

HAWAII TSUNAMI EMERGENCY RESPONSE

TSUNAMI GUIDELINE PROCEDURES FOR HAWAII

December 2003

1. **PTWC Bulletins.** The Pacific Tsunami Warning Center (PTWC) alerts the international arena of the Pacific basin and the State of Hawaii of potential or confirmed tsunamis with two main categories of messages. PTWC's "International Bulletins" are sent to most of the countries around the rim and in the interior of the Pacific Basin, as well as to all US interests in the Pacific outside the WC/ATWC area of responsibility (AOR that includes Alaska, British Columbia, Washington, Oregon, and California.) PTWC's "Hawaii Bulletins" are addressed to Civil Defense in the State of Hawaii. Both categories of messages may be issued for potential or confirmed tsunamis generated by earthquakes in the seismic belts around the Pacific Rim, or by earthquakes within the State of Hawaii. For both international and Hawaii users of the system, there are four levels of alert: 1) information, 2) advisory, 3) watch, and 4) warning. Within these levels may be some distinctions (e.g., for Hawaii a warning for a distant event is distinct from a warning for a local event).
 - a. **International Bulletins.** PTWC's "International Bulletins" fall into four basic categories for handling events around the Pacific with increasing degrees of threat. Magnitude thresholds for these bulletins as well as their corresponding Hawaii bulletins are now based on the moment magnitude, Mw, as opposed to the formerly used Richter magnitude, Ms.
 - i. **Tsunami Information Bulletin.** Issued for Pacific Basin earthquakes with magnitudes of 6.5 to 7.5, inclusive, or for even larger Pacific earthquakes if they are inland or deep inside the earth or outside the Pacific Basin (e.g., in the Sea of Japan or in one of Indonesia's seas). No destructive Pacific-wide tsunami threat exists based on historical earthquake and tsunami data. There may be some threat of a local tsunami in the region near the earthquake epicenter. A supplement will be issued if any tsunami signal is recorded.
**** However, if the event is in the WC/ATWC AOR with a magnitude between 7.1 and 7.8, inclusive, PTWC will issue a special fixed, non-expanding Tsunami Advisory Bulletin. The WC/ATWC will issue a regional warning and watch for their AOR. ****
 - ii. **Fixed Regional Tsunami Warning and Advisory Bulletin.** Issued for Pacific Basin earthquakes with magnitudes of 7.6 to

HAWAII TSUNAMI EMERGENCY RESPONSE

STANDARD OPERATING PROCEDURES FOR DISTANT GENERATED TSUNAMI

I. PURPOSE:

To provide procedural guidance for SCD staff in responding to Pacific Tsunami Warning Center (PTWC) issued Distant Tsunami Bulletins for the Hawaiian Islands.

II. GENERAL:

- A. A distant generated tsunami can occur at any time towards the Hawaiian Islands from earthquakes in the Pacific “Ring of Fire.” Arrival of damaging tsunami waves may occur anytime from 4 to 16 hours after earthquake origin time, depending upon coastal earthquake location. PTWC notifies State and County Warning Points of the issuance of various Tsunami Bulletins and subsequent bulletin cancellations.
- B. PTWC will issue an initial, expanding Tsunami Advisory Bulletin for a large earthquake magnitude 7.9 or greater, with wave arrival time to Hawaii greater than 6 hours. PTWC is determining whether a destructive Pacific wide tsunami has been generated. This expanding Tsunami Advisory Bulletin could be upgraded to a Tsunami Watch Bulletin when wave arrival time is about 6 hours to Hawaii.
- C. PTWC will issue an initial, expanding Tsunami Watch Bulletin for a large earthquake magnitude 7.9 or greater between 3-6 hours wave arrival time to Hawaii. PTWC is still in the process of determining whether a destructive Pacific wide tsunami has been generated. Hawaii also placed in a Tsunami Watch for large northwest Pacific Ocean earthquakes (north of 35 degrees north latitude) that are greater than 6 hours wave arrival time, per Civil Defense request.
- D. PTWC will issue an expanding Tsunami Warning Bulletin if there is evidence that a destructive Pacific wide tsunami has been generated and/or wave arrival time to Hawaii is 3 hours or less. Moreover, PTWC can issue a Pacific Wide Warning Bulletin at any time when a destructive tsunami is detected. When a Tsunami Warning Bulletin is issued, sirens are normally sounded statewide and a “live” Emergency Alert System (EAS) message is broadcast by SCD to begin coastal evacuation.

- E. PTWC will issue an initial, non-expanding Tsunami Advisory Bulletin for major earthquakes with magnitudes between 7.6 to 7.8 in the south and northwest Pacific Ocean, or 7.1 to 7.8 in Alaska, Aleutian Islands, British Columbia, Washington, Oregon, or California. Note: Most of these historical earthquakes have not generated Pacific-wide destructive tsunamis. Areas within 1000 kilometers of the epicenter will be placed in a precautionary warning area.
- F. PTWC will issue a Tsunami Information Bulletin for a strong earthquake magnitude between 6.5 to 7.5. No Pacific-wide tsunami generation is expected.
- G. The media is simultaneously receiving information on the event via NOAA Weather Wire and NOAA Weather Radio.

III. FUNCTIONS AND RESPONSIBILITIES:

- A. When directed, SCD staff receiving a PTWC Advisory/Watch/Warning Bulletin via a pager or cell phone will immediately and as safely as possible, report to the Emergency Operating Center (EOC) if in the vicinity of Diamond Head Crater.
- B. SCD staff members will use discretion during off duty hours. If an SCD staff member is with family and within close proximity to the EOC, proceed to the EOC with the family.
- C. As a minimum, SCD staff should be aware as to whether primary-driving routes from residence to EOC traverse published tsunami evacuation maps in the front of the telephone book.

IV. OPERATIONS:

- A. Upon receipt of a PTWC Tsunami Advisory/Watch/Warning Bulletin, and when directed by the Director / Vice Director of Civil Defense or authorized representative, personnel assigned to Crisis Action Team (CAT A) will activate the EOC Control Point during duty hours. CAT B personnel will fill vacant CAT A positions.
- B. Upon receipt of a Tsunami Advisory Bulletin, and when directed, the Initial Response Team (IRT) will report to the EOC during non-duty hours to monitor the event and be prepared to respond appropriately to a potential upgrade of the tsunami bulletin.
- C. Upon receipt of a Tsunami Watch or Warning Bulletin, and when directed by the Director/Vice Director of Civil Defense or authorized representative, personnel assigned to Crisis Action Team (CAT) A

will be notified to immediately report to the EOC during non-duty hours. Personnel are directed to immediately proceed to the EOC as rapidly and safely as possible. Initial notification will be to the A Team Leader and the Alternate A Team Leader. The subsequent notification will be to the B Team Leader (in his absence, the B Team Alternate or any other B Team member who can be contacted), who will assume responsibility for rapid notification of the remainder of CAT A. The B Team notification person will use his discretion and resources to substitute appropriate CAT B personnel when CAT A personnel cannot be contacted or are unavailable to immediately respond. During duty hours, CAT A personnel will activate the EOC Control Point. CAT B personnel will fill vacant CAT A positions.

- D. Within 30-40 minutes of initial notification, the B Team Leader will telephonically contact the A Team Leader at the EOC to provide the status of personnel responding to the EOC.
- E. The B Team Leader has the responsibility for telephonic notification of the Civil Defense coordinators for State agencies.
- F. The B Team Leader will, as appropriate, notify his team of events and prepare them to relieve CAT A at a mutually agreed upon time. For extended operations, changes to team assignments may have to be made.
- G. The B Team alternate will contact Ruger Security to have the Kahala tunnel unlocked for arriving CAT A personnel. SCD staff members are reminded that the combination to the security lock to the Kahala tunnel is XXX. The combination to the lock at the EOC access gate is XXX. Ruger security should be contacted to leave the gates unlocked for arriving personnel.
- H. If unable to SAFELY respond to the EOC, proceed to an alternate location. These locations could include Oahu Civil Defense Agency (OCDA), the Hawaii Regional Air Operations Control Center (HIRAOCC), or a National Guard Armory. Communicate your location to the EOC. The SCD staff will use discretion when responding.

V. ADMINISTRATION AND SUPPORT:

- A. The Plans and Operations Branch is responsible for maintaining a copy of the SOP in the Control Point SOP Operations Manual. Persons assigned to SCD should be provided an email copy.

- B. Branch Chiefs and supervisors will insure employees are familiar with the SOP.
- C. The Training, Education and Information (TEI) Branch will support training needs for all employees.
- D. Recommendations for additions, deletions or modifications to the SOP will be submitted through Branch Chiefs to Plans and Operations.
- E. Branch Chiefs will report to Plans and Operations any changes in equipment or procedures or status of equipment that might affect procedures for executing this SOP.

APPROVED: _____

DATE: _____

EDWARD T. TEIXEIRA
Vice Director of Civil Defense

7.8, inclusive. In the historical record, some earthquakes in this size range have generated local or regional destructive tsunamis, but none a Pacific-wide destructive tsunami. Areas within 1000 km of the epicenter are put into a warning. For all other areas the message is an advisory only. The warning and advisory will be continued, with supplemental bulletins issued at least hourly, until sufficient sea level data are received to make an evaluation. The warning area will not expand. The series of bulletins will end with a cancellation. *Hawaii will be issued corresponding initial, supplemental, and final Advisory Bulletins as appropriate.*

- iii. **Expanding Regional Tsunami Warning, Watch, and Advisory Bulletin.** Issued for Pacific Basin earthquakes with magnitudes of 7.9 or greater. In the historical record, many earthquakes of this size have generated local or regional destructive tsunamis, and a few have generated Pacific-wide destructive tsunamis. Areas having less than three hours until estimated first wave arrival (at the time the bulletin is issued) are put into a warning. Areas having three to six hours until estimated first wave arrival are put into a watch. For all other areas the bulletin is an advisory. The warning, watch, and advisory will be continued, with supplemental bulletins issued at least hourly, and with warning and watch areas expanding according to the rules described above, until sufficient sea level data are received to make an evaluation. This series of bulletins will end with either a cancellation or an upgrade to a Pacific-Wide Warning. *Hawaii will be issued a warning, watch, or advisory as appropriate according to the rules described above, with two notable exceptions. If the earthquake epicenter is north of 35 degrees north latitude, then Hawaii will initially be put into a watch even if it is still more than six hours until estimated initial wave arrival. This is by a prior agreement with Hawaii State Civil Defense. In addition, Hawaii may be put into a warning, watch, or advisory status at any time due to circumstances as the event unfolds, if agreed to by SCD and PTWC.*
- iv. **Pacific-Wide Tsunami Warning Bulletin.** Issued following confirmation of a tsunami of sufficient size to have the potential for widespread destruction in the Pacific Basin. A Pacific-wide Warning would normally be generated by an earthquake with a magnitude of 7.9 or greater and would therefore be preceded by a series of Expanding Tsunami Warning, Watch, and Advisory Bulletins until the decision to upgrade was made based on sea level readings. A Pacific-

wide Warning will be continued, with supplemental bulletins issued at least hourly, until the tsunami has impacted all areas at risk and tsunami waves are diminishing or below dangerous levels on most gauges. This series of bulletins will end with a cancellation. *Hawaii will be issued corresponding warnings and a cancellation unless, due to circumstances of the event, it is agreed by SCD and PTWC to keep Hawaii out of a warning. In that case Hawaii would be issued a series of advisories including a final advisory.*

