

APPENDICES

B1 – B10



Emergency Operations Plan

APPENDICES B:

CITY OF SANTA CRUZ HAZARD ANALYSIS SUMMARIES

- B1. City of Santa Cruz Hazard Analysis Summary
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APPENDIX B1

Emergency Management Plan

City of Santa Cruz Hazard Analysis Summary

A range of hazards has the potential of affecting City residents. Some of these hazards are natural, such as earthquakes, some created by human activity, such as hazardous material spills or releases and other natural hazards exacerbated by the use of land, such as development within floodplains.

The City of Santa Cruz Emergency Operations Plan contains detailed information on hazards that may affect residents of the City of Santa Cruz. The hazard analysis appendices include an overview of specific hazards with area maps (where available) indicating the geographical scope of the hazard.

Natural hazards that have affected Santa Cruz in the past and those that may affect it in the future can be identified with a high degree of accuracy. However, the future extent of these hazards is unknown. The following hazards are identified in the Hazard Analysis Section of the Emergency Operations Plan:

- Earthquakes
- Tsunamis
- Dam Inundation
- Floods
- Wildland Fires
- Hazard Materials Incidents
- The Santa Cruz Wharf Hazard Plan
- Oil Spills
- Airplane Crash

The focus of the Hazard Analysis Section is to help minimize injury, loss of life, property damage, and economic and social dislocation due to natural and human-made hazards.

Detailed analysis of the hazards, vulnerabilities and risks facing the City of Santa Cruz can be found on the city website:

- Local Hazard Mitigation Plan (2012–2017) (<http://www.cityofsantacruz.com/index.aspx?page=1310>) and,
- Climate Adaptation Plan (2011) (<http://www.cityofsantacruz.com/index.aspx?page=1680>).

Appendix B2

Emergency Operations Plan

Santa Cruz Municipal Wharf Hazard Plan



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Introduction

This plan outlines procedures and instructions for the safe and efficient emergency response and operations on the Santa Cruz Municipal Wharf. Rescue, fire suppression and/or evacuation of persons from the wharf could become necessary because of fire, storm, accident or physical damage to the structure.

ICS and SEMS

Management of the incident is critical to the safe and efficient response to the respective emergency. The Emergency Operations Plan uses a management system widely known as the Incident Command System (ICS). The Incident Command System delegates functions (or tasks) to subordinates of the Incident Commander and promotes proper span of control and unity of command, and is implemented in accordance with Standardized Emergency Management (SEMS) mandates.

The purpose of the Incident Command System is to assign employees with reasonable expertise and training to a function critical to emergency management during the course of emergencies without loss of precious time. Another important feature of the ICS is that only those positions needed to manage a particular incident are activated. This is because each level of incident implies a different degree of need. As the severity of the incident increases, assignments may change in the ICS command structure commensurate with that shift.

Coastal Incident Response Plan

The Santa Cruz Municipal Wharf is one of the most favored stops in the City of Santa Cruz for visitors and residents alike. It is inevitable that this recreation area which attracts so many sightseers and participants will experience incidents necessitating emergency response in order to rescue persons in distress, to cope with life safety emergencies, and to manage natural disasters. Public safety agencies are aware of these situations and have developed specialized services to mitigate the effects of these types of emergencies

Santa Cruz County, under the guidance of the Standardized Emergency Management System (SEMS) has implemented the Coastal Incident Response Plan (CIRP) to ensure effective scene control and management of emergencies. The CIRP is designed to assure the most effective response to coastal rescue and emergency incidents.

The NetComm Center, located in DeLaveaga Park, (also known as the "911 Center") in Santa Cruz is the initial focal point for coordinating the response to every Municipal Wharf related incident. The Center will dispatch and/or notify response agencies in accordance with the "run" cards developed by the Fire Department and provided to NetComm.

Protection of life is the first concern in any rescue. This priority governs the actions of incident management. The role of on-scene manager is held by the Incident Commander. The City agency responsible for the Incident Commander assignment is dependent upon the categorization of each individual situation. For example, the Fire Department will serve as Incident Commander for those situations occurring on or adjacent to the Municipal Wharf, while the Coast Guard will serve as Incident Commander for those situations removed from the land-based agency's access, such as offshore ocean rescues or boat fires. The Fire Department



Incident Commander may relinquish Incident Command to the Police Department if the event is criminal in nature or requires police expertise such as a major vehicle collision.

When any questions exist regarding the validity or need to request emergency assistance, dispatch of responders will be made. Demobilization of responders will be determined by the Incident Commander.

Under the auspices of the CIRP, the City may request the Coast Guard and Santa Cruz Port District to provide immediate assistance in the event of an evacuation that requires water transport. The Fire Department Incident Commander will coordinate water evacuation vessels and marine ocean rescue for the Coast Guard until the USCG is on scene.

Joint Command

In the event of an incident where cooperation between the Fire Police and Parks and Recreation Departments is indicated in the conduct of incident management, the Incident Commander shall establish a joint command center at the location of the Command Post. At this time, the action level necessary as defined by the City Emergency Operations Plan will be implemented and all City employees involved in the response shall be responsible to the joint command.

In the event of an incident, the Incident Commander will obtain all units necessary for incident management. The Incident Commander shall also cause to be notified the respective departments responsible for the Wharf and the situation as well as any other city official deemed appropriate such as the Risk Manager.

The Incident commander shall also immediately consider notification of the City's Public Information Officer and Public Information System as outlined in the City Emergency Operations Plan.

Municipal Wharf Evacuation

The Municipal Wharf evacuation plan shall be implemented by any one of the following or their representatives.

- City Manager
- Director of Parks and Recreation
- Director of Public Works
- Chief of Police
- Fire Chief

Coordination of the evacuation plan is the responsibility of the Fire Department.

Routine and special evacuation instructions shall be posted in all occupancies on the wharf.

In the event any type of evacuation becomes necessary, the people working at and operating the businesses on the wharf have important roles in the emergency response. The basic elements of the plan must be reviewed and coordinated periodically in order to assist and instruct the public in an orderly exit

The best method of evacuation may simply be to walk or drive off the wharf. It could become more complex if a



fire or physical damage prevented access along the entire span to the shore. The use of a 'shelter in place' concept may limit the total size of the evacuation.

Evacuation Procedures

Routine Evacuation

1. Wharf is open to traffic along the entire span.
2. Police and Fire Departments are notified of evacuation.
3. Wharf is closed to incoming traffic (by Wharf Gate or Emergency personnel).
4. Emergency instructions given to each business (by Wharf, Gate or Emergency personnel).
 - a. Nature of emergency
 - b. Evacuation instructions
5. Wharf tenants and employees relay instructions to the public in businesses.
6. Wharf, Gate and/or Emergency Personnel relay instructions to public out of doors.
7. The public, tenants and employees evacuate the wharf by driving or walking along the wharf to shore.

