

# **TSUNAMI RESPONSE PLAN**

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## **CITY OF SANTA BARBARA**



**2012 – FINAL DRAFT**

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# City of Santa Barbara Tsunami Response Plan

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## **INTRODUCTION**

The phenomenon called "tsunami" is a series of ocean waves of extremely long length generated by undersea earthquakes, volcanic eruptions, or massive undersea landslides. Its speed depends upon the depth of the water and consequently the waves undergo accelerations or decelerations in passing respectively over an ocean bottom of increasing or decreasing depth. By this process the direction of the wave propagation also changes, and the wave energy can become focused or defocused. In the deep ocean, tsunami waves can travel at speeds of 500 to 1,000 kilometers (km) per hour. Near the shore, however, a tsunami slows down to just few tens of kilometers per hour.

When the tsunami enters shallow coastal waters, its speed decreases and the wave height increases. This creates the large wave that becomes a threat to lives, property and the environment. Following the arrival of the first wave, subsequent waves may increase in height and arrive minutes to hours later. The 2004 Indonesian Tsunami caused over 300,000 deaths.

The relative threat for local tsunamis in California can be considered low due to low recurrence frequencies. Large, locally-generated tsunamis in California are estimated to occur once every 100 years. Thirteen possible tsunamis have been observed or recorded from local earthquakes between 1812 and 1988. There is no doubt that earthquakes occurring in the Santa Barbara area could generate large destructive local tsunamis and/or trigger underwater landslides capable of tsunami generation.

The areas most impacted by a Tsunami in the City of Santa Barbara would be southern areas of the City near the coast; including the Santa Barbara Airport. Damage would depend on the local sea bottom and coastal topographic characteristics as well as incoming direction of the Tsunami

Residents and visitors to coastal areas must be aware that there may not be time or means to provide any warning of a tsunami threat. An earthquake felt along the coastline is a signal to move immediately to higher ground. This must be done if there is no information or any formal tsunami warning issued.

Any associated earthquake could also damage structures and infrastructure in the potential inundation area prior to the wave's arrival. This could significantly impact warning, evacuation and emergency response operations.

## **TSUNAMI CLASSIFICATION**

Tsunamis have periods (the time for a single wave cycle) that may range from just a few minutes to as much as an hour or exceptionally more. At the shore, a tsunami can have a wide variety of expressions depending on the size and period of the waves, the near-shore bathymetry and shape of the coastline, the state of the tide, and other factors. In some

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cases a tsunami may only induce a relatively benign flooding of low-lying coastal areas, coming onshore similar to a rapidly rising tide. In other cases it can come onshore as a bore - a vertical wall of turbulent water full of debris that can be very destructive. In most cases there is also a drawdown of sea level preceding crests of the tsunami waves that result in a receding of the waterline, sometimes by a kilometer or more. Strong and unusual ocean currents may also accompany even small tsunamis.

Damage and destruction from tsunamis is the direct result of three factors: inundation, wave impact on structures, and erosion. Deaths occur by drowning and physical impact or other trauma when people are caught in the turbulent, debris-laden tsunami waves. Strong tsunami-induced currents have led to the erosion of foundations and the collapse of bridges and seawalls. Flootation and drag forces have moved houses and overturned railroad cars. Tsunami associated wave forces have demolished frame buildings and other structures.

Considerable damage also is caused by floating debris, including boats, cars, and trees that become dangerous projectiles that may crash into buildings, piers, and other vehicles. Ships and port facilities have been damaged by surge action caused by even weak tsunamis. Fires resulting from oil spills or combustion from damaged ships in port, or from ruptured coastal oil storage and refinery facilities, can cause damage greater than that inflicted directly by the tsunami. Other secondary damage can result from sewage and chemical pollution following the destruction. Damage of intake, discharge, and storage facilities also can present dangerous problems. Of increasing concern is the potential effect of tsunami drawdown, when receding waters uncover cooling water intakes associated with nuclear plants.

### **TSUNAMI WARNING CENTER** (Excerpt for this section taken from the [NOAA/NWS/WCATWC](http://NOAA/NWS/WCATWC))

Santa Barbara City receives Tsunami warning from the National Oceanic and Atmospheric Administration (NOAA) West Coast/Alaska Tsunami Warning Center (WC/ATWC). The WC/ATWC provides reliable tsunami detection, forecasts and warning.

NOAA operates two tsunami warning center in the United States: the West Coast/Alaska Tsunami Warning Center and the Pacific Tsunami Warning Center. The WC/ATWC area-of-responsibility (AOR) consists of Canadian coastal regions, Puerto Rico and the Virgin Islands, and the ocean coasts of all U.S. States except Hawaii. The Pacific Tsunami Warning Center AOR consists of Hawaii, other U.S. interests in the Pacific Basin, countries participating in the Tsunami Warning System in the Pacific, and Indian Ocean and other Caribbean Sea countries.

### **Procedures**

The warning center's initial response must be issued very quickly and is based on seismic analysis and well-defined, preset criteria. Whether a Tsunami Warning, Watch, Advisory, or Information Statement is issued is based on these preset criteria and the initial seismic analysis. Following the first message, the tsunami is analyzed using observed sea level data, forecast models, historic data, and further seismic processing. Based on this

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analysis, supplemental messages are issued if a Warning, Watch, or Advisory was originally issued. Areas with forecasts 1m or greater in zero-to-peak amplitude are generally put in a tsunami Warning; those with forecasts 0.3m to 1m in an Advisory, and for those less than 0.3m Warning, Watch, and/or Advisory are cancelled. Historical information has shown that tsunamis can cause damage due to strong currents when amplitudes reach 0.5m or greater.

