STAFF REPORT
SAUSALITO CITY COUNCIL

AGENDA TITLE:

City of Sausalito Disaster Preparedness-Emergency Operations Program
Status Report for the 2nd Quarter 2009

RECOMMENDED MOTION:

Receive and file data following review of the presentation.

SUMMARY

The Sausalito Police Department is prepared to address the Sausalito City Council with information regarding the progress the City of Sausalito has made in the area of Emergency Operations/Disaster Preparedness in the second quarter of 2009.

BACKGROUND

Since March of 2009, the City of Sausalito has taken the following actions regarding Emergency Operations and Disaster Preparedness within the City:

TRAINING

1. On-line training has been provided to the City of Sausalito's Emergency Operations Center personnel and their department staff on the following subjects:

    - FEMA's National Response Framework
    - FEMA's Emergency Management
    - FEMA's Oil and Hazardous Materials Response
    - FEMA's Long Term Community Recovery
    - FEMA's Mass Care, Emergency Assistance, Housing, and Human Services
    - FEMA's Firefighting

2. City of Sausalito's Emergency Operations Center Press Information Officer was provided training from the International Association of Chiefs of Police regarding dealing with the media.

3. The Emergency Services Manager and Captain Rohrbacher attended the United Ways and American Red Cross Building Disaster Resilient Communities Conference and received training on:

    - Preparing for People with Disabilities During Emergencies
    - FAST Teams and Special Needs
    - Partnership Development in Your Community
    - Post-Disaster Financial Resources
    - Roles and Responsibilities in Emergency Planning and Response
    - Using Technology to Improve the Client Experience with Coordinated Relief Efforts

PLANS/GUIDES/RESOURCES

1. Completion of a total revision of the City of Sausalito's Emergency Operations Plan. Plan is modeled after the County of Marin's Plan and contains updated disaster information and is more user friendly (approximately 70 pages in length compared to over 400). As part of the revised Emergency Operations Plan, there has been a restructuring and redeployment of personnel in the Emergency Operations Center to make it more efficient and effective.

2. The Lines of Succession for the City Council were updated to ensure continuity of government during times of emergency.

3. The City's Information and Technology Department has created an Emergency Operations Center e-mail group. This will allow Emergency Operations Center staff and first responders to be contacted via e-mail (via computer or handheld device) or text messaged during times of emergency.

4. Activation Procedures for the Emergency Broadcast System for Radio Sausalito (1610 AM) has been completed and adopted and the system has been successfully tested.

5. Creation of an Emergency Preparedness Guidebook for the citizens of Sausalito. This guidebook provides information to citizens on several different disasters and ways to prepare/prevent them. This guidebook is provided to citizens free of charge over the internet and printed copies are available at the police department, library, and City Hall.

6. Continuing efforts on the reinstitution of the Disaster Committee in the City of Sausalito.

EQUIPMENT/SUPPLIES

1. Renewed the City's agreement with Remote Satellite Systems International for the use of the two satellite phones in the Emergency Operations Center.

2. Department of Public Works Director Goldman is consulting with SBC Global regarding possible telecommunications updates to the City Council Chambers. This would allow the Council Chambers to be used by the Emergency Operations Center personnel for communication in the event of a disaster.

3. The Department of Public Works, with assistance from the Police Department, researched and purchased an Identification Card system for all City Employees. This will allow our Emergency Disaster Workers to be readily identified by other Disaster Workers as well as members of the community. Identification card designs are currently being developed and examples created for review.

COMMUNITY OUTREACH/MEETINGS AND ALLIED AGENCY

1. The Sausalito Police Department has designated a complete section of their website to disaster preparedness. This website page provides the public with information regarding the City's Emergency Preparedness/Emergency Operations Program as well as the following emergency issues:

    - Disaster Process
    - Coping with Disaster
    - Emergency Planning
    - The First 48
    - Disaster Supply Kit
    - Emergency Preparedness for Pets
    - Flood
    - Earthquake
    - Winter Storms
    - Thunderstorms
    - Tsunami
    - Terrorism
    - Fire
    - Hazardous Materials
    - Heat Emergencies
    - Household Chemical Emergencies
    - Landslide
    - Wildland Fire
    - Workplace Violence

2. Article written for the City of Sausalito's quarterly magazine regarding what the City has done in terms of disaster preparedness and what citizens can do to prepare themselves.

3. Distributed copies of the booklet "Disaster Preparedness: A Citizen's Guide" to community members at the Caledonia Street Fair on May 24th.

4. Constant consultation with Marin County's Office of Emergency Services regarding the development of Emergency Operations Plans, training exercises, and events that may effect the City of Sausalito.

5. Distributed information regarding the Swine Flu to City employees and citizens via e-mail and the City's website.

6. Sent a press release informing the public that the Emergency Service Manager is available to meet with interested neighborhood, citizen, and other community/business groups. During these meetings the Emergency Service Manager will advise them on what they can do to prepare for disasters and inform them of what steps the City of Sausalito is taking in the areas of disaster preparedness and emergency operations. These meetings are also geared towards recruiting citizens to participate in the CERT and Get Ready programs and creating an increased citizen interest in the Disaster Committee participation.

7. The following meetings regarding Emergency Operations/Disaster Preparedness have been attended:

    - March 11th. Met with Jonathan Westerling to discuss the use of the City's EAS system through Radio Sausalito during emergencies. Received a demonstration of the Emergency Broadcast System and discussed policy and procedures for its activation. Also discussed at this meeting was how to utilize Radio Sausalito to broadcast storm advisory information as well as public service announcements regarding the City's Disaster Preparedness/Emergency Operations Program on a regular basis.
    - March 24th. Met with DPW Director Goldman as well as representatives from Marin County's Health Department and the Sausalito/Marin City Sanitary District to conduct a review of the procedures used during the recent sewage spills into the Bay. Several items were discussed regarding how notifications could be improved.
    - March 25th. Met with representatives of the Southern Marin Fire District and Marin County Office of Emergency Services to discuss issues regarding RACES/CERT as well as the new Sausalito Emergency Operations Center which will be under construction soon.

- April 7th. Met with Administrative Sergeant Skoog and Department of Public Works Director Jonathon Goldman to discuss Alternative Funding Sources for the new Emergency Operations Center as well as development of the City's new ID card program.
- May 9th. Attended the City of Mill Valley's Disaster Evacuation Drill in order to obtain information to prepare a similar drill for the City of Sausalito.
- June 17th. Meet with Marin Office of Emergency Services representatives regarding the planning and preparation for the next training exercise for the City's Emergency Operations Center personnel.
- June 18th. Meet with representatives of the Southern Marin Fire District to discuss CERT's relationship with the City of Sausalito.
- June 23rd. Meet with the Sausalito VIPs and present them with disaster preparedness information and provide training regarding their possible roles during emergencies in Sausalito.

FUTURE PLANS

1. Media release and community education/awareness campaign regarding the Emergency Broadcast System. The goal of this is to make the citizens of Sausalito aware of the Emergency Broadcast System and its capabilities.

2. Monthly Tests of the Emergency Broadcast System are to be conducted to ensure system is functioning properly.

3. Continue community outreach/education.

4. Continue to assist in the design/equipping of the future Emergency Operations Center.

5. Continue to provide training to Sausalito Emergency Operations Center personnel.

6. Emergency Services Manager to attend Incident Command System instructor school which will allow him to teach the ICS series of classes to City employees.

7. Work in conjunction with Marin County Office of Emergency Service to develop a functional training exercise for Sausalito Emergency Operations Center personnel. This training is scheduled for the fall of 2009. This exercise will test the effectiveness and efficiency of the Emergency Operations Center.

STAFF RECOMMENDATIONS

Receive and file this information.

ATTACHMENTS

None

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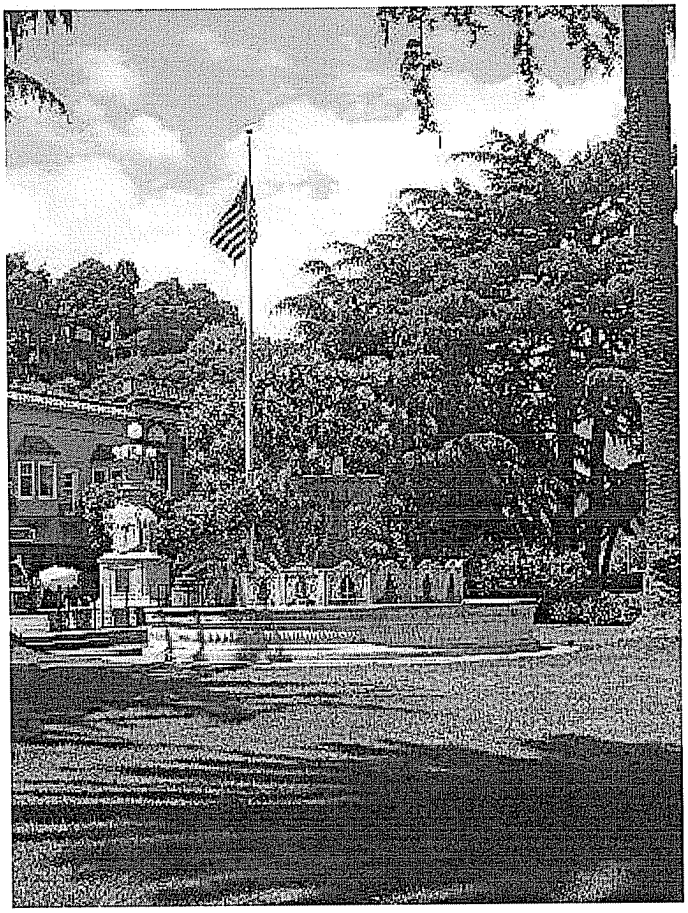
City of Sausalito
Emergency Operations Plan (EOP)



JUNE 2009

Prepared by Sergeant William R. Fraass
Sausalito Police Department

TABLE OF CONTENTS

PART ONE - GENERAL INFORMATION

PART TWO - THREAT SUMMARY AND ASSESSMENTS

PART THREE –REFERENCES AND ACRONYMS

PART ONE

GENERAL INFORMATION

THE PLAN

The City of Sausalito Emergency Operations Plan (EOP) addresses the planned response to extraordinary emergency situations associated with disasters affecting Sausalito. The plan also addresses integration and coordination with other governmental agencies when required. This plan is not intended to address the normal day-to-day emergency or well-established emergency procedures.

This plan accomplishes the following:

- Establishes the emergency management organization required to mitigate any significant emergency or disaster affecting Sausalito
- Establishes the overall operational concepts associated with Sausalito's Emergency Operations Center (EOC) activities and the recovery process

This plan is based on the functions and principles of the California Standardized Emergency Management System (SEMS), the National Incident Management System (NIMS), and the California Incident Command System (ICS). It identifies how the Sausalito emergency operational system fits into the overall California and National risk-based, all-hazard emergency response and recovery operations plan.

This document serves as a planning reference and as a basis for effective response to any hazard that threatens Sausalito. Departments within the City of Sausalito and other agencies that have roles and responsibilities identified by this plan are encouraged to develop plans, detailed Standard Operating Procedures (SOPs), and emergency response checklists based on the provisions of this plan.

This document serves as the legal and conceptual framework for emergency management in the City of Sausalito and is divided into the following parts:

Part 1 – General Information
The "basic plan" which describes the emergency management organization, its roles, responsibilities, and operational concepts

Part 2 – Threat Summaries and Assessments
A general description of the City of Sausalito and a brief analysis of how hazards might affect the City of Sausalito.

Part 3 – References
EOP Annexes, Authorities and References, Acronyms.

Emergency Operations Plan Requirements

The City of Sausalito EOP requires approval by City Council. The City Council is responsible for its periodic review, updates, re-publishing and re-distribution. Records of revision to this plan will be maintained by the Emergency Services Manager for the City of Sausalito. The plan may be modified as a result of post-incident analyses and/or post-exercise critiques. It may be modified if responsibilities, procedures, laws, rules, or regulations pertaining to emergency management and operations change. Those agencies or departments having assigned responsibilities under this plan are obligated to inform Emergency Services Manager when changes need to be made.

Other federal, state, county, and local agencies and organizations may separately publish documents that support this EOP. These supporting references further describe the operation or functional response to specific threats or specific emergency response disciplines. Additionally, they contain checklists and other resource material designed to provide users with the basic considerations and actions necessary for effective emergency response for the specific hazard or function. Sausalito EOC is responsible for managing plans and documents that support and carry out the concepts and policies outlined in the EOP. This ensures compatibility with the EOP and supports enhanced coordination among the jurisdictions. These documents fall into three categories:

Operational Area EOP Annexes

Functional annexes to the EOP which provide detailed guidance on managing response and recovery operations in relation to specific threats or critical activities, such as Care and Shelter, Post-Disaster Housing, Spontaneous Volunteers, Bio-terrorism, Vulnerable/Special needs Populations and Mental Health.

Supporting Plans

Other supporting plans addressing response procedures that span more than one jurisdiction or discipline, such as Homeland Security Threat Level Red, Anthrax, and Weapons of Mass Destruction.

Supporting Documents

Additional supporting documents that outline specific procedures or serve as resources to individual agencies or organizations.

EMERGENCY OPERATIONS PLANS AND DOCUMENTS

Documents used to guide response to major emergencies and disasters are categorized by audience and scope. The following diagram illustrates how many such documents may be organized. This is not an all-inclusive list.

PURPOSE/OBJECTIVES/GOALS/ASSUMPTIONS

Purpose

This EOP establishes policies and procedures and assigns responsibilities to ensure the effective management of emergency operations within the City of Sausalito. It provides information on the City of Sausalito's emergency management structure and how and when the EOC staff is activated.

Objectives

The overall objective of emergency management is to ensure the effective management of response forces and resources in preparing for and responding to situations associated with natural disasters, technological incidents and national security emergencies. To carry out its responsibilities, the emergency management organization will accomplish the following objectives during a disaster/emergency:

- Maintain overall coordination of emergency response and recovery operations, including on-scene incident management as required
- Coordinate and liaise with appropriate other local government agencies, as well as applicable segments of private sector entities and volunteer agencies
- Establish priorities and resolve conflicting demands for support
- Prepare and disseminate emergency public information to alert, warn, and inform the public
- Disseminate damage information and other essential data

Goals

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

Assumptions

- The City of Sausalito is primarily responsible for emergency actions and will commit all available resources to save lives, minimize injury to persons, and minimize damage to property and the environment
- The City of Sausalito will utilize SEMS and NIMS in emergency response and management operations
- The Director of Emergency Services will coordinate the City's disaster response in conformance with its Emergency Organization and Functions as per Sausalito Municipal Code, Chapter 2.44.

- The resources of the City of Sausalito will be made available to local agencies and citizens to cope with disasters affecting this area
- The City of Sausalito 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 Sausalito's ability to meet them

CONCEPT OF OPERATIONS

The emergency management organization in the City of Sausalito will identify potential threats to life, property and the environment, and develop plans and procedures to protect those assets. These plans and procedures will direct emergency response and recovery activities and will be validated by the conduct of actual response or exercising. The goal is to maintain a robust emergency management organization with strong collaborative ties with other local government, community-based organizations and volunteers, public service agencies, and the private sector under SEMS/NIMS.

Actions are often categorized by four emergency management phases indicated below. However, not every disaster necessarily includes all indicated phases.

1. Preparedness Phase

The preparedness phase involves activities taken in advance of an emergency. These activities develop operational capabilities and effective responses to a disaster. Preventative actions might include mitigation activities, emergency/disaster planning, training, exercises and public education. Members of the emergency management organization should prepare Standard Operating Procedures (SOPs), Emergency Operating Procedures (EOPs), and checklists detailing personnel assignments, policies, notification rosters, and resource lists. Personnel should be acquainted with these SOPs, EOPs and checklists through periodic training in the activation and execution procedures.

Training and Exercising

The City of Sausalito will inform its departments of training opportunities associated with emergency management. Those with responsibilities under this plan must ensure their personnel are properly trained to carry out these responsibilities.

The best method of training emergency responders is through exercises. Exercises allow emergency responders to become familiar with the procedures, facilities and systems that they will actually use in emergency situations.

