

TOWN OF ROSS

Ross Emergency Operations Plan (EOP)



2013

TABLE OF CONTENTS

EOP Resolution
.....

PART ONE - GENERAL INFORMATION

The Plan.....
Purpose, Objectives, Goals, Assumptions
Concept of Operations
Emergency Management Organization & Responsibilities.....
SEMS and NIMS.....
Mutual Aid.....
Volunteer Resources
Ross Emergency Operations Center (EOC).....
EOC Position Descriptions and Responsibilities
Emergency Proclamations.....
Continuity of Government

PART TWO – HAZARD/THREAT ASSESSMENTS

General.....
Potential Hazards and Threats Summary.....
Assessment 1: Earthquake
Assessment 2: Flood.....
Assessment 3: Wildland Fire
Assessment 4: Winter Storm
Assessment 5: Tsunami.....
Assessment 6: Landslide.....
Assessment 7: Drought.....
Assessment:8: Climate Change/Sea Level Rise
Assessment 9: Public Health Crisis
Assessment 10: Extreme Temperature Event.....
Assessment 11: Hazardous Materials Incident
Assessment 12: Transportation Accident
Assessment 13: Dam Failure

Assessment 14: Energy Disruption.....

Assessment 15: Radiological Incident.....

Assessment 16: Terrorism.....

Assessment 17: Civil Disturbance.....

Assessment 16: National Security Emergency.....

Assessment 19: Security Related Threats.....

PART THREE – ACRONYMS, REFERENCES AND GLOSSARY OF TERMS

Acronyms.....

Authorities and References.....

Glossary of Terms.....

PART FOUR – APPENDICES

Appendix 1 - Sample Director of Emergency Services Proclamation

Appendix 2 - Sample EOC Action Plan Objectives

Appendix 3 - Sample EOC Objectives

Appendix 4 - Sample Incident Objectives (ICS 202)

Appendix 5 - Sample EOC Action Plan Template

Appendix 6 – ICS Forms

Appendix 7 – Sample Trigger Points for EOC Activation

Appendix 8 – Position Checklists

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.

PART ONE

GENERAL INFORMATION

THE PLAN

The Ross Emergency Operations Plan (EOP) addresses the planned response to extraordinary emergency situations associated with disasters affecting Ross. 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 the Town of Ross.
- ◆ Establishes the overall operational concepts associated with the Town of Ross 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 Ross's 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 Town of Ross. Departments within Ross 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.

Emergency Operations Plan Requirements

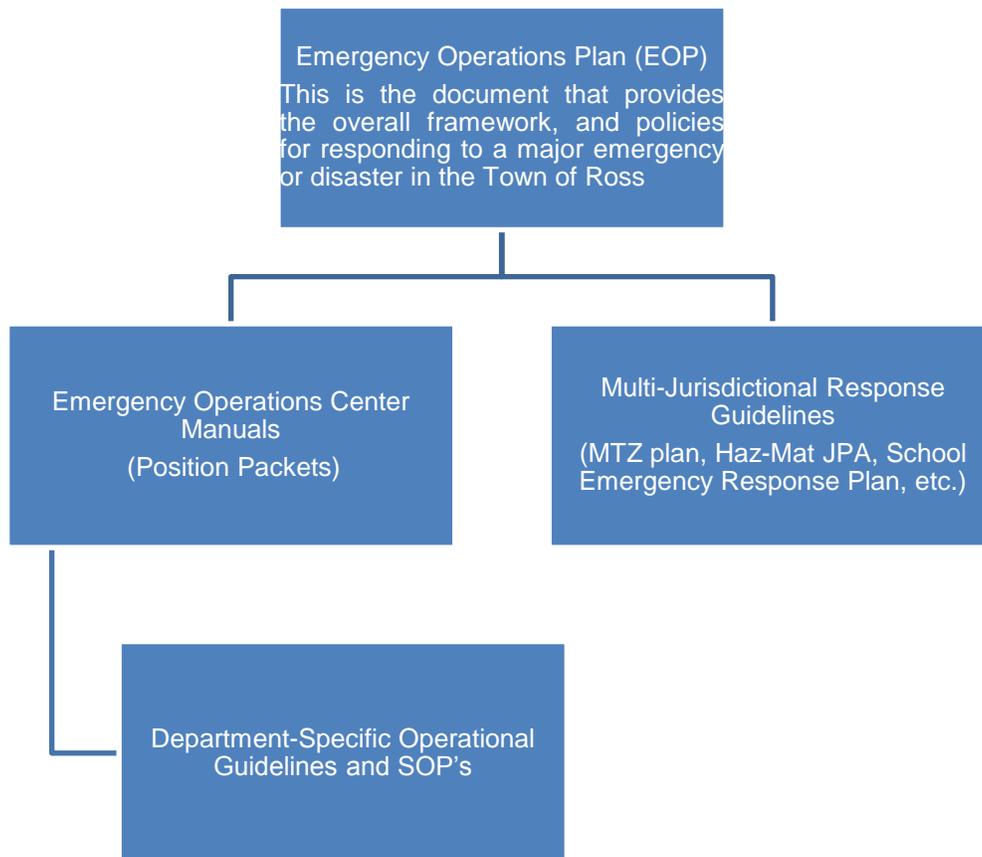
The Town of Ross EOP requires approval by the Ross Town Council. The Ross Town Council is responsible for its periodic review, updates, re-publishing and re-distribution. Records of revision(s) to this plan will be maintained by Town Manager’s Office. The plan may be modified as a result of post-incident 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 Town Manager’s Office when changes need to be made.

Ross agencies and organizations may separately publish documents that support this EOP.
(List supporting Plans/documents)

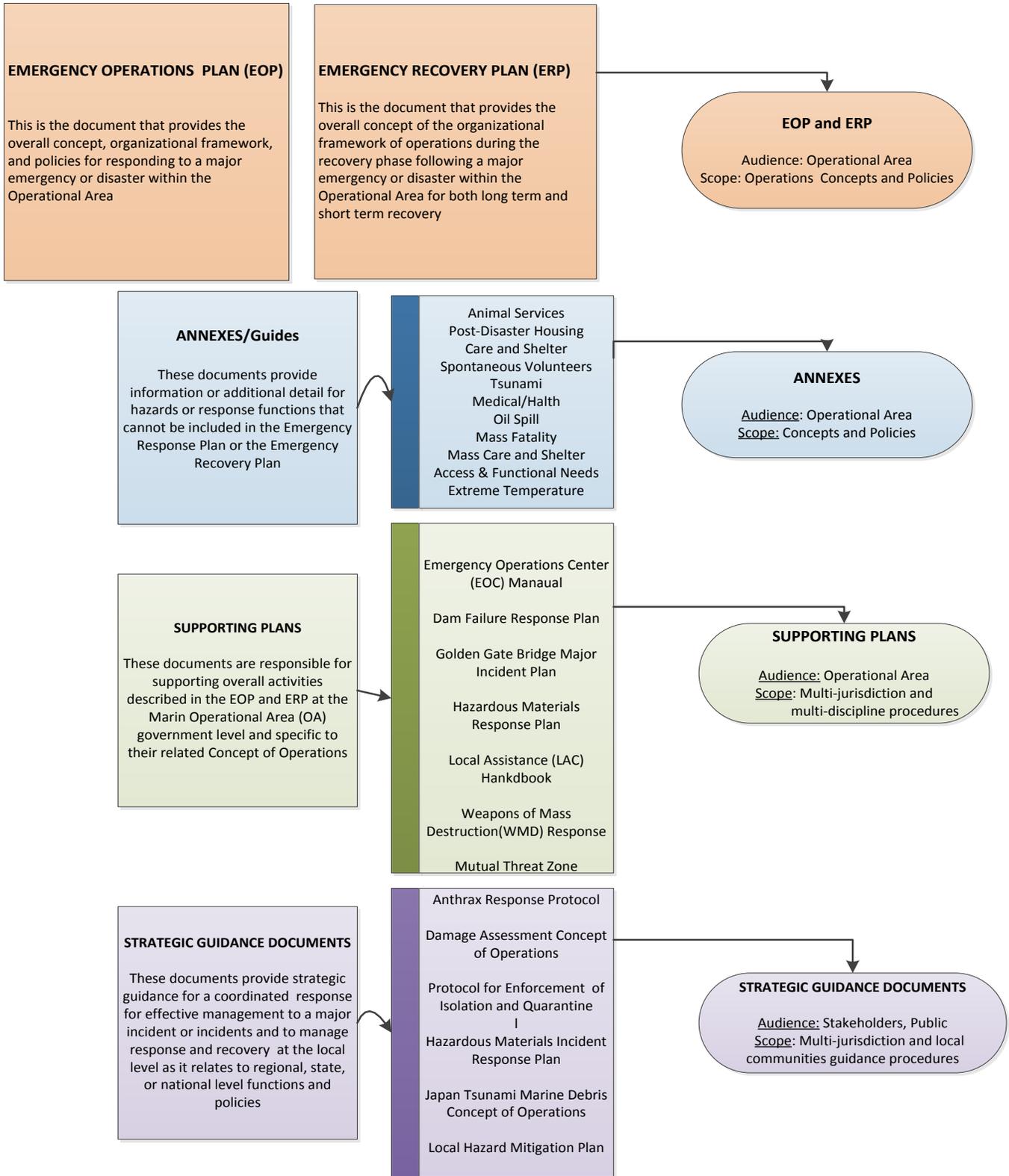
- California Emergency Management Agency (Cal EMA) Emergency Plan
- California Standardized Emergency Management System (SEMS)
- Federal Emergency Management Agency (FEMA) National Incident Management System (NIMS)
- Marin County Office of Emergency Services (OES) Mission, Organization And Program Description

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.