- b. **Hawaii Bulletins for Distant Events.** PTWC's "Hawaii Bulletins" for distant events fall into four categories corresponding to the four levels of alert: 1) information, 2) advisory, 3) watch, and 4) warning. These bulletins are intended to reflect information provided in the International Bulletins, but the language is tailored to Hawaii's regional interest. For example, all times in these bulletins are given in Hawaii Standard Time. Both Moment Magnitude, Mw, and Richter Magnitude, Ms, will be promulgated in these bulletins, although the Richter magnitude may not be available in initial bulletins when insufficient time has elapsed to collect the necessary seismic waveform data.
 - i. **Tsunami Information Bulletin.** Issued by criteria specified above in section 1.a.i, a Tsunami Information Bulletin for Hawaii provides information about a large Pacific earthquake that poses no threat of having generated a Pacific-wide destructive tsunami that could strike the State. In rare instances, Hawaii might experience small sea level changes for such an event.
 - ii. **Tsunami Advisory.** Issued by criteria specified above in all four sections of 1.a, a Tsunami Advisory for Hawaii generally indicates that a tsunami warning has been issued by PTWC or WC/ATWC for some other part of the Pacific. Depending upon the situation, there is a possibility that Hawaii could be elevated to watch or warning status in the near future and some additional awareness and readiness is prudent. Advisories are issued at least once an hour, usually simultaneous with PTWC's International Bulletins, until they are ended with a final advisory.
 - iii. **Tsunami Watch.** Issued by criteria specified above in section 1.a.iii, a Tsunami Watch indicates a large earthquake has occurred and there is the threat of a destructive tsunami striking Hawaii in less than six hours but more than three hours (relative to the time the bulletin was issued). The estimated arrival time of the first tsunami wave is given in the

bulletin. A Watch is issued when sea level readings and other data are inconclusive for upgrading to a warning or canceling. Watches are issued at least once an hour, usually simultaneous with PTWC's International Bulletins, until they are either upgraded to a warning or ended with a cancellation.

- iv. **Tsunami Warning.** Issued by criteria specified above in sections 1.a.iii and 1.a.iv, a Tsunami Warning indicates a large earthquake has occurred and there is the threat of a destructive tsunami striking Hawaii. In some cases a warning for Hawaii may be issued as part of a Pacific-Wide Warning when sea level readings and other available data confirm that a widespread destructive tsunami is underway. In other cases a warning may be issued to Hawaii when sea level and other data are inconclusive but there is less than three hours until the estimated arrival time of the first tsunami wave. The estimated arrival time is given in the bulletin. Warnings are issued at least once an hour, usually simultaneous with PTWC's International Bulletins, until they are cancelled.
- c. **Hawaii Bulletins for Local Events.** PTWC's "Hawaii Bulletins" for local events fall into only two categories – a Local Tsunami Information Bulletin, and an Urgent Local Tsunami Warning. Seconds are critical for local tsunamis, since tsunami waves can come onshore immediately in the vicinity of the earthquake epicenter, and within minutes the waves can race along the coast and strike nearby population centers. Consequently, bulletins for local events are issued initially by voice on HAWAS for immediate action, with a more detailed text message issued in the following minutes over the Inter-island Data Net (IDN). Initial bulletins for local events are preceded by a brief "Heads-Up Message" to alert warning points and EOC's that a bulletin is coming and to get ready to respond quickly and appropriately.
 - i. **"Heads Up" Message.** A HAWAS only voice announcement from PTWC that a Hawaii earthquake has just occurred and it is investigating. (**NOTE:** State Warning Point conducts an immediate roll call.) PTWC will issue one of the following bulletins within the next few seconds to minutes at most based on their analysis of the event.
 - ii. **Local Tsunami Information Bulletin.** Initial HAWAS voice announcement indicating that a Hawaii earthquake has just occurred with a magnitude less than or equal to 6.8. No tsunami is expected. (**NOTE:** State Warning Point immediately disseminates HAWAS voice information.) A "hard copy" text bulletin with more detailed information will be issued by PTWC over the IDN following the voice announcement.

PTWC will continue to monitor nearby sea level and runup instruments and upgrade to an urgent local tsunami warning if warranted based on all available data.

- iii. **Urgent Local Tsunami Warning.** Initial HAWAS voice announcement indicating an urgent local tsunami warning is in effect for designated counties or for the entire State of Hawaii. The warning is based on the occurrence of a Hawaii earthquake with a magnitude of 6.9 or greater, or on other earthquake, sea level, and runup data indicative of a destructive local tsunami. (**NOTE:** State Warning Point immediately initiates action to evacuate designated county coastlines.) A “hard copy” text message with more detailed information will be issued by PTWC over the IDN following the voice announcement. Supplemental warning messages may be issued as time permits over HAWAS and IDN with updated information, particularly sea level readings and runup gauge triggers. The warning will end with a cancellation over HAWAS and the IDN when tsunami wave activity has subsided to safe levels on most gauges. (**NOTE:** State Warning Point immediately disseminates voice information. The “All Clear” is issued by the Civil Defense of the affected Counties.)

2. **Siren Sounding.** Tsunami Warnings are accompanied by sounding of sirens, and disseminated over the Statewide Emergency Alert System (EAS) as soon as practicable.

- a. SCD coordinates initial statewide siren sounding with all counties for a distant tsunami.
- b. Evacuation siren soundings are made as determined by County Civil Defense Administrators.
 - i. Each sounding is accompanied by a “live” EAS broadcast clearly specifying the area for which the broadcast is applicable.
 - ii. Sounding of siren by each county will be closely coordinated, when possible, with other counties and SCD over the State HAWAS.
 - iii. Siren evacuation soundings are generally made at the following intervals:
 - 1. Three hours from first estimated tsunami wave arrival.
 - 2. Two hours from first estimated tsunami wave arrival.
 - 3. One hour from first estimated tsunami wave arrival.
 - 4. Thirty minutes from first estimated tsunami wave arrival.

3. **Warning Cancellation.** PTWC issues a Warning Cancellation when the threat of a tsunami wave no longer exists for the State of Hawaii.
4. **All Clear.** The counties independently announce an “All Clear” message when they determine it is safe to re-enter tsunami evacuation zones and necessary precautions are in place. Counties use EAS to distinguish between Tsunami Warning Cancellation and an “All Clear” announcement.

HAWAII TSUNAMI EMERGENCY RESPONSE

ANNEX: DISTANT-GENERATED TSUNAMI RESPONSE CHECKLIST

I. PURPOSE

To provide procedural guidance and action steps to be followed in responding to a notification of a potential distant-generated tsunami that could impact the Hawaiian Islands.

II. GENERAL

In the event of an earthquake, or other underwater incident, with the potential of generating a tsunami, the Pacific Tsunami Warning Center (PTWC) could issue a Tsunami Advisory Bulletin concerning the incident while determining whether or not a tsunami has been generated. Notification will normally be issued over the HAWAS and the Inter-Island Data System. However, information may also be passed through AIRCOM, the SWP, or directly from PTWC after normal office hours. If a tsunami watch or warning is issued by PTWC, the Civil Defense system will be used to alert the public [Emergency Alert System (EAS)]. Sirens will be used to advise those in threatened areas of evacuation procedures and other protective measures.

The State Civil Defense Initial Response Team (IRT) will report to the Emergency Operating Center (EOC): 1) only when directed and; 2) upon receipt of notification of a Tsunami Advisory Bulletin with a moment magnitude of 7.1 or greater (in Alaska, Aleutian Islands, British Columbia, Washington, Oregon or California) or 7.6 or greater (in the South Pacific).

Personnel assigned to Crisis Action Team (CAT) A will report to the State EOC upon receipt of a Tsunami Watch or Warning Bulletin for the State of Hawaii.

III. ACTIONS REQUIRED ON INITIAL NOTIFICATION

[] **NOTE:** Complete Annex B, Emergency Operation Center Activation Checklist (Primary Notification means of contacting State Civil Defense Staff is the SCD Telephone notification / Recall Roster)

Event _____, Time _____, Watch/Warning Issued,

1st wave arrival Time _____ at _____.

(RED) [] **A. Open Incident Journal and record all information received concerning the incident, and confirm details with the source, if necessary.**
(Location: EM2000 Live - Incident Recorder)

(BLUE) ☐ B. Notify Vice Director. If unable to contact, notify Director. **NOTE:** If unable to contact Vice Director, and Director, contact DAG.

Yes / No / _____ Recommend/Confirm 1st Statewide siren sounding time for 1st wave arrival. Time _____/By _____

Yes / No / _____ Recommend/Request his guidance on school closures and State Worker release. Time _____/By _____

Yes / No / _____ Recommend/Request his guidance on Audio/Video broadcasts. Time _____/By _____

Yes / No / _____ Verify that Vice Director will inform Director and Governor of situation. Time _____/By _____

Yes / No / _____ Obtain Vice Director's approval to notify CAP of possible Tsunami threat. Time _____/By _____

(GREEN) ☐ C. Call Team Leader, if unable, call alternate leader that SCD is activating the recall system and call lists. **Note: This step is critical when activation is required during duty hours.** Time _____/By _____

(RED) ☐ D. Confirm via HAWAS County Civil Defense Agencies are aware of the possible Tsunami generation. If no response contact CD Administrator via normal phone lines.

☐ Kauai ☐ Oahu ☐ Maui ☐ Hawaii

☐ Set up Siren warning coordination conference time at 1st wave arrival minus 3.5 hours. Time _____/By _____

(GREEN) ☐ E. Contact/verify PIO release with Team Leader and Telecom to prepare audio broadcast (script/hardware). Time _____/By _____

(BLUE) ☐ F. Notify Civil Air Patrol (CAP) of possible threat of Tsunami. (**NOTE: Stress NOT an approval for flight. Preparation only**) Time _____/By _____

(BLUE) ☐ G. Contact following to advise them of a possible Tsunami generation:

1. EAS Announcer.

2. JTF-HD Operations Center.

3. USPACOM Command Center, Camp H. M. Smith.

4. FEMA Pacific Area Office.

- [] H. Prepare video brief for broadcast. Obtain Vice Director's or Team Leader's Approval to broadcast video brief. Time ____/By ____

Video Slides - (J:\EMERGENCY\Tsunami\Video Crawlers & Slides\)
Crawlers - (Video room \Computer A\Codi Pro Program)

NOTE: Confirm coordination with cable access providers for broadcast completed by Telecomm.

- [] I. Post EOC display boards with first wave arrival times, significant weather information, field station readings, and any other critical items.