Exercises will be conducted on a regular basis to maintain readiness. Exercises should include the City Council, all members of the City's EOC (City Management Team), and outside organizations (Sausalito V.I.P.S, C.E.R.T, RACES, etc.) The Emergency Services Manager will document exercises by conducting a critique, and using the information obtained from the critique to complete an After Action Report (AAR) and to develop a Corrective Action Plan (CAP) plan, revising standard operating procedures as necessary.

2. Response Phase

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

- Alerting necessary agencies, placing critical resources and personnel on stand-by
- Evacuation of threatened populations to safe areas
- Advising threatened populations of the emergency and apprising them of safety measures to be implemented
- Identifying the need for mutual aid
- Proclamation of a Local Emergency by local authorities

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

Sustained Emergency
In addition to continuing life and property protection operations, mass care, relocation, public information, situation analysis, status and damage assessment operations will be initiated.

3. Recovery Phase

At the onset of an emergency, actions are taken to enhance the effectiveness of recovery operations. Recovery is both short-term activities intended to return vital life-support systems to operation, and long-term activities designed to return infrastructure systems to pre-disaster conditions. Recovery also includes cost recovery activities.

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

- Reinstatement of family and individuals' autonomy
- Provision of essential public services
- Permanent restoration of private and public property
- Identification of residual hazards
- Plans to mitigate future hazards
- Recovery of costs associated with response and recovery efforts
- Coordination of state and federal, private and public assistance

As the immediate threat to life, property and the environment subsides, the rebuilding of Sausalito will begin through various recovery activities. Recovery activities involve the restoration of services to the public and rebuilding the affected area(s). Examples of recovery activities include:

- Restoring all utilities
- Establishing and staffing Local Assistance Centers and Disaster Assistance Centers
- Applying for appropriate assistance programs
- Conducting hazard mitigation analysis
- Identifying residual hazards
- Determining recovery costs associated with response and recovery

4. Prevention/Mitigation Phase

Preventing damage and losses from disaster includes those efforts known as mitigation activities. Mitigation efforts occur both before and following disastrous events. Post-disaster mitigation is part of the recovery process. Preventing, eliminating or reducing the impact of hazards that exist within The City of Sausalito and are a threat to life and property are part of the mitigation efforts. Mitigation tools include:

- Local ordinances and statutes (zoning ordinance, building codes and enforcement, etc.)
- Structural measures
- Tax levee
- Public information and community relations
- Land use planning

EMERGENCY MANAGEMENT ORGANIZATION & RESPONSIBILITIES

DIRECTOR OF EMERGENCY SERVICES

The SMC, Chapter 2.44, Section 2.44.050 established the office of Director of Emergency Services and assigns the City Manager to perform this role.

The Director of Emergency Services is supported by the City of Sausalito EOC and has overall responsibility for the following:

- Organizing, staffing and operating the EOC
- Operating communications and warning systems
- Providing information and guidance to the public and elected officials
- Maintaining information on the status of resources, services, and operations
- Directing overall operations
- Identifying and analyzing potential hazards and recommending appropriate counter-measures
- Collecting, evaluating and disseminating damage assessment and other essential information

Sausalito Disaster Council and Committee

In accordance with the California Emergency Services Act, the Sausalito Disaster Council was accredited by the State of California Emergency Council on September 12, 1950.

The Council is comprised of the Mayor- Chair, Director of Emergency Services (City Manager) – Vice Chair, Emergency Chiefs (Department Managers) and such representatives of civic, business, labor, veterans, professional or other organizations having an official emergency responsibility, as may be appointed by the Director with the advice and consent of the City Council

The Disaster Council is responsible for the following:

- Develop and adopt the City's emergency plan
- Organization of emergency services
- Mutual aid plans and agreements
- Any other emergency management-related rules and regulations.

The Sausalito Disaster Committee was established by Resolution of the City Council in February 1991.

The Committee is comprised of five citizen members appointed by the City Council, the U.S. Army Corps of Engineers Bay Model Visitor's Center's Manager (or designee), City Manager, Fire Chief, Police Chief, Public Works Director, Finance Director, and Disaster Preparedness Coordinator. Two members of the City Council are designated as liaisons to the committee.

The Disaster Committee is responsible for:

- Reviewing and recommending to the City Council changes to the emergency plan or disaster preparedness program.
- Encourage citizen education in disaster preparedness and participation in preparedness activities.

Emergency Services Manager

The Emergency Services Manger provides training to the members of the EOC, prepares emergency training exercises and emergency operational plans, coordinates the City's training with other local, state, and federal agencies, disseminates intelligence information from Federal and State sources, as well as equipping the Emergency Operations Center.

Marin County Operational Area Emergency Management

When a disaster occurs and two or more of the county's local jurisdictions' EOCs (or at the request of one local jurisdiction) within the Marin County Operational Area (OA) are activated, the Operational Area EOC serves as the focal point for information transfer and supports requests by cities/towns such as Sausalito.

SEMS and NIMS

Standardized Emergency Management System (SEMS)

After the 1991 Oakland East Bay Hills Fire, State Senator Petris passed the Senate Bill 1841 (SB1841) introducing the Standardized Emergency Management System (SEMS). Since 1994 SEMS has been required by Government Code Section 8607(a) for managing response to multi-agency and multi-jurisdiction emergencies in California. SEMS consists of five organizational levels that are activated as necessary: field response, local government, operational area, regional and state.

SEMS has been used throughout the State of California to manage and coordinate any emergency response involving more than one agency or jurisdiction. Local governments must use SEMS to be eligible for reimbursement of their personnel-related costs under state disaster assistance programs. A local government under SEMS is a county, city/town, or special district. Special districts under SEMS are units of local government with authority or responsibility to own, operate or maintain a project (as defined in California Code of Regulations 2900(s) for purposes of natural disaster assistance). This may include joint powers authority established under Section 6500 et seq. of the Code.

Cities/towns are responsible for emergency response within their boundaries, although some cities contract for some municipal services from other agencies.

Special districts are primarily responsible during emergencies for restoration of services that they normally provide. They may also be responsible for safety of people at their facilities or on their property and for warning of hazards from their facilities or operations.

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

National Incident Management System (NIMS)

In response to the September 11th 2001 attacks on the World Trade Center in New York City, the Pentagon and Flight 93, President Bush issued Homeland Security Presidential Directive-5 (HSPD-5). Released on February 28, 2003, HSPD-5 directed the Secretary of the Office of Homeland Security (OHS) to develop and administer a National Incident Management System (NIMS). NIMS include the following components:

- Command and Management, including the Incident Command System (ICS)
- Communications and Information Management
- Preparedness
- Resource Management
- Supporting Technologies
- Joint Information System (JIS)
- NIMS Management and Maintenance

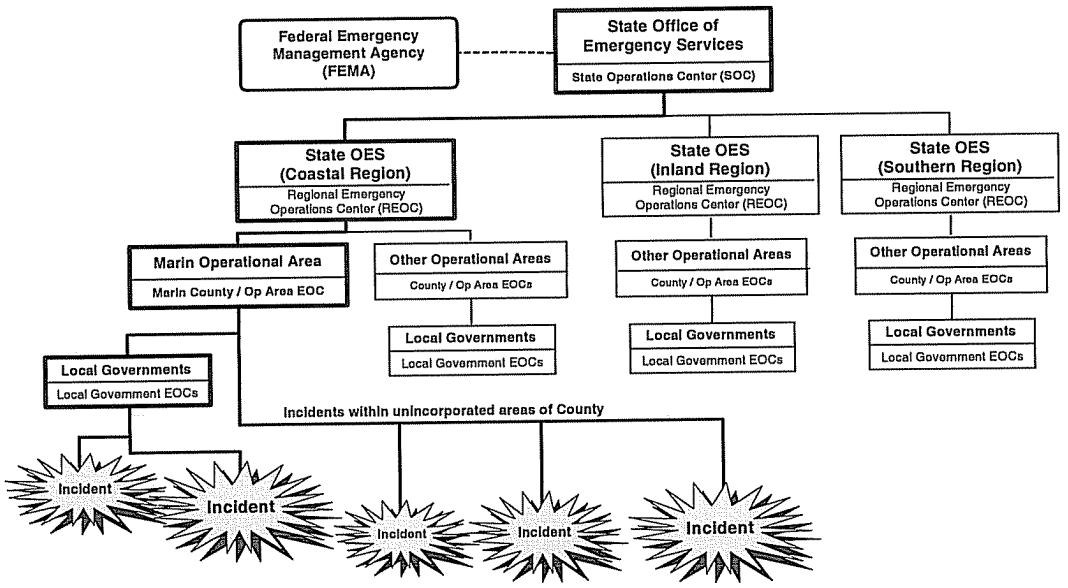
Relationship to SEMS and NIMS:

The City of Sausalito is responsible for emergency response within its geographical boundaries. The California Emergency Services Act requires operational areas (OAs) to manage and coordinate emergency operations within its jurisdiction. During disasters, the Sausalito OA is required to coordinate emergency operations with Marin OES and, in some instances Federal, State, or other OA local governments

Under SEMS and NIMS, the City of Sausalito has responsibilities at two levels: The Field Response and the Local Government level.

At the field response level, all agencies will use the Incident Command System (ICS) to standardize the emergency response.

At the City level, the designated EOC is used as the central location for gathering and disseminating information, coordinating all jurisdictional emergency operations, and coordinating with the Marin County Office of Emergency Services (OES) and the Marin County Operational Area EOC level during events outside the scope of the City of Sausalito.



Organization Flexibility – Modular Organization

The five essential ICS functions in SEMS and NIMS are identified as "sections" in the EOC. All other functions are organized as branches, groups or units within these sections. Only functional elements that are required to meet current objectives will be activated.

Management of Personnel - Hierarchy of Command and Span-of-Control

Management of personnel within the EOC will be accomplished through the assignment of Section Chiefs for Operations, Planning/Intelligence, Logistics, and Finance/Administration functions. Section Chiefs will report to the EOC Director

Multi-Agency or Inter-Agency Coordination

Multi-agency or inter-agency coordination is important for establishing priorities for response and allocating critical resources. Strategies for handling multi-agency response problems need to be developed while jurisdictional and agencies' objectives are not compromised. City of Sausalito departments, agencies and possibly affiliated special districts, volunteer agencies and private organizations coordinate emergency response at the EOC. The Sausalito EOC functions as a Multi-Agency Coordination Center (MACC) for most disaster incidents and will facilitate liaisons from local, state, and federal agencies as needed. Coordination with agencies not represented in the EOC may be accomplished via various communications systems such as telephone, fax, radio, and computer networks.

EOC Action Plans

At local, operational area, regional and state levels, the use of EOC action plans provide designated personnel with knowledge of the objectives to be attained and the steps required for achievement. Action plans give direction and provide a basis for measuring achievement of objectives and overall system performance.

Special District Involvement

Special districts are defined as local governments in SEMS/NIMS. The emergency response role of special districts is generally focused on the return to normal services. During disasters, some types of special districts may be more extensively involved in the emergency response by assisting other local governments when the disaster extends beyond the City of Sausalito.

Coordination and communications should be established among special districts that are involved in emergency response, other local governments and the operational area. This may be accomplished in various ways depending on the local situation. Relationships among special districts, cities/towns, county government and the OA 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 communication in emergencies.

When a special district is wholly contained within the city/town, the special district should have a liaison at the city/town EOC to provide direct support. An exception may occur when there are many special districts within the city/town

When there are many special districts within a city/town, it may not be feasible for their EOC to accommodate representatives from all special districts during area-wide disasters. In such cases, the city/town should work with the special districts to develop alternate ways of establishing coordination and communication.

Some of the special districts within the Sausalito's OA are the Marin Municipal Water District, Pacific Gas and Electric, Sausalito/Marin City Sanitary District, and the Golden Gate Transit.

MUTUAL AID

Introduction

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

The Sausalito Police Department and Southern Marin Fire Department will make requests for mutual aid directly to their respective Operational Area Mutual Aid Coordinator. Requests for all other mutual aid resources (e.g., ambulances, building inspectors, engineers, generators, etc.) will be made to the Marin Op Area EOC, following approval by the Sausalito EOC Director.

If unable to fill requests utilizing local resources, the Marin Op Area EOC will coordinate mutual aid requests on behalf of Operational Area member jurisdictions with the State OES Coastal Region Emergency Operations Center.

Mutual Aid agreements exist in:

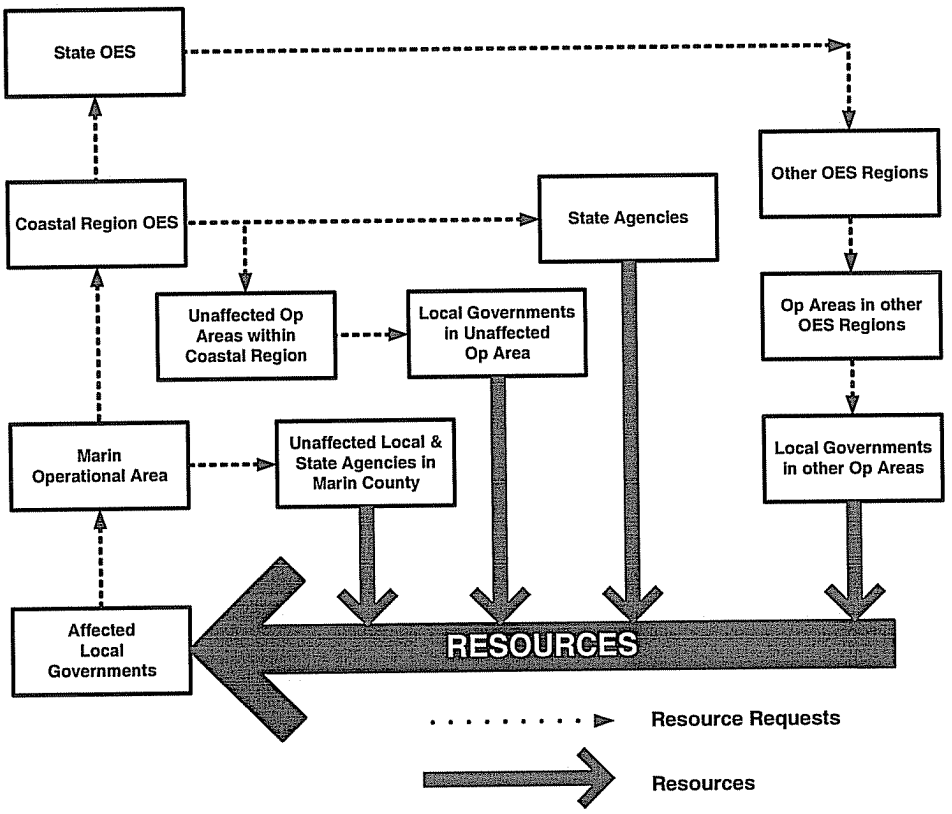
- Law Enforcement
- Fire and Rescue Services
- Medical
- Public Utilities
- Public Health
- Hazardous Materials
- Engineers
- Coroners

Mutual Aid System

A statewide mutual aid system, operating within the framework of the Master Mutual Aid Agreement, allows for the progressive mobilization of resources to and from emergency response agencies, local governments, operational areas, regions and state with the intent to provide requesting agencies with adequate resources.

The statewide mutual aid system includes several discipline-specific mutual aid systems, such as fire and rescue, law, medical and public works. The adoption of SEMS does not alter existing mutual aid systems. These systems work through local government, operational area, regional and state levels consistent with SEMS/NIMS and the Incident Command System (ICS) **(Figure below)**. Mutual aid may also be obtained from other states. Interstate mutual aid may be obtained through direct state-to-state contacts, pursuant to interstate agreements and compacts, or may be coordinated through federal agencies.

Mutual Aid/Flow of Resource Requests (SEMS/NIMS/ICS)



Mutual Aid Coordinators

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

Mutual aid requests that do not fall into one of the discipline-specific mutual aid systems are handled through the emergency services mutual aid system by emergency management staff at the local government, operational area, regional and state levels.

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

Volunteer and Private Agencies in Mutual Aid

Volunteer and private agencies may participate in the mutual aid system along with governmental agencies. For example, the disaster medical mutual aid system relies heavily on private sector involvement for medical/health resources. Some volunteer agencies such as the American Red Cross, Salvation Army and others are an essential element of the statewide emergency response to meet the needs of disaster victims. Volunteer agencies mobilize volunteers and other resources through their own systems. They also may identify resource needs that are not met within their own systems that would be requested through the mutual aid system. Volunteer agencies with extensive involvement in the emergency response should be represented in EOCs.