## **TSUNAMI MESSAGES**

### **Message Definitions**

Products issued by the West Coast/Alaska Tsunami Center (WC/ATWC) are warning, watch, advisory, and information statement. Each has a distinct meaning relating to local emergency response. In summary:

Warning	-> Inundating wave possible	-> Full evacuation suggested
Watch	-> Danger level not yet known	-> Stay alert for more info
Advisory	-> Strong currents likely	-> Stay away from the shore
Information	-> Minor waves at most	-> No action suggested

Based on seismic data analysis or forecasted amplitude (dependent on whether the center has obtained sea level data); WCATWC will issue the appropriate product. Warnings and Advisories suggest that action be taken. Watches are issued to provide an early alert for areas that are distant from the wave front, but may have danger. Once the danger level is determined, the watch is upgraded to a warning or advisory, or canceled. The full definition of each message is given below:

**Tsunami Warning** - A tsunami warning is issued when a tsunami with the potential to generate widespread inundation is imminent, expected, or occurring. Warnings alert the public that dangerous coastal flooding accompanied by powerful currents is possible and may continue for several hours after initial arrival. Warnings alert emergency management officials to take action for the entire tsunami hazard zone. Appropriate actions to be taken by local officials may include the evacuation of low-lying coastal areas, and the repositioning of ships to deep waters when there is time to safely do so. Warnings may be updated, adjusted geographically, downgraded, or canceled. To provide the earliest possible alert, initial warnings are normally based only on seismic information.

**Tsunami Advisory** - A tsunami advisory is issued when a tsunami with the potential to generate strong currents or waves dangerous to those in or very near the water is imminent, expected, or occurring. The threat may continue for several hours after initial arrival, but significant inundation is not expected for areas under an advisory. Appropriate actions to be taken by local officials may include closing beaches, evacuating harbors and marinas, and the repositioning of ships to deep waters when there is time to safely do so. Advisories are normally updated to continue the advisory, expand/contract affected areas, upgrade to a warning, or cancel the advisory.

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**Tsunami Watch** - A tsunami watch is issued to alert emergency management officials and the public of an event which may later impact the watch area. The watch area may be upgraded to a warning or advisory - or canceled - based on updated information and analysis. Therefore, emergency management officials and the public should prepare to take action. Watches are normally issued based on seismic information without confirmation that a destructive tsunami is underway.

**Tsunami Information Statement** - A tsunami information statement is issued to inform emergency management officials and the public that an earthquake has occurred, or that a tsunami warning, watch or advisory has been issued for another section of the ocean. In most cases, information statements are issued to indicate there is no threat of a destructive tsunami and to prevent unnecessary evacuations as the earthquake may have been felt in coastal areas. An information statement may, in appropriate situations, caution about the possibility of destructive local tsunamis. Information statements may be re-issued with additional information, though normally these messages are not updated. However, a watch, advisory or warning may be issued for the area, if necessary, after analysis and/or updated information becomes available.

The Center also issues “public” products in addition to the standard NWS format tsunami products. These were designed to include wording easier for the layman to understand. Tabulated tsunami travel times and hypocenter information were removed and replaced with information written in a more readable format. Tsunami warnings, watches, advisories, and information statements now have corresponding public products.

### **SPECIAL SITUATION**

The City of Santa Barbara is located on or near several offshore geological faults that have been active in the past and can subject the entire area to seismic action at any time. The more prominent of these are the Mesa Fault, the Santa Ynez Fault in the mountains, and the Santa Rosa Fault and other unnamed faults in the offshore area of the Channel Islands. (See Attachment A – page 20)

The City is also open to Tsunami action from the Pacific Ocean area, particularly the vicinity of the Aleutian Islands, Kurile Islands, etc., which are normally very active. In recent Tsunami history for Santa Barbara City there has been substantial tidal action that occurred after two significant earthquakes.

- On March 11, 2011 Japan had an earthquake that measured 9.0 on the Richter Scale. The effects of that earthquake generated a power tsunami that caused the issuance of a Tsunami Advisory for California. The run up in Santa Barbara was 1.02 meters and the damage was estimated at \$70,000. The damage recorded in the Santa Barbara City Harbor was to a crane, bait barge and several boats; and
- The Chilean Earthquake on February 27, 2010 registered an 8.8 on the Richter Scale, which caused a Tsunami Advisory from the WC/ATWC. The run up in



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Santa Barbara City from that earthquake in was 0.91 meters and damaged the dredging equipment within the Harbor/Waterfront area of the City.

Also, off the coast of Chile on May 22, 1960, the maximum rise or fall in the 1960 Tsunami in Santa Monica, Port Hueneme and Crescent City California was 9.1 ft., 8.8 ft. and 10.9 ft., respectively. In Santa Barbara City a drifting oil exploration barge repeatedly rammed the new dredge causing at least \$10,000 in damage. An additional \$10,000 was done elsewhere including damage to 40 small craft set adrift in the Harbor / Waterfront Area.