Special Evacuation

1. Wharf is obstructed at one or more locations.
2. Police and Fire departments are notified of evacuation through call to 911.
3. Wharf is closed to incoming traffic (by Wharf Gate or Emergency personnel).
 - a. Emergency instructions given to each business (by Wharf, Gate or Emergency personnel).
 - b. Evacuation may require use of vehicle, public address systems or other methods.
4. Wharf tenants and employees relay instructions to the public in businesses.
5. Wharf, Gate and/or Emergency Personnel relay instructions to public out of doors.
6. Persons on shore side of obstruction may walk or drive to shore or one or more of the following may be required:
 - a. All persons may be required to walk and vehicles may have to be left on the wharf.
 - b. Persons may be directed by emergency personnel to proceed to secure or evacuation areas which may be a landing, helicopter landing site, or other designated area on Wharf.

Fire Suppression Operations

Purpose

This section describes an initial response plan, information, and tactical considerations for the effective control of fire and life safety. The Municipal Wharf represents a significant fire suppression challenge due to its construction characteristics and life safety concerns. On an annual basis, all Fire Department and Wharf personnel review the Fire Department operational procedures for Wharf fire suppression.

Evaluation

The first arriving Fire Department Unit shall proceed onto the wharf for event evaluation. This shall include the determination and confirmation of above- or below-deck fire. The Wharf Gate personnel at the main entrance shall be instructed by the first-in engine company to restrict on-wharf access to emergency equipment only,



until otherwise advised. Apparatus travel speed shall be no greater than 15 miles per hour while operating on the wharf. In all cases of fires on or involving the wharf, the wharf supervisor will be notified.

Staging

The second-in engine company shall stage at the entrance to the wharf. Truck company #3170, if responding, will stage at the steamer hydrant, at Beach Street and West Cliff Drive. (Note re: Additional water supply — activated below-deck sprinkler systems will *greatly* diminish the available above-deck water system.)

Hydrants utilized on the wharf will be those located between the wharf entrance and pumping engine. Apparatus shall be situated so that vehicle is parallel to the fence and the rear axle is on a bent, here defined as a row of pilings. Where fires involve the wharf structure, or structures thereon, parking apparatus beyond the fire area should be avoided. Multiple apparatus parking will be in a manner that places front to rear bumper a minimum of 30 feet away from other apparatus. This will assure weight distribution in separate wharf bays.

No parallel parking.

Rescue and Evacuation

Rescue and evacuation of occupants will normally be to exit off the wharf. City wharf crew should be retained for technical and mechanical expertise. The primary method of wharf evacuation will be to walk or drive off the wharf. The Incident Commander may also elect to minimize the evacuation and isolate occupants from the fire in a “shelter in place” operation. Further evacuation can be considered at any time.

All six landings may be commandeered and utilized as evacuation points. Wharf tenants, security personnel and wharf construction crew personnel can be directed to assist the emergency personnel with implementation of the Wharf Evacuation Plan.

Extended fire operations, whether above or below deck, may require the mass evacuation or shelter in place of tenants and occupants. In situations requiring this operation, the Incident Commander should request and/or notify the following agencies using the CIRP: U.S. Coast Guard (Monterey), Harbor Patrol, City Marine Rescue team, and private commercial marine vessels.

Union Pacific and Big Trees Railroad should be notified to cease service to facilitate access and egress.

Above-Deck Structure Fires

Fires involving structures above the deck will follow conventional fire attack and control procedures. Where fires pose any threat or there is a the possibility of a fire spreading to the deck, joists or below-deck area, an additional fire unit shall be assigned to this area for surveillance and monitoring.

Deck access hatches are located per the target hazard plan and “green” road dots. Personnel assigned to below-deck operations obtain personal floatation equipment.

Below-Deck Firefighting

Strategic objectives for below-deck fire operations are to contain and extinguish the fire between the sprinkler



curtains. The engine company first-in shall attempt to locate and confirm the location and extent of the fire, in addition to activation status of below-deck sprinkler systems. The intensity and fire behavior prediction will be cause for activation of a mass evacuation.

Wharf decking may be opened for the purposes of inspection, deployment of hose streams, distributor nozzles and ventilation. Asphalt decking surface may be cut utilizing a rotary saw with masonry composite or diamond tip blade. For extended operations, jackhammers and chainsaws will need to be utilized from Wharf Headquarters. Decking asphalt surface averages 4" in depth covering 3" PTDF wood planking supported by 4" x 12" PTDF joists @ 16" O.C. avg.

Under Wharf Sprinkler System

The sprinkler system is intended to provide a water barrier to fire advancing up or down the under wharf structure. The sprinkler system is not designed to extinguish a wharf fire. Provision of a barrier to a larger conflagration will allow time for fire suppression units to set up operations and for evacuation procedures to be implemented.

Currently, there are 11 sprinkler curtains located under the wharf deck approximately 200 feet apart along the length of the wharf; the first is located under the Lifeguard Building and the last at the ocean end. Eleven more curtains will be installed by FY2006-2007. Each individual system branches from a main water supply to the limits of the wharf deck and is capable of providing water and spray to the entire under deck of the bent in which it is located. All wharf buildings have sprinkler systems.

Marine Vessel Fire Exposure

The rescue and retrieval of vessel occupants is the primary objective. If occupants have abandoned the vessel, a flotation device will be provided, and the occupants advised to swim away from the vessel. Using the CIRP, Marine Rescue procedures and Harbor Patrol response will be immediately requested.

The primary extinguishing agent for marine vessel fires shall be foam. Vessels secured at landings will be secured at those locations, and Fire-fighting operations implemented. Prevent vessel from floating underneath wharf. Appropriate exposure protection measures will be implemented if any portion of the wharf structure is threatened.

Department of Fish and Game, U.S. Coast Guard, and Harbor Patrol will be advised of any marine vessel fire.

Municipal Wharf Fire Safety Information

Resources

- **United States Coast Guard (Monterey)**..... 250 gpm/turret 1.5 hour response
- **Harbor Patrol** No Fire-fighting capabilities
- **Marine Rescue Team**..... Evacuation only
- **Helispot** 30 ton weight capability
- **Large Diameter Hose:** Scotts Valley Fire: 1000 ft. – 4”
Aptos/La Selva Fire : 1800 ft. – 4”
Central Fire – 4”
- **5 HP portable pump with 2” hose:** Wharf Operations HQ

Ocean Rescue

Purpose

The City of Santa Cruz conducts regular seasonal Lifeguard Service operations along its Main Beach and Cowell Beach (from the San Lorenzo River mouth to the western end of Cowell Beach). The Lifeguard Service is integral to the safe operation of the beach, Wharf and adjacent ocean areas for patrons and users. This Service provides the following functions related to the Emergency Operations Plan:

1. The Lifeguard Service provides lifeguard coverage on spring weekends, spring break, summer months and fall weekends.
2. During those same times, law enforcement is provided by the Service's Beach Ranger program.
3. During the off-season, the Marine Rescue Unit, staffed daily by two on-call volunteers, responds to water rescues using the Lifeguard vehicle, inflatable rescue boat, and other Lifeguard Service equipment.

Operations

The central operations for Beach Services are located in Lifeguard Headquarters, which is the first building on the Municipal Wharf. Most service equipment, vehicles, boats, and supplies are stored there. A central lifeguard tower is located upstairs, with communication capability to all Lifeguard Towers, Police, Fire, Harbor Patrol, Boardwalk Security and other related agencies.