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

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

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

Following a major disaster, the Marin County Sheriff's OES can assist local governments with reimbursement procedures for response-related costs.

VOLUNTEER RESOURCES

In response to disaster, management of resources requires integration of material, as well as personnel, into the existing Emergency Management System of the City of Sausalito. Volunteer groups trained in emergency response can greatly enhance and supplement emergency response personnel. Jobs for all personnel assigned to emergency response must be trained, equipped, and aligned with a qualified organization. Spontaneous volunteers, when trained and managed appropriately, can provide valuable resources to the community.

Radio Amateur Civil Emergency Service (RACES)

Radio Amateur Civil Emergency Services (RACES) volunteer radio operators supplement the City's emergency communications using personal, portable, amateur radio equipment. For the most part, each of the City's RACES volunteers lives in or around Sausalito and most, if not all, are also members of the Marin County RACES group. Each City RACES volunteer is registered as a Disaster Service Worker with the City or Marin County.

At the time of a disaster, a volunteer RACES Coordinator reports to the City EOC with a portable RACES radio. The City maintains a RACES radio base station in the Sausalito Police Department Volunteers in Public Safety Office.

The RACES Coordinator checks on the availability of other RACES volunteers to undertake an emergency assignment via the amateur radio net. The Coordinator assigns the available amateur radio operators, as directed by the EOC Director or the Operations Section Chief. The volunteers report to the assigned location to provide a communication link back to the coordinator in the EOC.

Marin Medical Reserve Corps (MMRC)

Marin County's Health and Human Services Division has created the Marin Medical Reserve Corps (MMRC) which enlists citizen volunteers to assist in the establishment of an organized pool of resources capable of being deployed to support Emergency Management Systems already in place in the event of a major disaster. MMRC has developed a partnership within the Marin County medical profession (active and retired) that aid in the education, training and deployment of citizen volunteers and resources in the event of a large scale, local emergency. MMRC will serve as a support role in providing volunteer medical professionals and resources to augment those services in the community that are engaged in the health and welfare of the citizenry.

The MMRC volunteers would provide services following catastrophic events in which the Southern Marin Fire Department is overwhelmed with requests for emergency medical services and/or when access to parts of the City is blocked by flooding or debris. MMRC volunteers have access to the City's caches of disaster medical supplies, as well as a written agreement with a local pharmacy to provide medications and medical supplies, if necessary at the time of an emergency.

Community Emergency Response Team (CERT)

Following a major disaster, first responders who provide fire and medical services will not be able to meet the demand for these services. Factors as number of victims, communication failures, and road blockages will prevent people from accessing emergency services they have come to expect at a moment's notice through 911. The CERT program in Sausalito presents citizens training with the facts about what to expect following a major disaster and also in life saving skills with emphasis on decision-

making skills and rescuer safety. It organizes teams so that certified CERT members are an extension of first responder services offering immediate help to victims until professional services arrive.

CERT includes education topics such as earthquake survival, fire prevention and suppression, search and rescue, disaster first aid, and general emergency preparedness. CERT courses and information on organizing neighborhood teams is available at Southern Marin Fire District stations. Upon completion of the CERT training, CERT volunteers are registered as Disaster Service Workers.

The City of Sausalito has been divided into four geographic CERT divisions: 1A, 1B, 1C, and 1D. Each division has a designated volunteer Team Supervisor who serves as a coordination and communication link between the district CERT members and City Staff.

VOLUNTEERS IN PUBLIC SAFETY (VIPS)

The Sausalito Police Department's Volunteers in Public Safety (VIPS) are drawn from members of the community. These volunteers attend the Citizen's Police Academy training class and attend month training sessions that cover a wide variety of topics. The VIPS assist the Sausalito Police Department with numerous duties, including delivery of court documents, administrative support, conducting safety related surveys, assisting in safety programs, providing traffic control, and assisting in security at special events.

Unlike CERT and MRC volunteers who are activated during emergencies only, the VIPS provide day to day support to the Sausalito Police Department. At the time of a disaster, the Sausalito Police Department may assign VIPS members to perform emergency duties, consequently, they, too are required to be registered with the City as Disaster Service Workers.

Get Ready Disaster Preparedness Program

The Get Ready Program was developed by the Tiburon Peninsula Disaster Preparedness Taskforce and is now available for all residents of Marin County. This two hour program is outlined by the Federal Emergency Management Agency to teach citizens what to do when help is unavailable during emergencies and disasters.

Other Volunteers

There are additional volunteer groups who can contribute significantly during disaster times. Volunteers may be called upon for their specialized training and professional skills in some of the following areas:

- Red Cross
- Architects
- Building Inspectors
- Construction Workers
- Demoltion

CITY OF SAUSALITO EMERGENCY OPERATIONS CENTER (EOC)

Introduction

Day-to-day operations are conducted from departments and agencies that are widely dispersed throughout the City of Sausalito. An EOC is a location from which centralized emergency management can be performed during a major emergency or disaster. This facilitates a coordinated response by the Director of Emergency Services, Emergency Management Staff and representatives from organizations who are assigned emergency management responsibilities. The level of EOC staffing will vary with the specific emergency situation.

An EOC provides a central location of authority and information. It allows for face-to-face coordination among personnel who must make emergency decisions. The following functions are performed in the City of Sausalito's EOC:

- Managing and coordinating emergency operations
- Receiving and disseminating warning information
- Developing emergency policies and procedures
- Collecting intelligence from, and disseminating information to, the various EOC representatives, and, as appropriate, to county, other cities/towns, special districts, and political representatives
- Preparing intelligence/information summaries, situation reports, operational reports, and other reports as required
- Maintaining general and specific maps, information display boards, and other data pertaining to emergency operations
- Continuing analysis and evaluation of all data pertaining to emergency operations
- Directing, controlling and coordinating, within established policy, the operational and logistical support of Sausalito's resources committed to the emergency
- Maintaining contact and coordination with support to Disaster Operations Centers, other local government EOCs, and the Marin County Operational Area EOC
- Providing emergency information and instructions to the public, making official releases to the news media and the scheduling of press conferences as necessary

EOC Location and Description

The City of Sausalito's EOC is located in the Edgewater Senior Center at City Hall, 420 Litho Street.

The EOC is well supplied with documents, television capabilities, telephone lines, fax lines, and other means of communication and serves as a place for the collection and dissemination of information. Status boards are available in the EOC for the collection and dissemination of information. Staffing pattern is SEMS based, and operational periods are determined during the initial stages of an event.

Alternate EOC Location and Description

The alternate EOC location for the City of Sausalito is located at the Sausalito Police Department, 300 Locust Street.

This alternate EOC is well supplied with documents, television, telephone lines, fax lines, and other means of communication and serves as a place for the collection and dissemination of information. Status boars are available in the EOC for the collection and dissemination of information.

The alternate EOC will be **used temporarily** if City Hall can not be occupied.

When to Activate the EOC:

- A significant earthquake causing damage in the City of Sausalito.
- Heavy or continuous rain is expected to result in flooding.
- An impending or declared "State of War Emergency".
- An emergency situation has occurred or is likely to occur, which will require a large commitment of City resources over an extended period of time. Examples include a major hazardous materials incident, civil disturbance, aircraft disaster, wild land fire, or severe weather conditions.

Who Can Activate the EOC:

The decision to partially or fully activate the City EOC will be made by the Director of Emergency Services who will notify the Council of the activation. Activation will be automatic when a major earthquake has obviously occurred and resulted in damage in the City. Department SOPs will specify automatic actions to be taken following a sign

How to Activate the EOC:

- Department Managers are responsible for notifying the Director of Emergency Services (City Manager) when a major incident occurs.
- If the Director of Emergency Services activates the EOC, he/she will determine the location where the EOC will be established and the extent to which the EOC is to be activated.
- The Director of Emergency Services can notify or direct staff to notify EOC staff of the activation. Marin County Communications also has a list of Sausalito EOC staff and can make the first initial notifications as time and other emergency calls for service allows.
- The first staff person arriving at EOC completes the rooms set up in accordance with the layout schematic and checklist contained in the portable EOC file at City Hall.

Initial EOC Activities

The first person reporting to the EOC will implement the following initial activities until relieved by the EOC Director or more senior EOC staff.

- Initiate a function log and record all activities, including date and time for each.
- Establish contact with field Incident Commander(s) (ICs) and gather updates on the situation:
    1. Scope of the event;
    2. Immediate support needs for affected population; and
    3. Additional response units/agencies required.
- Brief incoming EOC staff.
- Make additional notifications, as required by situation, or as directed by ICs.
- Record major events and initial resources deployed on status boards.
- Brief Director of Emergency Services on situation and initial activities implemented.
- Assume assigned EOC function and implement activities on Emergency Action Checklist.

Sausalito EOC Activation Levels Examples

Trigger Event/Situation	Activation Level	**Staffing**	**Activities**
Severe Weather Watch	Stand-By	None Limited to office or other location.	None EOC is configured; all systems ready.
Severe Weather or Tsunami Warning Significant incidents involving two or more cities Earthquake Advisory Level I	Minimal	EOC Director Liaison Officer PIO Section Chiefs Law, Fire, Medical/Health, Situation Analysis, Personnel, Supply, Communications, IT Support	Situation analysis Public Information Response coordination Resource coordination Liaison Logistics support Financial support
Severe Weather or Tsunami Warning Earthquake with substantial damage reported Earthquake Advisory Level II or III Major wind or rain storm with damage Two or more large incidents involving two or more cities Wildfire affecting developed area Major scheduled event Incident involving large-scale or possible large-scale evacuations	Partial	All Minimal Level staff plus: Branches and Units as appropriate to situation Liaison/Agency reps as appropriate	Situation analysis Public Information Response coordination Resource coordination Liaison Logistics support Financial support
Major city or regional emergency - multiple areas with heavy resource involvement Earthquake with severe damage	Full	All positions Liaison/Agency reps as Appropriate	Situation analysis Response coordination Resource coordination Logistics support Public Information Sustained Operations

Status Boards

Because the EOC's major purpose is accumulating and sharing information to ensure coordinated and timely emergency response, status boards for tracking emergency activities will be made available for use in both the primary and alternate EOCs. All EOC sections must maintain display devices so that other sections can quickly comprehend what actions have been taken, what resources are available, and to track damage in the City of Sausalito. The Planning/Intelligence Section is responsible for coordinating the display of information. All display charts, boards, and materials are stored in the EOC.

At the onset of any disaster, a log will also be compiled for the duration of the emergency situation. Key disaster related information will be recorded in the log; e.g., casualty information, health concerns, property damage, fire status, size of risk area, scope of the hazard to the public, number of evacuees, etc. The posting of the log is the responsibility of the Planning/Intelligence Section staff.

Communications

Communications are provided for in the EOC by the Logistics Section and include:

TENS- County-wide computerized telephone notification system.

Sausalito Emergency Broadcast System-Emergency messages can be broadcast using this system throughout Sausalito over Radio Sausalito (1610 AM) every 10 minutes for a 2 hour period.

ALERT Marin/MEANS- Alert notification systems that allows officials to immediately notify/alert Marin County residents of emergencies by e-mail, cell phone, pager, and PDA.

MERA- Marin Emergency Radio Authority voice radio system

Marin County Sheriff's Communications-Computer Aided Dispatch (CAD) responsible for fire, law, medical and local government frequencies.

RACES- County-wide organization of over 120 amateur radio operators.

Website/Twitter- The City's website and the police department's Twitter account can be used to notify citizens of and/or keep them apprised of any emergencies, disasters, or important occurrences in the City.

EOC E-mail- City EOC members can be notified of EOC activations via e-mail or text messages to their cellular phones or PDA.

Additional communication assets could be provided from organizations such as CHP, CalTrans, etc.

EOC Coordination with Volunteer and Private Agencies

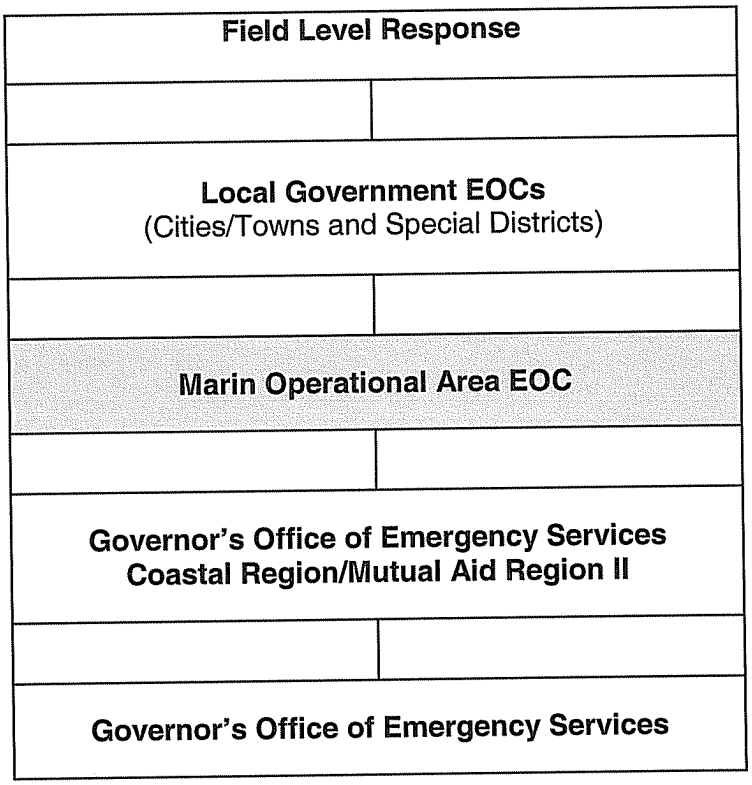
Local jurisdictions' EOCs will generally be a focal point for coordination of response activities with many non-governmental agencies and should establish communication with private and volunteer agencies providing services within their jurisdiction.

Agencies that play key roles in the response should have representatives in the EOC. If an agency supports several functions and has only one representative in the EOC, the agency representative should be located in the liaison area. If an agency is supporting one function only, its representative may be located with that functional element. Some agencies may have several personnel participating in functional elements in the EOC. For example, American Red Cross (ARC) personnel may be part of the staffing for the Care and Shelter element of the EOC.

During large events, agencies that have countywide response roles and cannot respond to numerous local jurisdictions' EOCs should be represented at the OA level.

Coordination with volunteer and private agencies that do not have representatives at the EOC may be accomplished through telecommunications, liaison with community councils that represent several agencies or involvement of agencies in special multi-agency groups on specific issues.

