damaged areas to complete repairs.

Radio systems are expected to be 40 to 75% effective; microwave systems, 30% effective or less. Radio systems will generally operate at 40% effectiveness for the first 12 hours after the earthquake; increase to 50% for the second 12 hours; then begin a slow decline to approximately 40% within 36 hours. The decline in radio systems is primarily due to fuel limitations for emergency generator.

Commercial Broadcasters
Many radio and TV facilities are expected to be out of operation in San Mateo County for 24 hours due to in-house problems, power supply problems, and/or transmission line problems. Elsewhere in the Bay Area, 33% of the facilities are also expected to be out of service for 24 hours. After 24 hours, 50% of the entire Bay Area facilities are expected to be in operation.

Water Supply And Waste Disposal
Several of the major aqueducts will sustain damage, causing temporary interruptions in water supply. The major reservoirs in the area should provide ample storage to meet demands during the time required for repairs. However, damage to water transmission lines, local storage reservoirs, and pumping plants , (as well as local distribution systems, will affect water availability and pressure). The absence of electrical power for extended periods may preclude water deliveries where pumping is necessary. Many areas could be dependent on tanker trucks to provide their basic needs.

Sewage collection systems will sustain widespread damage, particularly in the low-lying areas near the San Francisco Bay. Many sewage treatment facilities located on structurally poor ground adjacent to the Bay will be damaged and experience electrical power losses resulting in discharge of raw sewage into the Bay.

Broadmoor Water Pipelines
This system will probably be out of operation for more than 72 hours. The two principal pipe lines supplying water to San Francisco are located on overpasses over Interstate 280 in the Broadmoor area, which are susceptible to damage from an earthquake.

San Andreas Water Treatment Plant
This plant may be inoperable for more than 72 hours. This plant is vulnerable because of its proximity to potential surface rupture and its dependence on commercial electric power. The plant, however, can be bypassed without significant impact to the water supply system.

Electrical Power
Damage to power plants and their ancillary facilities in affected areas can be expected to reduce generating capacity by 50%. The potential impact to San Mateo County of this reduction is lessened by the availability of power from other sources outside the affected area. Significant reduction in consumer demand is expected as well. Immediate concerns will focus on repairs to restore power to areas of greatest need. Major restoration problems include repairs to route power through the major substations; restoration of damaged and collapsed transmission line towers; reactivation of equipment at local substations; and replacement of fallen poles, burned transformers, etc.

It is reasonable to assume that during some portion of the first 72-hour period following the earthquake , virtually all areas would experience some temporary loss of power. All critical facilities will require standby generating equipment and emergency fuel supplies. It is assumed that all substations in San Mateo County will be heavily damaged, including the important Martin Substation. This substation is located in an area of predicted intense ground shaking and possible ground failure - major damage to some equipment at this station is a reasonable expectation. The ability to route power through this critical station constitutes a major consideration in the restoration of power to the City of San Francisco.

Natural Gas
Damage to natural gas facilities will consist primarily of some isolated breaks in the major transmission lines and innumerable breaks in mains and individual service connections within the distribution systems. Many leaks in the distribution system will affect a major portion of the urban areas on the San Francisco Peninsula resulting in a loss of service for extended periods. Random fires should be expected at the sites of a small percentage of ruptures. Transmission pipelines serving the San Francisco Peninsula are the ones most vulnerable to damage.

SFO Pipeline
Rupture of old pipeline sections will occur due to ground failure caused by liquefaction.

San Andreas Fault
Rupture of pipelines will occur due to ground failure along the San Andreas Fault zone between San Andreas Lake and Route 1. Pipeline rupture due to landslides will also occur near Upper Crystal Springs Reservoir (between San Mateo Creek and 4 kilometers southeast of the junction of Interstate 280 and Route 92).

Emergency Response Actions
Emergency response actions associated with the above situations are presented in Volume One, Operations Section Event Specific Checklist.