(GREEN)

- [] J. Verify with "B" Team Leader completion of:

[] Telephone Notification/Recall System Time ____/By ____
Call List #1 ____ Call List #2 ____ Call List #3 ____

[] Individuals not contacted: _____

(GREEN)

- [] K. Obtain status of school evacuation & closure policy from Team Leader. If status not available contact Department of Education Representative.
Time ____/By ____

(GREEN)

- [] L. Obtain status of State Worker Evacuation policy from Team Leader. If status not available contact Department of Human Resources Development Director. If unable, contact HRD Deputy.
Time ____/By ____

(GREEN)

- [] M. Obtain status of Federal Worker Evacuation Policy. Contact Federal Executive Board Representative Time ____/By ____

- [] N. CONFIRM ANNEX B (EOC Activation Checklist) COMPLETED.
Time ____/By ____

[] O. Prepare for Audio Transmissions. **NOTE: A 15-minute countdown with Radio/TV stations prior to an actual broadcast MUST be initiated.**

[] Audio

[] Confirm Audio Booths open. Time ____/By ____

Attachment 2

- ☐ Confirm Audio Equipment turned on. Time ____/By ____
- ☐ Confirm Audio script prepared. Time ____/By ____
- ☐ Vice Director's approval to Broadcast. Time ____/By ____
- ☐ Announcer is present. Time ____/By ____
- ☐ Confirm countdown is coordinated Time ____/By ____

☐ Video

- ☐ Update video brief (Power Point). Time ____/By ____
- ☐ Vice Director's approval to broadcast. Time ____/By ____

NOTE: The first siren sounding (1ST wave arrival time minus 3 hours) will be accomplished simultaneously statewide. Time permitting and with proper coordination, sirens may be sounded earlier than 3 hours before 1st wave arrival. Subsequent siren soundings may be accomplished by individual counties based on wave arrival estimates for each county / island.

- (RED) ☐ P. Coordinate via HAWAS Initial Siren Sounding with all County Civil Defense Administrators. (1st Wave arrival minus 3 hours) (Time ____).
Time ____/By ____

**ELAPSED EOC ACTIVATION TIME STANDARD TO THIS POINT IN
CHECKLIST IS 30 MINUTES**

- ☐ Q. If a Tsunami Watch / Warning cancellation is received go to section VII.

IV. ACTIONS REQUIRED ON CONFIRMATION OF TSUNAMI (WARNING)

- (RED) ☐ A. Determine time/height of high tide for islands. _____.
(Location: PDC Home Page/Tide Information & Tide Gauge Data) or the
posted Tide Calendar.
Check Surf conditions for islands. _____.
(Location: PDC Home Page/Today's Weather/Marine Info/Surf Observations &
Forecasts). Post information on Boards. Time ____/By ____

- ☐ B. Confirm via HAWAS the timing for sounding the Civil Defense sirens, and the initial State EAS announcement with County Civil Defense Administrators.

(Note: Civil Defense sirens will be sounded a minimum of four times prior to arrival of the 1st wave.)

Once when first wave ETA is three hours (Time ____).

Again when ETA is two hours (Time ____).

Again when ETA is one hour (Time _____).

And finally when ETA is one-half hour (Time _____).

REMINDER: DURING SIREN SOUNDING TELEPHONE LINES WILL BE UNUSABLE FOR APPROXIMATELY 15 MINUTES.

(BLUE) [] C. **Notify Vice Director.**
If unable to contact, notify Director.

NOTE: If unable to contact Vice-Director, and Director, contact DAG.

Time ____/By ____

(BLUE) [] D. **Notify Civil Air Patrol (CAP). Advise them to launch with mission number**
(Obtain # from Plans & Ops) Time ____/By ____

[] E. Prepare initial Status Report and Briefing for Governor/Director.

(J:\EMERGENCY\Tsunami\Correspondence\)
(J:\EMERGENCY\Tsunami\Briefings\) Time ____/By ____

[] F. UPDATE NOTIFIER MESSAGE AS NECESSARY. Time ____/By ____

[] G. **Team Leader considers authorizing on duty EOC staff to make one short personal phone call to inform family of impending siren sounding.**

(RED) [] H. **CONFIRM with TELECOM, that the Joint Military Disaster Communications Net is activated.** Time ____/By ____

(RED) [] I. **CONFIRM all State Civil Defense Coordinators ARE AWARE of the Tsunami WARNING.** Time ____/By ____

(RED) [] J. **Monitor / CONFIRM with TELECOM, all Counties for 2nd, 3rd, and 4th siren sounding of the 1st wave's arrival.**

(2nd sounding Kauai ____, Oahu ____, Maui ____, Hawaii ____)

(3rd sounding Kauai ____, Oahu ____, Maui ____, Hawaii ____)

(4th sounding Kauai ____, Oahu ____, Maui ____, Hawaii ____)

(GREEN) ☐ K. Poll State Civil Defense Coordinators following 2nd siren sounding for status update or problems incurred. Time _____/By _____

☐ L. If a Tsunami Watch/Warning cancellation is received go to section VII. If not, continue.

V. RESPONSE ACTIONS (Wave Arrival Through Tsunami Warning Cancellation)

AGENCY	SEARCH & RESCUE			LAW ENFORC	MEDICAL		ACTIVATE SERT	SHELTER	GOV'S PROC
	SEARCH/ RECON	RESCUE MARITIME	RESCUE LAND		PREP TO	RESPOND TO			
DOH/HAH					X	X	X		
USCG/JRCC	X	X	X	X					
DOT-AIRPORTS				X					
DOT/HARBORS	X	X		X					
HING	X		X	X					
DLNR	X	X	X	X			X		
CAP	X								
DAGS							X		
JTF - HD	X	X	X			X			
HI US&R TF	X		X						
ARC	X						X	X	
DOE							X	X	
DHS							X		
HTA								X	
DoAgri							X	X	
PSD	X			X					
AG									X

Call following agencies for assistance (see response matrix above):

☐ A. Call DOH/HAH. Be prepared to respond to medical emergencies. Be prepared to respond to SERT activation. Time _____/By _____

☐ B. Call USCG/Joint Rescue Coordination Center. Be prepared to conduct search and rescue on land and sea. Be prepared to assist with law enforcement in maritime areas. Time _____/By _____

Attachment 2

- [] C. Call DOT-AIRPORTS.
Request DOT-AIRPORTS contact FAA to close affected airports and restrict airspace.
Request immediate status of airports in Hilo, Keahole-Kona, and Kahului.
Time_____/By_____
- [] D. Call DOT/Harbors. Be prepared to conduct maritime search and rescue in Harbors. Be prepared to provide law enforcement for Harbors areas.
Time_____/By_____
- [] E. Call HING. Be prepared to assist with land search and rescue. Be prepared to assist with law enforcement Time_____/By_____
- [] F. Call DLNR.
Be prepared to conduct search, reconnaissance and rescue on land.
Be prepared to provide law enforcement when requested.
Be prepared to respond to SERT activation. Time_____/By_____
- [] G. Call CAP.
Be prepared to conduct search and reconnaissance. Time_____/By_____
- [] H. Call DAGS.
Be prepared to respond to SERT activation and provide a SERT meeting place.
Time_____/By_____
- [] I. Call JTF-HD USARPAC (DSCA).
Be prepared to assist with reconnaissance, search and rescue on land and sea.
Be prepared to assist with medical response. Time_____/By_____
- [] J. Call US&R Task Force.
Be prepared to activate the Hawaii US&R Task Force Phone Tree. Time_____/By_____
- [] K. Call ARC.
Be prepared to assist with damage assessment and shelter management.
Be prepared to respond to SERT activation. Time_____/By_____
- [] L. Call DOE.
Be prepared to respond to SERT activation and assist with shelters.
Request immediate status of schools in affected areas. Time_____/By_____
- [] M. Call DHS.
Be prepared to respond to SERT activation. Time_____/By_____
- [] N. Call Governor's Tourism Liaison. Be prepared to assist with the sheltering of tourists.

Time_____/By_____

- [] O. Call DAgri. Be prepared to respond to SERT activation and assist with shelter feeding.

Time_____/By_____

- [] P. Call PSD. Be prepared to assist with reconnaissance and law enforcement.

Time_____/By_____

- [] Q. Call USDA/FSA. Time_____/By_____

Be prepared to convene the State Emergency Board and Food Advisory Council.

- [] R. Verify with "B" Team Leader completion of:

Time ____/By ____

- [] Telephone Notification/Recall.

Call List #1 _____ Call List #2 _____ Call List #3 _____

- [] Individuals not contacted: _____

Time_____/By_____

- [] S. Call AG.

Be prepared to assist with drafting the Governor's Proclamation. Time_____/By_____

VI. **RESPONSE AND RECOVERY ACTIONS** (Tsunami Warning Cancellation Through "ALL CLEAR")

Rapid Needs Assessment

- [] A. Request PERDISREPS from State and County agencies. Damage information will help to determine RNA actions. Information entered into EM2000.

Time_____/By_____

- [] B. Verify with Vice Director composition, number and deployment plans for Rapid Needs Assessment teams (Coordination with ESF #5 Planning Cell). Determination will be based on severity of damages initially reported or expected in each County and population of affected areas.

Time_____/By_____

- [] C. RNA teams prepare for deployment:

_____ Logistics (Equipment, travel arrangements, resource materials)

Attachment 2

- _____ Coordinate with County Civil Defense Agencies
- _____ Coordinate with National Guard (Staff support for RNA teams, and transportation)
- _____ Coordinate with State Agencies (DOT, DAGS, DOE)
Time_____/By_____
- [] D. Control Point staff assists RNA teams to coordinate support required for assessment.
(National Guard, State agencies – DOT, DAGS, DOE) Time_____/By_____
- [] E. Notify Federal Agencies
_____ Mobile Emergency Response Support (MERS) Operations Center (MOC)
_____ Federal Emergency Management Agency PAO Time_____/By_____
- [] F. Activate the State Emergency Response Team upon the Director or Vice Director's approval (Coordination with ESF #5 Planning Cell). Time_____/By_____
- [] G. Request HING augmentation to the State EOC Time_____/By_____
- [] H. Ensure State EOC maintains liaison with CAP, National Guard, and other agencies with an aerial observation and monitoring capability (Note: May be necessary for evacuation management and/or damage assessment.) Time_____/By_____
- [] I. Monitor 14th Coast Guard District's search efforts. Time_____/By_____
- [] J. Establish time and procedures for a press conference.
Prepare to establish a Joint Information Center. Time_____/By_____
- [] K. Contact EOC volunteers to determine availability for duty.
(Building Safety Inspections for occupancy.) Time_____/By_____
- [] L. Report RNA results to Vice Director.
(Information received from RNA teams) Time_____/By_____
- [] M. Coordinate Emergency Needs. (Information received from RNA teams)
- _____ Coordinate with FEMA
- _____ Coordinate with SERT

Attachment 2

_____ Coordinate with Red Cross

_____ Coordinate with VOAD

_____ Arrange staging sites and transportation with National Guard

_____ Arrange distribution sites with County Civil Defense agencies Time_____/By_____

- [] N. Evaluate damage reports, confer with County Civil Defense agencies and FEMA to determine if a joint Preliminary Damage Assessment should be conducted. Time_____/By_____

- [] O. Confer with County Civil Defense Agencies to determine need and location for Disaster Assistance and Recovery Centers (DARCs).

_____ Get approval for DARC management plan from the Vice Director.

_____ Coordinate with county civil defense agencies the locations for DARC.

_____ Coordinate DARC set-up by SCD team

_____ Coordinate with State Agencies (Dept. of Health, Dept. of Taxation, Dept. of Labor and Industrial Relations, Dept. of Business, Economic Development and Tourism, Dept. of Agriculture, Dept. of Human Services, Dept. of Commerce and Consumer Affairs.)