City of Sausalito Coordination Links



Emergency Operations Center (EOC) Management Structure

SEMS regulations require local governments to provide five functions: management, operations, planning/intelligence, logistics and finance/administration. These functions are the basis for structuring the EOC organization

Management - Responsible for overall emergency policy and coordination through the joint efforts of governmental agencies and private organizations

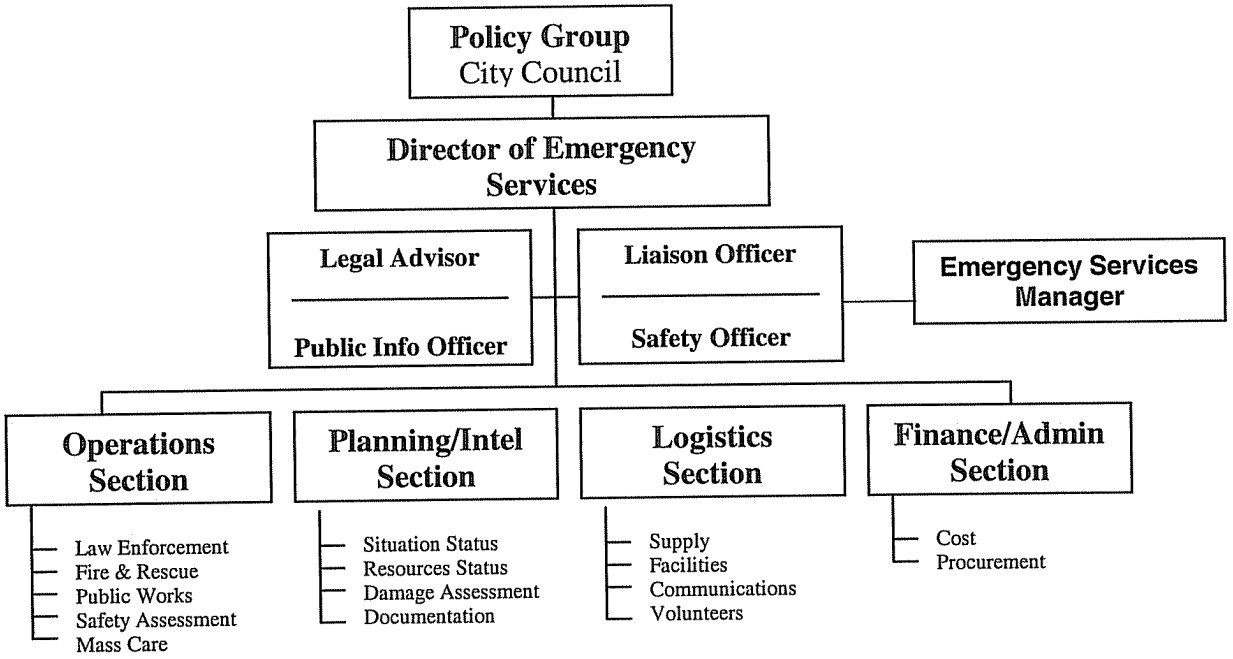
Operations - Responsible for coordinating all jurisdictional operations in support of emergency response through implementation of the local government's EOC Action Plan

Planning/Intelligence - Responsible for collecting, evaluating and disseminating information; assist in developing the County OA's EOC Action Plan, After Action Report, and Corrective Action Report, in coordination with the EOC Emergency Services Coordinator

Logistics - Responsible for supporting operations, providing facilities, services, personnel, equipment and materials

Finance/Administration - Responsible for financial activities and other administrative aspects.

The EOC organization may include representatives from special districts, volunteer agencies, and private agencies with significant response roles.



Function *	Staff Assigned
Management Section	City Manger
EOC Director	City Manager
Legal Advisor	City Attorney
Public Information Officer	Police Lieutenant Alternative PIO- Assistant to City Manager
Liaison Officer	Assistant to City Manager
Safety Officer	Chief of Police
Emergency Services Manager	Designee of City Manager
Operations Section Chief	Chief of Police
Law Enforcement	Police Captain
Fire & Rescue	Fire Chief
Public Works	Public Works Director
Safety Assessment	City Engineer
Mass Care	Recreation Director
Planning/Intelligence Section Chief	Community Development Director
Situation Status	Human Resources Technician
Resource Status	Human Resources Technician
Damage Assessment	City Engineer
Documentation	Community Development Director
Logistics Section Chief	Public Works Director
Supply	Public Works Director
Facilities	Recreation Director
Communications	Technology Manager
Volunteers	Library Director
Finance/Administration Section Chief	Finance Director
Cost	Finance Director
Procurement	Finance Director

EOC POSITION DESCRIPTIONS AND RESPONSIBILITIES

Policy Group

The Policy Group is responsible for ensuring that all available City resources are deployed, as necessary, to address the economic, social and political impacts of an emergency.

The Policy Group is comprised of:

- City Council
- Director of Emergency Services
- City Attorney

Management Section

The Management Section is responsible for overall management and administration of the incident. Management also includes certain support staff functions required to support the EOC Management function and the field command function.

When fully activated, the Management Section includes the following functions:

- Director of Emergency Services
- Public Information Officer
- Liaison Officer
- Safety Officer
- Legal Advisor
- Emergency Services Manager
- Special district's representatives

Director of Emergency Services – The Director is responsible for Sausalito's response and recovery from any disaster or emergency. The Director provides input and guidance to the EOC section chiefs, confers with the City Council, and may elevate policy issues to city, county, state, and federally elected officials. The Director of Emergency Services approves the overall strategy direction of the emergency response including requesting mutual aid.

Public Information Officer – The Public Information Officer (PIO) acts under the direction of the Director of Emergency Services and coordinates city information activates. The PIO is the information resource and contact for elected officials and also ensures that the media and citizens are fully informed on all aspects of the emergency or disaster. The PIO also is responsible for the monitoring external reports from broadcasts on commercial radio and television.

Liaison Officer – When an incident has a multi-agency or multi-jurisdictional response, the Liaison Officer proves and maintains coordination with outside agency representatives, other operation area jurisdictions, other EOC's, OES, political representatives, and other community groups. The Liaison Officer makes external/internal notifications as indicated by the situation or as directed by the Director of Emergency Services and confers with the PIO on major notifications.

Safety Officer – The Safety Officer acts as an advisor to the Director of Emergency Services. He/she watches over all aspects of the emergency organization to ensure the safety of all personnel. The Safety Officer is responsible for correction unsafe operations and for working will all sections to protect the safety of all emergency services workers in the EOC.

Legal Advisor – The Legal Officer provides advice to the Director of Emergency Services in all legal matters relating to the emergency. The Legal Officer assists the Director of Emergency Services and the City Council in declaring a local emergency and implementation of emergency powers as well as preparing Local Emergency Proclamations.

Emergency Services Manager – During EOC activations, the Emergency Services Manager serves as an advisor to EOC staff and in other roles at the discretion of the Director of Emergency Services.

Operations Section

The Operations Section is under the supervision of the Operations Section Chief who is in charge of all functions within the Operations Section. The Operations Section directs the City of Sausalito's operational resources and coordinates mutual aid resources. In addition, the Operations Section is responsible for coordinating with the County field incident commanders. The following branches are in the Operations Section. Various branches can be added as needed.

- Law Enforcement Branch
- Fire and Rescue Branch
- Public Works Branch
- Safety Assessment Branch
- Mass Care Coordination

Operations Section Chief – The Operations Section Chief is in charge of all groups in the Operations Section and reports directly to the Director of Emergency Services. The Operations Section Chief coordinates the efforts of all groups in his section and negotiates conflicts between the groups. The Operations Section Chief assists in the development and execution of the Action Plan. The Operations Section Chief shall be advised on all requests for Mutual Aid and other resources so he can forward the requests to the appropriate section.

Law Enforcement – The Law Enforcement Branch directs the response of the Sausalito Police Department. The Law Enforcement Branch is responsible for enforcing laws/emergency ordinances, conducting traffic/crowd control, coordinating alerts/warnings to community, providing security at mass care centers, conducting light search and rescue, coordinating with other law enforcement/coroner agencies, reporting safety issues, and compiling reports and safety assessments from field units.

Fire and Rescue – The Fire and Rescue Branch directs the response activities of the Southern Marin Fire Department and mutual aid fire. This Branch is responsible for mobilizing/deploying fire resources, coordinating fire suppression and related rescue operations, coordinating heavy and urban search and rescue operations, hazardous material teams, assist in alerting/warning/notifying the community, assist in evacuations, reporting safety issues, and compiling reports and safety assessments from field units.

Public Works – The Public Works Branch directs and coordinates response to public works problems, maintains surviving utilities and services, and coordinates public works mutual aid. This Branch also assists in evaluating the safety of structures (e.g. building and bridges) and roads. Public Works will also assist other units with traffic control, search and rescue, and transportation, as needed.

Safety Assessment – The Safety Assessment Branch directs the response of internal and external sources in assessing the safety of structures within the City. This Branch is responsible for mobilizing/deploying Safe Assessment Teams (including building inspectors), evaluating the safety of buildings, documenting damage reported from the field, determining resource needs, coordinating with

Marin County Department of Public Health regarding environmental issues, and orientating incoming mutual aid resources on process of building tagging.

Mass Care – The Mass Care Branch directs and coordinates response activities in cooperation with Marin Operational Area Mass Care Staff, the American Red Cross, the Salvation Army, and other organizations active in disaster and local government jurisdictions to aid in providing Mass Care services to all those impacted by an emergency or disaster.

Planning/Intelligence Section

The Planning/Intelligence Section is under the supervision of the Planning Section Chief. The duties and responsibilities of the Planning Section are to gather and analyze all data regarding the incident and the assigned resources. The Planning Section maintains an incident log, EOC display maps, and charts. The Planning Section is also responsible for preparing situation reports, assessing damage, conducting planning meetings, documenting all EOC activities, and assisting in the preparation of the Action Plan. The following branches are established as necessary in the Planning Section:

- Situation Status
- Resource Status
- Damage Assessment
- Documentation

Planning/Intelligence Section Chief – The Planning/Intelligence Section Chief manages the Planning/Intelligence Section. The Planning/Intelligence Chief is responsible for the collection, evaluation, and dissemination of incident information. The Planning/Intelligence Chief is responsible for assisting in the development of the Action Plan and identifying any inter-agency conflicts.

Situation Status – The Situation Status Branch's primary role is to collect, collate, and process all information and intelligence including road conditions and damage assessment. This Branch is also responsible for maintaining the Master Incident Log, map displays, posting and maintaining pertinent status/damage information on EOC Status Boards, and assisting in the preparation of situation reports and EOC Action Plans.

Resource Status – The Resource Status Branch's primary role is to track resources involved in the incident. The Resource Status Branch is responsible for tracking all personnel and equipment resources assigned to an incident site or staging area, prepare/process operations-related personnel and material requests, mutual aid requests, and the status of resources, and prepare/maintain displays, charts and lists that reflect the current status and location of operational resources, including support vehicles.

Damage Assessment – The Damage Assessment Branch's primary role is to document, assess, and analyze damage within the City of Sausalito. The Damage Assessment Branch is responsible for establishing/maintaining databases and EOC status boards for damage information and damage cost estimates as well as well as assigning/mobilizing Damage Assessment Teams (DATs) comprised of appropriate engineers and other personnel to conduct detailed damage surveys. The Branch also assists in determining priorities for emergency repairs, demolition, and/or restoration.

Documentation – The Documentation Branch maintains and files all EOC messages/reports. This Branch maintains the official history of the emergency to insure complete documentation for the purpose of recovery of funds and advance planning.

Logistics Section

The Logistics Section is under the supervision of the Logistics Section Chief and provides all emergency support needs. The Logistics Section orders all resources, manages volunteer personnel, and provides communications, facilities, transportation, supplies, equipment, fuel, food, and shelter. The Logistics Section is made up of the following branches:

- Supply Branch
- Facilities Branch
- Communications Branch
- Volunteer Coordinator

Logistics Section Chief – The Logistics Section Chief ensures the logistic function is carried out in support of the City of Sausalito's EOC and is in charge of all functions within the Logistics Section.

Supply Branch – The Supply Branch oversees the procurement and allocation of supplies and material not normally provided through mutual aid channels. It coordinates delivery of supplies, maintains inventory of supplies, manages donated good programs, coordinates procurement programs with Finance/Administration Section, and tracks ordered items to ensure delivery, use and return (if a non-expendable supply).

Facilities Branch – The Facilities Branch is responsible for Identifying alternative public facilities to conduct essential government services and obtaining facilities to support emergency operations, if required or necessary. The Facilities Branch also establishes staging areas for resources, as necessary and coordinates food, water, sleeping, and sanitation facilities for emergency response and mutual aid personnel.

Communications Branch – The Communications Branch coordinates Information Technology Support, the Radio Amateur Civil Emergency Services (RACES), and provides and maintains essential communication links for the EOC, between City facilities, and with field units.

Volunteer Coordinator – The Volunteer Coordinator activates and assigns pre-registered City volunteers as necessary and establishes staging areas for convergent volunteers and assigns available City staff to register, orient and assign volunteers to assist City employees assigned to perform an emergency role.

Finance/Administration Section

The Finance/Administration Section provides for the tracking of the time worked by all emergency personnel involved in the incident, provides cost analysis and projections, and records any and all injury claims for compensation. The Finance/Administration is also responsible for the financial management of the incident, including payments or purchase orders for equipment, supplies, and services. The Finance/Administration Section is comprised of the following branches:

- Cost Branch
- Procurement Branch

Finance Section Chief – The Finance Section Chief provides supervision to members of the Finance Section and manages all financial aspects of the emergency. In addition, the Finance Section Chief manages the receipt of claims for compensation against the City.

Cost Branch – The Cost Branch is responsible for collecting all cost data, performing cost effectiveness analyses and providing cost estimates and cost saving recommendations associated with emergency responses.

Procurement Branch – The Procurement Branch is responsible for interpreting and/or executing contracts, purchase orders, and/or agreements. The Procurement Branch also coordinates equipment and supply purchases with Supply Staff in Logistics as well as processing documentation for payments.

EMERGENCY PROCLAMATIONS

Local Emergency

At the local government level an emergency may be proclaimed by the City Council upon request of the Director of Emergency Services. When the City Council is not in session, the Director of Emergency Services may issue the proclamation declaring an emergency. Whenever an emergency is proclaimed by the Director, the City Council shall take action to ratify the proclamation within seven days there after or the proclamation shall have no further force or effect.

The City Council must review the need to continue the declaration at least every fourteen (14) days until the local emergency is terminated The Director of Emergency Services shall advise the Marin County Sheriff's Office of Emergency Services (OES) of the declaration. Copies of all resolutions must be submitted to the State Office of Emergency Services (OES) and a copy of each should also be submitted to the Marin County OES, or the County EOC Director, if they are activated.

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

- 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
- Require the emergency services of any local official or employee
- Requisition necessary personnel and materials from any local department or agency
- Obtain vital supplies and equipment and, if required, immediately commandeer the same for public use
- Impose penalties for violation of lawful orders
- Conduct emergency operations without incurring legal liability for performance, or failure of performance. *Note: Article 17 of the Emergency Services Act provides for certain privileges and immunities*

The local emergency must be terminated by resolution as soon as conditions warrant.

STATE OF EMERGENCY

The Governor may proclaim a State of Emergency when:

- Conditions of disaster or extreme peril exist which threaten the safety of persons and property within the state caused by natural or man-made incidents
- The Governor is requested to do so by local authorities
- The Governor 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 Sate 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 statue or statue 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
- The Governor can request additional assistance by asking for a Presidential declaration

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. In addition, 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 in the Emergency Services Act.

CONTINUITY OF GOVERNMENT

Purpose

A major disaster or an enemy attack could result in great loss of life and property, including the death or injury of key government officials. At the same time, there could be partial or complete destruction of established seats of government, and the destruction of public and private records essential to continued operations of government and industry.

In the aftermath of a major disaster, law and order must be preserved and essential government services must be maintained. Civil government accomplishes this best. To this end, it is particularly essential that local units of government continue to function.

Applicable portions of the California Government Code and the State Constitution (cited in the next paragraphs) provide authority for the continuity and preservation of state and local government.

Responsibilities

Government at all levels is responsible for providing continuous, effective leadership and authority under all aspects of emergency services operations (preparedness, response, recovery, and mitigation). Under California's concept of mutual aid, local officials remain in control of their jurisdiction's emergency operations while others may provide additional resources upon request.

Preservation of Local Government

Article 15 of the *California Emergency Services Act* (Chapter 7 of Division 1 of Title 2 of the Government Code) provides the authority, as well as the procedures to be employed, to ensure continued functioning of political subdivisions within the State of California. Article 15 provides for the succession of officers who head departments responsible for maintaining law and order, or in furnishing public services relating to health and safety.

Article 15 also outlines procedures to ensure continued functioning of political subdivisions in the event the governing body, including standby officers, is unavailable to serve.

Lines of Succession for Officials Charged with Discharging Emergency Responsibilities

The first step in ensuring continuity of government is to have personnel who are authorized and prepared to carry out emergency actions for the government in the event of a natural, technological, or national security disaster.

Article 15, Section 8637 of the Emergency Services Act authorizes political subdivisions such as the City of Sausalito to provide for the succession of officers (department heads) having duties related to law and order and/or health and safety.