A Tsunami is reported to have occurred at Santa Barbara on December 21, 1812, but no accurate figures are available on the actual height of the wave. Probably the most accurate study available is that made by Marine Advisors, Inc., of La Jolla, California, for the Southern California Edison Company on the occasion of the building of the San Onofre Nuclear Generating Station. Their studies indicated that a quoted 35 foot wave in Santa Barbara on December 21, 1812, was probably no greater than 15 to 20 ft. at the most.

The Channel Islands lie approximately 30 miles offshore from the City of Santa Barbara, and run parallel to the coastline. The islands would most likely provide insignificant shielding from tsunamis, although this would depend on many variables (where the tsunami earthquake was generated, how strong it was, etc.)

### **PURPOSE**

The purpose of this plan is to provide information and guidance specific to receiving information that a tsunami watch, advisory or warning is in effect. This plan is meant to “fill the gap” between the time a watch, advisory or warning is received and the time when the watch or warning is determined to be credible or not. The overall emergency management concepts, policies, and procedures contained in the City’s Emergency Management Plan and individual departmental standard operating procedures (SOP’s) remain in place.

### **ASSUMPTIONS**

This plan is based on the following assumptions:

- The tsunami threat in Santa Barbara can be due to both distant-source as well as local-source events.
- For a local-source tsunami warning, the West Coast/Alaska Tsunami Warning Center will not modify or cancel the warning in less than 60 minutes for the initial notification. For distant-source tsunami events, the West Coast/Alaska Tsunami Warning Center will issue updates at least every hour.
- Any Warning or Watch issued by the West Coast/Alaska Tsunami Warning Center may reach the general public prior to the information being received by public safety/emergency management via official channels. (See Information Flow Chart, Attachment C, page 21)

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- The City of Santa Barbara Combined Communication Center and Harbor Patrol Office will receive Watch and Warning information via CLETS (California Law Enforcement Telecommunications System).
- Arrangement for the populations with Access and Functional Needs (AFN) will be made by the Incident Commanders at the site and needed resources will be requested through the City's Emergency Operations Center.
- A Tsunami Warning may attract sightseers to the inundation hazard areas. Members of the public outside the inundation risk area may seek to enter in order to check on family members or assist them in evacuating.
- After the arrival of the first wave, waves may continue to arrive at intervals for several hours. At the discretion of the Incident Commanders risk areas may reopen to the public once the area has been surveyed for safety.
- The first wave may not be the largest. The largest wave usually occurs within the first ten waves.
- Intervals between successive major waves may be dissimilar. There is no regular period of time between successive waves.
- The Tsunami Inundation Risk Area map for both Santa Barbara and Santa Barbara Airport (Attachment B and Attachment C) shows the maximum probably potential inundation – actual events could produce more or less inundation.
- Media interest will be significant for any Tsunami Warning/, Advisory, or Watch. Media coverage and Emergency Alert System messages may cause the public to call 911 or other emergency numbers for more information.
- Heavy use of telephones by the public may impact the ability of public safety agencies to communicate and warn the public. The City of Santa Barbara Combined Communications will be significantly impacted.
- The coordination and response actions from involved agencies and jurisdictions shall follow the City of Santa Barbara Emergency Management Plan (EMP), Waterfront Emergency Response Plan, and impacted City departments Standard Operating Procedures (SOP).
- Within the inundation risk area special institutions such as schools, hospitals, and nursing homes will be identified. Special procedures for warning, evacuating, and care for the occupants will be determined by the incident commander.

### **CONCEPT OF OPERATIONS**

In the event of a Tsunami Watch, Advisory or Warning, any party receiving such information, from whatever source, must confirm that all first response parties have received the Watch or Warning. These include (but are not limited to): Police Watch Commander, Fire Battalion Chief, Harbor Patrol, Airport Patrol, City Administrator, Emergency Services Manager, Police Records and Combined Communications Center.

Initial Incident Command will be the responsibility of the on-duty Police Watch Commander and the on-duty Fire Battalion Chief, employing Unified Command. Unified Incident

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Commanders shall be responsible for making initial notifications, determining if a credible threat exists, and taking appropriate actions relative to that determination.

Upon determination of credibility the City Administrator and Emergency Services Manager will be notified. Warning and evacuation will not be delayed by information gathering or threat assessment.

### **ACTIVATION**

This plan becomes effective upon notification of a Tsunami Watch, Advisory, or Warning issued by the National Weather Service Tsunami Warning Center, State's Warning Center, or on order of the City of Santa Barbara Director of Emergency Services.

### **PUBLIC ADVISORY OR WARNING**

In the event of a Tsunami Advisory or Warning, population in the designated tsunami inundation hazard areas will be warned and advised to evacuate to higher ground or safe zone areas. The public will be instructed to move by the quickest method available; in many cases individuals should walk and not drive inland. The expected arrival time of the tsunami will also be provided, if available.

After warning the general public, alerting and moving populations at beaches, schools or convalescent care facilities will have the highest priority. Members of the public may receive warnings directly via the Reverse 911 System, Emergency Alert System (EAS), Fire/Police PAs or the NOAA Weather Radio network.

### **COMMAND AND CONTROL**

For the purposes of coordinating emergency evacuation and rescue operations, initial field responders will use the Incident Command System (ICS). An Incident Command Post and staging areas will be determined by Unified Command. If resources are needed the City Emergency Operations Center (EOC) will be activated at the appropriate level as requested by the Incident Commander and/or the Director of Emergency Services. If the EOC is activated the Incident Commander will make sure that all requests for resources will be relayed to the EOC.