Exhibits
Exhibit 1 - Fault Map
Exhibit 2 - Liquefaction Potential
Exhibit 3 - Modified Mercalli Intensity Scale

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Exhibit 1 Fault Map

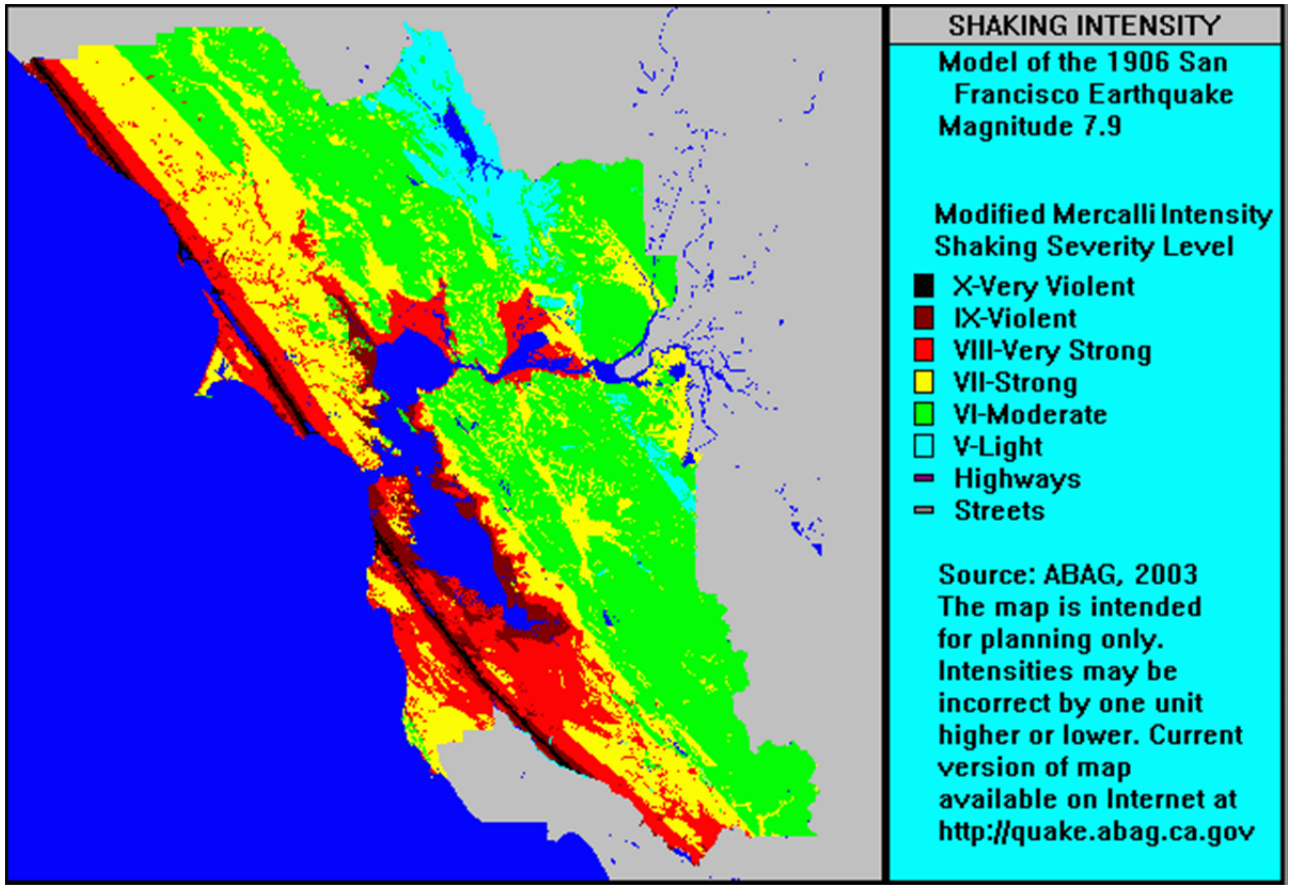

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Exhibit 2 – Liquefaction Potential