Note: The Marin County Sheriff’s Office of Emergency Services (OES) provides an Operational Area Emergency Operations Plan (EOP), EOP Annexes, Supporting Plans and Supporting Documents



PURPOSE/OBJECTIVES/GOALS/ASSUMPTIONS

Purpose

This EOP establishes policies and procedures and assigns responsibilities to ensure the effective management of emergency operations within the Town of Ross. It provides information on the Town of Ross 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 Town of Ross 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 Town of Ross will utilize SEMS and NIMS in emergency response and management operations
- The Director of Emergency Services will coordinate Ross's disaster response in conformance with its Emergency Organization and Functions as per The Town of Ross Municipal Code

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

CONCEPT OF OPERATIONS

The emergency management organization in The Town of Ross 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 Town of Ross 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.

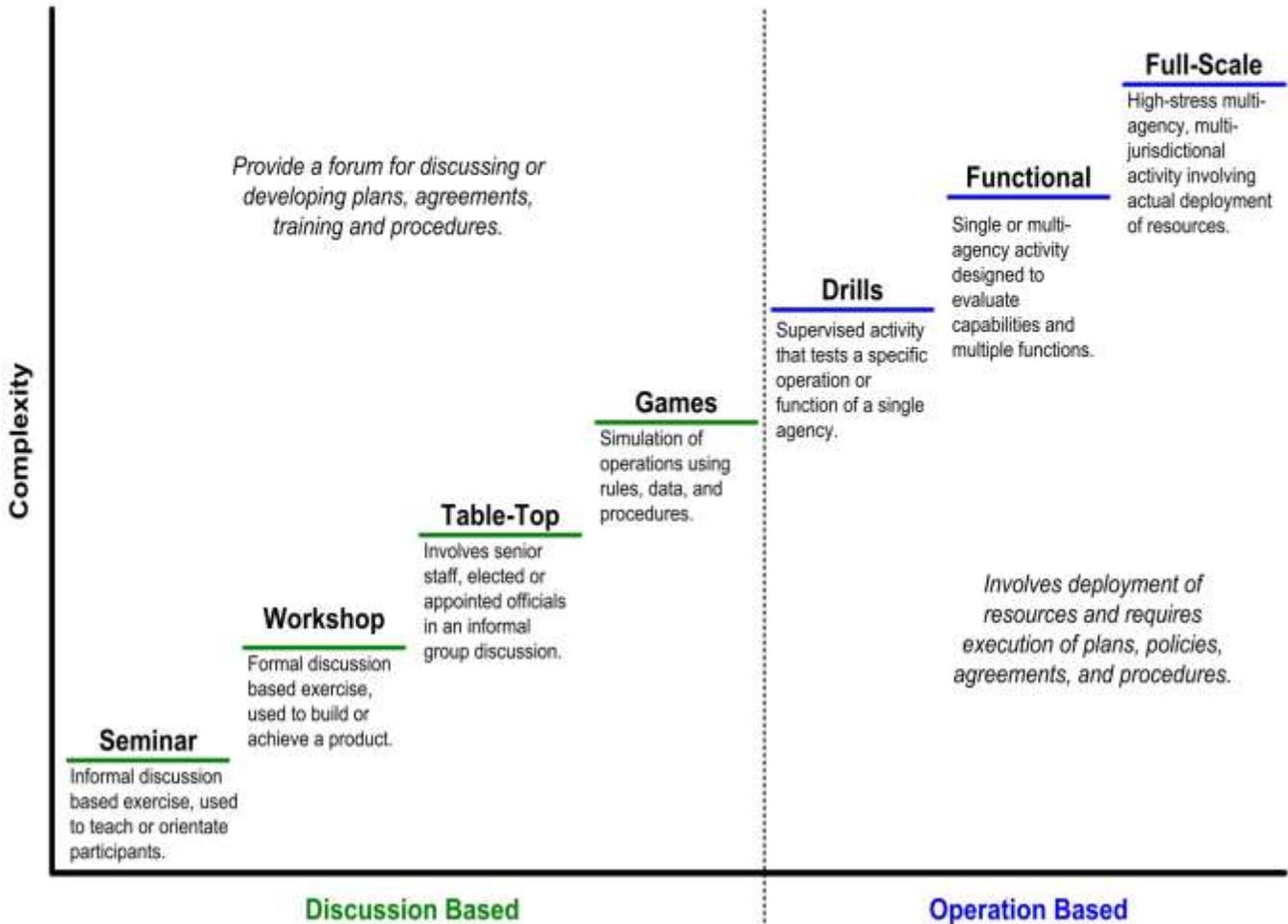
The best method of training emergency responders is through exercises. Exercises allow emergency responders to become familiar with the procedures, facilities and systems that they will actually use in emergency situations.

Exercises will be conducted on an as needed basis to maintain readiness. Exercises should include the Town Council, Ross Town Manager, Ross Police Chief and staff, Ross Valley Fire Department (RVFD) and staff and other Town staff from building, planning and public works. The Town of Ross 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.



Emergency Management Exercise Continuum

Exercises are focused practice activity that places participants in a simulated situation requiring them to function in the capacity that would be expected of them in a real event. They are conducted to evaluate an organization's capability to execute one or more portions of its response plan or contingency plan.



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 the Town of Ross 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

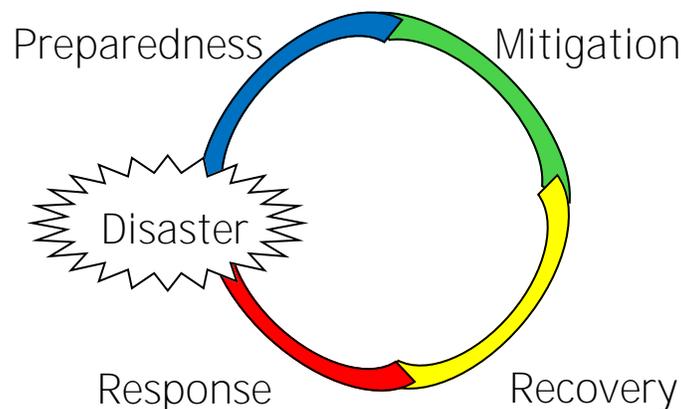
4. Prevention/Mitigation Phase

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 Town of Ross 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 Planning makes it possible to manage the entire life cycle of a potential crisis. Strategic and operational planning establishes priorities, identifies expected levels of performance and capability requirements, provides the standard for assessing capabilities and helps stakeholders learn their roles.

The Federal Emergency Management Agency (FEMA) has designed a National Response Framework with guiding principles that enable all response partners to prepare for and provide a unified response to disasters and emergencies – from the smallest incident to the largest catastrophe.



EMERGENCY MANAGEMENT ORGANIZATION & RESPONSIBILITIES

Director of Emergency Services

The Town Manager is designated the Director of Emergency Services per Municipal Code. The Director of Emergency Services assumes the responsibility and authority for directing the Town’s emergency management organization, including emergency response and recovery.

The Director of Emergency Services 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

(List - All staff, departments heads per jurisdiction) are responsible to assist with disaster response as directed by the (title of designated individual above), Position assignments within the organizational structure will be made by the EOC director dependent on the scope and nature of the incident and resources available. The following functional matrix will assist in assigning responsibilities(assigned roles will vary with each agency).

Department Functional Matrix *P = Primary Responsibilities S = Support Responsibilities*

	Mayor/ Council	Town Manager's Office	Finance	Fire	Police	Public Works	Planning	Parks and Recreation	Library
MANAGEMENT									
Director		P		S	S				
EOC Coordinator				P	P	S			
PIO		P		S	S	S	S		
Legal		P							
Safety/Security		P		S	S				
EOC Liaison									
OPERATIONS									
Law				S	P	S			
Fire/Rescue				P	S	S			
Medical/Health				P	S	S			
Public Works				S	S	P			
Care & Shelter				S	S	S			

PLANNING/INTEL									
Sit Analysis				S	S		P		
Documentation/Display				S	S		P		
Advance Planning		S	S	S	S		P		
Demobilization				S	S				
Recovery Planning		S	S	S	S	S	P		
LOGISTICS									
Communications				P	P	S			
Personnel				S	S	S			
Supply/Procurement			P			S			
Transportation				S	S	P			
Facilities				S	S	S			
Resource Status				S	S	S			
FINANCE/ADMIN									
Payables			P						
Time Keeping			P						
Compensation/Claims			P						

The Town of Ross Disaster Council

The Town of Ross Disaster Council, as defined by Municipal Code consists of the following:

- Mayor as chair
- Director of Emergency Services, vice chair
- Assistant Director of Emergency Services
- Police Chief or designee
- Ross Valley Fire Department or designee
- Other representatives as appointed by the Director with the advice and consent of the Town Council

The Town of Ross Disaster Council is responsible for the development emergency and local mutual aid plans and agreements and such ordinances, resolutions, rules and regulations as are necessary to implement such plans and agreements. Additionally, the Town of Ross Disaster Council serves to:

- Review and evaluate disaster preparedness progress in the public and private sectors and report these findings to the Ross Town Council
- Promote disaster preparedness through communication and education
- Harness the power of every resident through education and outreach, training, and volunteer service to make their families, homes and communities safer from natural and/or man-made disasters or emergencies
- Appoint chair and selection of membership of the Council

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 the Town of Ross.