Article 15, Section 8643 Emergency Services Act describes the duties of a governing body during emergencies as follows:

- Ascertain the damage to the jurisdiction and its personnel and property
- Reconstitute itself and any subdivisions
- Perform functions in preserving law and order and furnishing local service

Below is a line of succession for Sausalito's Services and Departments:

CITY COUNCIL MEMBER	LINE OF SUCCESSION
Mayor Jonathan Leone	Paul Albritton
Vice Mayor Herb Weiner	David King
Council Person Amy Belser	Dennis Scremin
Council Person Mike Kelly	Monica Finnegan
Council Person Linda Pfeifer	Carolyn Ford

SERVICE/DEPARTMENT	LINE OF SUCCESSION
City Administration	1) City Manager 2) Police Chief
Police Department	1) Chief of Police 2) Captain 3) Lieutenant
Fire Department	1) Fire Chief 2) Deputy Fire Chief
Public Works	1) Public Works Director 2) Maintenance Division Manager 3) City Engineer ENGINEERING DIVISION 1) City Engineer 2) Sewer Coordinator MAINTENANCE DIVISION 1) Division Manager 2) Foreman 3) Fleet Coordinator
Community Development	1) Community Development Director 2) Deputy Planning Director
Library	1) City Librarian 2) Librarian II 3) Senior Library Assistant
Parks and Recreation	1) Parks and Recreation Director 2) Recreation Supervisor
Finance Department	1) Finance Director 2) Account Technician
Information Technology	1) Technology Manger 2) Technology Assistant

Preservation of Vital Records

- In the City of Sausalito, the Assistant to the City Manger is responsible for the preservation of vital records:

Each department within the City of Sausalito should identify, maintain and protect its own essential records.

PART TWO
THREAT SUMMARY AND ASSESSMENTS

GENERAL

This section of the City of Sausalito EOP consists of a series of threat summaries based on the results of the Marin County's hazard analysis. Within the City of Sausalito, not all threats are considered to be a critical concern. However, threats that may seem unlikely to affect Sausalito directly, will indirectly impact our community. The City of Sausalito has the potential for experiencing a variety of natural and/or man-made disasters. This section provides a brief description of these threats, but does not contain all the technical data.

It is important to note that a disaster could include more than one event. For instance, a major earthquake could cause major structure loss, land slides, flooding from a tidal surge, extensive hazardous material spills from vehicles on the roadway, and ruptured underground pipelines. In general, those agencies assigned roles under this plan should be prepared for the work and expect minimal help from outside agencies for approximately 72 hours.

Location, Major Jurisdictions, and Population

The City of Sausalito encompasses both steep, wooded hillsides and shoreline tidal flats within its 2.2 square miles. Of the City's 2.2 square miles, 1.9 is land with the other three tenths of a square mile being the waters of Richardson Bay. The hillside and shoreline corridors each provide uniquely different challenges.

Sausalito's population is approximately 7,300. The majority of the population lives in the hillsides or in proximity to the City's major roadway, Bridgeway. However, there is a strong waterfront community comprised of people living along the shore, on the water in houseboats, or anchored out in boats on the Richardson Bay.

On Sausalito's east is the Richardson Bay, to the south is the Golden Gate Bridge, and on the west is National Park Open Space and the Pacific Ocean. It is adjacent to Marin City to the north. Sausalito is connected to the rest of Marin County solely via U.S. Highway 101 due to the fact there are no other roadways that run from Sausalito into the rest of Marin County. Thou there are no roadways, there are dirt trails in the Marin Headlands that run from Sausalito into the unincorporated areas of Mill Valley.

One of the major problems the city faces during any emergency is the possibility of being isolated from the surrounding communities and any resources or help.

MAP OF THE CITY OF SAUSALITO

Transportation and Infrastructure

Transportation – The primary travel corridor in Sausalito is Bridgeway (running north to south). This is the main economic and transportation corridor for the City as well as the main tourist route. There are two main east/west travel routes in Sausalito: Nevada/Rodeo and San Carlos/Spencer. Both the Nevada/Rodeo and San Carlos/Spencer routes run from Bridgeway to two of the City's four access points of U.S. Highway 101. Bridgeway leads to the other two access points for U.S. Highway 101.

Other means of transportations include:

- Golden Gate Transit/Ferry – operating bus/ferry services to other cities/counties as well as local service.
- The Muir Woods Shuttle Service – providing transportation, on a limited basis, to Muir Woods during summer months.
- The Marin Airporter and Charter Service – primarily designed to prove transportation from Marin County to the San Francisco and Oakland Airports.
- Marin Transit – responsible for local transit and Para-transit services within Marin County
- Whistle Stop Wheels – a service for persons with disabilities who are ADA – certified to use Para-transit
- SALLY (Sausalito Area Local Land Yacht) – is a City service that shuttles individuals from one end of Sausalito to the other with numerous stops in between on a seasonal basis.

POTENTIAL HAZARDS AND THREATS SUMMARY

Cities, towns and the unincorporated areas of Marin County are vulnerable to a wide range of threats. In recent years we have experienced several events such as earthquakes, floods, hazardous materials spills and storms. The threat picture is further complicated by the increased use, storage and transportation of numerous hazardous materials in various locations of our communities.

There are three broad categories of hazards: natural, technological and man-made threats.

NATURAL	TECHNOLOGICAL	MANMADE
• Earthquake • Flood • Wild Land Fire • Winter Storm • Tsunami • Landslide • Drought • Public Health Crisis	• Hazardous Materials Incident • Transportation Accident • Dam Failure • Energy Disruption • Radiological Incident	• Terrorism • Civil Disturbance • National Security Emergency

THREAT ASSESSMENT 1: EARTHQUAKE

General Situation

Varying in type and intensity, earthquakes are perhaps the least predictable of any of the potential hazards. They may cause no real damage or the area could be heavily impacted. Often, the main earthquake is followed by a series of aftershocks. Aftershocks can be larger than the original quake and pose a significant threat to those responding to the first event.

Located within and next to Marin County are several known active and potentially active earthquake faults, including the San Andreas and the Rogers Creek/Healdsburg (Refer to Page 41 for Earthquake Fault Map).

- The San Andreas Fault enters the county on the southwestern corner and continues north along the coast. The fault lies close to many smaller coastal communities which host many tourists in the summer months. This fault is also capable of generating a near-shore Tsunami (see Tsunami Hazard). During the 1906 earthquake, portions of fences and roads were offset by up to sixteen feet in Tomales - even though the epicenter was in South San Francisco.

- The Rogers Creek / Healdsburg Fault runs just east of the county with the northern part of Marin County located less than ten miles apart.

A major earthquake occurring in or near these areas could result in deaths, casualties, property and environmental damage, and disruption of normal government and community services and activities. The effects could be aggravated by collateral emergencies such as fires, flooding, hazardous material spills, utility disruptions, landslides, dam failures, and transportation emergencies. The location of the epicenter, as well as the time of day and season of the year, would significantly influence the number of casualties and the amount of damage.

Such an event would exceed the response capability of the City of Sausalito's emergency management organization, requiring assistance from volunteer and private agencies, the Marin County Sheriff's OES, the Governor's Office of Emergency Services and the federal government. Response efforts will be significantly hampered by the loss of communications and transportation systems.

A major effort would be needed to remove debris and clear roadways, demolish unsafe structures, assist in reestablishing public services and utilities and provide continuing care and temporary housing for affected citizens.

The economic impact of a major earthquake may also be significant. Employment may decline, businesses may suffer or even fail, tourism will drop, and a corresponding reduction in tax revenues will strain the basic financial systems in local communities. Additionally, costs for basic services and supplies can be expected to increase along with additional infrastructure maintenance, replacement, or repair expenses. Effects can last for months and years unless addressed quickly and aggressively.

Specific Situation

Freeways and Major Highways

Freeways and critical highways pass through key parts of Marin County. Alternate routes need to be identified. Should overpasses or bridges collapse or become unsafe, or roads close due to landslides, communities could be isolated for days. The opening of crossings and traffic control will be a major factor for emergency services personnel.

Railroads

Many railroad bridges are susceptible to seismic damage because of age, design and construction. Large lengths of line are vulnerable to landslide.

Dam and Flood Control Channels

Based upon current design, construction practices and ongoing programs of review and modification, catastrophic dam failure is considered unlikely, but still possible. The Nicasio Dam at Nicasio Lake for example, is of modern construction and is closely monitored by an array of seismic sensors. Strong shaking could cause some dams to overflow and cause localized flooding. Agricultural dams are at risk for failure due to liquefaction - especially after large rainfall. Many flood control channels are expected to suffer minor damage.

Hazardous Sites

Underground fuel pipelines, chemical storage tanks, and manufacturing locations may be damaged or destroyed and the resulting leaks may constitute a considerable threat to individual areas. Additionally, the area is crossed with many high voltage lines which supply power to the majority of the area. Should they fall, roadways will be blocked and the potential for fire and shock hazards will be significant until Pacific Gas and Electric can shut them off.

Population Control

In addition to caring for their own citizens, the county and cities/towns may also have to support seasonal visitors in the area at the time of the event or evacuees from other Bay Area jurisdictions. Local agencies may have to restrict access and dedicate large numbers of resources to traffic management and transportation. Such populations may place excessive demands upon any established mass care facilities or shelters.

Damage to Vital Public Services, Systems and Facilities

Medical Facilities

Approximately half of the beds in the county's medical facilities could be lost during a major earthquake due to the age and type of construction of some of the hospitals and rehabilitation centers in Marin. These hospitals will have services limited by damages, staff shortages, and lack of supplies. Local clinics, surgical facilities, and field treatment sites may be needed to handle the initial demand. Marin's Mass Casualty Incident (MCI) plan will be implemented but may be overwhelmed by the number of victims.

The most common injuries will be glass cuts on hands and feet. The most serious injuries will be crush or burn. It may be necessary to transport many injured to out-of-county facilities.

Fire Operations

Although total collapse of fire stations is not expected, possible disruption of utilities, damaged doors and loss of power can create major problems. Numerous fires due to disruption of power and natural gas networks can be expected. Many connections to major water sources may be damaged and storage facilities would have to be relied upon. Water supplies could be inadequate or non-existent. Rescuers should expect loss of power and water, jammed doors, restricted

mobility due to debris, possible loss of communications capability and delays in reaching maximum effectiveness due to personnel shortages.

Communications

The use of telephones will be limited. Traditional and cellular systems will be affected by infrastructure failure, overloads, and loss of electrical power. Immediately following an event, numerous failures will occur, compounded by system use overloads. 80% of the telephone system is likely to be disabled for the first 24 hours.

Radio systems are expected to operate at 40% effectiveness the first 12 hours following an earthquake, increase to 50% for the second 12 hours, then decline to approximately 40% within 36 hours. A major issue will be batteries for portable radios.

Equipment reliant on microwave will experience loss of power. Damage to antennas and loss of alignment will reduce the equipment effectiveness to 30% or less.

Electrical Power

Extra-high-voltage transmission equipment is generally the most susceptible component of the electrical system. Transmission lines are especially vulnerable in Marin due to the rugged and remote terrain. Generating plants usually fare better but could also fail. Up to 60% of the system load may be interrupted immediately.

Repairs may require physically clearing roadways, bringing in special equipment, and safeguarding against aftershocks and other hazards. Close coordination is required with regional and local utility representatives. Power restoration may take days or even weeks.

Natural Gas

Damage to natural gas facilities serving Marin's communities will consist primarily of isolated breaks in major transmission lines. Breaks in mains and individual service connections within the distribution system will be significant. Leaks pose a fire threat in these susceptible areas of intense ground shaking and/or poor ground near the shoreline. Breaks in the system will affect the most developed portions of the county and restoration could be significantly delayed.

Propane Gas

Many residents and businesses rely upon propane or bottled gas. Many of these tanks are not secured and will likely tip over or become disconnected. The leaking tanks will pose a fire/explosion hazard and many households will be without cooking and heating capabilities. Re-supply and repair of this service will be delayed until roads can be cleared and outside assistance is brought into the area by the vendors. Priority for repair and re-supply will be given to critical facilities such as medical sites, shelters, and emergency generators at remote radio repeater sites.

Water

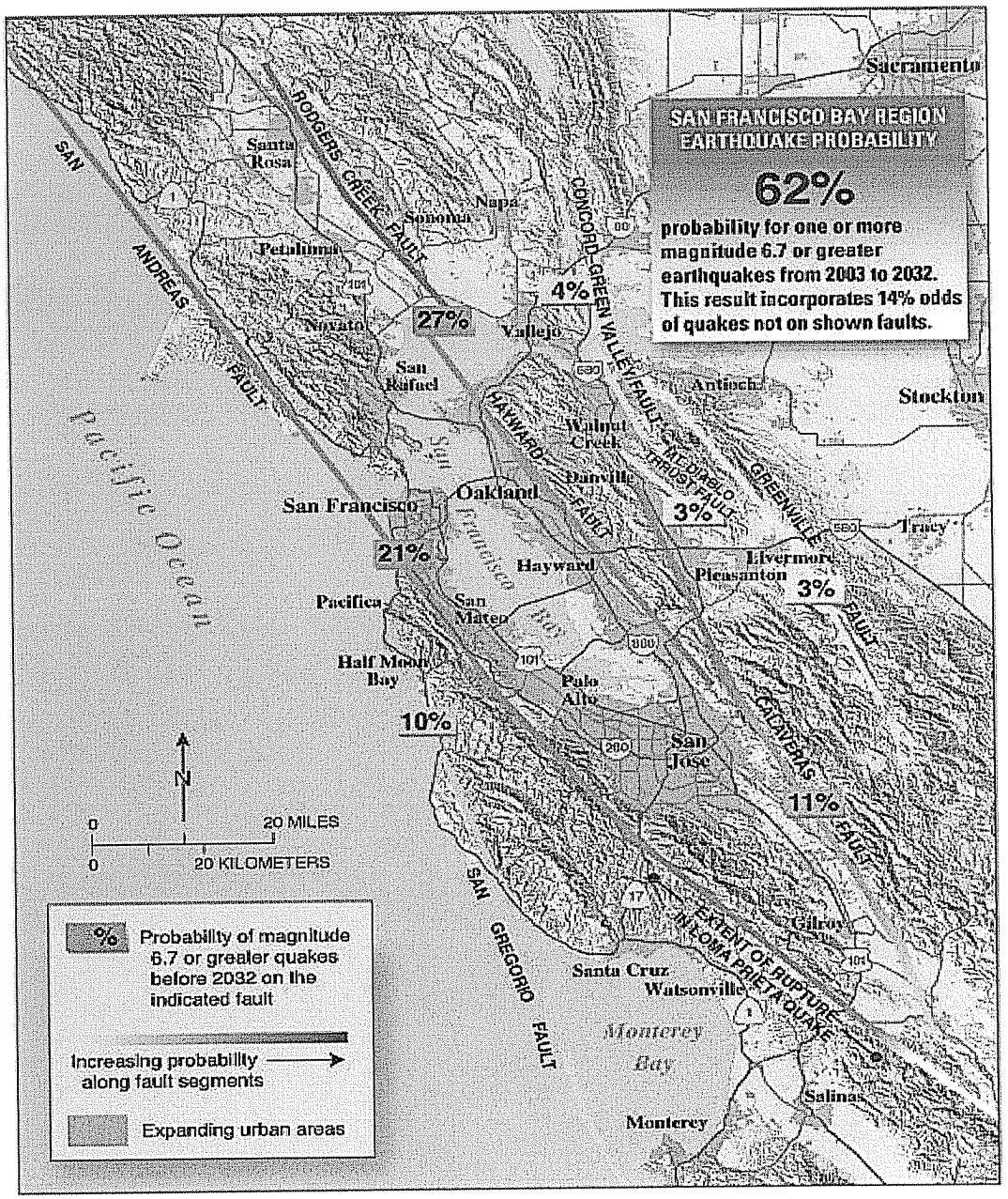
Primary water sources may be incapacitated due to damage to the chlorine treatment stations and/or the pipelines that distribute potable water. There are a number of small water districts which may be susceptible to total destruction. In the most affected areas, sheer forces could render about one third of wells inoperable by cutting the shafts.

Priority for water distribution will go to fire suppression, life support, medical facilities, decontamination, and shelter operations. This may result in significant rationing. The use of surface-laid pipes and water tanker trucks to maintain a minimal supply to some areas will be almost certainly required.

The three major reservoirs within Marin include Soulajule, Nicasio and Bon Tempe. There are also a host of smaller reservoirs. The supply lines are easily affected during winter storms and should be considered likely to fail during a major earthquake.

Sanitation Systems

These systems will be generally affected in the same manner and degree as potable water. However, there is limited storage capacity in the wastewater plants. This could result in releases of minimally treated or even untreated sewage. Damaged or un-powered pumping stations and sewer line breaks may result in small spills of untreated sewage. Household sewer connections may break and plug.