_____ Coordinate with Federal Agencies (as appropriate) FEMA, U.S. Dept. of Agriculture, U.S. Small Business Agency (SBA) Time_____/By_____

- [] P. Prepare briefing for Governor on RNA information. Time_____/By_____

- [] Q. Prepare press releases. Time_____/By_____

Preliminary Damage Assessment

- [] R. Verify with Vice Director actions for joint PDA to be

completed: (based on areas to inspect)

_____ Number of teams

_____ Team compositions for Hazard Mitigation, Individual Assistance, Public Assistance

_____ Support from Federal/State Agencies
– SBA, DOT, DAGS, DOE

Time_____/By_____

[] S. Coordinate the conduct of joint PDAs:

_____ FEMA and County Civil Defense agencies

_____ Coordinate operating site for joint PDA teams

_____ Select areas to be inspected

_____ State agencies to support PDAs – DOT, DOE, DAGS

_____ Federal agencies – SBA

Time_____/By_____

[] T. Coordinate transportation with National Guard for joint Preliminary Damage Assessments.

Time_____/By_____

[] U. Coordinate receipt of County Emergency Proclamations.

Time_____/By_____

[] V. Receive results from JPDA and report to Vice Director.

Time_____/By_____

[] W. Coordinate preparation of Draft copy of Governor's Proclamation for Vice Director using information from PDA. (Coordination with ESF #5 Planning Cell/AG CDC)

Time_____/By_____

[] X. Coordinate with the Attorney General CDC preparation of Draft letter to the President via FEMA Region IX requesting an Emergency Declaration for Director and Vice Director. (J:\EMERGENCY\HURRICANE\) (Coordination with ESF #5 Planning Cell)

Time_____/By_____

[] Y. Team Leader to submit summary of "Requests For Assistance" (RFA) to Administrative Officer after shift changeover.

Time_____/By_____

VII. ACTIONS REQUIRED ON CANCELLATION OF TSUNAMI WATCH/WARNING

D:\lkong\PTWS-XXI\Exercise\NDMO StandardOperatingProcedures\NDMO_HIAnnex E (Distant Tsunami Checklist) 3-3-05

Final.doc

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Attachment 2

Cancellation of a Tsunami watch or warning must be communicated to all County, State, Federal departments and agencies as well as the public.

[] A. Note time PTWC cancels the Tsunami Watch/Warning for the State of Hawaii.
Time ____/By ____

[] B. If cancellation occurs before first wave arrival time, NOTIFY the following:

1. Vice Director. If unable to contact, notify Director.

NOTE: If unable to contact Vice Director, and Director, contact DAG.

Time ____/By ____

2. Call Team Leader. She will notify all on Recall Roster who have not reported to the EOC and the CD Coordinators.
Time ____/By ____

3. EAS Announcer.
Time ____/By ____

4. JTF-HD Operations Center.
Time ____/By ____

5. USPACOM Command Center, Camp H. M. Smith.
Time ____/By ____

6. FEMA Pacific Area Office.
Time ____/By ____

7. Department of Education Representative. Time ____/By ____

8. Department of Human Resources Development Director. If unable, contact DHRD Deputy Janice Kemp.
Time ____/By ____

9. Federal Executive Board Representative. Time ____/By ____

10. Team leader for Public Information announcements and Telecom to prepare for the audio broadcast. Time ____/By ____

Attachment 2

11. Prepare video crawler for broadcast. Obtain Vice Director's Approval to broadcast. Time ____/By ____
12. Civil Air Patrol (CAP). Time ____/By ____
13. Tsunami Advisor(s). Time ____/By ____
14. HING EOC. Time ____/By ____

- [] C. When PTWC issues a watch/warning cancellation, SCD will coordinate an "ALL CLEAR" announcement with each county Civil Defense Agency. (Ensure all Counties are in receipt of PTWC cancellation).

Time "All Clear" announced _____.

(Each County Administrator will initiate "All Clear" EBS / EAS transmission for their County.)

- [] D. If appropriate, deactivate the EOC. Complete Section VII of this checklist. Time ____/By ____

VIII. DEACTIVATION CHECKLIST

- [] A. Complete the EOC Deactivation Checklist (Annex C). Time ____/By ____
- [] B. Complete the Incident Journal Time ____/By ____

APPROVED BY

DATE

HAWAII TSUNAMI EMERGENCY RESPONSE

STANDARD OPERATING PROCEDURES FOR LOCALLY GENERATED TSUNAMI AND EARTHQUAKE

I. PURPOSE:

To provide procedural guidance for SCD staff in responding to a Pacific Tsunami Warning Center (PTWC) issued URGENT TSUNAMI WARNING or Local Tsunami Information Bulletin due to an earthquake in the Hawaiian Islands.

II. GENERAL:

- A. A locally generated tsunami can occur at any time in the Hawaiian Islands. Arrival of damaging tsunami waves from the time of the seismic event can occur almost immediately and up to sixty minutes depending upon distance from the epicenter. A local tsunami will most likely originate from a Big Island coastal earthquake or coastal landslide.
- B. PTWC will issue an URGENT TSUNAMI WARNING under the following conditions in the Hawaiian Islands: 1) An earthquake occurs greater than a preliminary 6.8 magnitude or 2) coastal tide stations and recorders detect tsunami waves. The PTWC notifies the National Weather Service (NWS), which initiates the URGENT TSUNAMI WARNING Emergency Alert System (EAS) Message. Additionally, PTWC, via HAWAS, contacts County Warning Points (CWPs), which activate their County Siren Systems as designated. These actions are taken immediately regardless of the time of day since the danger of initial run up of the tsunami is imminent.
- C. In the event of a seismic ground-shaking event with NO expected tsunami generation, PTWC will issue a Local Tsunami Information Bulletin.
- D. The media is simultaneously receiving information on the event via NOAA Weather Wire and NOAA Weather Radio.

III. FUNCTIONS AND RESPONSIBILITIES:

- A. SCD staff receiving a PTWC URGENT TSUNAMI WARNING via pager or cell phone for any location within the State of Hawaii (whether accompanied by siren sounding or not) will immediately and as safely as possible report to the Emergency Operating

Center (EOC) in Diamond Head Crater. If unable to SAFELY respond to the EOC, proceed to an alternate location. These locations could include Oahu Civil Defense Agency (OCDA), the Hawaii Regional Air Operations Control Center (HIRAOCC), Wheeler Army Airfield, or a National Guard Armory. SCD staff that are unable to respond to EOC should communicate their alternate location to the EOC.

- B. SCD Staff will use discretion during off duty hours. If an SCD Staff member is with family and within close proximity to the EOC, proceed to EOC with the family.
- C. As a minimum, SCD staff should be aware as to whether primary-driving routes from residence to EOC traverse published tsunami evacuation maps in the front of the telephone book.

IV. OPERATIONS:

- A. Upon receipt of a 1) URGENT TSUNAMI WARNING, or 2) Local Tsunami Information Bulletin with strong earthquake magnitude 6.0 or greater, Crisis Action Team (CAT) A personnel will activate the EOC Control Point during duty hours. CAT B personnel will fill vacant CAT A positions. During non-duty hours, all SCD personnel are directed to immediately proceed to the EOC as rapidly and safely as possible.
- B. When directed, the Initial Response Team (IRT) will report to the EOC upon receipt of a Local Tsunami Information Bulletin with moderate earthquake magnitude 5.5 – 5.9 to assess earthquake ground-shaking effects.
- C. The B Team Leader has the responsibility for telephonic notification of the Civil Defense coordinators for State agencies. Civil Defense Coordinators are to be reminded to submit PERDISREP two hours following an urgent local tsunami warning event or seismic ground-shaking event.
- D. Based on availability of SCD personnel, CAT A and CAT B Team Leaders will reconstitute teams as appropriate for continuous manning of the EOC.
- E. SCD Staff members are reminded that the combination to the security lock to the Kahala tunnel is XXX. The combination to the lock at the EOC access gate is XXX. Ruger security should be contacted to leave the gates unlocked for arriving personnel.

V. ADMINISTRATION AND SUPPORT:

- A. The Plans and Operations Branch is responsible for maintaining a copy of the SOP in the Control Point SOP Operations Manual. Persons assigned to SCD should be provided an email copy.
- B. Branch Chiefs and supervisors will ensure employees are familiar with the SOP.
- C. The Training, Education and Information (TEI) Branch will support training needs for all employees.
- D. Recommendations for additions, deletions or modifications to the SOP will be submitted through Branch Chiefs to Plans and Operations.
- E. Branch Chiefs will report to Plans and Operations any changes in equipment or procedures or status of equipment that might affect procedures for executing this SOP.

APPROVED: _____

DATE: _____

EDWARD T. TEIXEIRA
Vice Director of Civil Defense

HAWAII TSUNAMI EMERGENCY RESPONSE

ANNEX: LOCALLY GENERATED TSUNAMI RESPONSE CHECKLIST

I. PURPOSE To provide procedural guidance and action steps to be followed in responding to a Pacific Tsunami Warning Center (PTWC) issued URGENT TSUNAMI WARNING due to a local seismic event.

II. GENERAL Pacific Tsunami Warning Center (PTWC) will issue an URGENT TSUNAMI Warning under the following conditions in the Hawaiian Islands: 1) An earthquake occurs greater than a preliminary 6.8 magnitude near the coastline or 2) coastal tide stations and recorders detect tsunami waves. The PTWC notifies the National Weather Service (NWS), which initiates the URGENT TSUNAMI WARNING Emergency Alert System (EAS) Message. Additionally, PTWC, via HAWAS, contacts County Warning Points (CWPs), which activate their County Siren Systems as appropriate. These actions are taken immediately regardless of the time of day since the danger of initial run up of the tsunami is imminent.

III. IMMEDIATE OUTSIDE AGENCY ACTIONS

- ☐ A. PTWC issues via HAWAS, an URGENT TSUNAMI WARNING due to a local seismic event as well as a text message of the event.
- ☐ B. NWS INITIATES EAS message for a Local URGENT TSUNAMI Warning. NWS will REPEAT transmitting the EAS message for URGENT TSUNAMI every FIVE minutes until cancellation of the URGENT TSUNAMI Warning.
- ☐ C. Upon receipt of HAWAS message, designated County Warning Points in Tsunami Warning areas sound sirens immediately. Sirens will initially sound for a continuous 3-minute period. Counties have the option of repeating the siren sounding pattern.
- ☐ D. County Civil Defense will use their "Live Broadcast" capability to provide amplifying information to their county as desired.
- ☐ E. Television and Radio stations will rebroadcast the EAS message for URGENT TSUNAMI Warning when received until the warning is cancelled.