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 includes 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:

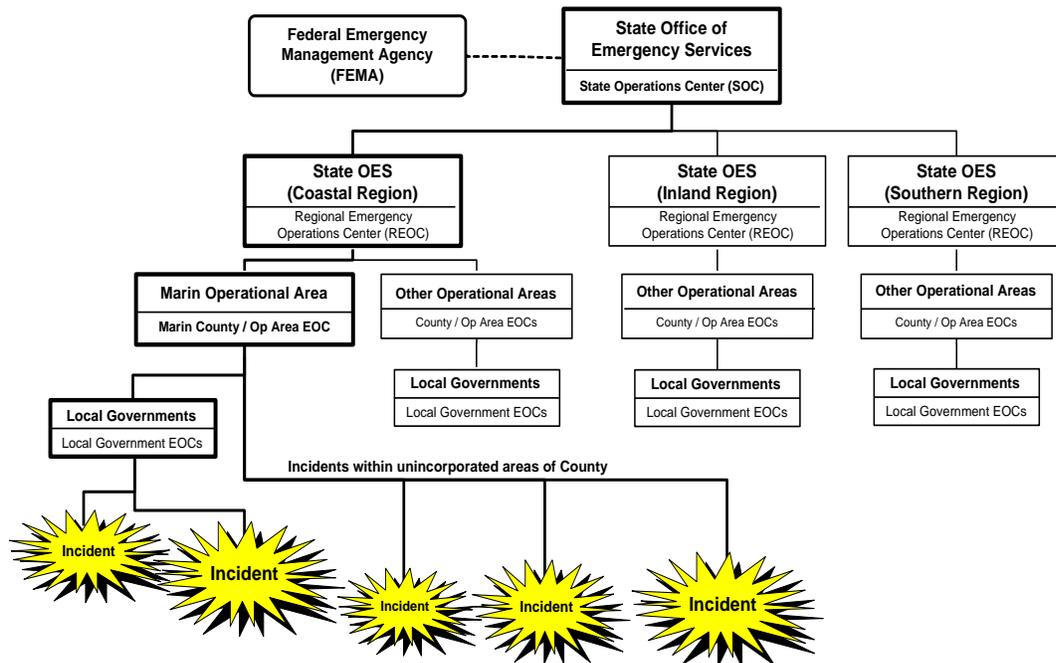
The Town of Ross is responsible for emergency response within its geographical boundaries. Under SEMS and NIMS, The Town of Ross has responsibilities at two levels: The Field Response and the Local Government level.

Field level

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

Local level

At the local 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 Town of Ross’s resources and capabilities.



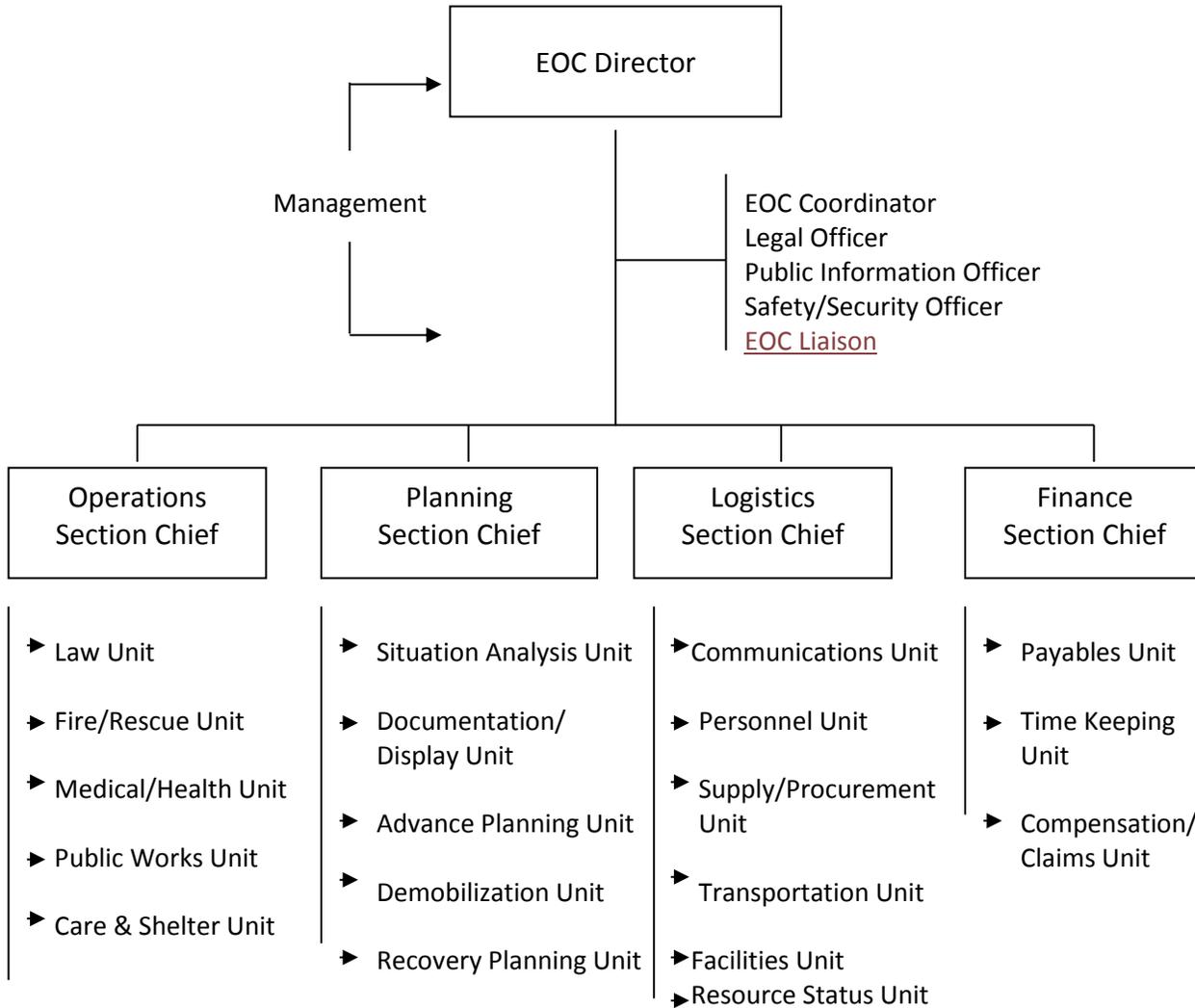
Organization Flexibility – Modular Organization

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 .

Sample EOC Organization Chart



JIC and JIS

During disaster and emergencies, the general public and the media will demand information about the situation and instruction on proper response actions. The Joint Information System is the effective mechanism through which the Town of Ross will organize, integrate, and coordinate information to ensure timely, accurate, accessible and consistent messaging activities during disaster and emergencies. The JIS provides a structure and system for Public Information Operations.

-NIMS defines a Joint Information Center (JIC) as the physical location where public information staff involved in incident management activities can collocate to perform critical emergency information, crisis communications, and public affairs functions.

-NIMS also provides that local jurisdictions be capable of establishing public information systems to support onsite operations, using the Join Information System (JIS)

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. Ross departments, agencies and possibly affiliated special districts, volunteer agencies and private organizations coordinate emergency response at the EOC. The Ross EOC functions as a centralized location for coordinating the resources and actions during disaster operations.

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 Town of Ross.

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, as in the Town of Ross, 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.

The following list represents some of the major special districts within and surrounding the Town of Ross:

- Kentfield Fire Protection District
- Marin College District
- Marin County Transit District
- Marin Municipal Water District

- Marin Sanitary District
- Ross School District
- Ross Valley Fire Department
- Ross Valley Paramedic Authority

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 Town of Ross fully participates in the mutual aid system. When the Town of Ross is requesting mutual aid, the request for mutual aid support goes to the County mutual aid coordinator for that particular resource.