### **Proposed Evacuation Routes and Traffic Control Points**

Law enforcement will be responsible for evacuations with the assistance of other departments as directed by Unified Command. Proposed evacuation routes are one-way traffic on the main thoroughfares that run from the coastal area to the cold zone area above Carrillo Street. (Inundation Map, Attachment B, Page XX) Proposed evacuation routes are as follows:

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- One-way traffic on Castillo, Garden, Cesar Chavez and Milpas Streets; leaving one lane open for first responders
- Route Cabrillo Blvd traffic west to La Marina and east to Hot Springs Road

Traffic Control Points are as follows:

- Shoreline Dr. at La Marina
- Cabrillo Blvd. at Hwy 101
- Castillo at Montecito
- State at Gutierrez
- Garden at Gutierrez
- Salsipuedes @ Calle Cesar Chavez
- Milpas at Quinientos Street
- Cliff Dr. at Loma Alta

A Task Force Staging Area will be located at the Public Works Yards at 630 Garden Street. Personnel and Equipment evacuated to this area will be directed by Supervisor to wait until the “All Clear” as been declared. No personnel or equipment will be allowed into the inundation zone until a Hazardous Materials sweep has been conducted by the Hazardous Material Teams.

Proposed Unified Command Post will be located on the West Campus of Santa Barbara City College, 735 Cliff Drive and at the discretion of the Incident Commander.

### **PUBLIC SAFETY AGENCY RE-ENTRY POLICY**

Tsunamis may produce several waves with subsequent waves larger than the first. Therefore, it is the policy of the City of Santa Barbara that once public safety personnel and equipments have evacuated the Tsunami Hazard Inundation Area, they will not re-enter the area until the “All Clear” message is transmitted by the Combined Communications Center and at the discretion of the Incident Commander. The “All Clear” will be transmitted two hours after the last tsunami wave has arrived or upon receipt of a tsunami warning cancellation from the WC/ATWC and/or California State Warning Center.

### **“ALL CLEAR” WARNING CANCELLATION NOTIFICATION**

A warning cancellation is issued as the final bulletin indicating when there is no longer the threat of a damaging tsunami to the WC/ATWC Area of Responsibility (AOR). A cancellation is usually issued after an evaluation of sea level data confirms that a destructive tsunami will not impact the AOR. It may also be issued following a destructive tsunami when data indicate that the threat has largely subsided to non-destructive levels. In that case, it provides guidance to local officials regarding when they can consider the threat to have passed based on their local tsunami conditions. The all clear decision must be made locally.

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The responsibility of issuing an “All Clear” notification rests with the Unified Command. Evacuated areas must remain closed to the public. The decision to allow re-entry will be made by Unified Command, controlling access so as to ensure that safety and sanitary precautions are provided for.

## **SEARCH AND RESCUE**

Following evacuation emergency response assets will stage outside the hazard area until the “All Clear” is sounded. Prior to entering the Hazard Area, communications equipment and assignments will be allocated to and coordinated within each branch. Entry into the inundation area will be in phases; as decided by Unified Command.

The initial incident objectives would include (not necessarily in this order):

- Windshield survey by First Responders, preferably HazMat team
- Identify and Isolate Hazards
- Conduct Security Operations
- Conduct Search and Rescue
- Conduct Recovery Operations

## **DAMAGE ASSESSMENT UNIT**

The Damage Assessment Unit will coordinate all damage assessment teams from the Community Development Building and Safety Department Operating Center. Information will be forwarded to the Emergency Operations Center and/or Incident Commander via fax, telephone, e-mail or runners.

## **EMERGENCY PUBLIC INFORMATION**

The Public Information Officer (PIO) will coordinate all public information activities with the Director of Emergency Services and the Incident Commander. The PIO may recommend establishing a Joint Information Center (JIC) at the recommendation of the Incident Commander and Director of Emergency Services.

## **ROLES AND RESPONSIBILITIES**

### **INITIAL PHASE**

#### **Combined Communications Center**

- Advise Watch Commander of Watch/Advisory/Warning
- Advise Battalion Chief of Watch/Advisory/Warning
- Advise Harbor Patrol of Watch/Advisory/Warning
- Advise Airport Patrol of Watch/Advisory/Warning
- Advise Police Records of Watch/Advisory/Warning
- Advise all field personnel of warning and initial recommendations

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- Advise 911 callers regarding initial recommendations (Initial default recommendation – “The City is determining the credibility of the Watch/Advisory/Warning. We are making no recommendations at this time.”)

### **Police Records**

- Advise Combined Communications Center of Watch/Advisory/Warning
- Advise incoming callers regarding initial recommendations (Initial default recommendation – “The City is determining the credibility of the Watch/Advisory/Warning. We are making no recommendations at this time.”)