Wharf Landings

Six (6) from entrance to end are known as:

- Kayak Landing*
- Santa Cruz Boat Rental
- Public Landing #1
- City Landing*
- Stagnaro Landing*
- Public Landing #2

Landings marked with (*) have 3476 Master padlock. Public landings are not available in Winter season, roughly October through March.



General Wharf Information

Railings, red reflectors indicate location of under deck sprinkler system
Railings, black numbers indicate location of Bent numbers
Roadway, green markers indicate location of access hatches
Wharf hours: Open at 0500 hrs. Close at 0200 hrs.
When closed, Wharf Gate arms are up. Main gates are unlocked
All buildings have sprinklers
12 under deck sprinkler systems, \pm 200 ft apart
Deck lids access below-deck sprinkler valves, no Fire Department connections
10" water main to 6" at Wharf bend then on to 4" at dead end
125 psi static water main
Local winds, 1100 hrs.–1800 hrs.; SW 15–20 mph, opposite at night
2700' length; 250' widest point
Mean distance from deck to ocean, 25 ft.
Available wharf construction workers: 6
Deck spikes are 7" x 5/16"
Average distance between bents is 15 ft.
Wood preservatives, creosote and copper green
Average depth of ocean is 35' at south end of wharf, 20' at Wharf Operations building, and 13' at Lifeguard HQ building.

Law Enforcement

In order to maintain public safety for recreational enjoyment and for the viability of the Municipal Wharf businesses and facilities, the City has established priorities for staff to follow in performing police-related duties and operations. The City typically uses employees trained to the level of Police Community Service Officer to provide the following services related to the Emergency Operations Plan:

1. To contact appropriate marine, safety, fire, ambulance or law enforcement services as needed to prevent or mitigate injury or damage to the public or their property.
2. To ensure fire prevention efforts on the Wharf.
3. To assist the Police Department as necessary concerning Police matters on the Wharf.
4. Maintain communications as needed.
5. To assist with problems due to excessive vehicle speed or lack of control by notifying citizen if this can be done in a safe manner or contacting Police.