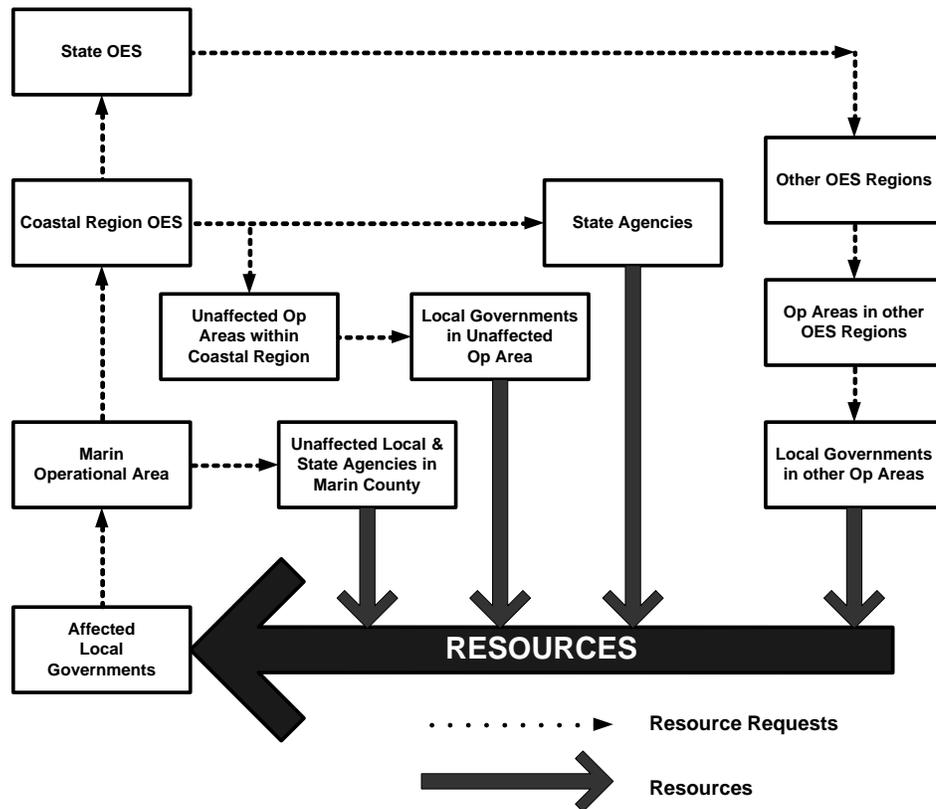
Mutual aid agreements exist in:

- Law Enforcement
- Fire Services
- Medical
- Public Health
- Emergency Managers
- Hazardous Materials
- Public Utilities
- Engineers
- Coroner, and others

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 Town of Ross. 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/ACS)

RACES

Amateur radio plays a vital role in emergency communications during disasters. It is, therefore, essential for an amateur radio communications system to exist that can support and back up the needs of disaster services.

The Radio Amateur Civil Emergency Service (RACES) is organized under FEMA and operates according to Federal Communications Commission (FCC) rules, and is a volunteer organization of licensed amateur radio operators who donate time, energy, skills, and use of personal equipment to support public service emergency communications. The Marin Operational Area RACES group is affiliated with the State of California Office of Emergency Services Auxiliary Communications Service (ACS).

In Marin County, RACES/ACS is part of the Marin County Office of Emergency Services. RACES/ACS members may provide communications support using amateur radio, cellular & regular phones, computers, e-mail, facsimile, Internet, microwave, public service radio (police, fire, law enforcement), satellite, television, and video-conferencing systems; as well as field and in-office support of personnel.

RACES members are assigned to assist the Town of Ross during disaster operations.

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.

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 Ross is managed and coordinated by the Ross Valley Fire Department (RVFD) and 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 RVFD Fire stations. Current programs include: emergency response training, get ready disaster training and CPR classes.

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. The Get Ready plan which includes how to be informed, how to make a disaster plan, how to build an emergency kit, how to get involved and much more information is provided as resource on the Town of Ross website and is also published in a Town of Ross Emergency Preparedness guide. Ross Valley Fire Department provides community Get Ready training as well as Get Ready 5th Grade, which is delivered to all 5th grade class rooms annually.

TOWN OF ROSS EMERGENCY OPERATIONS CENTER (EOC)

Introduction

The purpose of an EOC is to support field level response and coordinate activities through a single strategic MACRO Management center/facility through effective:

- 1) COMMUNICATION
- 2) COORDINATION
- 3) Strategic POLICY Guidance
- 4) Determination of PRIORITIES
- 5) Comprehensive INFOMRATION Management
- 6) Comprehensive RESOURCE Management
- 7) DOCUMENTATION for later financial recovery

Day-to-day operations are conducted from departments and agencies that are widely dispersed throughout the Town of Ross. 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 Town of Ross 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 Town of Ross 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 Town of Ross EOC is located at the Ross Police station at 33 Sir Francis Drake Boulevard. The EOC is supplied with necessary resources, supplies, and systems to effectively manage disaster response and recovery operations and is equipment to function on a 24/7 basis. The EOC serves as a place for the collection and dissemination of information. Staffing pattern is SEMS based, and operational periods are determined during the initial stages of an event.

EOC organization and staffing is based on those standards set forth by SEMS and NIMS. 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 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. Once the EOC is activated, operational periods will be established along with event driven goals and objectives that are determined during the initial stages of an event. The level of EOC staffing will vary with the specific emergency situation, enabling the efficient use of available Town staff. 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.

Alternate EOC Location and Description

If the primary EOC location is for some reason unavailable, an alternate EOC has been identified and minimally equipped to support EOC operations. The alternate EOC is located at Ross Valley Fire Department Station 19 at 777 San Anselmo Ave, San Anselmo, CA 94960. Activation of the alternate EOC will be decided by the Director of Emergency Services with advice from other Town leadership.

When to Activate the EOC:

Some emergency events, such as a large earthquake, will clearly warrant an automatic activation of the EOC. These events, based on their immediate severity, will bring staff into the EOC for quick situation analysis, damage assessment, and to determine the level of impact on the Town of Ross. Other events, such as flooding or a major wildfire, will begin with local field responses and develop with such severity the emergency will

warrant support and resources from the EOC. This section of the EOP provides general information on the Ross EOC, specific information and details regarding EOC operations.

Who Can Activate the EOC

The following individuals, either acting as the EOC Director or on behalf of the EOC Director, or their appointed representatives (as referenced in Continuity of Government Lines of Succession), are authorized to activate the EOC:

- Ross Town Manager
- Ross Police Chief or designee
- Ross Valley Fire Chief or designee

How to Activate the EOC:

Activation Levels

The following activation levels serve only as guidelines and should be adjusted as needed.

1. Minimal

This level serves the early stages of an event and provides the basic, core functions of the EOC. Staffing would include the EOC Director, EOC Coordinator, Liaison, Public Information Officer, Operations Chief, Planning Chief, and Logistics Chief. The actions for this level of activation would include: situation analysis, public information, response & resource coordination, and logistical support.

2. Partial

This level provides the same functions as the minimal level of staffing but brings additional staff in to support higher intensity operations. Additionally, agency representatives may be brought into the EOC.

3. Full

This is a full scale activation that may require filling every EOC position in addition to the addition of other agency representatives.

Town of Ross 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	Minimal	EOC Director EOC Coordinator Liaison Officer PIO and Deputy 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
Significant incidents involving two or more cities			
Earthquake Advisory Level I			
Severe Weather or Tsunami Warning	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
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			
Major city or regional emergency - multiple areas with heavy resource involvement	Full	All positions Liaison/Agency reps as Appropriate	Situation analysis Response coordination Resource coordination Logistics support Public Information Sustained Operations
Earthquake with severe damage			

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 Town of Ross. 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:

- Information Technology (IT) communications. The Communications Branch coordinates IT Support, the Radio Amateur Civil Emergency Services (RACES), the EOC message center

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.

Coordination Links

Field Level Response	
Local Government EOCs (Cities/Towns and Special Districts)	
Marin Operational Area EOC	
Governor’s Office of Emergency Services Coastal Region/Mutual Aid Region II	
Governor’s Office of Emergency Services	