Earthquake Faults

THREAT ASSESSMENT 2: FLOOD

General Situation

Floods are generally classed as either slow-rise or flash floods. Slow-rise floods may be preceded by a warning time measured in hours or days. 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.

The National Weather Service issues flash flood watches and warnings. A flash flood "Watch" is issued when flash flooding is possible within the designated watch area -- all persons should be alert. A flash flood "Warning" is issued when a flash flood has been reported or is imminent -- all persons should take necessary precautions.

No area is immune to flash floods. In small streams, especially near the headwaters of river basins, water levels may rise quickly in heavy rainstorms, and flash floods can begin before the rains stop. There is little time between the detection of flood conditions and the arrival of the flood crest. Swift action is essential to protect life and property.

All low lying areas, both coastal and inland, are subject to flood conditions. Urban development in flood plain areas are often subject to seasonal inundation. The flood plain is a natural extension of any waterway, although infrequently used. Storm water runoff, when exceeding the capabilities of the physical channel characteristics of a stream, results in the natural flooding of a localized area, inundating vehicles and causing considerable damage to residential and industrial properties located near stream and drainage channels.

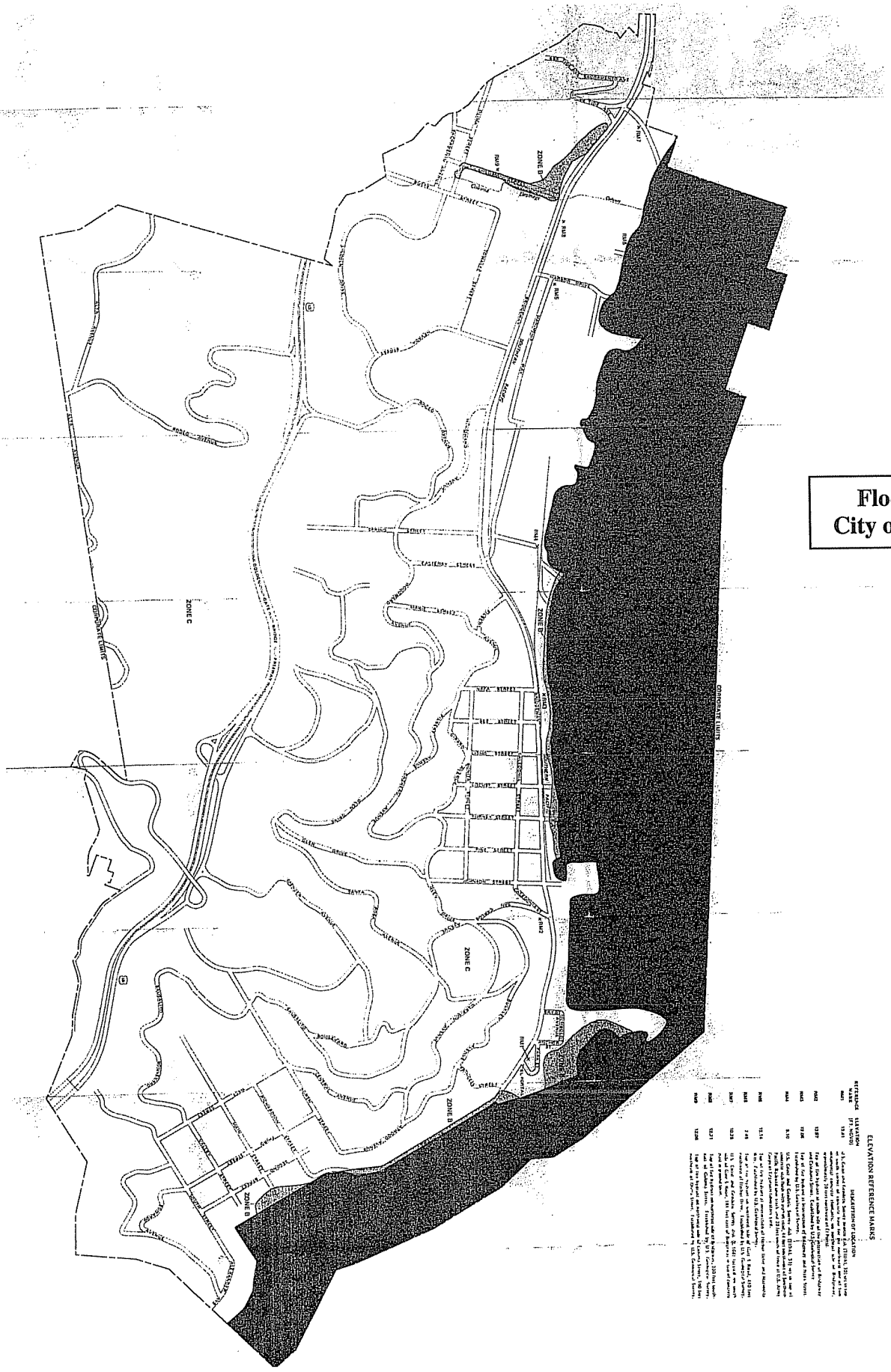
Once flooding begins, personnel will be needed to assist in rescuing persons trapped by flood water, securing utilities, evacuating residents, moving equipment, cordoning off flooded areas and controlling traffic. These actions may overtax local agencies, and additional personnel and resources may be required.

Specific Situation

Key areas of Marin County are subject to flash flooding, urban flooding (storm drain failure/infrastructure breakdown), and river channel overflow. The Marin Flood control and Water Conservation District manages eight Flood Control Zones:

- Novato
- Mill Valley
- Bel Aire
- Stinson Beach
- San Rafael Meadows
- Santa Venetia
- Ross Valley
- Inverness

Winter storms can generate heavy wave action along the coast which, either by itself, or when combined with high tides and/or high winds, can cause localized flooding in low-lying coastal areas.



Flood Map:
City of Sausalito

THREAT ASSESSMENT 3: WILDLAND FIRE

General Situation

Wildland fire hazards exist in varying degrees over approximately 85% of Marin County. The fire season generally lasts from five to six months. The wildland fire hazard is caused by a combination of factors including rugged terrain, highly flammable vegetation and forest, long summers, and human activity.

There are several areas in the county which contain heavy fuel loads. Many homes have been built on steep slopes with vegetation in close proximity. These slopes are often steep, located in rugged terrain and have very few access routes. The onset of Sudden Oak Death has significantly increased the number of dead or weakened trees in most areas.

In several areas, an "Urban Interface" fire hazard is created as older neighborhoods directly border wild lands, parks, or forests. These areas often have mature vegetation and large tree canopies which could cause the fire to spread quickly.

Specific Situation

Winds

The western portion of the county is heavily influenced by the Pacific Ocean in terms of local climate. In these environments the fire hazard is mitigated by summer fog intrusion and lower temperatures. However, during the two to three weeks of "off-shore" wind events each fall, even the coastal areas become an extreme fire hazard.

In the east, the large inland valleys create their heat-generated wind systems and more closely match the climates of California's Central Valley.

Topography

The topography in the county is typical of the mountains in the Coastal Range where they abruptly rise upward from the rugged shoreline to elevations of more than 2000 feet.

This creates an opportunity for a wildland fire to spread uphill in many directions making it extremely difficult for the firefighters to control a fire in these areas. This is made more difficult when trying to protect structures.

The topography in the inland areas can also cause significant fire fighting challenges due to hotter, drier climates. The higher density of homes and population further complicates fire-fighting efforts.

Fire Causes

People, and their activities, may cause wildland fires. Since the heaviest concentrations of people are found along Highway 101, most fires start there. Use of equipment, people playing with fire, arson, off-road vehicles, mowing, and debris burning are among the most common causes of wildland fires. Trees growing into power lines have been a frequent cause of large and damaging fires. Lightning strikes can spark many fires simultaneously in widely separated areas. Many of these fires may smolder for days before becoming very active.

Wild land Fire in Combination with Other Threats

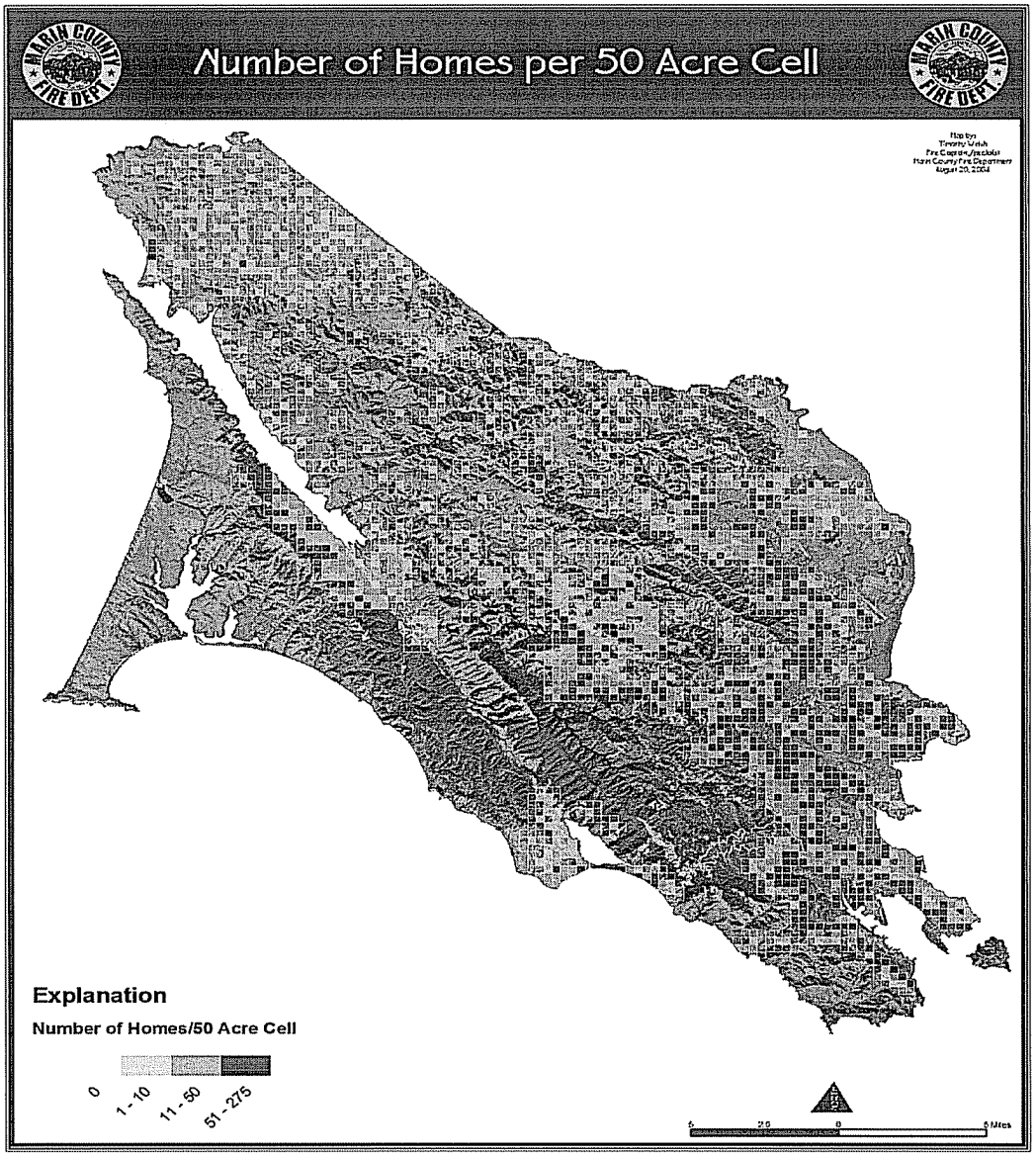
The fire hazard can be significantly affected by other hazards such as earthquake, drought or Sudden Oak Death. One worst-case scenario could involve a major earthquake during fire season. Broken gas lines or downed electrical wires could spark multiple fires. Firefighters would be hampered by disrupted communications, impassible roads, and the need to perform rescue/medical operations.

Assets at Risk

In Sausalito, the major fire threat is that of urban fires occurring in the downtown business areas and the adjacent hillsides, largely built up with older, wood frame, often shingled homes. Normally, fires are kept to single structures, but the occasional high wind conditions from the northeast has the possibility of spreading a structure fire into a general conflagration. Another threat lies in a major marina or waterfront fire, with densely occupied marinas, with many gasoline powered vessels.

In Sausalito, wild land fires do not pose a major threat, though the perimeter of the City from Alexander in the south through Wolf back Ridge in the west are adjacent to wild land. Historically, the weather, patterns of summer fog keeps the vegetation somewhat moist and green through the fire season. A major brush fire in the GGNRA areas above Fort Cronkite could pose a threat to the Wolf back Ridge homes.

Numerous factors affect how vulnerable a structure is to a wildland fire ignition. Roof composition, siding material, construction type and materials, slope, fire-resistant vegetation and defensible space are some general variables that affect structure survivability. For this analysis, the total hazard classification and as housing density were used to define structure vulnerability .Each 50-acre cell was assessed to determine the number of homes within each cell. A rank was assigned to each 50-acre cell based on housing density.


Number of Homes per 50 Acre Cell
Explanation
Number of Homes/50 Acre Cell
0
1 - 10
11 - 50
51 - 275
5 Miles

THREAT ASSESSMENT 4: WINTER STORM

General Situation

In recent years, winter storms in California have grown increasingly intense and longer-lasting. Flash floods, mudslides, high coastal surf, coastal erosion, stream and creek flooding, snowstorms, and avalanches have all recently occurred. Especially noteworthy are the tropical storms that are blown into California on a wind current called the "Pineapple Express". From the central Pacific, warm storm fronts move quickly and directly northwest picking up energy and pulling moisture from the ocean as they travel. Once they come ashore and are forced to rise over the coastal mountains, they cool and begin to drop their moisture.

Specific Situation

In Marin County, winter storms frequently drop large amounts of rain onto the coastal mountains. This often causes flash flooding and landslides.

Flooding as a result of heavy rainfall can be caused by either of two phenomena in Sausalito:

1) Storm water run off to lowlands due to an overburdened drainage network, or
2) High bay tides which force the storm water up drainage channels, subsequently overflowing adjacent areas.

Sausalito areas subject to frequent flooding in past years are predominantly former marshland and mudflats which have been filled in recent years for building purposes. The majority of these sites haven been raised enough to avoid flooding except under the most extreme circumstances. Seas conditions have caused flooding on Bridgeway with extremely high tides coupled with a southerly storm.

Another frequent storm behavior is high winds. High winds are most common and dramatic along the coast and in the coastal mountains. The high winds result in damage to structures, downed trees, broken phone lines, as well as arcing and downed power lines. Due to the rugged nature of the area, it can take days or weeks to make full repairs to electrical transmission and distribution lines. Power outages are a major issue almost every winter.

History

In recent history, the winter storms of 1970, 1973, 1982, 1983, 1986, 1998, 2005 and 2006 caused significant damage. The City of Sausalito has been hit hard by these past major storms. The 1982 and 1983 storms produced significant damage to both public and private property, with some civilian casualties occurring. Heavy rain and high wind, especially if combined with periods of high tides create the potential for flooding, landslides, and other storm related hazards.

In recent years, flooding in the Corte Madera Creek has caused severe damage to the surrounding communities. The largest recorded flow occurred in the winter of 1982 and more recently in December 2005 and January 2006. Widespread localized flooding occurred in almost all areas of the County during these periods. San Anselmo, Ross, Fairfax, and Mill Valley were the most heavily impacted. Power outages peaked at 10,000 customers in January. Nine schools closed due to mud, water and road damages and over 20 major roads were closed during the early part of the storm. Two levies in the Novato area were damaged. Over a thousand homes, apartments, and businesses were damaged or destroyed.

THREAT ASSESSMENT 5: TSUNAMI

General Situation

A tsunami is a series of traveling ocean waves generated by earthquake or underwater landslides. As the tsunami crosses the deep ocean, its length from crest to crest may be one hundred miles or more, its height from the bottom of the wave to the crest only a few feet. It cannot be felt aboard ships in deep water and cannot be seen from the air, but in deep water, tsunami waves may reach forward speeds exceeding 600 miles per hour.