IV. ACTIONS REQUIRED ON INITIAL NOTIFICATION

- ☐ A. Verify, via HAWAS, that sirens were sounded on affected counties.
(Hawaii ____, Maui ____, Oahu ____, Kauai ____) Time ____/By ____

Attachment 2

- ☐ B. Verify activation via TELECOMM of the EAS by the NWS, insure proper message is being broadcasted.
- ☐ C. Notify Vice Director. If unable to contact, notify Director.
Yes / No / _____ Verify that Vice Director will inform Director and Governor of situation.
Time _____/By _____
- ☐ D. Activate the EOC. Complete Annex B. Time _____/By _____
- ☐ E. Create via EM2000 an Incident and record in Message Tracker all information received concerning the incident, and confirm details with the source.
- ☐ F. Call "B" team Leader. Verify "B" Team is activating the recall system & call lists. **Note:** Request initial PERDISREPS at earthquake origin time plus two hours.
Time _____/By _____
- ☐ G. Confirm via HAWAS County Civil Defense Agencies are aware of the possible Tsunami generation. If no response contact the CD Administrator via normal phone lines. Request PERDISREPS at earthquake origin time, plus two hours.
☐ Hawaii ☐ Maui ☐ Oahu ☐ Kauai Time _____/By _____
- ☐ H. Contact the following to advise them of a possible Tsunami generation:
- ☐ 1. United States Army Pacific (USARPAC) if
unable, contact USAG-HI - Duty Officer.
- ☐ 2. USPACOM Command Center, Camp H. M. Smith.
- ☐ 3. FEMA Pacific Area Office.
Time _____/By _____
- ☐ I. Request the Pacific Disaster Center run and post the HAZUS (Hazards U.S.) Earthquake Loss Estimation Model on the PDC web site to provide preliminary damage estimate including graphics presentation.
- ☐ J. CONFIRM ANNEX B (EOC Activation Checklist) COMPLETED. Time _____/By _____
- ☐ K. Prepare initial Status Report & Briefing for Governor/Director. Time _____/By _____
(J:\EMERGENCY\Tsunami\Correspondence\)
(J:\EMERGENCY\Tsunami\Briefings\)

[] L. If a Tsunami Warning cancellation is received go to section VII, if not, continue.

V. RESPONSE

AGENCY	SEARCH & RESCUE			LAW ENFORC	MEDICAL		ACTIVATE SERT	SHELTER	GOV'S PROC
	SEARCH/ RECON	RESCUE MARITIME	RESCUE LAND		PREP TO	RESPOND TO			
DOH/HAH					X	X	X		
USCG/JRCC	X	X	X	X					
DOT-AIRPORTS				X					
DOT/HARBORS	X	X		X					
HING	X		X	X					
DLNR	X	X	X	X			X		
CAP	X						X		
DAGS							X		
USARPAC(MSCA)	X	X	X			X			
HI US&R TF	X		X						
ARC	X						X	X	
DOE							X	X	
DHS							X		
HTA								X	
Dagri							X	X	
PSD	X			X					
AG									X

Call following agencies for assistance (see response matrix above):

- [] A. Call DOH/HAH. Be prepared to respond to medical emergencies.
Be prepared to respond to SERT activation. Time_____/By_____
- [] B. Call USCG/Joint Rescue Coordination Center.
Be prepared to conduct search and rescue on land and sea.
Be prepared to assist with law enforcement in maritime areas. Time_____/By_____
- [] C. Call DOT-AIRPORTS.
Request DOT-AIRPORTS contact FAA to close affected airports and restrict airspace.
Request immediate status of airports in Hilo, Keahole-Kona, and Kahului.
Time_____/By_____
- [] D. Call DOT/Harbors.
Be prepared to conduct maritime search and rescue in Harbors.
Be prepared to provide law enforcement for Harbors areas. Time_____/By_____

- [] E. Call HING.
Be prepared to assist with land search and rescue.
Be prepared to assist with law enforcement. Time_____/By_____
- [] F. Call DLNR.
Be prepared to conduct search, reconnaissance and rescue on land.
Be prepared to provide law enforcement when requested.
Be prepared to respond to SERT activation. Time_____/By_____
- [] G. Call CAP.
Be prepared to conduct search and reconnaissance. Time_____/By_____
- [] H. Call DAGS.
Be prepared to respond to SERT activation and provide a SERT meeting place.
Time_____/By_____
- [] I. Call USARPAC.
Be prepared to assist with reconnaissance, search and rescue on land and sea.
Be prepared to assist with medical response. Time_____/By_____
- [] J. Call US&R Task Force.
Be prepared to activate the Hawaii US&R Task Force Phone Tree.
Time_____/By_____
- [] K. Call ARC.
Be prepared to assist with damage assessment and shelter management.
Be prepared to respond to SERT activation. Time_____/By_____
- [] L. Call DOE, Rodney Goo.
Be prepared to respond to SERT activation and assist with shelters.
Request immediate status of schools in affected areas. Time_____/By_____
- [] M. Call DHS, Susan Yamamoto.
Be prepared to respond to SERT activation. Time_____/By_____
- [] N. Call HTA.
Be prepared to assist with the sheltering of tourists. Time_____/By_____
- [] O. Call DAgr.
Be prepared to respond to SERT activation and assist with shelter feeding.
Time_____/By_____
- [] P. Call PSD.
Be prepared to assist with reconnaissance and law enforcement.
Time_____/By_____
- [] Q. Call USDA/FSA.

Attachment 2

Be prepared to convene the State Emergency Board and Food Advisory Council.

- [] R. Verify with "B" Team Leader completion of: Time ____/By ____
[] Telephone Notification/Recall.
Call List #1 ____ Call List #2 ____ Call List #3 ____
[] Individuals not contacted: _____
Time ____/By ____
- [] S. Call AG.
Be prepared to assist with drafting the Governor's Proclamation.
Time ____/By ____

VI. RECOVERY

Rapid Needs Assessment

- [] A. Review PERDISREPS from State and County agencies. Damage information will help determine RNA actions. Information entered into EM2000.
Time ____/By ____
- [] B. Verify with Vice Director composition, number and deployment plans for Rapid Needs Assessment teams (Coordination with ESF #5 Planning Cell). Determination will be based on severity of damages initially reported or expected in each County and population of affected areas.
Time ____/By ____
- [] C. RNA teams prepare for deployment:
____ Logistics (Equipment, travel arrangements, resource materials)
____ Coordinate with County Civil Defense Agencies
____ Coordinate with National Guard (Staff support for RNA teams, and transportation)
____ Coordinate with State Agencies (DOT, DAGS, DOE)
Time ____/By ____
- [] D. Control Point staff assist RNA teams to coordinate support required for assessment. (National Guard, State agencies – DOT, DAGS, DOE)

Attachment 2

Time_____/By_____

☐ E. Notify Federal Agencies

_____ Mobile Emergency Response Support (MERS) Operations
Center (MOC)

_____ Federal Emergency Management Agency PAO

Time_____/By_____

☐ F. Activate the State Emergency Response Team upon the Director or Vice Director's approval(Coordination with ESF #5 Planning Cell).

Time_____/By_____

☐ G. Request HING augmentation to the State EOC.

Time_____/By_____

☐ H. Ensure State EOC maintains liaison with CAP, National Guard, and other agencies with an aerial observation and monitoring capability (Note: May be necessary for evacuation management and/or damage assessment.)

Time_____/By_____

☐ I. Monitor 14th Coast Guard District's search efforts.

Time_____/By_____

☐ J. Establish time and procedures for a press conference. Prepare to establish a Joint Information Center.

Time_____/By_____

☐ K. Contact EOC volunteers to determine availability for duty.
(Building Safety Inspections for occupancy.)

Time_____/By_____

☐ L. Report RNA results to Vice Director.
(Information received from RNA teams)

Time_____/By_____

☐ M. Coordinate Emergency Needs.
(Information received from RNA teams)

_____ Coordinate with FEMA

_____ Coordinate with SERT

_____ Coordinate with Red Cross

_____ Coordinate with VOAD

_____ Arrange staging sites and transportation with
National Guard

_____ Arrange distribution sites with County Civil Defense
agencies Time_____/By_____

- [] N. Evaluate damage reports, confer with County Civil Defense Agencies and FEMA to determine if a joint Preliminary Damage Assessment should be conducted.

Time_____/By_____

- [] O. Confer with County Civil Defense Agencies to determine need and location for Disaster Assistance and Recovery Centers (DARCs).

_____ Get approval for DARC management plan from the Vice Director.

_____ Coordinate with County Civil Defense Agencies the locations
for DARC.

_____ Coordinate DARC set-up by SCD team

_____ Coordinate with State Agencies
(Dept. of Health, Dept. of Taxation, Dept. of Labor and
Industrial Relations, Dept. of Business, Economic
Development and Tourism, Dept. of Agriculture, Dept. of
Human Services, Dept. of Commerce and Consumer Affairs.)

_____ Coordinate with Federal Agencies (as appropriate)
FEMA, U.S. Dept. of Agriculture, U.S. Small Business
Agency (SBA)

Time_____/By_____

- [] P. Prepare briefing for Governor on RNA
information.

Time_____/By_____

- [] Q. Prepare press releases.

Time_____/By_____

Preliminary Damage Assessment

- [] R. Verify with Vice Director actions for joint PDA to be completed: (based on areas to inspect)

_____ Number of teams

_____ Team compositions for Hazard Mitigation, Individual Assistance, Public Assistance

_____ Support from Federal/State Agencies – SBA, DOT, DAGS, DOE
Time_____ /By_____

- [] S. Coordinate the conduct of joint PDAs:

_____ FEMA and County Civil Defense agencies

_____ Coordinate operating site for joint PDA teams

_____ Select areas to be inspected

_____ State agencies to support PDAs – DOT, DOE, DAGS

_____ Federal agencies – SBA Time_____ /By_____

- [] T. Coordinate transportation with National Guard for joint Preliminary Damage Assessments.

Time_____ /By_____

- [] U. Coordinate receipt of County Emergency Proclamations.

Time_____ /By_____

- [] V. Receive results from JPDA and report to Vice Director.

Time_____ /By_____

- [] W. Coordinate preparation of Draft copy of Governor's Proclamation for Vice Director using information from PDA.
(Coordination with ESF #5
Planning Cell/AG CDC)

Time_____ /By_____

Attachment 2

- ☐ X. Coordinate with the Attorney General CDC preparation of Draft letter to the President via FEMA Region IX requesting an Emergency Declaration for Director and Vice Director. (J:\EMERGENCY\HURRICANE\) (Coordination with ESF #5 Planning Cell)

Time_____/By_____

- ☐ Y. Team Leader to submit summary of "Requests For Assistance" (RFA) to Administrative Officer after shift changeover.

VII. EOC DEACTIVATION

- ☐ A. Complete the EOC Deactivation Checklist (Annex C).

Time_____/By_____

- ☐ B. Complete the Incident Journal.

Time_____/By_____

APPROVED BY

DATE

EAS SCRIPT FOR LOCAL TSUNAMI WARNING

(State Warning Point coordinates siren sounding only with Counties designated in a tsunami warning status by the Pacific Tsunami Warning Center.)

CLOSED CIRCUIT COUNTDOWN TO BROADCAST: THIS IS THE STATE EMERGENCY ALERT SYSTEM. STANDBY TO BROADCAST A CIVIL DEFENSE MESSAGE IN 30 SECONDS.... IN 15 SECONDS...10 SECONDS TO BROADCAST...5-4-3-2-1

THIS IS AN EMERGENCY MESSAGE.

THIS IS THE EMERGENCY ALERT SYSTEM

WITH AN URGENT TSUNAMI WARNING FOR THE

COUNTIES OF (Hawaii), AND (Maui) ONLY. [-Or- (State of Hawaii)]

THIS IS THE EMERGENCY ALERT SYSTEM

WITH AN URGENT TSUNAMI WARNING FOR THE

COUNTIES OF (Hawaii), AND (Maui) ONLY. [- Or - (State of Hawaii)]

IMMEDIATELY EVACUATE ALL LOW LYING COASTAL AREAS
IMMEDIATELY EVACUATE ALL LOW LYING COASTAL AREAS

MOVE AWAY FROM BEACHES.
MOVE AWAY FROM BEACHES.