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

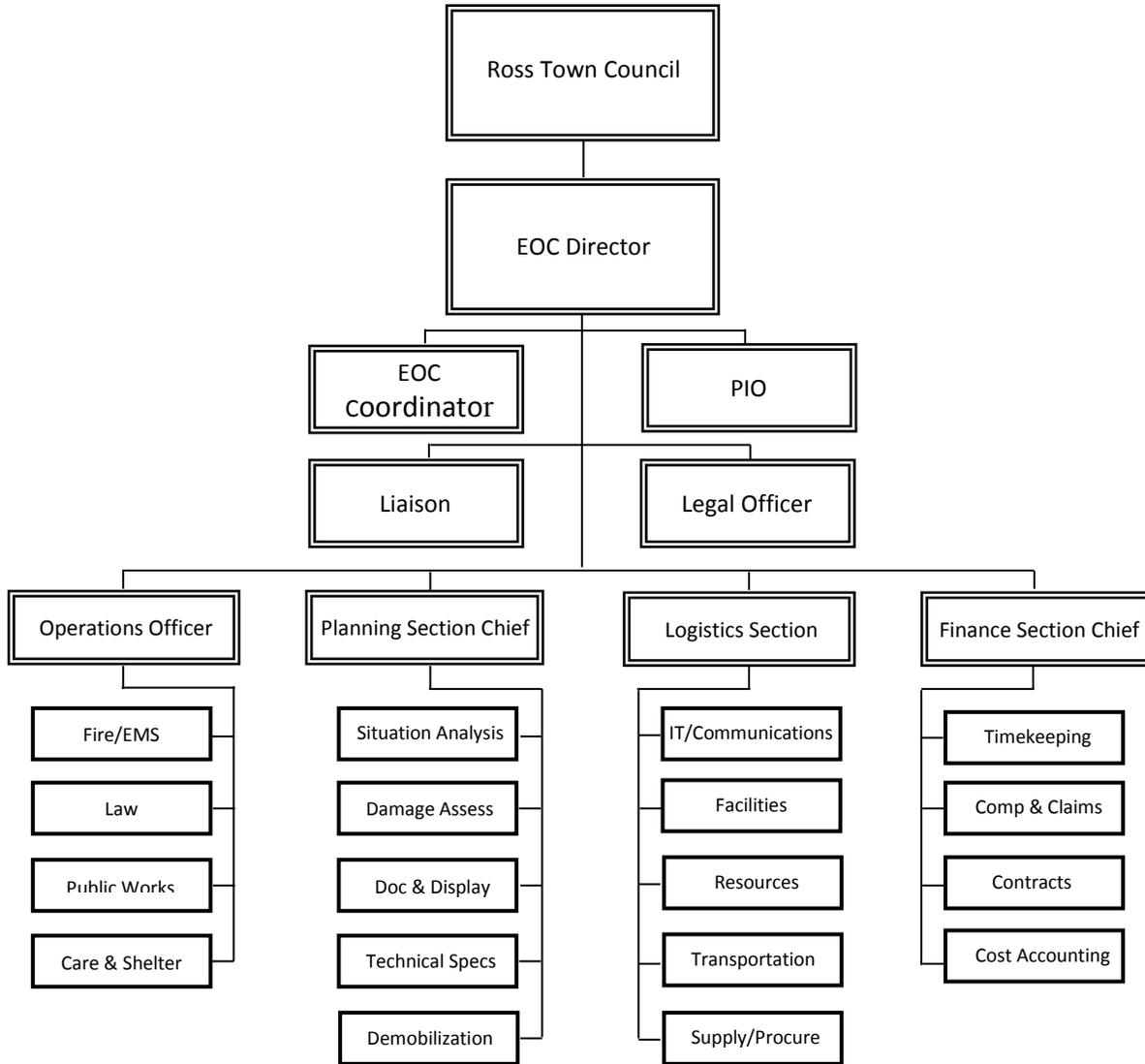
Planning/Intelligence - Responsible for collecting, evaluating and disseminating information; assist in developing the County OA’s EOC Action Plan, After Action Report, and Corrective Action Report, in coordination with the EOC Emergency Services Coordinator

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

Ross EOC Organizational Structure



EOC POSITION DESCRIPTIONS AND RESPONSIBILITIES

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.

- **EOC Director** – The EOC Director is responsible for directing Ross’s response and recovery for any disaster or emergency. In Ross, the Town Manager is the primary EOC Director and may delegate this responsibility

- **EOC Coordinator** – The EOC Coordinator serves as a resource, and assists the EOC Director in the administration of the emergency response. In addition, the EOC Coordinator provides guidance to all other EOC staff in performing their responsibilities
- **Liaison Officer** – When an incident has a multi-agency or multi-jurisdictional response, the Liaison Officer provides and maintains coordination with outside agency representatives, other Operational Area jurisdictions, local businesses and employers, the Region EOC, State OES, and other political representatives
- **Public Information Officer** – The Public Information Officer (PIO) acts under the direction of the EOC Director and Emergency Services Coordinator and coordinates town and county public information activities. The PIO ensures that the media and citizens are fully informed on all aspects of the emergency. During regional events, the PIO will be the point of contact for the designated regional Joint Information Center (JIC)
- **Legal Officer** – The Legal Officer is the Ross Town Attorney or his or her designate. The Legal Officer provides advice to the EOC Director and Town Council in all legal matters relating to the emergency. The Legal Officer assists the Director of Emergency Services/EOC Director in declaring a local emergency and implementation of emergency powers

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 Town of Ross 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/Groups can be added as needed.

Operations Section Chief – The Operations Section Chief is in charge of all branches/units in the Operations Section and reports to the EOC Director. This position also assists in the development and execution of the Action Plan. The Operations Section Chief shall be advised of all requests for Mutual Aid and other resources

Fire/EMS – The Fire Branch directs the response activities of town, volunteer, and mutual aid fire resources. This Branch coordinates rescue operations with the Public Works Branch and other outside agencies as required for heavy rescue

Law Enforcement – The Law Branch coordinates the response activities of the Police Department units, reserves, and volunteers. It also coordinates Coroner activities and all law mutual aid, including resources such as California Highway Patrol and the California National Guard

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

Care & Shelter – The Care and Shelter (C&S) Branch directs and coordinates response activities in cooperation with the American Red Cross (ARC), the Salvation Army (TSA), and other voluntary organizations active in

disaster and local government jurisdictions to aid in providing C&S 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:

Planning/Intelligence Section Chief – The Planning Section Chief manages the Planning Section. The Planning Section Chief is responsible for the collection, evaluation, and dissemination of incident information

Situation Analysis – The Situation Analysis Branch's primary role is to collect, collate and process all information and intelligence including Road Conditions and Damage Assessment. Situation Analysis is also responsible for maintaining the Master Incident Log and map displays

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

Technical Specialists – Technical Specialists provide expert information in the development of an Action Plan. Some areas of expertise might be: river levels, weather forecasting, Geographic Information Systems/Maps, hazardous materials or radiological materials

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:

Logistics Section Chief – The Logistics Section Chief ensures the logistics function is carried out in support of the Larkspur EOC and is in charge of all functions within the Logistics Section

- **IT/Communications** – The Communications Branch coordinates Information Technology Support, the Radio Amateur Civil Emergency Services (RACES), the EOC Message Center, and the EOC receptionist
- **Supply & Procurement** – The Supply Branch oversees the procurement and allocation of supplies and material not normally provided through mutual aid channels. It coordinates delivery of supplies, manages donated good programs, establishes and maintains staging areas and coordinates procurement actions with the Finance/Administration Section

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.

- **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, he/she manages the receipt of claims for compensation against the City
- **Timekeeping** – The Time Keeping Branch maintains records of all personnel time worked at the emergency which includes all volunteers that may or may not be previously registered as Disaster Service Workers

EMERGENCY PROCLAMATIONS

Local Emergency

At the local government level an emergency may be proclaimed by the Town Council, or, when in there is an immediate need, the Director of Emergency Services. If the Director proclaims a Local Emergency, the Town Council must ratify it within seven (7) days. The Town Council must review the need for the proclamation at least every fourteen (14) days until the Local Emergency is terminated. The Local Emergency must be terminated by resolution as soon as conditions warrant.

The Town of Ross shall advise the Marin County Sheriff's Office of Emergency Services (OES) of the declaration. 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

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 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 Town of Ross 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

Following is a line of succession for several Town of Ross services and departments.

Service / Department	Title / Position
City Management	1. Town Manager 2. Town Clerk/Administrative Manager
Planning Department	1. Senior Planner 2. Town Clerk/Administrative Manager
Police Department	1. Police Chief 2. Police Sergeant
Public Works Department	1. Town Manager 2. Public Works Superintendent
Ross Valley Fire Department	1. Fire Chief 2. Battalion Chief 3. Captain

Preservation of Vital Records

The preservation of vital records is of high importance to the Town of Ross. The Town Clerk is responsible for the preservation of vital records. The Town has also established a Records Management Program that is tasked to the Town Clerk's Office. The responsibilities are:

- Administering salvage paper programs
- Creating a Town-wide Records Retention program
- Maintaining historical records of the Town
- Reducing the amount of unnecessary records being stored
- Setting up standards and procedures for storing records

The preservation of vital records is critical to the Town's recovery from a catastrophic event. In addition to the information retrieval requirements of response, each response function has a record-keeping component. Although the principal focus of vital records preservation is to support recovery through reimbursement for disaster-related costs, vital records also have a broader and arguably more important function. Vital records become vital as they provide a complete compilation of damage, death, physical and mental trauma, and allocation of public and private resources, making it possible to learn from the disaster experience

Vital records for the Town of Ross are maintained in several locations. Specific information regarding records management and preservation of vital records should be directed to the Town Clerk's Office.