As the tsunami enters the shallow water of coastlines in its path, the velocity of its waves diminishes and wave height increases. It is in these shallow waters that tsunamis become a threat to life and property, as they can crest to heights of more than 100 feet, and strike with devastating force. This danger is not over until the entire wave-series has passed. All tsunamis, like hurricanes, are potentially dangerous, even though they may not damage every coastline they strike. At present, there is no way to determine, in advance, the amplitude or size of tsunamis in specific locations. A small tsunami at one beach can be a giant one a few miles away.

Tsunamis may also be generated by earthquakes or underwater landslides just off shore. These "near-shore tsunamis" can also be very large but may arrive with little or no warning. In addition to the initial event, additional - and even larger - waves may continue to arrive for hours.

Damage

The great waves of a tsunami may crush buildings, smash vehicles and boats, uproot trees, and disrupt vital public services, systems and facilities. The effects may be aggravated by the secondary effects of fire. Efforts may be required to remove debris and clear roadways, reestablish public services and utilities and provide temporary housing for displaced persons.

Evacuation

It is essential to evacuate persons in low-lying coastal areas and around the rims of bays and harbors, for these areas consistently sustain the greatest damage by tsunamis. Potential danger exists for all areas within one mile of the coast and less than 50 feet above sea level for tsunamis of distant origin, and for all areas within one mile of the coast and less than 100 feet above sea level for tsunamis of local origin.

Tsunami Warning System

The National Oceanic and Atmospheric Administration (NOAA) maintains the international Tsunami Warning System. The occurrence of a major earthquake anywhere in the Pacific Ocean area brings an immediate response from the system.

Tsunami Watch

When an earthquake of sufficient magnitude to generate a tsunami occurs, Tsunami Warning System staff determines the location of the earthquake epicenter. If the epicenter is under or near the ocean, a tsunami is possible. The Warning System issues a TSUNAMI WATCH, which tells recipients that an earthquake has occurred, its location, and that the possibility of a tsunami exists. A TSUNAMI WATCH constitutes the System's first alerting action.

THREAT ASSESSMENT 6: LANDSLIDE

General Situation

Landslides include all movements of soil, rock or debris as a result of falling, sliding or flowing. Landslides are categorized according to the types of motion and material involved. They can be directly caused by earthquakes or be completely independent of them.

Falls describe the sudden movement of material from vertical or near-vertical slopes, and are generally labeled by the type or material displaced (e.g., soil fall, rock fall).

Slides refer to movements in which the material moves more or less as a unit along recognizable shear surfaces. If the shear surface is concave, the slide movement will be rotational, and is denoted by the term "slump". If the shear surface is flat, the term "slide" is used alone.

Flows describe the movement of material in which small-scale movements, rather than massive sliding, is the dominant mechanism of transport. Flows are described by the type of material involved and the rate at which it moves (e.g., debris flow, mudflow).

Landslides can occur due to both natural and human factors. Natural factors include the cohesive strength and characteristics of the affected minerals, the orientation of joints and planes of weakness between slide material and bedrock, the steepness of slopes, seismic activity, the degree of saturation of ground materials (highly affected by rainfall), and the density of vegetation. Human factors include the creation of excessively steep and overloaded slopes, the removal of natural vegetation, and the addition of water to the soil by watering lawns and septic system drain fields, and onsite creations of ponds for storm runoff.

Landslides will usually be associated with earthquakes or heavy rainfall. There are many identified sites within the county. Many threaten key highways. Some jurisdictions may be directly affected or simply isolated. Landslides will normally be associated with some other incident such as winter storm or earthquake.

Landslides and debris flowing can damage or destroy buildings, block roads, sever utilities, disrupt water supplies, and injure or kill people. Damage control and emergency response operations may be seriously hampered by road closures and loss of communications. Evacuation of dangerous areas may become necessary. Extensive efforts may be needed to rescue trapped people, recover bodies, remove debris, and restore utilities and services.

Specific Situation

Landslides in Marin County tend to occur with the greatest frequency on steep slopes adjacent to foothill roads. With nearly every winter storm in the county, some landslide damage is incurred. Due to the 1998 storms, over $2.5M damages were caused due to landslide damages. One resident was killed in 2006 as a result of a slide in Mill Valley.

In Sausalito, excessive rapid rainfall has historically created land slippage problems in the hill areas, sometimes affecting residences built upon these slopes. Sausalito Boulevard, Marion, the hills abutting Bridgeway, Spencer Avenue, and the Wolfback Ridge area have a long history of slide activity. Additionally, it can be expected that land slippage my block residential roads and damage utilities both above and below grounds, resulting in interrupted service and isolation of sizeable areas of the City of Sausalito for extended periods of time.

THREAT ASSESSMENT 7: DROUGHT

General Situation

A gradual phenomenon, drought often takes two or three consecutive winters, with less than average precipitation to produce any significant impacts. California has experienced major droughts in 1912-13, 1918-20, 1923-24, 1929-34, 1947-50, 1959-61, 1976-77, and 1987-92.

Drought produces a variety of impacts that spans many sectors of the economy and reaches well beyond the area experiencing physical drought. Impacts are commonly referred to as direct or indirect. Reduced crop, rangeland, and forest productivity; increased fire hazard; reduced water levels; increased livestock and wildlife mortality rates; and rationing are a few examples of direct impacts. These problems can, in turn, produce others. For example, a reduction in crop, rangeland, and forest productivity may result in reduced income for farmers and agribusiness, increased prices for food and timber, unemployment, reduced tax revenues, increased crime, foreclosures on bank loans to farmers and businesses, and migration.

Specific Situation

Marin County is very sensitive to the impacts of drought due to its growing population, dependence on fragile water sources, agricultural economic base and environmental concerns. Several communities, including Sausalito, often see dramatic drops in their water supplies.

Drought of 1976-77

The drought of 1976-77 was the worst in the state's recent history due to the driest (1977) and fourth driest (1976) years on record. Statewide, California's average annual rainfall is 200,000,000 acre-feet. In 1977, precipitation totaled only 90,000,000 acre-feet, or 45 percent of average. This drought left California with dangerously low reservoir and ground water levels. 47 of the state's 58 counties declared emergencies and economic losses totaled $2.4 billion.

In Marin County, drought response measures included rationing or eliminating water allocations for industry, agriculture, landscaping, and fish flows. Water had to be hauled into several communities whose wells ran dry. Public education campaigns were undertaken to convince the public to use less water. Low water levels threatened to reduce water pressure in fire- fighting hydrant systems.

Water sources

Marin County has two principal sources of water for domestic, commercial, industrial and agricultural use: the Mt. Tamalpais watershed and water imported from the Russian and Eel Rivers. Some communities make use of limited groundwater sources. Additional water sources include diversions from small streams and reservoirs.

THREAT ASSESSMENT 8: PUBLIC HEALTH CRISIS

General Situation

One of the gravest threats to the life safety of Sausalito and Marin County residents and visitors is posed by biological agents that occur naturally. Bacteria and viruses continue to evolve and spread. Drug-resistant strains of these pathogens also pose serious challenges to modern medicine. A public health crisis will immediately impact the width and breadth of emergency medical services.

In order to reduce costs, the medical community has worked to increase its efficiency by reducing or closing facilities, reducing staff, and relying on just-in-time inventory systems for medical supplies. This has resulted in an indirect reduction in the capacity to handle large-scale health events and an increased reliability on crisis response systems.

Public Health events are likely to impact whole regions and nations. Resources from outside Sausalito and Marin County may not be available. American society has not had to respond to a major health crisis in modern times. Existing concepts and response systems may be overwhelmed.

In addition to the direct threat to the population, a public health crisis will have major impacts on the social infrastructure including utilities, social services, and government. Traditional emergency responders (law, fire, EMS, public health) are at greater risk for contracting illnesses due to their increased exposure.

In the last few years, such threats have included Bacterial Meningitis, Sudden Acute Respiratory Syndrome (SARS), Monkey Pox, and West Nile Virus. These events highlighted the potential for new and lethal pathogens to emerge and demonstrated the need to have capacity to respond with flexibility to new infectious disease threats. Epidemiologists agree that the probability is high that new strains of the viruses will emerge.

Under California law and Marin County Code, the County Public Health Officer (PHO) has the primary responsibility for responding to a public health emergency such as an influenza pandemic. The PHO position is specifically identified to have unique powers based on legal authorities including declaring a local health emergency or recommending proclamation of a local emergency.

It is difficult to quantify the impact of a public health crisis due to the variety of threats. However, it may be useful to review one "worst case" scenario to assess the potential impacts and effects on emergency response systems.

In 1918, more than twenty milling people died worldwide from the previously unknown strain of influence that came to be called the "Spanish Flu." Two other pandemics in the 20th century caused widespread illness and social disruption:

YEAR	EVENT	# OF U.S. DEATHS
1918	Spanish Flu	500,000
1957	Asian Flu	70,000
1968	Hong King Flu	34,000

Unlike most public health emergencies, pandemic influenza could impact most of the world within hours or days. Depending on the viral strain, different segments of the population may be greater- 1918, the Spanish flu posed the greatest threat was young men.

THREAT ASSESSMENT 9: HAZARDOUS MATERIALS INCIDENT

General Situation

A hazardous material is any substance that may be explosive, flammable, poisonous, corrosive, reactive, radioactive, or any combination thereof, because of its quantity, concentration or characteristics. Hazardous materials require special care and handling because of the threats they pose to public health, safety and the environment. The production, transportation, and use of hazardous materials have become a normal part of society.

Accidental releases of hazardous materials can be especially damaging when they occur in highly populated areas or along transportation routes used simultaneously by commuters and hazardous materials transports. Incidents are more likely to occur along highways and railways. Fixed facilities, such as manufacturing and light industrial facilities release hazardous materials incidents; however stringent safety requirements help to limit these.

Hazardous materials incidents in the urban areas of the county may require precautionary evacuations, or may have residents do shelter-in-place. Such an event may produce many victims suffering from exposure to the agent or burns and require implementation of the county's Mass Casualty Incident (MCI) Plan.

Specific Situation

The City of Sausalito is not home to the large industrial complexes normally associated with a high incidence of hazardous material emergencies. Marin County is served by one Hazardous Materials team. Due to traffic congestion, it is estimated that significant out-of-county assistance may be unavailable for a period of one to three hours - especially if the incident occurs at a peak traffic time.

Transportation Routes or Fixed Hazardous Materials Facilities

Hazardous materials incidents in Marin County would most likely occur on the transportation routes or at fixed hazardous materials sites within the various cities. Hazardous materials are often moved through the area on U.S. Highway 101 and State Route 37. Surface streets are used for the local transportation of hazardous materials. The three hospitals located in Marin County use a variety of hazardous materials, radioactive materials and solvents. They maintain current lists of the materials in their facilities.

Local schools have hazardous materials on-site, primarily flammable materials, corrosives, and poisonous materials. They are in smaller quantities, but could pose a threat to rescue efforts. Water treatment sites sometimes contain tanks of chlorine gas.

The U.S. Army's Corps of Engineers laboratory is a fully stocked analytical laboratory, but the individual quantities of chemicals is small. They have a small, concrete block, storehouse for their bulk storage of chemicals. It has the floor below ground level for containment, with acids and oxidizers at one end and solvents, etc. at the other. There is a dike between them to prevent mixing in the event of a spill. The roof is also lightly fastened to act as an explosion vent.

Agriculture

The large agriculture industry is one potential source of hazardous materials incidents. Accidental release of pesticides, fertilizers and other agricultural chemicals may pose short and long-term threats to public health and the environment. These materials are generally stored in remote rural areas but are often transported from one site to another.

Oil Spill

An oil spill can be a significant hazard to Marin County's ecosystems including wildlife and environmentally sensitive sites (resources at risk).

Sewage Spills

Sewage spills into the city's waterways or the San Francisco Bay may cause significant contamination causing sickness people who come in contact with those waters as well as distressed and sick wildlife. Sewage spill is often caused by waste treatment facilities pump and alarm failures as well as human errors.

Other Sources

Another source of hazardous materials incidents is the illegal manufacturing of drugs in clandestine laboratories. The residue and hazardous waste from these laboratories are usually dumped illegally, posing a public health and safety hazard and a threat to the environment. In many cases, criminals will conduct their activities in the midst of residential or commercial neighborhoods to remain hidden.

THREAT ASSESSMENT 10: TRANSPORTATION ACCIDENTS

A major incident involving an airplane, truck, or train could result in numerous casualties and could significantly impact Marin County's transportation systems. The ability of emergency response teams to respond and transport victims to hospitals will be affected by the time of day and traffic congestion.

A major incident on any of the primary routes will produce road closures of at least four or more hours. Extensive search and rescue operations may be required to assist trapped and injured persons. Emergency medical care and temporary shelter would be required for injured or displaced persons. Identification, movement and temporary storage of any significant number of dead will be difficult. Families may be separated, particularly if the incident should occur during working hours. In some instances, the loss of communications and disruption of other essential services may hamper emergency operations.

Under certain circumstances, government effort will be required to remove debris and clear roadways, demolish unsafe structures, and assist in re-establishing public services. It may be necessary to provide continuing care and welfare for the affected population.

Each of these hazards could produce several secondary threats, such as a hazardous materials incident, fire, severe damage to nearby buildings or vehicles, loss of life in either adjacent buildings or vehicles and pedestrians.

Major accidents could involve an airplane crash, trucking incident or a train crash. The following assessments provide additional details unique to each type of incident:

Airplane Crash

General Situation

Often the impact of a disabled aircraft as it strikes the ground creates the potential for multiple explosions, resulting in an intense fire. Wherever the crash occurs, the resulting explosion and fires have the potential to cause injuries, fatalities and the destruction of property. The time of day when the crash occurs may have a profound effect on the number of dead and injured. As well, an airplane crash produces profound mental health issues for survivors, surrounding residents, and emergency responders.

Specific Situation

Marin County has no commercial service airports with regularly scheduled air carrier passenger service. The Marin County Airport at Gnoss Field is a Regional General Aviation airport which is home to several charter companies. The county lies along the West Coast air corridor and traffic patterns for Bay Area and Sacramento airports traverse the area. The crash of a small (light) aircraft would result in obvious issues if the incident took place near heavily-populated areas. In remote areas, the rugged terrain could make access and communications difficult.

A far more significant event would be the crash of an airliner. A large area could be affected with falling parts, burning fuel and destroyed buildings. Many state and federal agencies would respond to the scene in a very short period and media attention would be intense.

Trucking Incident

General Situation

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

Specific Situation

The main transportation arteries through Marin are U.S. Highway 101 and State Route 37. These routes are heavily used most hours of the day and the control of vehicular traffic in and around the affected area of a multi-casualty or hazardous materials incident will be the primary problem at any time.

In many areas there are few, if any, good alternate routes. During commute hours, the problem will be severely compounded. It will be essential to expedite the flow of essential emergency response vehicles through the area and divert nonessential traffic. In a major accident, it is not uncommon for these roads to close for most of a day to support rescue, recovery and accident investigation activities.

In a major disaster, increased reliance on goods and equipment being trucked into the county and into Sausalito combined with restricted or damaged roads could result in a greater chance for a major accident.

Train Crash

General Situation

A major train derailment that occurs in a heavily populated industrial area can result in considerable loss of life and property. As a train leaves its track, there is no longer any control as to the direction it will travel. Potential hazards could include overturned rail cars, hazardous materials incidents, and impact to an industrial building or entering into normal street traffic.

Train accidents could be caused by derailment, an accident with a vehicle at a crossing, an accident with a pedestrian at a crossing, a collision with another train, or an explosion or fire in or near the train. Any hazardous materials carried as freight or in another impacted vehicle could substantially complicate response actions and require that the situation be monitored until all debris is removed.

There would be a great number of agencies responding to the scene. Traffic control and resource management will be difficult but essential to maintain. Schools near the site may be isolated or called upon to evacuate immediately. Media attention can be expected to be significant.

Specific Situation

Marin County is served by the North Coast Rail Authority (NCRA). Rail passenger service was largely discontinued in mid 1950; rail freight service is also currently discontinued.