MOVE INLAND TO HIGHER GROUND.
MOVE INLAND TO HIGHER GROUND, OR,

MOVE TO THE 3RD FLOOR AND ABOVE IN STEEL AND CONCRETE BUILDINGS.
MOVE TO THE 3RD FLOOR AND ABOVE IN STEEL AND CONCRETE BUILDINGS.

CONSULT THE FRONT OF THE TELEPHONE BOOK FOR TSUNAMI

EVACUATION MAPS. STAY TUNED TO YOUR RADIO FOR

FURTHER CIVIL DEFENSE INSTRUCTIONS.

(REPEAT SCRIPT).....

ANNEX S

APPENDIX 2

CITY AND COUNTY OF HONOLULU
EMERGENCY OPERATIONS PLAN

TSUNAMI EVACUATION AND SHELTERING

MAY, 1991

ANNEX S
APPENDIX 2

CITY AND COUNTY OF HONOLULU
EMERGENCY OPERATIONS PLAN

TSUNAMI EVACUATION AND SHELTERING PLAN

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Director - 1	
CD Coordinator - 1	
Highways Division - 1	
Harbors Division - 1	
Airports Division - 1	
Office of Consumer Protection.....	1
State Archives.....	1
State Publications Distribution Center (Libraries)...	9
University of Hawaii.....	1

FEDERAL AGENCIES

Federal Aviation Administration.....	1
Federal Emergency Management Agency (Region IX).....	2
Department of the Interior.....	1
National Weather Service.....	1
Pacific Tsunami Warning Center.....	1
U.S. Army Corps of Engineers, Pacific Division.....	1
U.S. Army Support Command, Hawaii.....	1
U.S. CINCPAC.....	1
U.S. Coast Guard.....	1
U.S. Department of Agriculture.....	1
U.S. Postal Service.....	1

COOPERATING AGENCIES

Blood Bank of Hawaii.....	1
Chevron Refineries.....	1
Civil Air Patrol.....	2
County Medical Society.....	1
GASCO.....	1
General Contractor's Association.....	1
Hawaii Chapter, American Red Cross.....	2
Hawaii Food Industry and Gas Dealers Associations....	1

COOPERATING AGENCIES (CONTINUED)

Hawaii Humane Society.....	1
Hawaii Independent Refinery.....	1
Hawaii Conference of the Seventh-Day Adventists.....	1
Hawaii Hotel Security Association.....	1
Hawaii Restaurant Association.....	1
Hawaii Southern Baptist Convention.....	1
Hawaii Transportation Association.....	1
Hawaiian Electric.....	1
Hawaiian Telephone.....	1
Healthcare Association of Hawaii.....	1
Honolulu Advertiser.....	1
Honolulu Star-Bulletin.....	1
Kalihi-Palama Immigrant Service Center.....	1
Oahu Operational Area EBS Committee	2
Salvation Army.....	1
Civil Defense Advisory Commission.....	1
Civil Defense Advisory Council.....	1
International Tsunami Information Center.....	1
Joint Institute For Marine and Atmospheric Research..	1
Kauai Civil Defense Agency.....	1
Maui Civil Defense Agency.....	1
Hawaii Civil Defense Agency.....	<u>1</u>
<u>Total</u>	150

ANNEX S
APPENDIX 2

CITY AND COUNTY OF HONOLULU
EMERGENCY OPERATIONS PLAN

TSUNAMI EVACUATION AND SHELTERING PLAN

I. PURPOSE

To describe the City and County of Honolulu's (the City) tsunami evacuation process and to identify public shelters and/or refuge areas so that City response forces, residents, and visitors can, when required, accomplish a coordinated and timely evacuation. This Annex supplements the basic guidance contained in the City Emergency Operations Plan (EOP).

II. DEFINITIONS

- A. Tsunami - A series of ocean waves caused by violent movement of the earth's crust (generally earthquakes) below or near the ocean floor. The waves generated by such disturbances travel to Hawaii's shorelines at very predictable rates, i.e., from South America--12 to 15 hours; from Mexico, Noumea, and Japan--8 hours; the U.S. West Coast, Apia, Kwajalein, Alaska, and the Aleutians--4-1/2 to 5-1/2 hours; and for a disturbance within Hawaiian waters--a matter of minutes.
- B. Pacific Tsunami Warning System - Operated by the National Oceanic and Atmospheric Administration's (NOAA) National Weather Service (NWS), the system is international in scope and participation. The Pacific Tsunami Warning Center (PTWC) at Ewa Beach, Hawaii, is the operational center for the Tsunami Warning System and is charged with primary responsibility for providing tsunami alerting information to 34 Pacific Coastal and island nations and territories. Additional national and regional tsunami warning systems complement PTWC efforts and include those of France, Japan, the U.S.S.R. and Chile. PTWC is the regional Tsunami Warning Center for Hawaii while the Alaska Tsunami Warning Center (ATWC) acts for Alaska, Canada, and the U.S. West Coast. See Page 22 for a depiction of the tide and seismographic stations in the Pacific region which provide data for PTWC determinations. Tsunami travel times to Honolulu are also displayed in the same graphic.

- C. Earthquake Magnitude - Expressed on an open-ended numerical scale, magnitude, as defined by C.F. Richter, is an estimate of the energy released at the epicenter of an earthquake measured by seismic pulses or waves transmitted over the earth's surface and within its interior. The higher the number on the scale, the greater the degree of damage likely to be caused. Thus, a Richter magnitude 2 earthquake is the smallest that can be easily recognized by a casual observer; a magnitude 4 might cause slight damage; a magnitude 6 generally generates moderate damage; and a magnitude 8.5 is the largest quake ever recorded.
- D. State Wave Arrival Time (SWAT) - That local time specified in PTWC Interisland Data Network (IDN) messages that identifies the estimated impact of the first wave at the tide gauge station of the closest of the four major Hawaiian Islands (Kauai, Oahu, Maui or Hawaii) to the generating source. Wave arrival time for individual islands may vary from the SWAT; however, the SWAT will be used as the basis for all response timing.
- E. Evacuation Line - The inland limit of wetting, measured horizontally from the mean sea level line.
- F. Maximum Expectable Inundation - The inland limit of the highest expectable tsunami from any direction, at high tide. Wetting may occur at or near the inundation limit. However, there will be no wave action at that point and no hazard to life.
- G. Tsunami Wave Run-up - The elevation of the ground above mean sea level that tsunami generated waves/water will reach. This elevation is usually not equal to wave height or inundation depth at the shoreline.
- H. Population At Risk - Those individuals who reside, attend school, work in, or are otherwise present in the tsunami evacuation zones identified in shaded areas of the maps at Pages 23-41 and/or in the Civil Defense section of the Oahu telephone book.
- I. Tsunami Evacuation - The movement of populations at risk from identified tsunami evacuation zones to facilities or areas which are considered to be safe.
1. Vertical Evacuation - The movement of evacuees within a tsunami evacuation zone to the third floor or above in buildings of six or more stories which are constructed of steel and/or concrete.

2. Horizontal Evacuation - The movement of evacuees outside of designated evacuation zones. Movement can be accomplished by walking, driving, or in some areas, utilizing designated City buses to reach safe areas or public shelters.
- J. Public Evacuation Shelters/Refuge Areas - Specified facilities or outdoor areas in the immediate vicinity of those facilities, serviced by American Red Cross or, in the absence of Red Cross management capability, City teams. The shelters/refuge areas will be initially structured to provide evacuees "safe haven" from the tsunami hazard. Minimum requirements to activate a Red Cross or City shelter/refuge area include a modest management staff and access to drinking water and rest room accommodations. They do not include food, cots, blankets, medications, or other amenities. If it is possible to utilize a designated building as a shelter, as little as ten (10) square feet of space can be allocated to each evacuee. The maps on Pages 23-41 or in the Civil Defense section of the telephone book list the public shelters/refuge areas by island area as well as the key roadways and intersections leading to them. Additional shelter and refuge area listings are at Pages 65 and 100-102.

NOTE 1: Shelter/refuge areas identified in this plan were selected in sufficient numbers and in reasonably close proximity to the evacuating population to provide readily accessible "safe haven" and minimize, where possible, parking difficulties. Available shelter/refuge area space for evacuees, therefore, exceeds the estimated population at risk.

NOTE 2: It is not essential that evacuees utilize public shelters/refuge areas for their survival. If evacuees deem vertical evacuation or travel to a shelter/refuge area to be impractical or perhaps impossible (due to a lack of time, heavy traffic, or other constraints), they should individually relocate to any area outside of an evacuation zone even though cover from the elements or other necessities are not available. Such a personal evacuation strategy is highly recommended.

NOTE 3: Depending on both the time available to wave arrival and the time of day, it must be recognized that Red Cross or City teams may not be able to reach their assigned shelters/refuge areas in time to prepare and organize them for evacuee arrival. Evacuee use of parking or open areas in close proximity to or inland of designated shelters/refuge areas is considered a satisfactory alternative.

- K. All Clear - That condition announced by OCDA over the Emergency Broadcast System following the cancellation of a Tsunami Warning by the PTWC. The PTWC cancellation signifies that damaging waves are no longer a threat to Oahu. The OCDA "All Clear" announcement will be made following initial surveys of tsunami evacuation zones by City public safety forces and specify those zones which are considered reasonably safe for residents to return to. The OCDA "All Clear" does not pertain to ports, harbors, channels, and bays around the island where strong residual currents may make entry hazardous. The State Department of Transportation's Harbors Division Chief will make "All Clear" determinations and announcements over marine radio frequencies for those areas and provide his decisions to OCDA for subsequent broadcast over the EBS.
- L. Civil Defense Districts - A structuring of City Civil Defense volunteer organizations into six distinct areas. Evacuation responsibilities, estimates of those at risk within tsunami evacuation zones, and associated sheltering requirements are described in terms of these individual Districts. See Page 42 for a depiction of the Districts and the locations of their Emergency Operating Centers (EOC).

III. Pacific Tsunami Warning Center (PTWC) Bulletins are the primary source of alerting information for the City. Each bulletin, described below, generally guides actions to be taken by City response forces.

NOTE: The City/State Warning Point will promptly advise appropriate members of the OCDA staff of all PTWC Bulletins.

- A. Tsunami Warning Bulletin - Issued when a tsunami which would cause damage and destruction to coastal areas in the State has been confirmed and evacuation is deemed essential. Additional Warning Bulletins will be issued hourly thereafter or sooner if necessary until the Warning is canceled. (See sample formats at Pages 43-44 for National Warning System (NAWAS) and Interisland Data Network (IDN) Bulletins.)
- B. Urgent Tsunami Warning Bulletin - Issued only over NAWAS for earthquakes of 6.8 magnitude or greater generated within or close to Hawaiian waters. Urgent evacuation of coastal areas is required. (See Page 45 for City/State Warning Point procedures.)

NOTE: Not all Islands may be affected by tsunamis

generated within or close to the Hawaiian Islands. Therefore, the Urgent Tsunami Warning Bulletin will specify which Islands require evacuation.

- C. Tsunami Watch Bulletin - Issued only over IDN for earthquakes of magnitude 7.5 or greater (7.0 or greater for Alaska) when tsunami wave generation cannot yet be confirmed and wave travel time to Hawaii is estimated to be six hours or less. A Watch will also be issued for Hawaii for earthquakes of magnitude 7.5 or greater that occur from Tokyo to Kamchatka even though wave travel time exceeds six hours. Additional bulletins will be issued hourly thereafter or sooner if necessary until the Watch is either upgraded to Warning status or the Watch is canceled. (See sample formats at Page 46).