Appendix B3

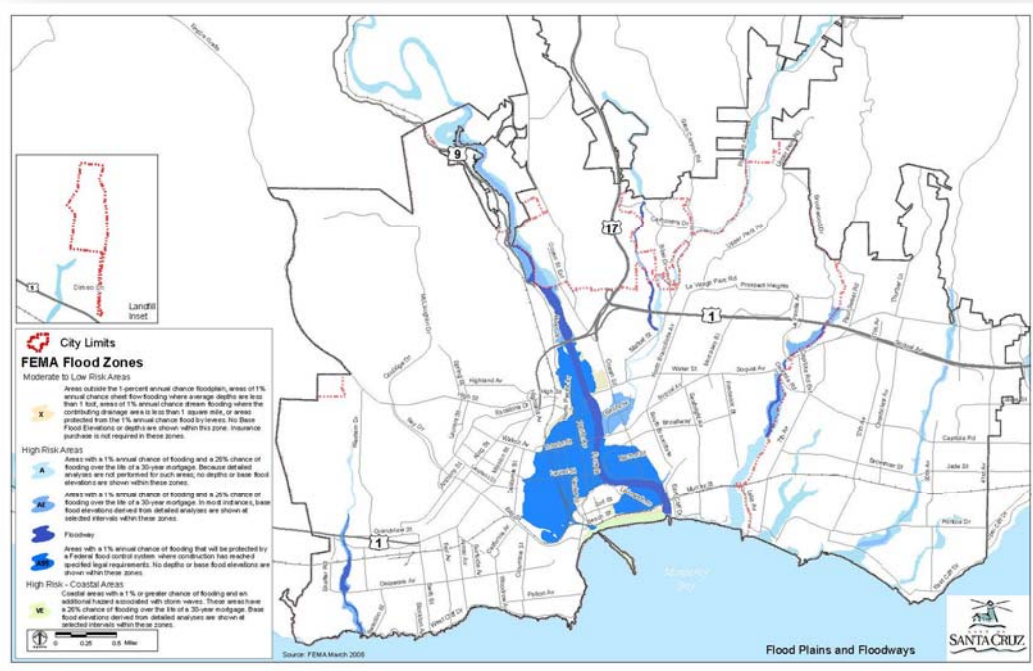
Emergency Operations Plan

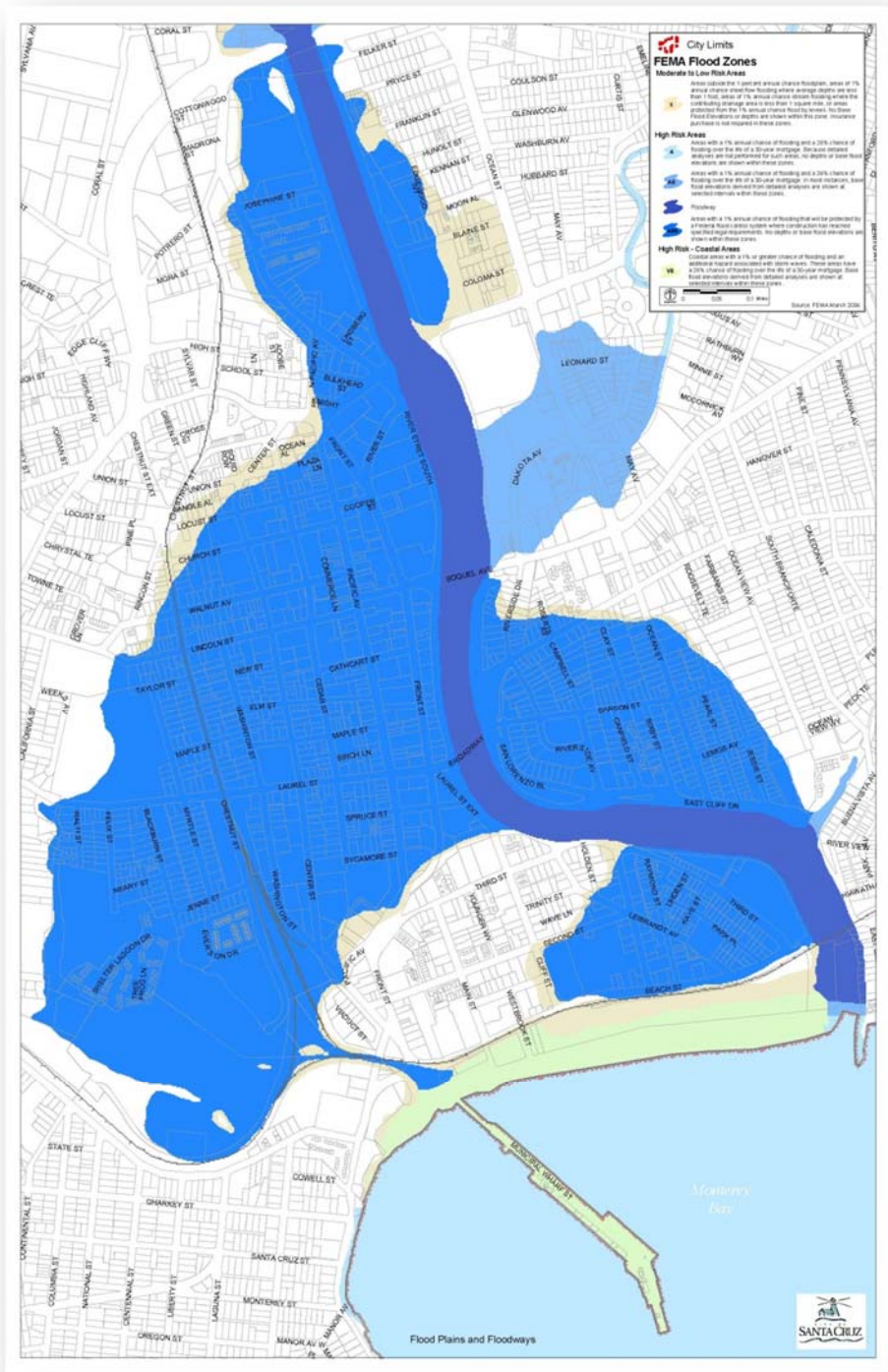
Flood Hazard Analysis

Flooding can occur from intense rainfall, localized drainage problems, tsunamis, seiches, or failure of flood control or water supply structures such as levees, dams, or reservoirs. Flood waters can carry large objects downstream with the force to destroy stationary structures, cause drowning, break utility lines and saturate materials and soil which may result in instability, collapse and damage.

Flooding as a result of rainfall is related to the frequency and return period of major rainstorms. Areas subject to flooding hazards are designated by the U.S. Corp of Army Engineers at the 100-year floodplain boundaries.

A 100-year flood plain has a one percent (1%) probability of occurring in any year and is considered to be a severe flood, but one with reasonable possibility of occurrence for planning, property protection and human safety.







Appendix B4

Emergency Operations Plan

Earthquake and Liquefaction Hazard Analysis

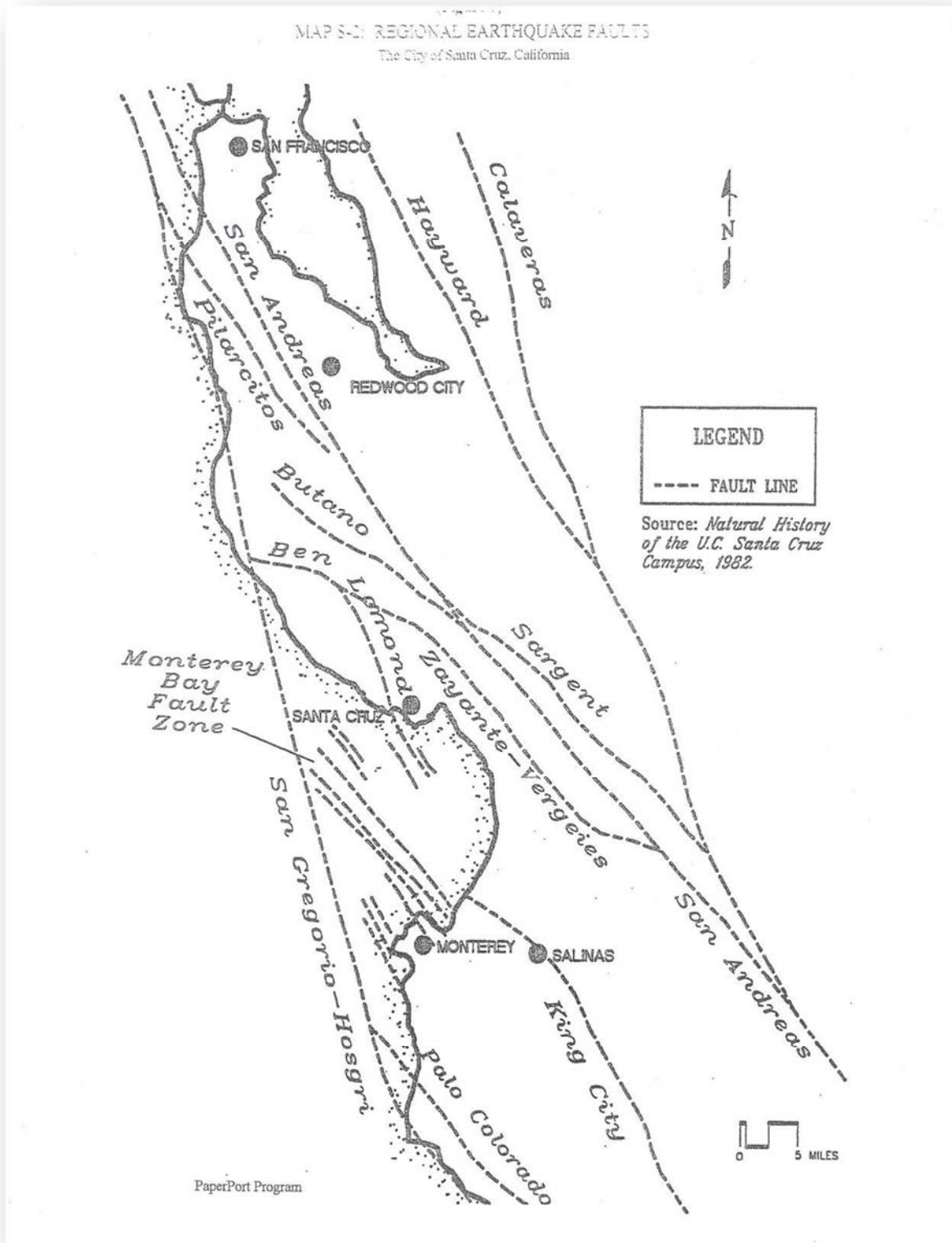
The City of Santa Cruz is located in a region of high seismic activity (*see* map of area fault lines, below) and is in danger of destructive earthquakes. The 7.1 magnitude Loma Prieta Earthquake is proof that the City of Santa Cruz is vulnerable to such catastrophic events.