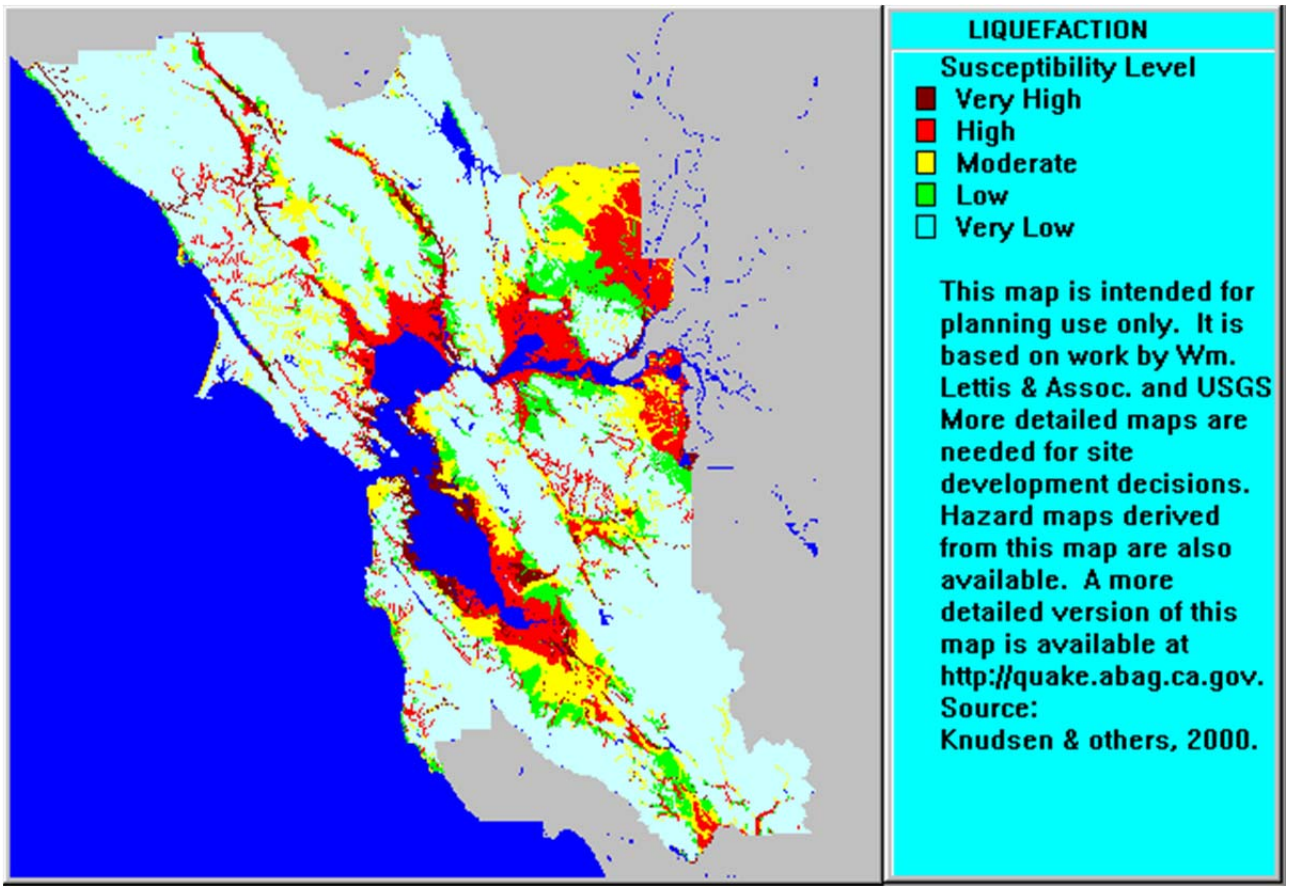

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Exhibit 3 Modified Mercalli Intensity Scale

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 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 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. 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 partial collapse. Some damage to masonry. None to masonry. 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 alluvial 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.

HAZARDOUS MATERIAL INCIDENT

GENERAL SITUATION

The release of a hazardous material to the environment could cause a multitude of problems that can be discussed in a general manner. The significance of the problems to the environment, property, or human health is dependent on the type, location, and quantity of the material released. Although hazardous material incidents can happen almost anywhere, certain areas of the state are at higher risk. Jurisdictions near roadways, waterways, airways, and pipelines that are used for transporting hazardous materials are at risk. Also, jurisdictions with industrial facilities that use, store, or dispose of such materials all have increased potential for major mishaps.

With the increased dependence on chemicals in our society, releases of explosive and highly flammable materials have caused: fatalities and injuries, necessitated large scale evacuations, and destroyed millions of dollars worth of property. Releases of hazardous chemicals have been especially damaging when they have occurred in highly populated areas or along heavily traveled transportation routes. Toxic chemicals in gaseous form have caused injuries and fatalities among emergency response teams and passers-by. When toxic materials have entered either surface or ground water supplies, serious health effects have resulted.

CONSIDERATIONS FOR THE SAN MATEO COUNTY

San Mateo County has a population of over 675,000 in an area of 448 square miles. The bayside portions of the county from Brisbane to Menlo Park contain a number of facilities that use hazardous materials. These industries include semi-conductor and related devices; paints, varnishes, lacquers, enamels, and allied products; chemicals; and biological research activities. The coastside sections of the county are primarily rural - most of this area is forested or agricultural. There are concentrations of pesticides and related substances in the agricultural areas. San Francisco Airport is located in the northeast corner of the county. The Port of Redwood City is located in the eastern portion of the county. Major shipping lanes pass close by the San Mateo coast.