NOTE: Under Tsunami Watch conditions, if wave generation cannot be confirmed when three hours of travel time to Hawaii remain, PTWC will either upgrade the Tsunami Watch to a Warning or cancel the Watch.

- D. Earthquake Advisory - Issued to Civil Defense and the news media in Hawaii only via IDN. The Advisory announces the occurrence of an earthquake greater than 7.5 magnitude where wave generation is possible but not yet confirmed and estimated wave arrival time for Hawaii is greater than six hours. Upon receipt of an Earthquake Advisory, the City/State Warning Point will immediately notify appropriate members of the OCDA staff. The OCDA staff will promptly assume a Watch posture. (See Page 47 for a sample Bulletin).

- E. Tsunami Warning/Watch Bulletin - Received only over ~~NAWAS~~ ^{HAWAS}, this bulletin duplicates most of the information received from the IDN WATCH and WARNING messages outlined above. It places areas within three hours wave travel time from the epicenter of an earthquake in Warning status and those within a 3-6 hour travel time in Watch status. A sample format is provided at Page 48, and can be used to obtain the wave arrival time for Oahu under Watch or Warning conditions.

- F. Tsunami Information Bulletin - Issued over NAWAS and the IDN for earthquakes generally in the 6.5 to 7.5 range (7.0 for the Aleutians) with an evaluation that no Pacific-wide Tsunami Warning is in effect.

NOTE 1: If the Alaska Tsunami Warning Center (ATWC) has issued a Regional Warning for areas under

generated within or close to the Hawaiian Islands. Therefore, the Urgent Tsunami Warning Bulletin will specify which Islands require evacuation.

- C. Tsunami Watch Bulletin - Issued only over IDN for earthquakes of magnitude 7.5 or greater (7.0 or greater for Alaska) when tsunami wave generation cannot yet be confirmed and wave travel time to Hawaii is estimated to be six hours or less. A Watch will also be issued for Hawaii for earthquakes of magnitude 7.5 or greater that occur from Tokyo to Kamchatka even though wave travel time exceeds six hours. Additional bulletins will be issued hourly thereafter or sooner if necessary until the Watch is either upgraded to Warning status or the Watch is canceled. (See sample formats at Page 46).

NOTE: Under Tsunami Watch conditions, if wave generation cannot be confirmed when three hours of travel time to Hawaii remain, PTWC will either upgrade the Tsunami Watch to a Warning or cancel the Watch.

- D. Earthquake Advisory - Issued to Civil Defense and the news media in Hawaii only via IDN. The Advisory announces the occurrence of an earthquake greater than 7.5 magnitude where wave generation is possible but not yet confirmed and estimated wave arrival time for Hawaii is greater than six hours. Upon receipt of an Earthquake Advisory, the City/State Warning Point will immediately notify appropriate members of the OCDA staff. The OCDA staff will promptly assume a Watch posture. (See Page 47 for a sample Bulletin).
- E. Tsunami Warning/Watch Bulletin - Received only over NAWAS, this bulletin duplicates most of the information received from the IDN WATCH and WARNING messages outlined above. It places areas within three hours wave travel time from the epicenter of an earthquake in Warning status and those within a 3-6 hour travel time in Watch status. A sample format is provided at Page 48, and can be used to obtain the wave arrival time for Oahu under Watch or Warning conditions.
- F. Tsunami Information Bulletin - Issued over NAWAS and the IDN for earthquakes generally in the 6.5 to 7.5 range (7.0 for the Aleutians) with an evaluation that no Pacific-wide Tsunami Warning is in effect.

NOTE 1: If the Alaska Tsunami Warning Center (ATWC) has issued a Regional Warning for areas under

its purview (Alaska, British Columbia, Washington, Oregon, or California), PTWC will undertake further investigations to determine if a Pacific-wide tsunami has been generated and issue additional bulletins as required to include a Tsunami Warning Bulletin. (See Page 49 for a sample Tsunami Information Bulletin.)

NOTE 2: In the absence of a WATCH or WARNING from PTWC, and if the ATWC has issued a Regional Warning, the City/State Warning Point will immediately notify appropriate members of the OCDA staff that an ATWC Regional Warning is in effect.

- G. Cancellation Bulletins - Issued over NAWAS and the IDN when the threat of a tsunami for the entire Pacific Basin, or portions thereof alerted in earlier message traffic, is canceled. (See Pages 49-52 for sample Cancellation Bulletins and final IDN supplements.)

NOTE: Refer to the instructions at Pages 90-92 for OCDA actions after PTWC issuance of a Warning Cancellation Bulletin.

IV. SITUATION AND ASSUMPTIONS

- A. Situation - The coastal areas of all of the Hawaiian Islands have historically been subject to the threat of and destruction associated with tsunami. While tsunami events are not common, they have been responsible for some of the worst disasters experienced in our Islands and around the Pacific Basin. In terms of the probability of occurrence, it is not a question of whether a tsunami will affect Oahu and the neighboring counties in the future (for movement of the earth's crust is continuous and the threat of a tsunamigenic earthquake ever present), but when and how soon one will occur. It is therefore essential that the City is prepared to immediately respond to PTWC alerting information or the occurrence of an earthquake which directly affects Oahu.

B. Assumptions.

1. This plan does not address response to a tsunami generated by a local, catastrophic earthquake which would totally preclude:
 - a. The individual responses listed in paragraphs 2.b. and 2.c. below.

- b. Mobilization of the City's emergency service organizations.

See Annex S, Appendix 3, of the City Emergency Operations Plan for procedural guidance on response to a catastrophic earthquake/tsunami scenario.

2. When a Tsunami Warning is issued:

- a. Civil Defense sirens will normally be sounded Statewide 3 hours, 2 hours, 1 hour, and 30 minutes prior to the estimated SWAT. All siren activations will be accompanied by detailed Civil Defense instructions over radio and television stations. If, however, PTWC issues a tsunami warning in advance of the siren activation schedule outlined above, Civil Defense authorities may use the sirens or the Emergency Broadcast System (EBS) at any time to alert the public of approaching waves. Siren soundings and EBS use will be coordinated with State Civil Defense prior to activation.

- b. Those individuals located within a designated tsunami evacuation zone will:

- (1) Leave the area either by walking or driving to safe or shelter/refuge areas, or, move to the third floor or above in buildings of six or more floors which are constructed of steel and/or concrete. Evacuees will remain in place until the "All-Clear" is announced by Civil Defense authorities.
- (2) The schools, day care centers, and care homes at Pages 52-63 will evacuate according to their plans. Supervisory personnel will remain with those under their purview until they can be safely picked up by parents/guardians or relocated to their original or other safe facilities.

NOTE: If schools and day care centers are closed when a WARNING is issued, they will remain closed.

- (3) A listing of hotels located in tsunami

evacuation zones is at Page 64. Those hotels not meeting the height or steel and concrete criteria will evacuate their guests and employees to nearby suitably constructed buildings or provide for their safety at a location outside the evacuation zones.

- c. Those individuals not located within designated tsunami evacuation zones will remain in place, curtail non-essential travel, and avoid roadways in or near the evacuation zones so as not to interfere with evacuation.
 - (1) Employers will attempt to stagger the release of those employees who absolutely must leave.
 - (2) Public and private schools and day care centers, if open, will remain open and care for those under their purview until parents/guardians can safely pick them up.

NOTE: If schools and day care centers are closed when a WARNING is issued, they will remain closed.

- d. MTL bus transportation, insofar as the situation and time available permits, will be provided to endangered residents/visitors in selected tsunami evacuation zones. MTL buses will transit the routes specified at Page 65, pickup persons requiring transportation, and deliver them to/near designated tsunami evacuation shelters/refuge areas. This service will terminate 45 minutes prior to the announced SWAT.
- e. Roadblocks will be established by the Honolulu Police Department and Civil Defense volunteers in sufficient time to restrict traffic into the tsunami evacuation zones to those requiring emergency entry (see Pages 65-67 for roadblock locations). Roads will be sealed off 45 minutes prior to the SWAT. Anyone still in the evacuation zones will be directed by Police patrols to move immediately to safe locations.
- f. Regardless of the time of day, and conditions permitting, all emergency essential personnel

will automatically respond to their work units and commence assigned emergency duties at the first indication that a tsunami event may affect Oahu. Such indications include the shaking effect of a local earthquake, the sounding of sirens, hearing reports of a tsunami emergency over radio and television, etc.

- g. Sufficient public safety forces will be available to provide a measure of protection to designated evacuation routes and assure an orderly flow of evacuees to shelters/refuge areas.
- 3. Military personnel, their dependents, civilian employees and contractors on military installations, etc., will be sheltered or remain in safe areas on Department of Defense installations.
- 4. When a tsunami producing event (whether local, urgent, or distant) affects Oahu, the Honolulu Police Department will, if unable to contact a member of the OCDA staff or when requested by OCDA, assume overall direction and control of response operations until such time as the City EOC is activated.

V. CONCEPT OF OPERATIONS

Response to tsunamigenic earthquake events can be categorized generally and broadly explained as follows:

- A. An earthquake affecting Oahu (recognized by difficulty in standing or maintaining balance) could generate tsunami wave arrivals in five minutes or less. Official warning by siren and Emergency Broadcast System (EBS) announcement will be attempted by OCDA and the City/State Warning Point, but may not be timely nor effective. Therefore, immediate, spontaneous, unassisted evacuation of the evacuation zones by all residents, employees, and visitors is required. Response agencies will be notified and the EOC staff assembled as soon as possible. Warning, evacuation, and cordoning operations, under the direction of the Honolulu Police Department, and air and ground search and rescue, will be initially given priority by City public safety forces. When the "All Clear" is announced, all response agencies will proceed with recovery actions. See the Checklist at Pages 75-78 for OCDA response procedures.

B. Urgent Tsunami Warning - Upon notification by PTWC that an Urgent Tsunami Warning for Oahu has been issued, the City/State Warning Point will sound the Civil Defense sirens and immediately announce the warning (via pre-scripted message) over the EBS. City public safety forces and OCDA will, within the time available, attempt to warn residents and visitors in evacuation zones. However, immediate, spontaneous, unassisted evacuation of the evacuation zones by residents, employees, and visitors is required. Response agencies will be notified and the EOC staff assembled as soon as possible. Initial public safety force priorities will be as outlined in paragraph V.A. above. When the "All Clear" is announced, all response agencies will proceed with initial recovery actions. See the Checklist at Pages 75-78 for OCDA response procedures.

C. Distant Earthquake - OCDA will be alerted to a distant tsunamigenic earthquake event by PTWC issuances of Watch or Warning messages.

1. Tsunami Watch - Upon receipt, OCDA will retransmit the WATCH information received to local radio and television stations for broadcast to the public using closed circuit EBS procedures. Sirens will not be sounded. All response agencies will be notified and the EOC staff assembled. Preliminary coordination and preparation for possible upgrade of the Watch to a Warning will be accomplished in accordance with the Checklist at Pages 79-84.

NOTE: When notified that an Earthquake Advisory has been issued by PTWC, the OCDA staff will assume a Watch posture.