### **Police Watch Commander**

- Advise Chief, via chain of command
- Advise Combined Communications Center of Watch/Advisory/Warning
- Advise field personnel regarding immediate duties including whether to implement Unusual Occurrence Manual protocols
- Revise “Initial default recommendation” if appropriate, advise CCC and Records
- Contact City Administrator and Emergency Services Manager, advise of Watch/Advisory/Warning
- Meet with on-duty Battalion Chief to establish Unified Command (Consider including on-duty ranking Harbor Patrol Officer and Public Works)

### **Fire Battalion Chief**

- Advise Combined Communications Center of Watch/Advisory/Warning
- Advise Fire Chief or Deputy Chief of Watch/Advisory/Warning
- Meet with on-duty Watch Commander to establish Unified Incident Command

### **Emergency Services Manager**

- Advise City Administrator of Watch/Advisory/Warning
- Determine EOC staffing levels, as appropriate
- Contact City PIO and coordinate updates via media
- Contact Operational Area on City Status
- Make sure that RIMS is started
- Follow procedures in the City’s EOC Activation Plan for appropriate Level of opening

### **Public Information Officer**

- Advise City PIO staff of Watch/Advisory/Warning
- Begin to script advisory/warning information
- Stay in contact with Emergency Services Manager and Emergency Services Director

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## OPERATIONAL PHASE

### Unified Command (Law/Fire/Public Works/Harbor/Airport)

- Determine credibility of Watch/Advisory/Warning
- Develop initial action plan based on information, set objectives

### Emergency Services Manager

- Update and assist Unified Incident Commanders: as appropriate
- Update City Administrator
- Update Executive Management
- Update PIO
- Update Operational Area

### If Watch/Advisory/Warning is determined NOT credible.

#### Unified Incident Commanders

- Advise the following of “All Clear” status, Watch/Advisory/Warning is cancelled”
  - Combined Communications Center
  - Police Records
  - Field Personnel (Fire and Police)
  - Harbor Patrol
  - Airport Patrol/Administration
  - Emergency Services Manager

#### Emergency Services Manager

- Advise City Administrator
- Advise EOC personnel/Executive Management
- Liaison with PIO to deliver immediate news release on all clear status

#### Public Information Officer

- Advise PIO staff of all clear status
- Be prepared to put out a statement to the press; once approved by the Incident Commander

### If Watch/Advisory/Warning is deemed CREDIBLE

#### Unified Command

- Develop initial action plan
- Establish priorities (Including Calls-for-Service prioritization for Combined Communications Center)
- Determine message for incoming 911 callers; advise Combined Communications Center and Police Records
- Advise the following of credible threat, initial action plans and update as necessary:

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- City Administrator
- Emergency Services Manager
- Combined Communications Center
- Police Records
- Field Personnel (Fire and Police)
- Harbor Patrol
- Airport Patrol/Administration
- Assign field personnel accordingly for traffic control and evacuation
- Determine if Reverse 911 is to be utilized and contact County Sheriff's Dispatch
- Request activation of the Emergency Operations Center (EOC) to the City Administrator or designee; if applicable
- Recall off-duty personnel as needed
- Appoint/contact Public Information Officer

### **Emergency Services Manager**

- Assist in credibility assessment of the Watch/Advisory/Warning,
- At the direction of the City Administrator Activate EOC, per the EOC Activation Plan
- Recall EOC Section Coordinators
- Contact Operational Area; advise of EOC activation level
- Ensure for accurate media updates with PIO and Incident Commanders
- Advise Executive Management
- Assist City Administrator in proclaiming a local emergency (See Section 3 in the City's Emergency Management Plan)

### **Combined Communications Center**

- Receive and relay the tsunami Watch/Advisory/Warning information to Unified Incident Commanders
- Advise 911 callers if an evacuation is recommended/required per Unified Incident Command direction
- Prioritize Calls-for-Service as directed by Unified Incident Commanders
- Contact Sheriff's dispatch for use of Reverse 911 system
- Consider holding over and calling back staff
- On termination of incident, notify emergency responders and 911 callers

### **Fire**

- Serve as Initial Incident Commander in Unified Command
- Move and stage resources outside the Tsunami Inundation Zone
- Stage and deploy USAR and HazMat team as needed
- Provide emergency medical treatment
- Assist in notification as requested
- Request fire mutual aid as required
- Consider holding over and calling back staff



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- Staff EOC as required

## **Harbor Patrol**

- Assist Unified Incident Commanders as requested
- Move resources out of the Tsunami Inundation Zone and/or to deep water
- Assist in notification as directed by Unified Incident Commanders
- Coordinate scene security/evacuation/crowd control as directed by Unified Incident Commanders
- Assist in dissemination of update information
- Serve as liaison between Unified Command and Reverse 911
- Respond as required

## **Police**

- Serve as Initial Incident Commander in Unified Command
- Implement appropriated sections of Unusual Occurrence Manual
- Move and stage resources outside the Tsunami Inundation Zone
- Direct Evacuation
- Coordinate scene security, crowd control, traffic control
- Request law enforcement mutual aid as required
- Consider holding over and calling back staff
- Staff EOC as required
- Respond as required

## **Public Works**

- Support perimeter and traffic control efforts
- Request mutual aid as necessary
- Consider holding over and calling back staff
- Coordinate and render safe, repair, and restore City utility facilities
- Coordinate Debris Management
- Respond as required
- If requested, activate the Public Works Department Operating Center

## **Public Information Officer**

- Advise PIO staff of creditability
- Be prepared to open the Media Center as requested by the Director of Emergency Services
- Make contact with media and set up media briefings and prepare scripts for elected officials and Executive Management
- Prepare information packets for city employees
- Be prepared to put out a statement to the press; once approved by the Incident Commander