Air, Road, Rail, and Pipeline Spill Potential

There are four major highways in the county that carry large quantities of hazardous materials: State Route 1, which runs north to south along the western edge; Interstate 280, which runs north to south through the center of the county along the San Andreas Fault; US 101, which runs north to south along the eastern edge of the county; and State Route 92 which bisects the other three roads as it runs east to west at mid-county.

US 101 is the most heavily traveled in terms of truck traffic and is the most frequent location of those hazardous materials spills, which occur on major roads. The Southern Pacific/Santa Fe railroad right of way parallels 101 through the heavily populated eastern side of the county. Natural gas pipelines also run south to north along this eastern Bayshore. Truck, rail, and pipeline transfer facilities are concentrated in this region, and are involved in considerable handling of hazardous materials.

Hazardous Waste Generation
San Mateo County ranks sixth out of the nine bay area counties in hazardous waste tonnage generated for off-site disposal and third in the amount for on-site disposal. Approximately 7% (16,500 tons) of the hazardous waste generated in the county is transported off-site to approved treatment and disposal sites throughout the state. The balance is disposed of on-site through methods including evaporation ponds, incineration, pre-treatment of sewage discharge, and recycling.

Pre-treatment and sewage disposal is the predominant form of authorized hazardous waste disposal within the county. Approximately 184,000 - 188,000 tons (83-84%) of county-generated hazardous waste is diluted to sewer agency standards: 3,100- 3,750 tons (1-2%) evaporated; and 15,000-18,000 tons (7-8%) recycled. There are presently two commercial firms which recycle locally: Romic Chemical Company in East Palo Alto, which recovers industrial solvents; and Ekotek Lube in San Carlos, which re-refines oil.

Spill history in the county shows most problems occurring in the Brisbane/South San Francisco/San Francisco Airport area in the northeast and in the Belmont to Menlo Park area in the southeast. These bayside areas have substantial suburban development with a significant population at risk should a serious spill occur. These sections also overlie a large groundwater basin.

Illegal Disposal
Illegal disposal of hazardous waste into sewer systems, at landfill sites, and directly into streams, or dumping along roadways is a growing problem. Illegal dumping account for a substantial fraction of emergency responses by the county Hazardous Materials Response Team. Unfortunately, this type of incident is expected to increase as operating costs (and use fees) for authorized disposal sites rise.

Industry generally is aware of hazardous materials regulations and appropriate disposal procedures and acts responsibly. Small generators (small business and households) are largely unaware of the hazardous waste problem and tend to view current regulations as not pertaining to them. Small generators are also less able to incur the costs of proper disposal and may attempt to cut operating costs by illegal dumping. There is a lack of incentives (both positive and negative) to encourage proper disposal, recycling, or reduction in waste generation.

Contaminated Waste Sites
State and regional agencies have identified eight contaminated waste sites in San Mateo County which potentially pose a threat to public health. The majority involve disposal prior to the enactment of regulatory controls. Four of the sites have been designated as eligible for state clean-up funds:

Zoecon Corporation/Chipman Chemical East Palo Alto	A former sludge pond with arsenic, heavy metals, and pesticides (58th worst site statewide)
Sun Chemical Corp/Rental City Trucks South San Francisco	Soil contaminated with lead, zinc, and cyanide from former printing operations (70th worst)
Heally Tibbitts/Wildberg Brothers Smelting and Refining Company South San Francisco	Heavy metals (84th worst)

Pacific Gas and Electric Martin Service Center Daly City	Soil contaminated with napthalene, anthracene, naphthalene, anthracene, benzene (87th worst)
Homart Development Company South San Francisco	Heavy metals, acid waste sumps, solvents, storage tanks from former steel operation
Cal Mac Transportation Company East Palo Alto	Surface solvent and resin contamination removed; subsurface investigation continuing
Bayshore Executive Park San Mateo	Abandoned site contaminated by lead and heavy metals
Marsh Road Landfill Menlo Park	Site has been used to dispose of waste - no cleanup is planned

Emergency Response Actions

Emergency response actions associated with the above situations are presented in Volume One, Operations Section Event Specific Checklist.

Reference

AREA OES SOP 1.2

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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, and cordoning 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.