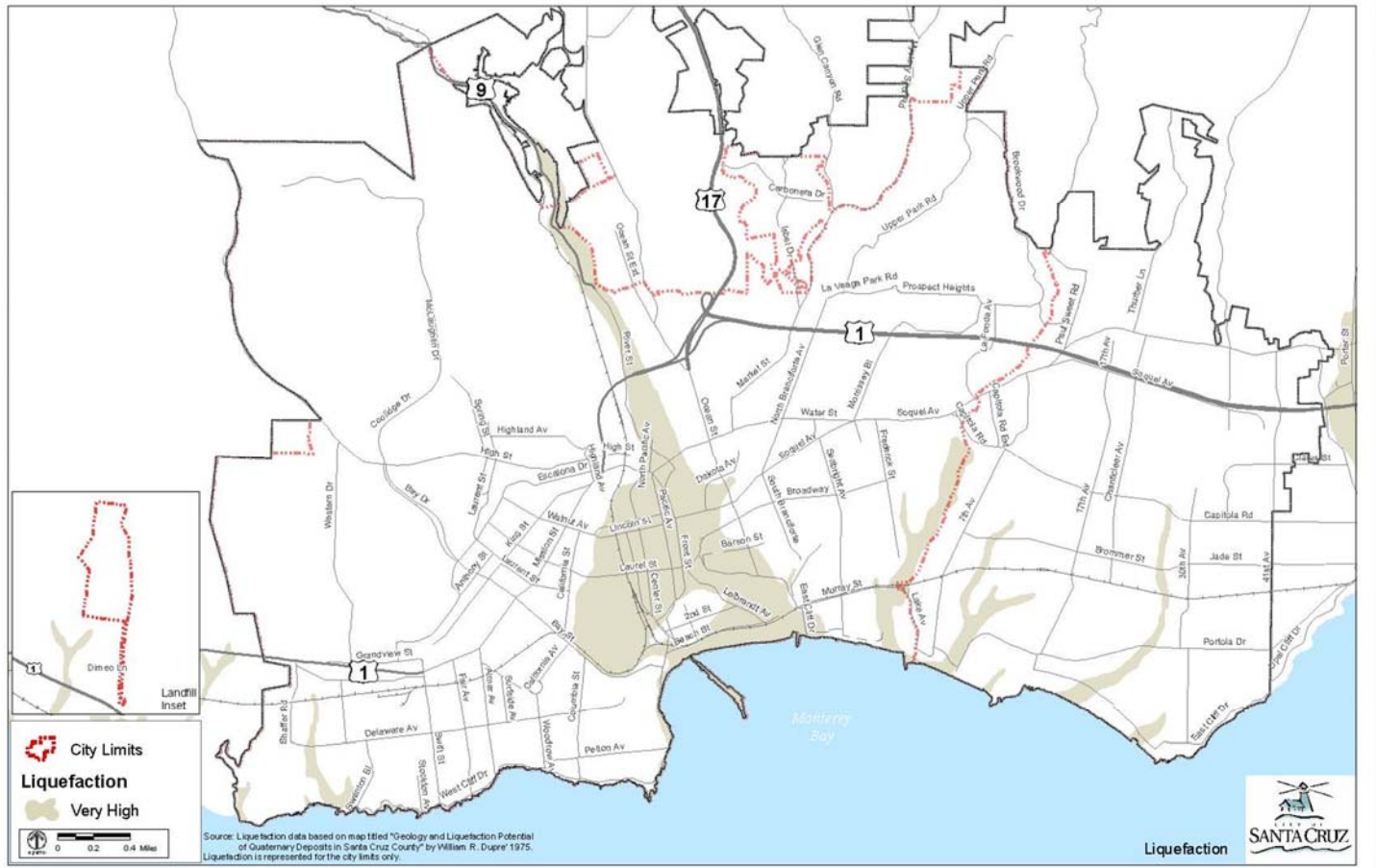
There are seven major fault zones within the County. Of these, the San Andreas is the most well known. That fault represents the boundary between two large plates. It is one of the world's major faults capable of generating an earthquake magnitude of 8.5 on the Richter Scale. The other faults include San Gregorio, Zayante, Butano, Sargent, Corralitos and Ben Lomond.

Historically, ground shaking has been the primary cause of injury and damage during earthquakes. Although Santa Cruz is in a high seismic risk zone, the effects of ground shaking in the City have been relatively mild. Of the twenty-two recorded earthquakes since 1865, none has caused extensive damage. Mid and South County have demonstrated a higher propensity for earthquake activity than the City of Santa Cruz. This may indicate a greater threat to the City since energy may be building rather than being gradually dissipated.

An analysis of the area's geology shows that those areas with alluvium base will likely receive the most intense shaking. Areas of sedimentary rock will experience less intense shaking and those with metasedimentary and granite rock will undergo the least shaking. Liquefaction — the phenomenon whereby soil act as a liquid — (*see* map) is an additional hazard connected to ground motion and strong earthquake shaking.

Landslides and tsunamis can also be created from earthquakes and pose a significant hazard to those areas located in vulnerable parts of the city (*see* Tsunami Hazard Analysis.)