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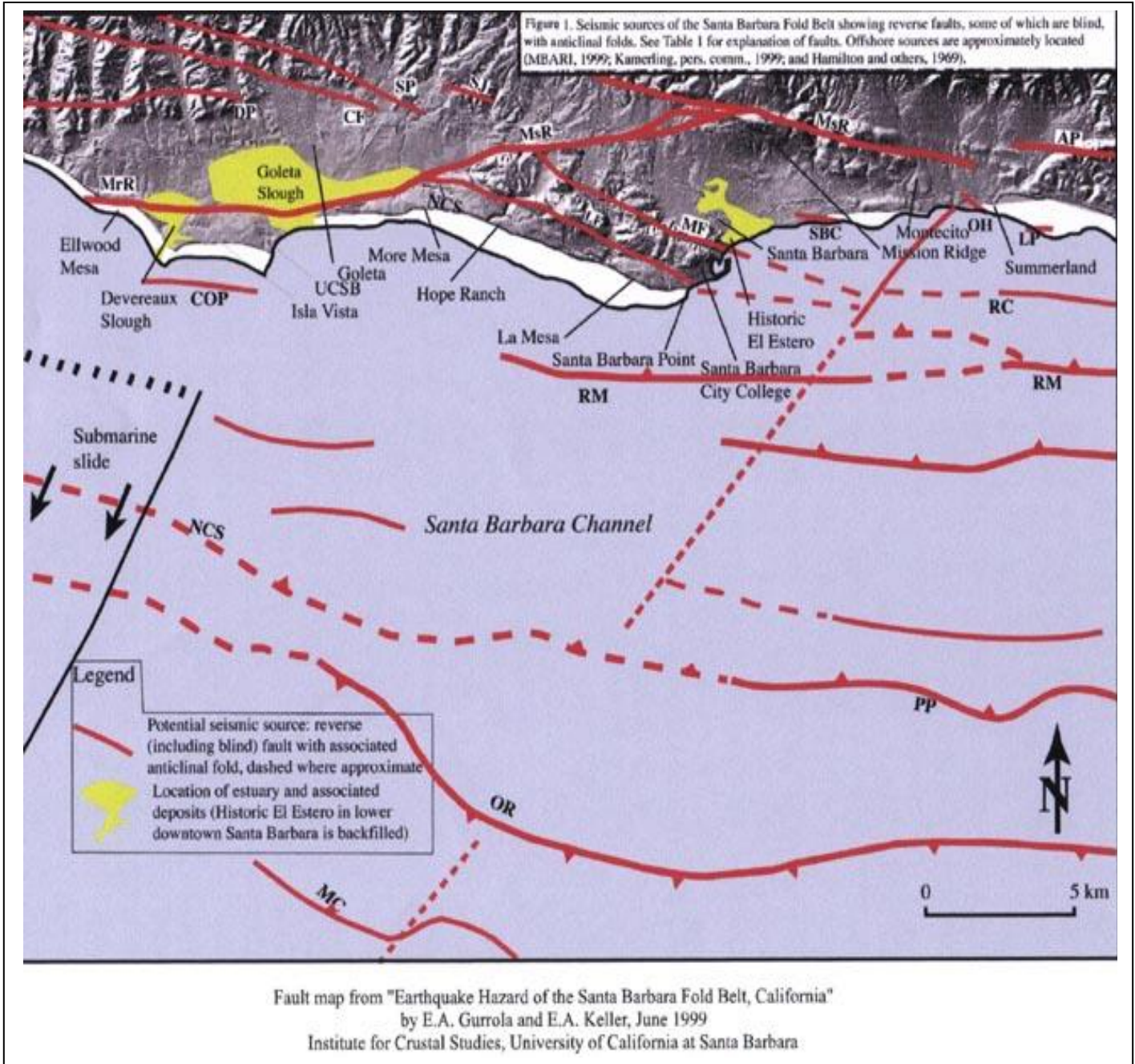
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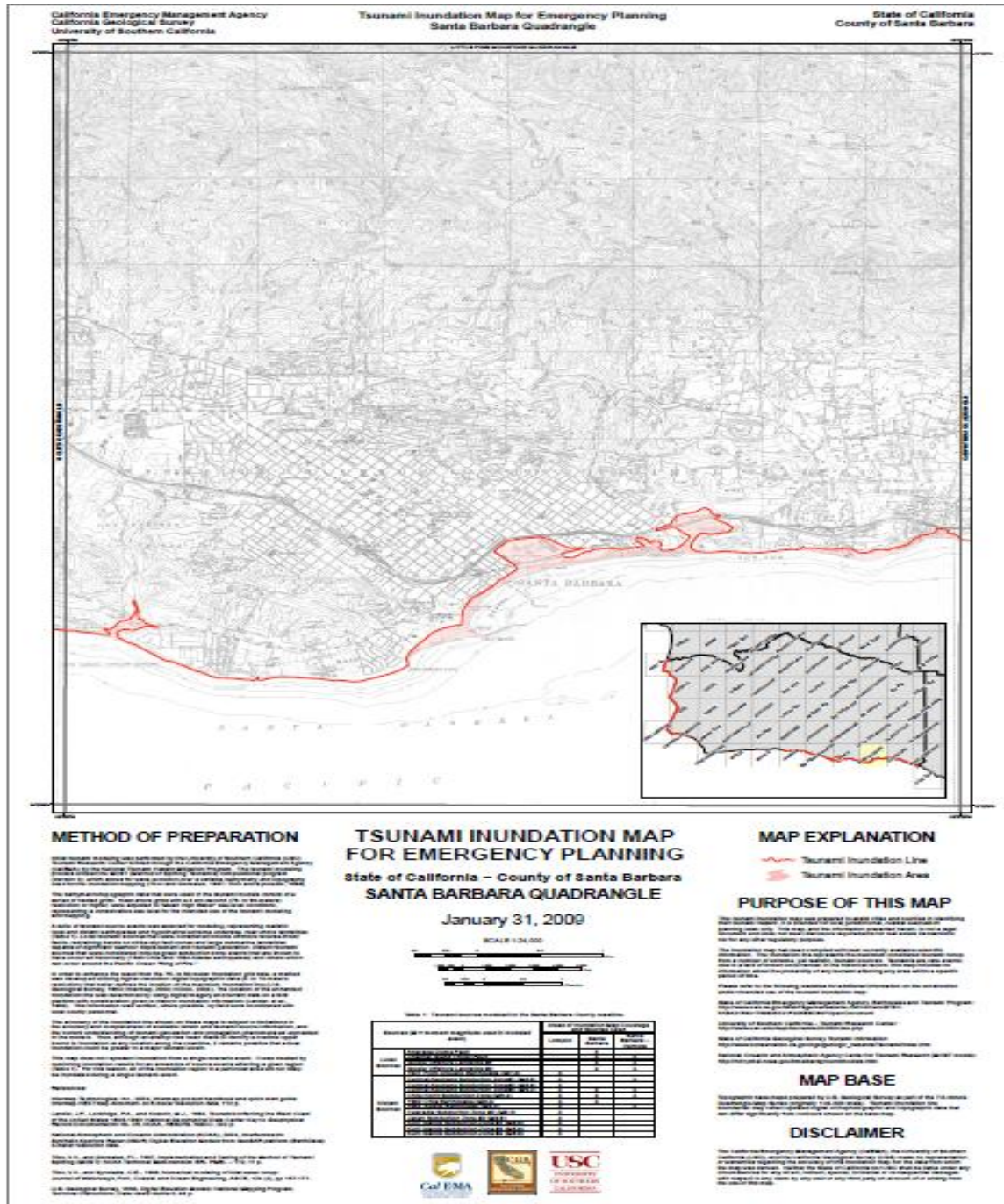
City of Santa Barbara Emergency Management Plan, November 2012