Special Situation
Watersheds in San Mateo County are relatively small and the run to the Pacific Ocean or to the San Francisco Bay. The typical long, slow-rising floods experienced in the Central Valley and along the great rivers of northern California do not occur here.

Major floods in the county have occurred in 1940, 1955, 1958, 1973, 1982, 1983, and 1986. The December 1955 flood was the most severe in recent history until the 1982 event. Major flooding also occurred in Dec 96 - Jan 97. The 1982 flood had its most severe impacts in Pacifica, where heavy rains induced mud flows which destroyed several homes and killed 3 children. The flood also impacted the community of Pescadero - the one part of the rural area where a significant amount of development has occurred in a natural flood plain. The storm almost completely flooded the rural service center, blocked all access roads to the town, and severed telephone and electric power services. Most of the residents of Pescadero had to evacuate.

Rural Flooding
The risk of flooding in the rural area is dependent on several variables: the amount and intensity of rainfall that is annually received in each watershed; the width and topographic setting of the flood plains of the major streams; the degree to which flood control improvements have been made; and, most importantly, the amount of development that is located within known flood plains.

The unincorporated rural areas of San Mateo County contain 21 major watersheds. All but two of these watersheds drain to the Pacific Ocean. Only the Crystal Springs and San Francisquito Watersheds drain to the San Francisco Bay.

In the rural area, the major streams remain almost completely in undisturbed natural conditions. Very few flood control improvements (outside of installation of culverts and occasional clearance of debris from creek channels) have taken place. Major flood control projects (such as channelization or channel diversion) have been undertaken in more densely populated urban areas on the bayside.

Compared to neighboring bay area counties, the rural portion of San Mateo County receives abundant annual rainfall. In effect, the rural mountainous areas act as a "rain trap." Average rainfall in the rural area ranges from more than 45 inches per year in the Skyline Ridge area to over 30 inches per year in most of the South Coast watersheds west of Skyline. By comparison, Redwood City, located on the east side of the Skyline Ridge, averages only 19 inches per year.

During years of average rainfall and relatively mild storm systems, the natural stream channels of the rural watersheds are adequate to drain runoff. However, in years of abnormally high rainfall or unusually severe storms, disastrous flooding can occur. Runoff during such conditions cascades rapidly down the narrow stream channels of the mountainous areas. The strong velocity of flood waters during these times can carry debris for long distances, block stream channels and create areas of severe localized flooding.

The table in Exhibit 1 summarizes the annual measured stream flow of San Gregorio and Pescadero Creeks between 1970-1981. This table indicates the wide variation in runoff that can occur in the rural area. In the San Gregorio watershed, an area that drains over 39,000 acres, runoff has ranged from over 61,000 acre-feet in 1972-3 to only 840 acre-feet in the severe drought year of 1976-77.

Urban Flooding

In more densely populated urban areas, the risks to life and property from flood hazards are increased. In the past, development patterns in urban areas have generally ignored the threat of flooding. As more and more development occurs within flood plain areas, it often became necessary to finance expensive engineering solutions to the flooding problems.

In the urban portion of the county, the problem of directing storm runoff from the mountains to the Bay has been addressed through various flood control and drainage districts (Exhibit 2). Improvements have included installation of culverts and bridges, construction of levees, various methods of channel alteration or installation of underground storm drains. In spite of these improvements, many of the creek channels could be overtopped during the 100-year flood.

The "solution" to the flood hazard problem in the urban area can itself create certain hazardous situations. When natural stream channels are altered and vegetation is removed, the velocity of the storm runoff increases because it can more efficiently flow toward the bay. This can create hazards to those who might accidentally fall into the creek, particularly young children.

Urban areas can also be victimized by the problem of debris blockage of creek channels. In many areas, residential neighborhoods border directly on creek channels. These areas could easily be spot flooded if the channels are not clear. Additionally, decaying flood-deposited garbage or other organic material could create health hazards in the aftermath of a flood.

Tidal Flooding

The hazards of tidal flooding in areas proximate to San Francisco Bay have been mitigated to some degree by the series of levees constructed for salt evaporation ponds in the southeast of the county and for flood protection in the north and central parts of the county. Generally, however, these levees would not withstand the flood intensities of the 100-year base flood.

Emergency Response Actions

Emergency response actions associated with the above situations are presented in Volume One, Operations Section Event Specific Checklist.