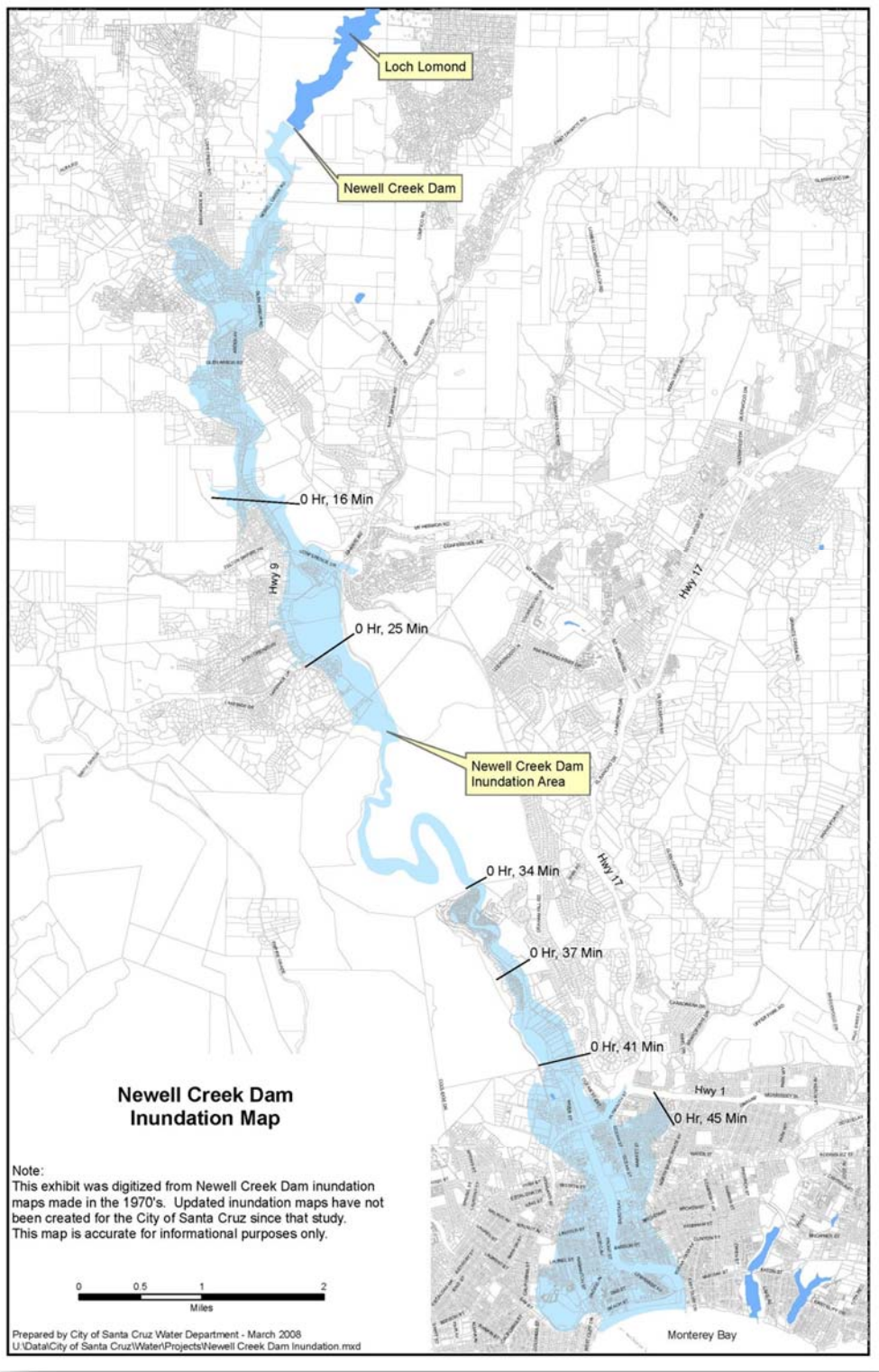
Appendix B5

Emergency Operations Plan

Dam Inundation Hazard Analysis

Dam failure can occur as a result of earthquakes, seiches, structural instability or intense rain in excess of design capacity. The most important recent event in the area of dam safety was the passage of a National Dam Safety Program Act with the Director of FEMA as its coordinator (*see* <http://www.fema.gov/about-national-dam-safety-program>). The purpose of this program is to reduce the risks of life and property from dam failure through the establishment and maintenance of a National Dam Safety Program.

The risks of dam failure in the Newell Creek Dam are unlikely, except in the event of an earthquake or seiches. This reservoir is monitored monthly for hydrology deviation, and semi-annually for bending, twisting and uplifting, in accordance with California Division of Safety of Dams requirements.





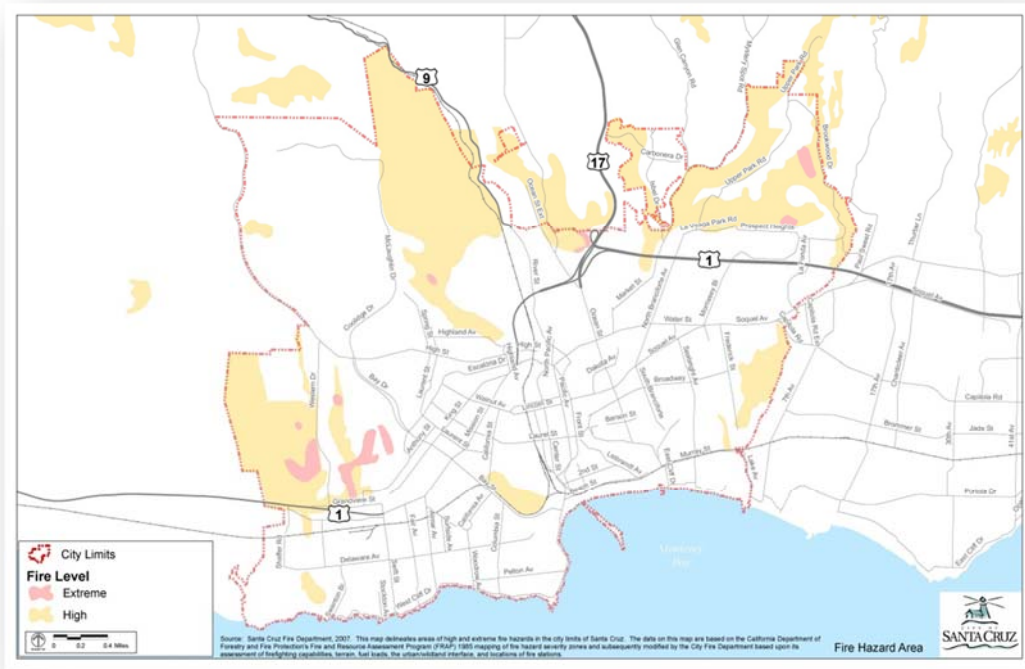
Appendix B6

Emergency Operations Plan

Wildland Fire Hazard Analysis

City residents are exposed to both urban and wildland fires. Urban fires include buildings, rubbish, automobile and small-scale grass fires. Wildfires include large-scale brush and grass fires in the underdeveloped areas in the City. These hazards can be the result of natural processes, intentional or accidental actions of humans. Wildfires are usually caused by human activities such as equipment use and smoking. Once a wildland fire has been ignited, it is affected by three factors: Type and amount of vegetation, climate and topography.

Different types of vegetation have varying potential for conflagration. Some brush species, particularly chaparral are extremely combustible. Grass, woodland and forest vegetation does not pose as great of a hazard. Although quick to burn, grass burns at a relatively low temperature and is easy to suppress. Likewise, woodlands are not especially hazardous due to the height of branches, increased humidity, coolness and other microclimate conditions underneath the crown canopy. Increases in slope tend to increase the fire hazard. They are not as accessible to firefighters. The steep slopes and flammable chaparral brush within the City leads to highly dangerous fire conditions in some areas.





Appendix B7

Emergency Operations Plan

Tsunami Hazard Analysis

A tsunami is a series of waves generated by an undersea disturbance such as an earthquake. From the area of the disturbance, waves travel outward in all directions, much like ripples caused by throwing a rock into a pond. The time between wave crests may be from five to 90 minutes, and the wave speed in the open ocean will average 450 miles per hour.