PART TWO

THREAT SUMMARY AND ASSESSMENTS

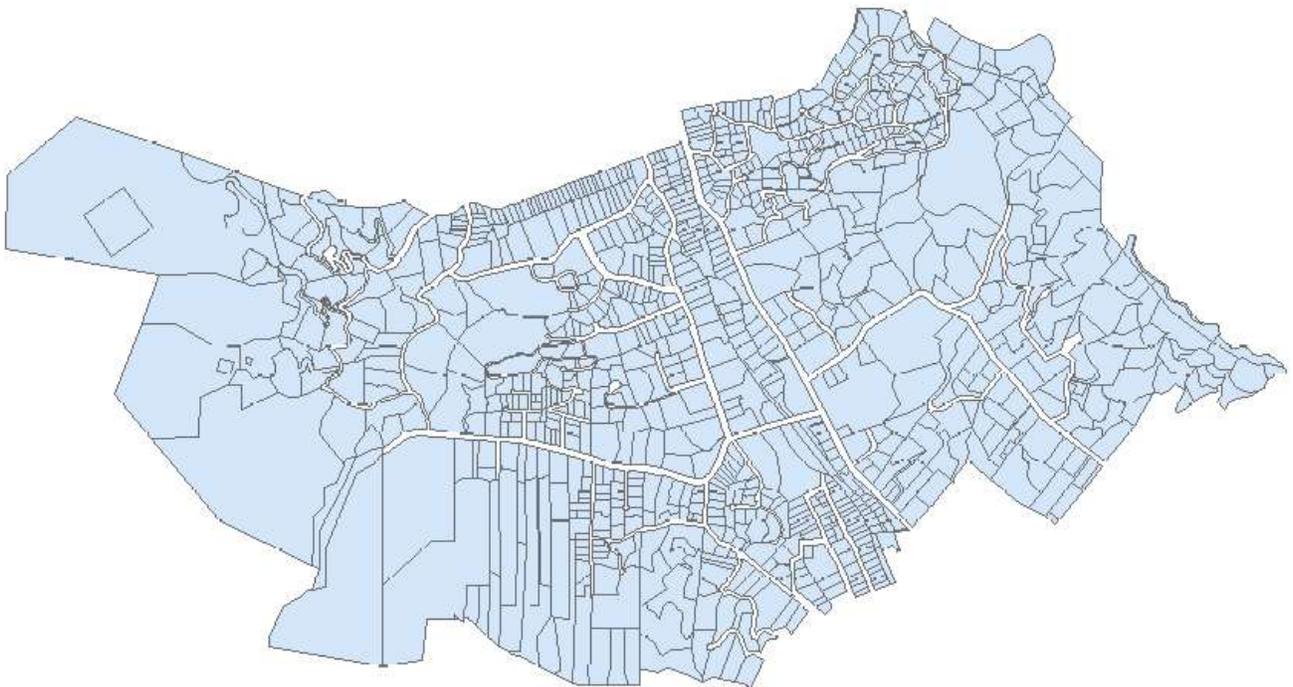
GENERAL

This section of the Ross EOP consists of a series of threat summaries based on the results of the Marin County’s hazard analysis. Within Ross, not all threats are considered to be a critical concern. However, threats that may seem unlikely to affect Ross directly, will indirectly impact our community.

Location, Major Jurisdictions, and Population

The Town of Ross is known for its tree-covered hills, winding creeks and graciously landscaped streets and gardens. The existing scale and quality of architecture, along with low density development, create a community where the man-made and natural environment co-exist.

The Town is located in the Ross Valley, Marin County, California approximately 18 miles north of San Francisco over the Golden Gate Bridge. Ross is 1.6 square miles and has 2,446 residents. The town center includes the Ross Common, the nationally renowned Ross School and the charming, albeit small, Ross commercial area. The community includes areas that are in the 100 year flood zone and areas of very hilly terrain with forested areas.



Transportation and Infrastructure

The primary transportation artery is Sir Francis Drake Boulevard which runs north to south of the major transportation corridor Highway 101 to the east. All other roads in Ross are minor arterials and many roads in the community are private.

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.

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

NATURAL	TECHNOLOGICAL	MANMADE
<ul style="list-style-type: none"> ▪ Earthquake ▪ Flood ▪ Wildland Fire ▪ Winter Storm ▪ Tsunami ▪ Landslide ▪ Drought ▪ Climate Change/Sea Level Rise ▪ Extreme Temperature Event 	<ul style="list-style-type: none"> ▪ Public Health Crisis ▪ Hazardous Materials Incident ▪ Dam Failure ▪ Energy Disruption ▪ Radiological Incident 	<ul style="list-style-type: none"> ▪ Transportation Accidents ▪ Terrorism ▪ Civil Disturbance ▪ National Security Emergency ▪ Security Related Threats

Hazard Frequency and Severity

The following hazard matrix outlines each of these hazards and identifies their likelihood of occurrence and severity:

THREATS	FREQUENCY			SEVERITY		
	Infrequent	Sometimes	Frequent	Low	Moderate	High
1. Earthquake M<5		X		X		
2. Earthquake M>5	X					X
3. Flood		X				X
4. Wildland Fire		X				X
5. Winter Storm			X		X	
6. Tsunami	X				X	
7. Landslide		X			X	
8. Drought	X			X		
9. Climate Change/Sea Level Rise	X			X		
10. Public Health Crisis		X		X		
11. Extreme Temps		X		X		
12. Hazardous Materials Incident	X			X		
13. Transportation Accidents - Aircraft Crash - Major Vehicle /Trucking Accident - Train Crash	X X	X		X	X	X
14. Dam Failure	X				X	
15. Energy Disruption	X				X	
16. Radiological Incident	X				X	
17. Terrorism	X				X	
18. Civil Disturbance	X				X	
19. National Security Emergency	X				X	
20. Security Threats	X				X	

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. 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 Ross'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



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.

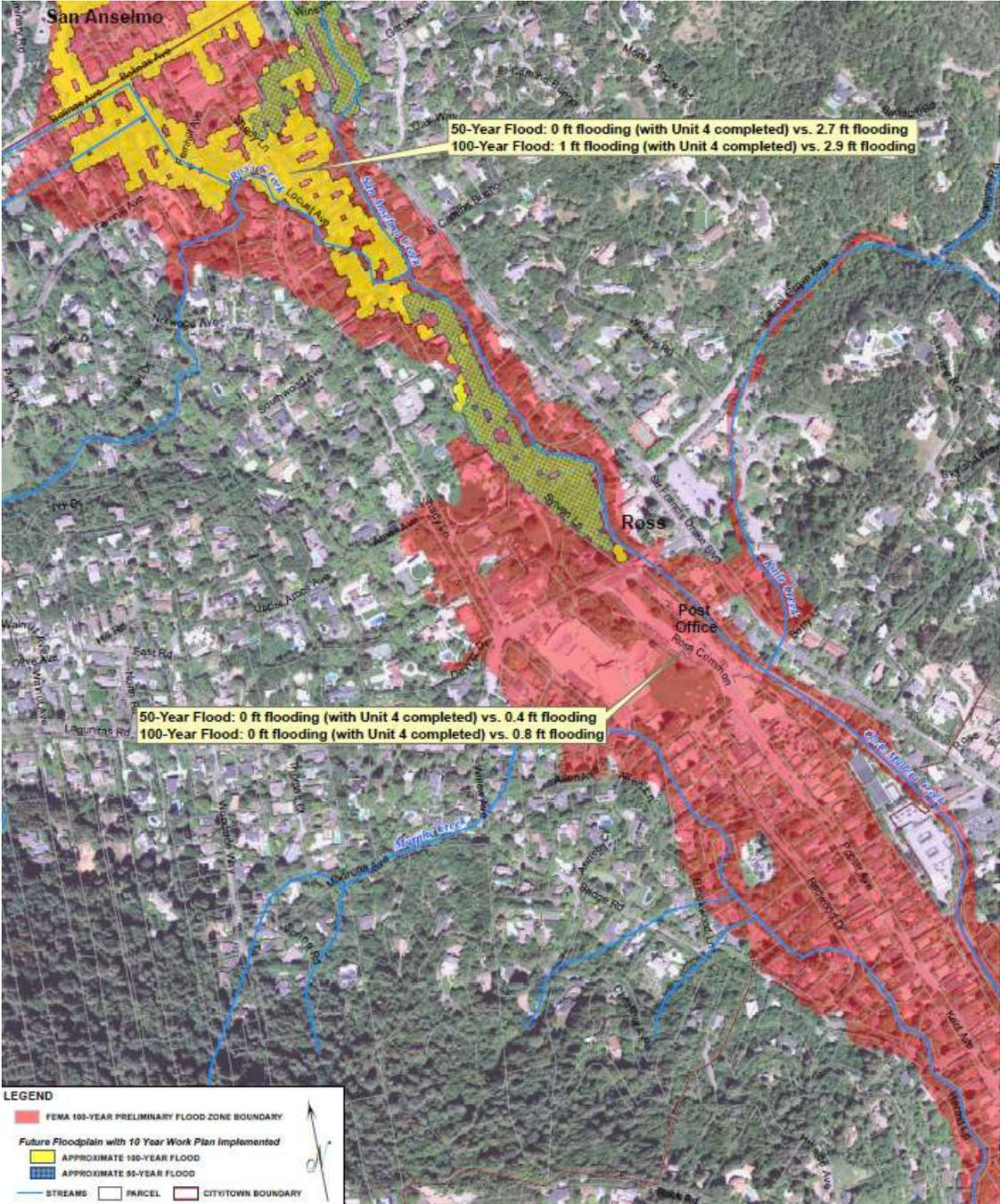
Once flooding begins, personnel will be needed to assist in rescuing persons trapped by flood water, securing utilities, evacuating residents, moving equipment, cordoning off flooded areas and controlling traffic. These actions may overtax local agencies, and additional personnel and resources may be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