# EARTHQUAKE HAZARDS OF THE SANTA BARBARA FOLD BELT



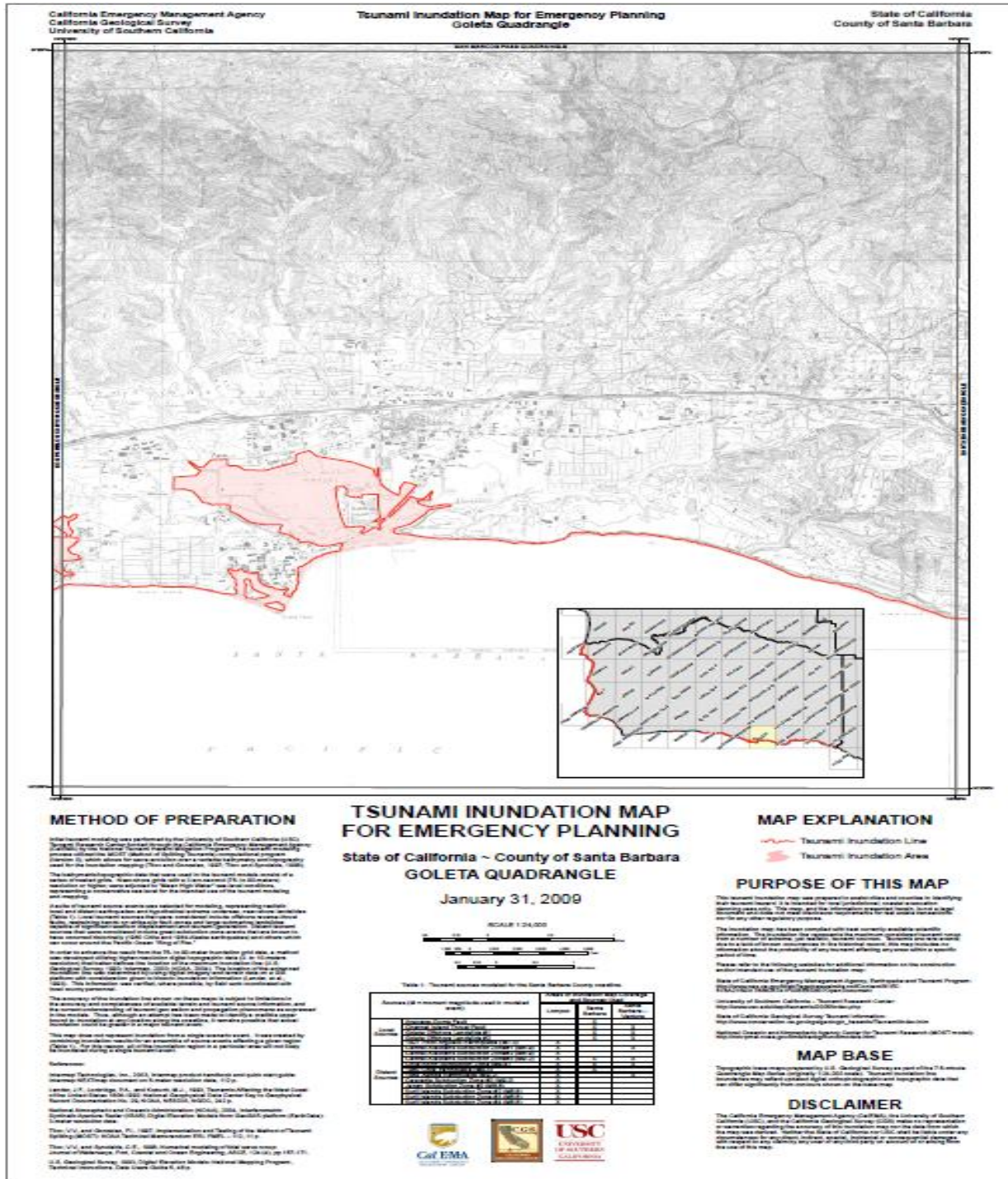
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CITY OF SANTA BARBARA INUNDATION MAP