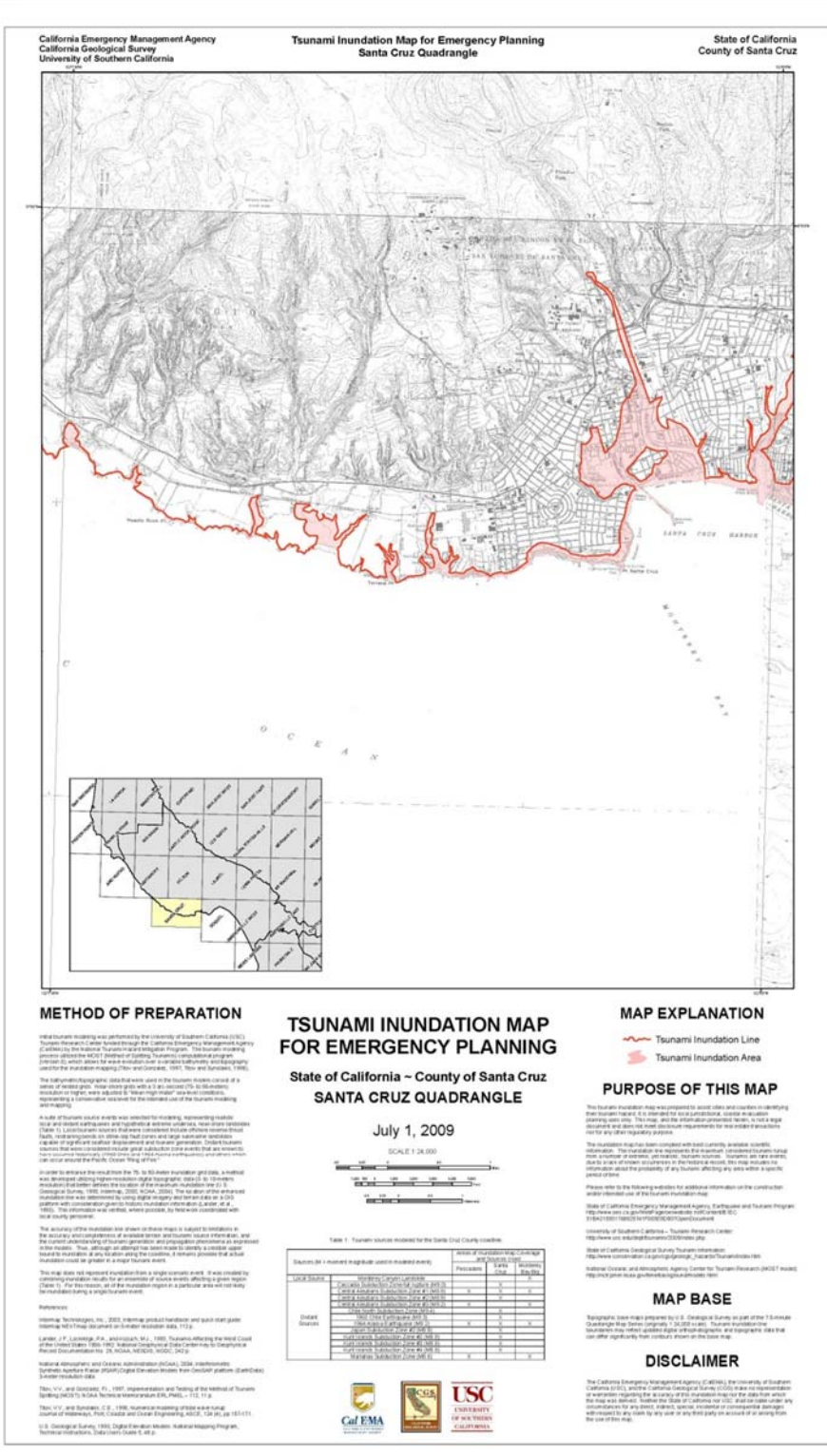
Tsunamis reaching heights of more than 100 feet have been recorded. As the waves approach shallow coastal waters, they appear normal and the speed decreases. Then, as the tsunami nears the coastline, it may grow to a great height and smash into the shore, causing much destruction.

Find out if your home is in a danger area (see <http://myhazards.calema.ca.gov/>). Know the height of your street above sea level and the distance of your street from the coast. Evacuation orders may be based on these numbers.

The City of Santa Cruz is susceptible to tsunami inundation primarily in coastal areas and watercourses at lower elevation levels.

Be familiar with tsunami warning signs because an underwater disturbance or earthquake can cause tsunamis. Tsunamis affecting the City of Santa Cruz would likely be generated from South America or Alaska, although it is possible for local waves to be produced by offshore earthquakes or slides.

The National Oceanic and Atmospheric Administration (NOAA) operates a warning system (see http://www.tsunami.noaa.gov/warning_system_works.html) giving several hours' notice to allow evacuation of threatened areas and prevent injuries and loss of life.





Appendix B8

Emergency Operations Plan

Oil Spill Hazard Analysis

Reports of an oil release can come from many sources. Usually, the first notification of an oil release comes from the Coast Guard or local harbor authorities, who are contacted by a vessel in the immediate area of the release. These authorities usually notify the County Communications Center (NetComm) and/or the Office of Emergency Services (OES).

Often, local animal resource and rehabilitation centers are the first to be aware of unreported, offshore oil releases, when citizens bring in oiled sea birds. The animal rescue center immediately notifies the County OES Coordinator. The Santa Cruz Regional 9-1-1 Center (NetComm) notifies the County OES Coordinator and other appropriate emergency responders, including federal and state agencies. Secondary notification of additional technical support deemed necessary for the size of the incident is accomplished through the County's Communication Center.

Each jurisdiction/agency is responsible for its own internal procedure for notifications.

For purposes of this plan, the County OES Coordinator is the key contact person and is ultimately responsible for notification of all potentially involved agencies. The following telephone numbers are provided for immediate notification of any offshore or coastal oil spill.

Santa Cruz County:

OES Coordinator	(831) 454-2900 or 911
National Oil Spill Response Center (NRC)	(800) 424-8802
State OES	(800) 852-7550



RELEASE REPORTING REQUIREMENTS MATRIX

This matrix summarizes pertinent emergency notification requirements and may not be all inclusive. For precise legal requirements, review specific laws and regulations.

OIL SPILLS					
TYPES OF RELEASES	AMOUNT	WHO REPORTS?	TO WHOM	WHEN	LEGAL AUTHORITY
(Federal) Navigable Waters*	Any Amount "Harmful quantity"***	Any person in charge of a vessel or facility (offshore or onshore)	NRC (800) 424-8802 or (202) 267-2675	Immediately, when it can be done safely	Federal Water Pollution Control Act (FWPCA) §311 33 CFR 153.203 40 CFR 110.6
(State of California) Marine Waters*	Any amount	Any party responsible for the discharge/threatened discharge; Responding local or state agency	Cal OES (800) 852-7550 NRC	Immediately, but not later than 15 minutes after discovery of the spill or threatened release	California Government Code (CGC) 8670.25.5; CGC 8670.26 <i>California State Oil Spill Contingency Plan</i> FWPCA §311 33 CFR 153.203 40 CFR 302.6
(State of California) State Waters*	Any amount of oil or petroleum product	Any person	Cal OES or RWQCB	Immediately upon knowledge of a release.	California Water Code (CWC) 13272 (a) (CGC) 8670.25.5; CGC 8670.26 <i>California State Oil Spill Contingency Plan</i>
Oil Discharges to Land (Including Onshore drilling, exploration, or production operation)	≥ 1 barrel (42 gallons) 5 barrels or more uncontained in certain San Joaquin Valley oil fields - if no threat to state waters; 10 barrels or more contained in certain San Joaquin Valley oil fields if identified in spill contingency plan - if no threat to state waters.	Facility owner or operator	Cal OES	Immediately upon knowledge of a release.	Public Resources Code (PRC) 3233 San Joaquin Valley Field Rule (August 1998) (CWC) 13272 (f) <i>California State Oil Spill Contingency Plan</i>
Aboveground Storage Tanks (ASTs)	≥ 1 barrel (42 gallons)	Facility owner or operator of a tank facility	Cal OES CUPA/AA or 911	Immediately upon knowledge of a release.	HSC 25270.8

July 2013



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Appendix B9

Emergency Operations Plan

Hazardous Materials Incident Analysis

Hazardous materials pose a variety of dangers to public health and welfare and include toxic metals, gases, flammables, corrosives, and infectious and radioactive wastes. The transport, distribution and storage of these materials are a concern of local residents.

The City's Hazardous Materials Ordinance regulates and enforces the proper storage and handling of hazardous materials. The City Fire Department works in conjunction with County Environmental Health in responding to reports of hazardous material spills and accidents and enforcing hazardous materials regulations.