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

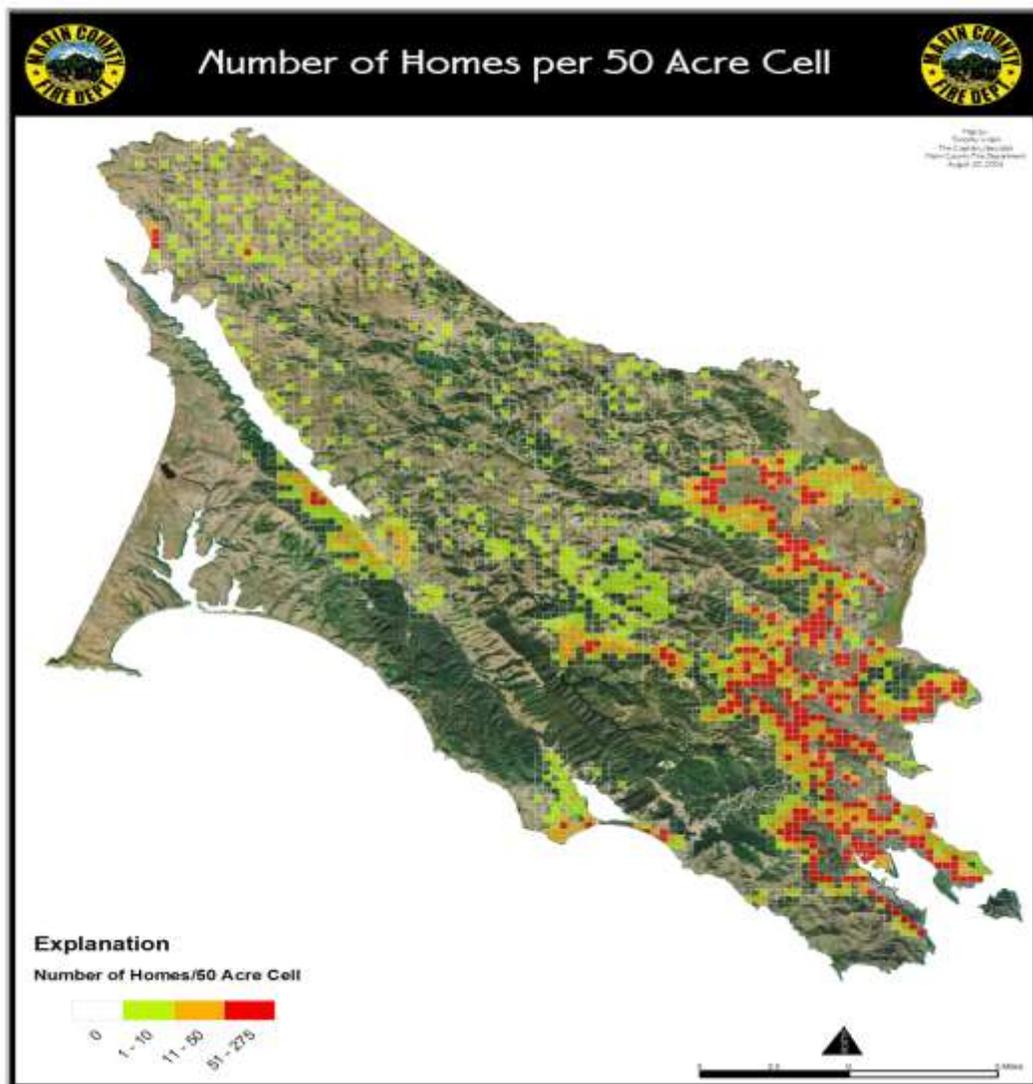
People, and their activities, may cause wildland fires. Since the heaviest concentrations of people are found along Highway 101, most fires start there. Use of equipment, people playing with fire, arson, off-road vehicles, mowing, and debris burning are among the most common causes of wildland fires. 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.

Wildland 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

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.



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.

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. Novato Creek in the northern part of the county historically caused damage to large numbers of homes in the 1960's until the Novato Flood Control Project was completed in the 1980's. The area of Santa Venetia flooded in 1982.

Flooding in 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.

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.

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.

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 Ross Valley communities 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.

ASSESSMENT 8: CLIMATE CHANGE/SEA LEVEL RISE

General Situation

Climate disasters are on the rise. Around 70 percent of disasters are now climate related – up from around 50 percent from two decades ago. These disasters take a heavier human toll and come with a higher price tag. Over the next twenty years, we can expect more and intense climatic hazards everywhere. Particular at risk are our communities located in areas prone to floods. Anthropogenic climate change is projected to result in at

least a 2 degrees Celsius increase in temperature by 2100. Coastal ecosystems, including salt marshes, will be impacted by climate change through accelerating sea-level rise. Emergency management must consider the implications of climate change and resulting sea level rise.

ASSESSMENT 9: PUBLIC HEALTH CRISIS

General Situation

One of the gravest threats to the life safety of 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 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.

ASSESSMENT 10: EXTREME TEMPERATURE EVENT

General Situation

While Marin County enjoys a moderate climate year-round, the unexpected extremes of temperatures can be dangerous to segments of the population unable to take adequate measures to protect themselves. Extreme temperature increases the number of heat and cold-related injuries and can cause death. Marin County's Extreme Temperature Annex/Guide serves as a standard to help reduce the effects of extreme temperature events.¹

ASSESSMENT 11: 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.

¹ Marin County Extreme Temperature Emergency Annex/Guide, April 2010

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

Ross 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.

Community Colleges and high 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.

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 county'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.

ASSESSMENT 12: 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.

Major Vehicle/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 Ross Valley 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.

ASSESSMENT 13: DAM FAILURE

General Situation

Dam failure is the collapse or failure of an impoundment that causes significant downstream flooding. The most common cause of dam failure is overtopping where the water behind the dam flows over the face of the dam and erodes the structure. This is most common during heavy rainstorms.

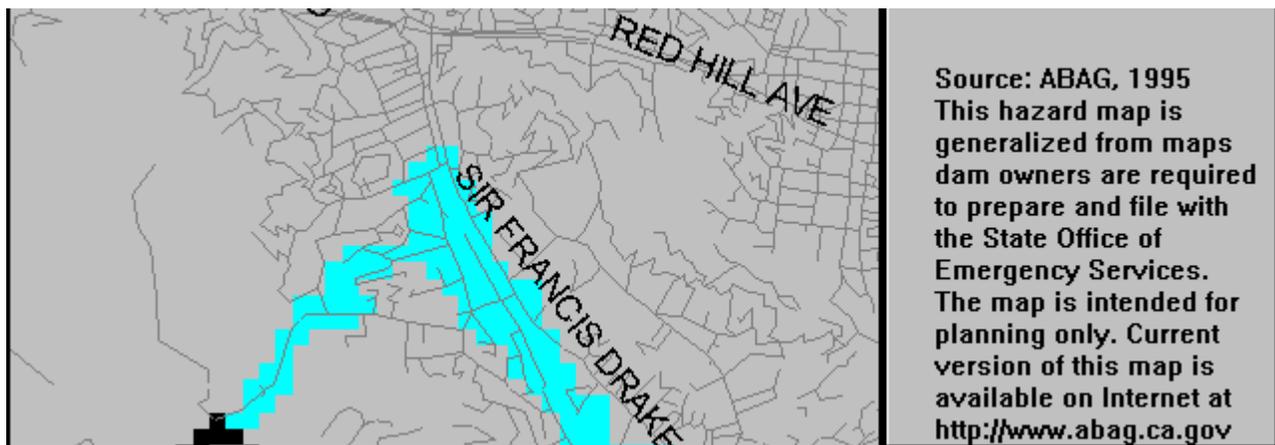
The collapse and structural failure of a dam may be caused by a severe storm, earthquakes, internal erosion of piping and foundation leakage. Seismic activity may also cause inundation by the action of a seismically-induced wave that overtops the dam without causing failure of the dam, but still floods downstream. Landslides flowing into a lake may also cause a dam to fail or overflow.

The principle consequences of dam failure are injury, loss of life, and significant downstream property damage.

Specific Situation

Dam inundation, or flooding which occurs as a result of structural failure of a dam, poses a serious threat to specific areas within Marin County. Although there is no history of major dam failure in the area, any failure could have serious impacts. Marin County's dams include: Alpine, Bon Tempe, Docini, Hagmaier North, Lagunitas, Lower Turney, Nicasio, Novato Creek, Peters, Phoenix Lake, Soulajule, Vonsen, and Walker Creek.

Failure of county dams even during a catastrophic event, such as a severe earthquake, is considered very unlikely. Owing to the method of construction of these dams, they have performed well in earthquakes and failure is not expected to occur. Detailed dam maps are available at the County Planning and Building Department.



Phoenix Dam Inundation Zone

Additionally there are numerous "agricultural" ponds in the county, which can be considered as threats. If these ponds break, they could damage homes or roads, but not on as large a scale. The State of California Office of Emergency Services is currently in the process of identifying all ponds and dams and evaluating their risk to all residents not just to owners.

The vast majority of these dams and ponds are not constantly monitored. Therefore, detection of any problems such as leaking or overflowing will depend upon the owner and local residents.

ASSESSMENT 14: 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.

ASSESSMENT 15: 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.

ASSESSMENT 16: 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 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 Ross 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.

ASSESSMENT 17: 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.

ASSESSMENT 18: 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.

ASSESSMENT 19: SECURITY RELATED THREATS

Whether a disaster is the result of natural or manmade circumstances, our communities are vulnerable not only to the destructive effects of those disasters, but to the related threats that may be caused by increased vulnerability to crime, violence, cyber attacks, toxic environments and general human security (economic, food, health, personal, political).

PART THREE

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

Local

- The authority of the Ross Emergency Management Plan (EOP) is provided under the California Emergency Services Act (Chapter 7 of Division 1 of Title 2 of the Government Code)
- Ross Municipal Code Chapter 2.28 Disaster and Emergency Control

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
NOAA	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

Glossary of Terms

Aerial Reconnaissance: An aerial assessment of the damaged area that includes gathering information on the level and extent of damage and identifying potential hazardous areas for onsite inspections.