THREAT ASSESSMENT 11: ENERGY DISRUPTION

General Situation

Modern society has increasingly grown dependent on technologies which use various sources of energy. Events in the last 30 years have underscored the major impacts that a disruption in the energy supply can have:

- The major Arab Oil Embargo in 1973 led to significant economic and political changes including increased domestic oil production, additional investment in alternative energy sources, inflation, and a marked reduction in the Gross National Product.
- The California electrical shortages of 2001 resulted in the use of rotating electrical outages, also known as rolling blackouts. This crisis created a great deal of confusion, loss of power, increased utility rates, and negatively impacted the state budget.

Fossil Fuels

This includes natural gas, oil, and gasoline. Disruptions in the supply of these resources would immediately cause serious problems in transportation, electrical generation, business, communications, and would cause prices for most goods and services to rise dramatically.

Electrical Power

A power failure is any interruption or loss of electrical service due to disruption of power generation or transmission caused by an accident, sabotage, natural hazard, equipment failure, or fuel shortage. These interruptions can last anywhere from a few seconds to several days. Power failures are considered significant problems only if the local emergency management organization is required to coordinate the provision of food, water, heating, etc. as a result. Power failures are common when severe weather and winter storm activity occur. Critical systems including telecommunications will fail unless provided with alternate or redundant power sources.

Specific Situation

Marin County does not manufacture any petroleum products. The majority of these products are imported from Bay Area refineries. A natural gas pipeline feeds the majority of the population along the U.S. Highway 101 corridor.

THREAT ASSESSMENT 12: RADIOLOGICAL INCIDENT

General Situation

Depending upon the type, location, and quantity released, nuclear (radiological) materials can damage human health, the environment, and property. Such an accidental release is extremely rare. Commercial nuclear plants began generating power in 1957. The United States has had only one major incident that occurred at the Three Mile Island facility near Harrisburg, Pennsylvania in 1979. Other minor incidents have occurred, but these have been infrequent and have caused few off-site consequences.

Common sources of radiological materials include those used in medical procedures, research, industrial production, and construction.

It is important to note that a radiological event differs from a regular Hazardous Materials spill in that the affected area could be large; radioactivity is difficult to detect; specialized equipment is required to pinpoint sources; and clean up may require tremendous resources. Long-term effects may be difficult to determine. Public perception will play a critical role in the incident. Media coverage of such an event will be massive. Federal agencies will play a key role in managing response and recovery efforts.

Generally, shielding, limited exposure time, and increased distance from the source are the keys to effective mitigation and response.

Specific Situation

Marin County is a combination suburban/rural area, removed from the multiple risks of nuclear (radiological) materials emergencies normally associated with a more urban environment. Only a few sites (medical facilities and hospitals) use such materials - and these are considered a relatively low-level threat. As U.S. Highway 101 is the primary north/south corridor for California's North Coast, some industrial and medical grade radiological materials are transported on this route.

THREAT ASSESSMENT 13: TERRORISM

General Situation

The Federal Bureau of Investigation (FBI) defines terrorism as "the unlawful use of force against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in the furtherance of political or social objectives." Since the events of September 11, 2001, a significant increase in the assessment and preparation for terrorism has been a national priority.

Terrorism can be state-sponsored or the outgrowth of a frustrated, extremist fringe of polarized and/or minority groups of people. Extremists have a different concept of morality than the mainstream society. Terrorist groups include:

- Ethnic separatists and political refugees
- Leftwing radical organizations
- Rightwing racists, anti-authority survivalist groups
- Extremist issue-oriented groups such as animal rights, environmental, religious, anti-abortionists

Events could typically be expected in urban areas near public gatherings, government facilities, or highly visible areas, but no one area is less likely to be a target than any other. Communities are vulnerable to terrorist incidents and most have high visibility and vulnerable targets. These facilities, sites, systems, and special events in the community are usually located near routes with high transportation access. Examples include:

- Government office buildings, courthouses, schools, hospitals, and shopping centers
- Dams, water supplies, power distribution systems
- Military installations
- Railheads, interstate highways, tunnels, airports, ferries, bridges, seaports, pipelines
- Recreational facilities such as stadiums, theaters, parks, casinos, concert halls
- Financial institutions and banks
- Sites of historical and symbolic significance
- Scientific research facilities, academic institutions, museums
- Telecommunications, newspapers, radio and television stations
- Chemical, industrial, and petroleum plants, business offices, and convention centers
- Law, fire, emergency medical services facilities, and operations centers
- Special events, parades, religious services, festivals, celebrations
- Family planning facilities

Weapons of Mass Destruction

Experts generally agree that there are five categories Weapons of Mass Destruction (WMD) which terrorists could use: Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE). It is important to note that developing and properly employing such weapons is very difficult - but not impossible. Each category of weapon is discussed below:

- Chemical agents are compounds with unique chemical properties that can produce lethal or damaging effects in humans, animals, and plants. Chemical agents can exist as solids, liquids, or gases depending on temperature and pressure. Most chemical agents are liquid and can be introduced into the unprotected population relatively easily using aerosol generators, explosive devices, breaking containers, or other forms of covert dissemination. Dispersed as an aerosol, chemical agents have their greatest potential for inflicting mass casualties.

- Biological agents pose a serious threat because of their accessible nature and the rapid manner in which they spread. These agents are disseminated by the use of aerosols, contaminated food or water supplies, direct skin contact, or injection. Several biological agents that could be adapted for use by terrorists include anthrax, tularemia (rabbit fever), cholera, the plague, botulism, and pandemic flu. A biological incident will most likely be first recognized in the hospital emergency room, medical examiner's office, or within the public health community long after the terrorist attack. The consequences of such an attack will present communities with an unprecedented requirement to provide mass protective treatment to exposed populations, mass patient care, mass fatality management, and environmental health clean-up procedures and plans.

- A radiological weapon involves the detonation of a large conventional explosive that incorporates nuclear material or detonation of an explosive in close proximity to nuclear materials in use, storage, or transit.

- A nuclear threat is the use or threatened detonation of a nuclear bomb or device. At present, there is no known instance in which any non-governmental entity has been able to obtain or produce a nuclear weapon.

- Explosive incidents account for 70 percent of all terrorist attacks worldwide. Bombs are the terrorist's weapon of choice. The Internet and local libraries provide ample information on the design and construction of explosive devices. The FBI reported that 3,163 bombing incidents occurred in the United States in 1994, 77 percent were due to explosives. Residential properties are the bombers' most common targets.

Cyber terrorism

In addition to WMD attacks, cyber terrorism is a relatively new phenomenon used to potentially disrupt our society and exploit our increasing reliance on computers and telecommunication networks. Cyber terrorism threatens the electronic infrastructure supporting the social, health, and economic well being of our communities. Interlinked computer networks regulate the flow of power, water, financial services, medical care, telecommunication networks, and transportation systems.

Specific Situation

Some smaller terrorist attacks have occurred in Marin County Most notably, in 1970, a murder and kidnapping case in a Marin County Courthouse shooting, which was triggered by extremist political issues, left four dead, including a Marin County Judge. The City of Sausalito has experienced acts of terrorism as well. In 1978, the domestic terrorist group "The Weathermen" planted and detonated an explosive device at the PG&E substation on Woodward. The substation was damaged, however no one was injured. The county and the jurisdictions within its boundaries remain vulnerable to the threat of terrorism. All public facilities are considered subject to a terrorist attack.

The San Francisco Bay Area contains many high profile sites and buildings which are considered potential terrorist targets. Therefore, even though Marin County and the City of Sausalito may not suffer such an attack, it is likely that it will be asked to provide support to this major metropolitan area that has been impacted. Another consideration is the potential for large numbers of the public to move from the impacted area due to actual or perceived dangers.

The federal and state response to terrorist activities has been intense since the attack of September 11, 2001. Emergency Management actions have centered on terrorist threat assessment, planning, grant administration, and training. Detailed terrorism threat assessments for the County and the State of California have been completed and are considered confidential.

THREAT ASSESSMENT 14: CIVIL DISTURBANCE

Civil disturbance includes incidents that are intended to disrupt a community to the degree that law enforcement intervention is required to maintain public safety. Civil disturbances are generally associated with controversial political, judicial, or economic issues and/or events. The effects of civil disturbances could include traffic congestion or gridlock, illegal assemblies, disruption of utility service, property damage, injuries and potential loss of life. This is in contrast to Civil Disobedience.

The County of Marin has experienced minor civil disturbances in several of its cities and in the unincorporated areas. In the future, protest events tied to world economic and environmental issues could potentially produce a situation for larger civil disturbances to occur.

THREAT ASSESSMENT 16: NATIONAL SECURITY EMERGENCY

A national defense emergency will normally be announced by the Federal government; however, unless there is a sudden, unprovoked attack, there should be some time available for planning and initiation of evacuation procedures. It is not the duty of civil authorities to fight the war, but rather to control and care for the local population. Local and state authorities under a "State of War" have not been exercised since World War Two.

Potential impacts of a national security emergency include:

Military Call-up and Activity

A major national defense emergency would require the activation of the Military Reserve Forces and the National Guard. Members of those organizations would be called to duty. Their service in the federal government takes precedence over local authority. There would be no trained replacement personnel immediately available. This would affect government agencies at all levels and organizational restructuring might be necessary. There are very few military installations in the region which would be deploying troops. However, movement through the area could place a great deal of strain on major highways and local resources.

Civilian Activity

The civilian population may also be immediately affected by a declaration of a national emergency. Most certainly there will be a significant portion of the population which would try to evacuate the area in advance. This could produce some civil disobedience. Employee safety could become a significant concern.

Outright War or Attack

An attack upon the United States (either conventional or nuclear) is extremely unlikely. The potential for such an event, however, does not exist. Although the chances of a massive nuclear strike on the U.S. have greatly diminished, several countries throughout the world have developed, or are seeking to develop the capability of deploying nuclear weapons, either on a tactical basis or a strategic one. Additionally, the possibility exists that a terrorist organization might acquire the capability of creating a small nuclear detonation. A single nuclear detonation in the United States would likely produce fallout affecting an area many times greater than that of the blast itself.

In the event of a conflict involving the major world powers, an attack on the Bay Area would be an almost certainty. In most probability, the attack would be from missiles with nuclear warheads. An attack on the coast by amphibious forces is unlikely. This is normally the responsibility of the federal agencies; however, protection of municipal facilities and resources would be an important consideration.

There are several "strategic" targets in the Bay Area which are/would be targeted for a nuclear strike. In addition to the military installations, defense production and communications-related civilian activities may be designated as targets. Destruction would be complete in many areas and all normal sources of power and water will cease to exist. The surviving population would flee the area by any means possible. Areas not directly affected by the blast of weapons will suffer the effects of radioactive particulate dispersed into the atmosphere.

In the event of a massive attack, there would be no help from outside agencies for a prolonged period. It would be the responsibility of law enforcement to restore order and the job of the entire government to re-assert its authority and re-establish any systems possible to aid in the placement and care of refugees as well as local citizens.

PART THREE
REFERENCES AND ACRONYMS

OPERATIONAL AREA ANNEXES

Available reference material includes annexes that supplement the Marin County Operational Area EOP. These documents provide information or additional detail for hazards or response functions. The list below indicates current Marin County Annexes. Additional annexes will be developed. All current annexes are available to all agencies within the Marin County Operational Area.

• EOP Post-Disaster Housing Annex	December 2003
• EOP Care and Shelter Annex	March 2005
• EOP Spontaneous Volunteer Annex	September 2005
• EOP Tsunami Annex	January 207
• EOP Vulnerable/Special Needs Populations Annex	June 2007
• EOP Medical/Health Annex	November, 2006
• EOP Oil Spill Annex (Draft)	April, 2006
• Marin County Hazardous Materials Area Plan	July 2008

EMERGENCY OPERATION SUPPORTING PLANS

Available Reference material includes Emergency Operation Supporting Plans. These documents provide information or additional details for hazards or response functions. The list below indicates current Marin County Emergency Operation Supporting Plans. Additional plans will be developed. All current plans are available to all agencies within the Marin County Operational Area.

- Local Hazardous Mitigation
- Hazardous Materials
- Response Strategy for Homeland Security Advisory System Red
- Weapons of Mass Destruction Response
- Bio-terrorism Threat Response
- Influenza Pandemic Response
- Surveillance and Epidemiological Response
- West Nile Virus Risk
- Expanded Medical Preparedness Guide for Neighborhoods
- Marin Animal Disease Emergency Response
- San Francisco Bay Regional Emergency Coordination

AUTHORITIES AND REFERENCES

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, Division 2 of Title 19 of the California Code of Regulations), establishes SEMS to provide an effective response to multi-agency and multi-jurisdiction emergencies in California.

Homeland Security Presidential Directive (HSPD-5) gives the Secretary of Homeland Security the responsibility of developing and administering the National Incident Management System (NIMS).

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

The National Response Plan (NRP) establishes a single, comprehensive approach to domestic incident management to prevent, prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies. The NRP is an all-hazards plan built on the template of the National Incident Management System (NIMS). The NRP can be partially or fully implemented in the context of a threat, anticipation of a significant event, or in response to an incident requiring a coordinated Federal response. The NRP applies to all incidents requiring a coordinated Federal response as part of an appropriate combination of Federal, State, local, tribal, private-sector, and nongovernmental entities. The NRP is always in effect; however, the implementation of NRP coordination mechanisms is flexible and scalable.

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

Federal

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

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

Federal Response Plan (FEMA)

Federal Departments and agencies HSPD-5 requirements for adoption of NIMS by State and local organizations

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

State

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

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

'Good Samaritan' Liability

California Emergency Plan

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

Preservation of Local Government, Article 15 of the California Emergency Services Act (Chapter 7 of Division 1 of Title 2 of the Government Code)

Temporary County Seats, Section 23600, Article 1 of Chapter 4 of Division 1 of Title 3 of the Government Code

California Hazardous Materials Incident Contingency Plan

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

Orders and Regulations which may be Selectively Promulgated by the Governor during a State of Emergency

Orders and Regulations Promulgated by the Governor to Take Effect upon the Existence of a State of War Emergency

California Master Mutual Aid Agreement

California Law Enforcement Mutual Aid Plan

California Fire and Rescue Operations Plan

Judicial System, Article VI, Section 1, 4, 5, and 10, of the Constitution of California

Local Government, Article XI, of the Constitution of California

Americans with Disabilities Act

All operations and facilities involved in the disaster response activities shall take special note of the Americans with Disabilities Act (ADA). Appropriate efforts shall be made to insure that necessary considerations are given to accommodate victims with disabilities. Public warning, emergency communications, transportation, and sheltering are areas that require special attention.

ACRONYMS

AAR	After Action Report
ACS	Auxiliary Communications Service
ADA	Americans with Disabilities Act
ARC	American Red Cross
C&S	Care and Shelter
CAD	Computer Aided Dispatch
CalFire	California Fire
CalTrans	California Department of Transportation
CAO	Chief Administrative Officer
CAP	Corrective Action Plan
CBRNE	Chemical, Biological, Radiological, Nuclear and Explosive
CDF	California Department of Fire
CERT	Community Emergency Response Team
CHP	California Highway Patrol
CVNL	Center for Volunteer and Nonprofit Leadership
DC3	Disaster & Citizens Corps Council
DPW	Department of Public Works
EAS	Emergency Alert System
EDIS	Emergency Digital Information System
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOP	Emergency Operations Plan/Emergency Operating Procedures
EPA	Environmental Protection Agency
FBI	Federal Bureau of Investigation
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
HEART	Homeowner Emergency Action Response Team
HSPD-5	Homeland Security Presidential Directive -5
ICS	Incident Command System
JIC	Joint Information Center
MACC	Multi-Agency Coordination Center
MCI	Mass Casualty Incident
MEANS	Marin Emergency Automated Notification System
MHOAC	Medical Health Operational Area Coordinator
MMRC	Marin Medical Reserve Corps
NIMS	National Incident Management System
NOOA	National Oceanic and Atmospheric Administration
NRP	National Response Plan
OA	Operational Area
OASIS	Operational Area Satellite Information System
OHS	Office of Homeland Security
PHO	Public Health Officer
PIO	Public Information Officer
RACES	Radio Amateur Civil Emergency Services
REOC	Regional Emergency Operations Center
RIMS	Response Information Management System
SEMS	Standardized Emergency Management System
SOC	State Operations Center
SOP	Standard Operating Procedures
TSA	The Salvation Army
TENS	Telephone Emergency Notification System
WMD	Weapons of Mass Destruction