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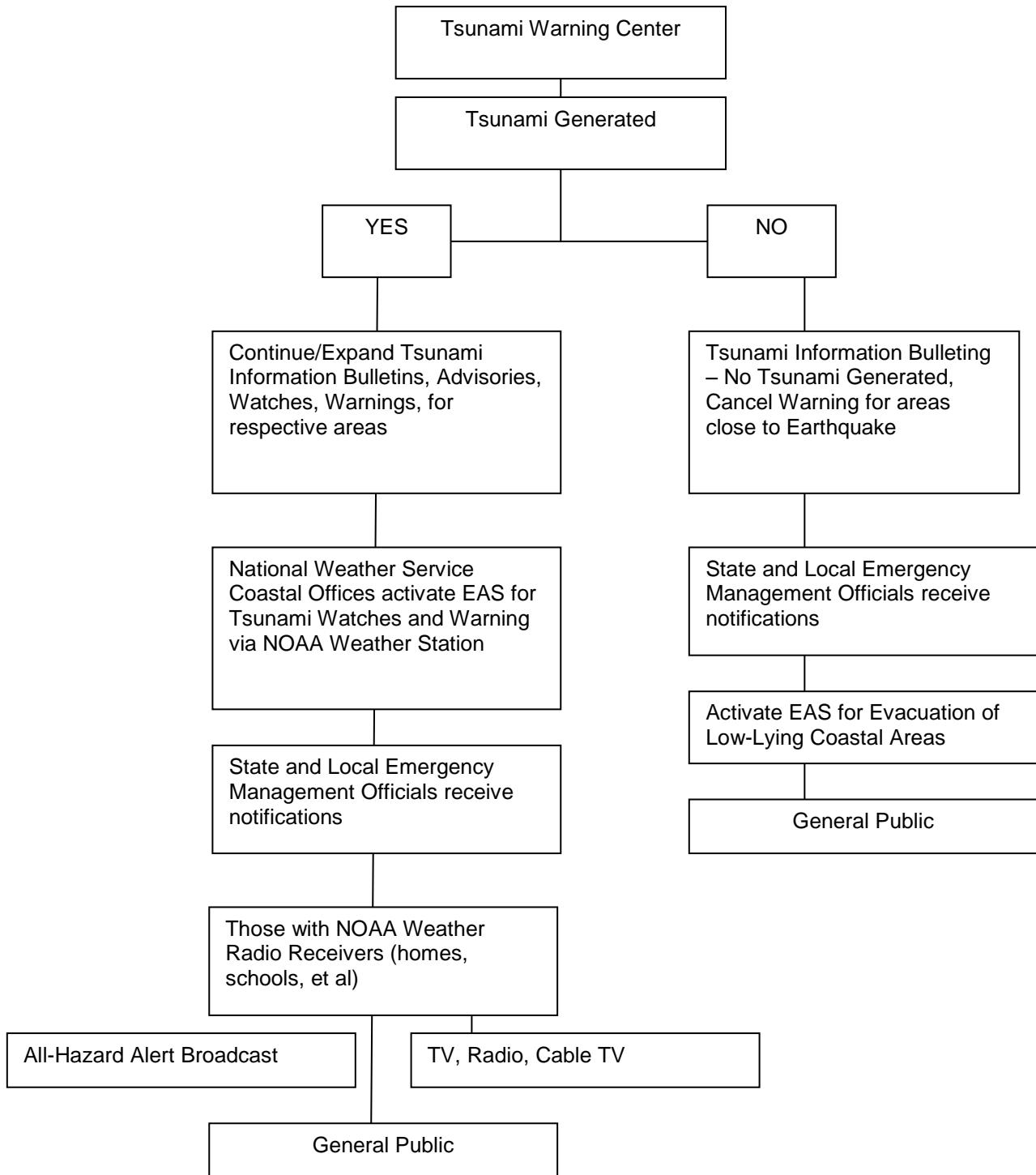
CITY OF SANTA BARBARA AIRPORT INUNDATION MAP





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# Tsunami Communications Flowchart



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TSUNAMI SIGN LOCATION MAP