Aerosol: Fine liquid or solid particles suspended in a gas, for example, fog or smoke.

All Hazards: Refers to a policy or program that is designed to deal with a variety of natural and technological hazards.

Annex: A document that supplements the Emergency Management Plan, which provides further planning information for a specific aspect of emergency management.

Appendix: A separate portion of the Emergency Management Plan that contains guidance and information specific to actions required in emergency management.

Biological Agents: Living organisms or the materials derived from them that cause disease in or harm to humans, animals, or plants or cause deterioration of material. Biological agents may be used as liquid droplets, aerosols, or dry powders.

Chemical Agent: A chemical substance that is intended to kill, seriously injure, or incapacitate people through physiological effects. Generally separated by severity of effect: lethal, blister, and incapacitating.

Comprehensive Emergency Management Plan: A document required by state regulation that consists of a Basic Plan, Appendices, Supplemental Annexes, and Standard Operating Procedures for the purpose of providing effective mitigation, response to and recovery from disasters.

Consequence Management: Measures to protect public health and safety, restore essential government services, and provide emergency relief to governments, businesses, and individuals affected by the consequences of terrorism. State and local governments exercise primary authority to respond to the consequences of terrorism. (Source: FRP Terrorism Incident Annex, page TI-2, April 1999). The Federal Emergency Management Agency (FEMA) has been designated the Lead Federal Agency (LFA) for consequence management to ensure that the Federal Response Plan is adequate to respond to terrorism. Additionally, FEMA supports the Federal Bureau of Investigation (FBI) in crisis management.

Continuity of Government: Includes measures to – ensure continued leadership and preservation of vital records, thereby maintaining a viable system of government supported by law; establish emergency authorities legally vested in government leaders so that they have prescribed powers to act; ensure survivability of mechanisms and systems for direction and control so that actions directed by leaders can be communicated and coordinated; sustain essential emergency services and resources so that critical response and recovery actions can achieve widest possible implementation.

Crisis Management: This is the law enforcement aspect of an incident that involves measures to identify, acquire, and plan the resources needed to anticipate, prevent, and/or resolve a threat of terrorism. The FBI is the Lead Federal Agency (LFA) for crisis management for such an incident. During crisis management, the FBI coordinates closely with local law enforcement authorities to provide successful law enforcement resolution to the incident. The FBI also coordinates with other Federal authorities, including FEMA.

Damage Assessment: The appraisal or determination of the actual damage resulting from a disaster.

Decontamination: The process of making people, objects, or areas safe by absorbing, destroying, neutralizing, making harmless, or removing the HazMat.

Disaster: The occurrence or imminent threat of widespread or severe damage, injury or loss of life or property resulting from any natural or manmade cause including fire, flood, earthquake, air contamination, blight, drought, infestation, explosion, riot, hostile military or paramilitary action, other public calamity requiring emergency action.

Disaster Assistance Center (DAC): A location established in a disaster area that houses all federal, state, and local agencies that deal directly with the needs of the individual victim. DACs are established only after a Presidential Declaration.

Disaster Declaration: A document executed by an elected government for the purpose of obtaining assistance from a higher level of government.

Disaster Service Workers: All public employees in California are subject to such emergency or disaster activities as may be assigned by their supervisors or by law.

Drill: A supervised instruction period aimed at testing, developing, and maintaining skills in a particular operation. A drill is often a component of an exercise.

Drop Cover, and Hold: Shelter position under tables or desks or other protected places away from overhead fixtures, windows, high cabinets, and bookcases, for immediate individual protection during an emergency.

Emergency: An event, the effects of which cause loss of life, human suffering, property damage (both public and private), and severe economic and social disruption.

Emergency Alert System: A program of the Federal Communications Commission (FCC) to coordinate the dissemination of emergency information via commercial broadcasters.

Emergency Coordinator: A position called for in the Emergency Organization to carry out emergency management functions on a day-to-day basis at the local level.

Emergency Manager: A position called for in the Emergency Organization to oversee the implementation of the City of Hayward Comprehensive Emergency Management Plan at the local level.

Emergency Operations Center: A centralized location where individuals responsible for responding to a large scale emergency can have immediate communication with each other and with City management for the purpose of enhancing coordination in exercising direction and control of emergency response and recovery efforts.

Emergency Organization: Organization to direct and control operations of the Town during a period of emergency with assigned responsibilities and tasks for planning, response, and recovery in emergency situations.

Emergency Powers: Special authority granted to a chief local official during times of emergency. The State delegates emergency powers to designated local officials through an executive order.

Federal Response Plan (FRP): The FRP establishes a process and structure for the systematic, coordinated, and effective delivery of Federal assistance to address the consequences of any major disaster or emergency declared under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended (42 U.S. Code [USC], et seq.). The FRP Terrorism Incident Annex defines the organizational structures used to coordinate crisis management with consequence management.

Lead Agency: The Federal department or agency assigned lead responsibility under U.S. law to manage and coordinate the Federal response in a specific functional area. The FBI is the lead agency for crisis management and FEMA is the lead agency for consequence management. Lead agencies support the overall Lead Federal Agency (LFA) during all phases of the response.

Lead Federal Agency (LFA): The agency designated by the President to lead and coordinate the overall Federal response is referred to as the LFA and is determined by the type of emergency. In general, an LFA establishes operational structures and procedures to assemble and work with agencies providing direct support to the LFA in order to provide an initial assessment of the situation, develop an action plan, monitor and update operational priorities, and ensure each agency exercises its concurrent and distinct authorities under U.S. law and supports the LFA in carrying out the President's relevant policy. Specific responsibilities of an LFA vary according to the agency's unique statutory authorities.

Level I Emergency: Minor to moderate emergency, such as major power outage, bomb threat, air pollution alert, isolated fire, or minor earthquake (no injuries or significant damage).

Level II Emergency: Moderate to severe emergency, such as major fire, moderate earthquake, bomb explosion (with injuries and/or structural damage).

Level III Emergency: Major emergency or disaster, such as a major earthquake or nuclear explosion.

Local Emergency Responder: Safety services provided by outside agencies, such as police, fire, medical or rescue services.

Mitigation: Those actions (including threat and vulnerability assessments) taken to reduce the exposure to and detrimental effects of a Weapons of Mass Destruction (WMD) incident.

Mitigation Phase: Phase of emergency management for site-specific action to minimize hazards and reduce the potential for injury or damage in an emergency.

Nonpersistent Agent: An agent that, upon release, loses its ability to cause casualties after 10 to 15 minutes. It has a high evaporation rate, is lighter than air, and will disperse rapidly. It is considered to be a short-term hazard; however, in small, unventilated areas, the agent will be more persistent.

Persistent Agent: An agent that, upon release, retains its casualty-producing effects for an extended period of time, usually anywhere from 30 minutes to several days. A persistent agent usually has a low evaporation rate and its vapor is heavier than air; therefore, its vapor cloud tends to hug the ground. It is considered to be a long-term hazard. Although inhalation hazards are still a concern, extreme caution should be taken to avoid skin contact as well.

Plume: Airborne material spreading from a particular source; the dispersal of particles, gases, vapors, and aerosols into the atmosphere.

Preparation (Preparedness) Phase: Phase of emergency management for employee in-service training in emergency responsibilities, such as prevention of injuries and property damage, first-aid and other response and rescue operations, and for acquisition of adequate supplies and equipment required to respond to an emergency.

Radiation: High-energy particles or gamma rays that are emitted by an atom as the substance undergoes radioactive decay. Particles can be either charged alpha or beta particles or neutral neutron or gamma rays.

Recovery Phase: Phase of emergency management for the initiation of short-range and long-range recovery plans at each effected site to return to normal operations following an emergency.

Response Phase: Phase of emergency management in which all employees take appropriate steps in an emergency situation to put the emergency plan into action.

Terrorism: The unlawful use of force or violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives. Domestic terrorism involves groups or individuals who are based and operate entirely within the United States and U.S. territories without foreign direction and whose acts are directed at elements of the U.S. government or population.

Toxicity: A measure of the harmful effects produced by a given amount of a toxin on a living organism.

Weapons-Grade Material: Nuclear material considered most suitable for a nuclear weapon. It usually connotes uranium enriched to above 90 percent uranium-235 or plutonium with greater than about 90 percent plutonium-239.

Weapons of Mass Destruction: Any explosive, incendiary, or poison gas, bomb, grenade, rocket having a propellant charge of more than 4 ounces, or a missile having an explosive incendiary charge of more than 0.25 ounce, or mine or device similar to the above; poison gas; weapon involving a disease organism; or weapon that is designed to release radiation or radioactivity at a level dangerous to human life.

PART FOUR – APPENDICES (Appendices listed separately on website)

Appendix 1 - Sample Director of Emergency Services Proclamation

Appendix 2 - Sample EOC Action Plan Objectives

Appendix 3 - Sample EOC Objectives

Appendix 4 - Sample Incident Objectives (ICS 202)

Appendix 5 - Sample EOC Action Plan Template

Appendix 6 – ICS Forms

Appendix 7 - Sample Trigger Points for EOC Activation

Appendix 8 – Position Checklists