Exhibits
Exhibit 1 – San Francisquito Creek Flood Plan
Exhibit 2 - Flood Control District Zones
Exhibit 3 - Coastside Creeks
Exhibit 4 - Bayside Creeks

References
AREA OES SOP 1.3

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EXHIBIT-1 SAN FRANCISQUITO CREEK FLOOD PLAN

Staff shall inform Police Dispatch when the National Weather Service issues a Creek Flooding Advisory for the San Mateo County and Santa Clara County area. The following procedures will go into effect to prepare for the possibility that the San Francisquito Creek may overflow its banks.

Using the Pope Street Bridge as a guide:

When the creek level is FIVE FEET from the top:

Police Dispatch will monitor the Palo Alto web site for San Francisquito Creek on an hourly basis. Dispatch will have Menlo Park police officers on-call to verify creek level and call Palo Alto Dispatch to verify creek level.

Police Chief and Public Works Director are notified of creek level when it reaches five feet from the top. They will determine if additional actions shall be implemented below.

- City Manager and/or Assistant City Manager are informed of status.
- Public Works crew will be called in as appropriate to prepare for flood.
- A message will be broadcast on local radio station 1670 am each hour informing public of potential flooding. Police personnel will regularly patrol Woodland Avenue and Creek Drive for any potential flooding issues.
- Consider sending a message to residents to advise of the possibility of flooding via Menlo Park's Emergency Notification System (ENS).
- Menlo Park Fire Protection District on-duty Battalion Chief will be notified.

When the creek level is THREE FEET from the top:

- Command Personnel will **activate the EOC**. (Police Chief, Police Commanders, Public Works Director, City Manager, Assistant City Manager, Assistant Public Works Director).
- Menlo Fire District and County OES is notified that EOC is open and liaison established.
- Additional Police and Public Works crews will be called into work as directed by the EOC.

Creek monitoring will occur at appointed locations:

- Woodland Avenue at Pope Street Bridge
- 600 Block of Woodland Avenue
- Woodland Avenue at Middlefield Road

A public liaison person will be determined by EOC staff who will remain on the Pope Street Bridge to keep Police, Public Works, and KCEA updated as well as be a resource for citizen questions.

When the creek level is 0 FEET from the top (this is at the top of the culvert under the Pope Street bridge):

- Notify residents via Menlo Park's Emergency Notification System (ENS) and other media such as radio station 1670 AM and Cable TV Channel 26.
- Intersection of Pope and Woodland is closed from Laurel Street to Menalto.

- Public Works staff will take sand bags from the Corporation Yard to Pope Street Bridge. Staff will determine which location along Creek in Menlo Park is most likely to overtop.

- Sand bags will be used to guide water to stay in the street as it overtops the banks across Woodland.

- On-duty Police personnel will go door to door in primary areas warning people.
- Areas will be warned by police siren and public address notification.

- The message will be "The creek is very close to overflowing its banks. Please stay alert for street flooding. Please turn on your light to indicate you are awake. Tune into radio station 1670 am for continual updates".

- Police and Public Works staff will continuously monitor San Francisquito Creek from Middlefield to University to determine if there are other locations where the creek could overtop. Police and Public Works staff will monitor the flow of water as it runs down streets to determine if any properties are in danger of flooding and if evacuation is warranted.

- Public Works staff will fill additional sand bags and take them to locations where properties may be subject to flooding as time and resources permit.

Exhibit-2 San Mateo County Control District

DISTRICT	AREA SERVED	TOTAL ASSESSED VALUE 1982-1983 ($ MILLIONS)
Colma Creek Flood Control Zone	Portions of Daly City, South San Francisco, Colma, Pacifica and other unincorporated areas	2,430
Colma Creek Flood Central Subzone 1	Central portion of South San Francisco, west of Highway 101	69
Colma Creek Flood Control Subzone 2	Parts of southern and eastern South San Francisco, completely surrounding Subzone 1	517
Colma Creek Flood Control Subzone 3	Portions of Daly City, South San Francisco and other unincorporated areas	1,844
Ravenswood Slough Flood Control Zone	Portions of East Palo Alto and Menlo Park	347
San Bruno Creek Control Zone 1	Lands owned by the San Francisco International Airport west of 101	5
San Bruno Creek Control Zone 2	The drainage basin area within the City of San Bruno	686
San Francisquito Creek Flood Control Zone 1	Southern East Palo Alto area, along the border between Santa Clara and San Mateo Counties	46
San Francisquito Creek	Portions of Woodside, Menlo Park, East Palo Alto and Portola Valley, bounded by the Santa Clara, San Mateo borderline and Skyline Blvd	1,330