The Department of Fish and Game, the Coast Guard, Water Quality Control Board, and Air Pollution Control District have specific roles in hazardous materials incidents. They are notified by NetComm (the 9-1-1 Center) as appropriate.

Environmental Health has a list of all companies who use hazardous materials in the County of Santa Cruz and require that a Hazardous Materials Management Plan (HMMP) be submitted for review and approval. The HMMP requires companies who use hazardous materials in significant quantities to address such areas as usage, storage, disposal, evacuation routes, and contingency plans.

The HMMPs are maintained in the County Environmental Health Office at 701 Ocean Street. The phone number is (831) 454-2022.



RELEASE REPORTING REQUIREMENTS MATRIX

HAZARDOUS MATERIALS INCIDENTS <i>(may include oil & radioactive materials)</i>					
TYPES OF RELEASES	AMOUNT	WHO REPORTS?	TO WHOM	WHEN	LEGAL AUTHORITY
CERCLA HS Release	≥ RQ	Person in charge of a facility	NRC	Immediately upon knowledge of a release. Written report to follow.	CERCLA §103 (a) 40 CFR 302.6
EPCRA EHS Release	≥ RQ	Owner/Operator of facility	NRC SERC and LEPC CUPA/FD (In CA)	Immediately upon knowledge of a release. Written report to follow.	EPCRA §304 40 CFR 355
Release or Threatened Release (except transporting on highway)	If there is a reasonable belief that the release poses a significant hazard to human health & safety, property, or environment.**	Handler	Cal OES CUPA/AA and/or 911	Immediately upon knowledge of a release.	HSC 25507
Illegal Discharges or Threatened Discharges of Hazardous Waste	Any amount that is observed or has knowledge of likely to cause injury to public health and safety.	Designated Government Employee	Local Health Officer or local Board of Supervisors	Within 72 hours	HSC 25180.7(b)
Highways	Any transportation release.	Any person who causes the spill.	CHP (who then notifies Cal OES)	Immediately upon knowledge of a release.	California Vehicle Code (CVC) 23112.5
Railroads	Release/threatened release that may harm person, property, or environment.**	Railroads regulated by the State PUC & FRA	Appropriate emergency response agency and Cal OES	Immediately upon knowledge of a release.	PUC General Order No. 161, Rule #3, 8-7-91
Hazardous Waste Discharge Transporters	Any spill in CA <u>Federal notification:</u> A situation carrier deems appropriate; person hospitalized or killed; public evacuation ≥ 1hr; operational flight pattern or route of aircraft is altered; major transp. artery or facility closed ≥ 1 hr; infectious or radioactive materials involved; marine pollutant > 119 gals or > 882 lbs	Transporter who discharged waste	CHP NRC	Immediately upon knowledge of a release. As soon as practical, but no later than 12 hours after accident occurs Written Report to DTSC and DOT within 30 days.	CVC 23112.5 CVC 2453 22 CCR 66263.15 22 CCR 66263.30 49 CFR 171.15 49 CFR 171.16





RELEASE REPORTING REQUIREMENTS MATRIX

HAZARDOUS MATERIALS INCIDENTS (CONTINUED) <i>(may include oil & radioactive materials)</i>					
TYPES OF RELEASES	AMOUNT	WHO REPORTS?	TO WHOM	WHEN	LEGAL AUTHORITY
Pipelines	Every rupture, explosion or fire \geq 5 barrels	Pipeline operator	Fire Dept Cal OES	Immediately Written report: to State Fire Marshal within 30 days	CGC 51018(c)
ASTs	Any release or threatened release	Facility owner or operator	Cal OES CUPA/AA	Immediately upon knowledge of a release.	HSC 25507
Underground Storage Tanks (USTs)	Any release, if it poses significant hazard	Facility owner or operator	Cal OES, CUPA/AA	Immediately upon knowledge of a release.	HSC 25507
	Into secondary containment – no fire or explosion hazard and no deterioration	Facility owner or operator	Cal OES, CUPA/AA	Do not have to report BUT do need to record on the <i>Operator's Monitoring Report</i> .	HSC 25294
	Escapes from secondary containment; or from a primary containment if no secondary containment; or if there's a fire or explosion hazard or deterioration	Facility owner or operator	CUPA/AA Cal OES	Within 24 hours after the release has been detected Full written report within 5 working days	HSC 25295 HSC 25507
Releases beyond TSD Facility Boundary	A harmful quantity that could threaten human health or environment.	Facility owner or operator; TSDF Emergency Coordinator	Cal OES NRC	Immediately upon knowledge of a release.	CERCLA §103 (b) 22 CCR 66264.56(d) HSC 25507
Releases within TSD Facility Boundary	Any release that poses a significant hazard. Imminent or actual emergency situation that could threaten human health or environment.	Owner/Operator of facility TSDF Emergency Coordinator (designated in the Contingency Plan).	Cal OES, CUPA/AA	Immediately upon knowledge of a release.	HSC 25507
			Local ER agencies	Written report: to DTSC within 15 days.	22 CCR 66264.51 22 CCR 66264.52 22 CCR 66264.56

**** NOTE:** Even if the quantities or situations that are outlined above have not been met, and you still believe that the release poses a significant hazard to human health and safety, or the environment -- then report it to CalOES Warning Center.





Appendix B10

Emergency Operations Plan

Airplane Crash Hazard Analysis

Although no major airports are located in the City of Santa Cruz, major airlines fly over our city everyday. Thus, it is important to have a plan to identify the necessary steps needed to respond to a major airline crash. The Fire Chief or designated representative is the Incident Commander (IC) for any major airline crashes on land and the Coast Guard is the IC for ocean-related crashes. For the purpose of this hazard analysis, the focus is on land-related airline crashes.

The IC will assume responsibility for operational control of all crash-fire-rescue, resource and emergency functions. An EOC will generally not be activated unless the incident is unusually serious. If the IC elects to activate the EOC, the primary EOC will be the mobile command post, which will be positioned to best respond to the site as far upwind from the crash as possible. The IC post is the focal point of all support activities.

The medical requirements include establishment of a triage site, casualty support areas, and the positioning of medical supplies and equipment. Other proximity functional related activities include those designated for personnel assembly, rest, parking, press and security.

The National Transportation Safety Board takes custody of the aircraft and its contents from the time the accident occurs until a full investigation is complete or release is given, except in those instances involving light aircraft, non-fatal accidents, or when the FAA takes jurisdiction on their behalf.

The aircraft owner or designated representative shall arrive on scene and remain with the IC at the Command Post. The aircraft owner/representative is responsible for all administrative, operational and fiscal issues regarding the aircraft. The aircraft owner/representative shall:

- Account for all passengers and crewmembers, disabled passenger needs, animal life, hazardous materials and unusual cargo.
- Designate holding areas for minor and non-injured passengers, family, and friends of passengers.
- Provide the owner/operator telephone numbers for public release of crash victims identities.
- Provide interpreters.
- Remove cargo and provide for the security of mail.
- Remove wreckage once the NTSB or FAA releases the crash site.