2. Tsunami Warning - May be issued without a WATCH having been declared. Therefore, if not already accomplished, the EOC staff will be assembled immediately and all response agencies notified. Recommendations on the disposition of schools, employees, businesses, etc., will be confirmed and pre-scripted EBS messages finalized; shelters/refuge areas will be staffed and opened. Ground and airborne warning forces will be mobilized and Mayoral approval for evacuation sought (see Page 103 for a sample Emergency Declaration). With the sounding of sirens, warning and evacuation, under the direction of the Honolulu Police Department, as well as regularly scheduled EBS announcements will commence as outlined at Pages 85-89.

- D. Tsunami Warning Cancellation - Issued by PTWC when the threat of damaging waves is no longer present. See Pages 90-92 for a checklist outlining OCDA cancellation/initial recovery procedures.
- E. Other Earthquake Information - Contained in Tsunami Information Bulletins which generally alert the City to the generation of a non-destructive tsunami. See Page 93 for OCDA response procedures.

VI. Roles and Responsibilities - Overall guidance is contained in the City Emergency Operations plan. Specific warning, evacuation and sheltering taskings are summarized below and outlined in the checklists at Pages 75-93.

A. Oahu Civil Defense Agency (OCDA)

- 1. Excluding the initial siren sounding and EBS announcements associated with an Urgent Tsunami Warning, initiate the alerting process by activating Civil Defense sirens, making EBS and coordinating mobile public address system announcements, and assembling the Emergency Operating Center (EOC) staff.
- 2. Direct, coordinate and oversee tsunami evacuation, sheltering, and initial recovery.

B. OCDA District Volunteers

- 1. Activate District EOCs, as directed.
- 2. Within capabilities, assist the Honolulu Police Department and OCDA in warning, evacuation, traffic control and communications. (See Pages 94-97 for formatted public address system announcements).
- 3. Where possible, report wave arrivals/damage/sea state to OCDA.

C. Radio Amateur Civil Emergency Service (RACES)

Within capabilities and as assigned, provide radio communications to the City EOC from activated evacuation shelters/refuge areas, hospitals, command and control facilities, etc.

D. American Red Cross

- 1. Activate, staff, and operate all shelters/refuge areas provided by City, State, and private sector

organizations in coordination with OCDA and the City's Department of Parks and Recreation. Designate shelter managers/staffs for each facility/refuge area to be used.

2. Operate fixed or mobile feeding stations, emergency first aid stations, or other similar facilities, as necessary.
3. Operate emergency registration, welfare and casualty inquiry services as the situation will permit.
4. Arrange and provide for medical and nursing care in Red Cross shelters or refuge areas. Provide counseling for evacuees as required.
5. Provide for the special needs of children, the elderly and the disabled in coordination with OCDA and the City's Department of Human Resources.
6. Transmit vital information to the City EOC on shelter/refuge area operations, including the number of evacuees being serviced and their status.
7. Initiate requests for supplemental assistance as the need is anticipated to include medical, sanitation, communications, Police and Fire support.

E. Building Department

Provide motor pool vehicles to the Department of Transportation Services for warning and evacuation operations, and to the Department of Public Works for damage assessment.

F. Civil Air Patrol (CAP)

1. Respond to OCDA requests for aerial warning along all of Oahu's coastlines and in selected inland areas.
2. Where possible, report wave arrivals/damage/sea state to OCDA. (See Page 98 for CAP Warning Routes and In-Flight Procedures.)

G. Corporation Counsel

1. Prepare emergency proclamations for the Mayor during the response and recovery phases of

emergency operations.

2. Provide legal guidance to the EOC staff on legal matters which may arise during the course of evacuation and sheltering operations.

H. Fire Department (HFD)

1. Assist HPD in conducting warning and evacuation. (See Pages 94-97 for formatted public address system announcements).
2. Provide fire protection and associated safety services to evacuation shelters/refuge areas.
3. Relocate Departmental personnel, vital records and equipment from risk to safe areas.
4. Where possible, report wave arrivals/damage/sea state to OCDA.

I. Health Department (HD)

1. Coordinate for OCDA the health, medical, and environmental aspects of shelter/refuge area planning and operations, to include mental health counseling, with all concerned City, State, and Federal Agencies.
2. Assist the Honolulu Police Department in conducting warning and evacuation operations.
3. Relocate Departmental personnel, vital records and equipment from risk to safe areas.

J. Human Resources

1. Coordinate with the American Red Cross and other City departments/private sector agencies in providing for the special needs of those elderly and disabled who have no one else to care for them.
2. Staff a telephone answering service for emergency calls from elderly and disabled requiring assistance.
3. Maintain a City-wide listing of elderly, disabled, and others requiring special assistance during a tsunami evacuation. Coordinate and assist in their evacuation.

4. Arrange for and/or conduct elderly/disabled self-help disaster preparedness training.

K. Information and Complaint

Assist OCDA in providing the general public, the media, the hearing impaired, and the City's non-English speaking population with tsunami warning and evacuation advisories, directives, and instructions. Staff rumor control.

L. Joint Institute for Marine and Atmospheric Research (JIMAR)

Position observers at various locations around Oahu to record and report, where possible, on wave arrivals/damage/sea state to OCDA.

M. Land Utilization

Provide personnel to maintain City EOC evacuation map and activity displays.

N. Parks and Recreation

1. Act as the City's primary point of contact for coordinating American Red Cross sheltering functions and requirements.
2. Coordinate the use of City facilities to be used as shelters/refuge areas, and trained employees for use on Red Cross or City mass care management teams.
3. Assist the Honolulu Police Department in warning and evacuating individuals in beach and park areas under City cognizance.
4. Provide tree cutting and removal operations, as requested.
5. Relocate Departmental personnel, vital records and equipment from risk to safe areas.
6. Perform other mass care tasks as may be required by the situation or as requested by OCDA.

O. Police Department (HPD)

1. Advise appropriate members of the OCDA staff of all Watch, Warning (to include Regional Warnings),

Earthquake Advisory, and Information Bulletins.

2. Conduct Urgent Tsunami Warnings, tsunami evacuations, and assist OCDA in other than "Urgent" warning activities. (See Pages 94-97 for formatted public address system announcements.)
3. Establish roadblocks at predesignated locations to preclude entry into Tsunami evacuation zones. Expedite traffic flows along evacuation routes between threatened population centers and shelters/refuge areas. Deny access to damaged areas. (See Pages 65-67 for roadblock locations.)
4. Provide warning to those areas lacking siren coverage and security for evacuated areas, shelters and/or refuge areas. (See both the listing at Page 99 for siren gap areas.)
5. Where possible, report wave arrivals, damage, and sea state to OCDA.
6. Relocate Departmental personnel, vital records, and equipment from risk to safe areas.

NOTE: If at any time the City/State Warning Point is unable to contact a member of the OCDA staff, or should the City EOC experience total communications failure, or when requested by OCDA, the City/State Warning point will be prepared to assume all OCDA responsibilities associated with the implementation of this plan until such time as the City EOC is activated and/or operational.

P. Public Works

1. Assist the Honolulu Police Department by providing roadblock or other traffic and crowd control barricade materials as requested.
2. As requested by the Department of Transportation Services, deploy personnel and road maintenance equipment along evacuation routes to ensure roads are rapidly cleared of obstacles.
3. Provide engineering and sanitation services which may be required at evacuation shelters/refuge areas.
4. Relocate Departmental personnel, equipment and vital records from risk to safe areas. Designate equipment staging areas outside the tsunami

evacuation zones.

5. Provide personnel to operate the City EOC Local Government Radio Net (LGRN) position.
6. Conduct damage assessment operations as outlined in Annex Q of the City Emergency Operations Plan.

Q. Transportation Services (DTS)

1. When directed by OCDA, implement the MTL Tsunami Evacuation Bus Plan. (See Page 65 for a description of the bus routes.)
2. Coordinate all transportation requirements in support of warning and evacuation operations to include those of the elderly and disabled.
3. Position wreckers and other heavy equipment provided by the Department of Public Works, State Highways and the private sector at key points along evacuation routes to ensure those roadways are kept clear and accessible.
4. Relocate Departmental personnel, vital records, and equipment from risk to safe areas.

R. U.S. Army Support Command Hawaii (USASCH)

1. Assist the Honolulu Police Department in conducting the warning and evacuation of beach areas under military purview.
2. Where possible, report wave arrivals, damage, and sea state to OCDA.

S. U.S. Coast Guard (USCG)

1. Assist the Honolulu Police Department in the warning and evacuation of port and harbor areas threatened by tsunami.
2. Provide reports to OCDA on wave arrivals, damage, if any, and sea state in harbors and channels.

T. Supporting State Departments

1. Provide assistance to the City in accordance with departmental authority, functions, resources, and capabilities (as outlined in Volume III of the State Plan for Emergency Preparedness and the Basic portion of the City Emergency Operations

Plan).

2. State Civil Defense and the State Department of Education - Be responsive to Red Cross and OCDA requests for the use of facilities/grounds as shelters/refuge areas.
3. State Department of Transportation, Harbors Division - Assist the Honolulu Police Department in the warning and evacuation of port and harbor areas threatened by tsunami. Provide reports to OCDA on wave arrivals, damage, if any, and sea state in harbors and channels.
4. Harbors Division Chief - Upon cancellation of a tsunami warning, broadcast "All Clear" announcements over marine frequencies for all harbors, channels and bays on Oahu when they are considered to be safe from dangerous currents and eddies. Provide OCDA with harbor/channel/bay "All Clear" information for subsequent broadcast over the EBS.

U. Hawaii National Guard

Support warning, evacuation, sheltering, and security operations as directed by the Adjutant General.

V. Coordinating Agencies

Community, neighborhood, charitable, and church groups will provide volunteer relief programs for evacuees and victims in accordance with pre-planned arrangements and mutual agreements with the American Red Cross. These groups include:

1. Salvation Army
2. Hawaii Conference of Seventh Day Adventists
3. Hawaii Baptist Convention
4. Volunteer Organizations Active in Disasters (VOAID)
5. Hawaii Council of Churches

VII. Hazard Specific Response Procedures

- A. Local Earthquakes/Earthquakes In Hawaiian Waters - All response supervisors should evaluate wave arrival timing (see timing chart below) before dispatching forces to the evacuation zones. Instead of entering the zones, directing personnel to evacuate may be more appropriate, particularly for earthquakes in the Molokai Seismic Zone (MSZ), on the Diamond Head

Fault (DHF), and in some areas of the Big Island.

Oahu Wave Arrival Times

Hawaii (Puna) - Quake_____ W + 48 minutes = _____ W
Hawaii (Hilo) - Quake_____ W + 44 minutes = _____ W
Hawaii (other) - Quake_____ W + 33 minutes = _____ W
Molokai (MSZ) - Quake_____ W + 14 minutes = _____ W
DH Fault (DHF) - Quake_____ W + 5 minutes = _____ W

- B. Civil Defense District Coordinators will contact their local HPD District Commanders (or OCDA in the case of District 1) to coordinate the assignment of volunteers to warning/evacuation taskings.
- C. The HPD Communications Division Watch Commander or Supervisor will contact the Fire Alarm Bureau to coordinate the use of HFD field units in warning and evacuation taskings.
- D. When operational, the Water Safety Division of the Department of Parks and Recreation, will notify USDOD lifeguards that evacuation of beach areas is required.
- E. The Civil Air Patrol will immediately notify OCDA if unable to accomplish warning in rural areas or along any coastline. OCDA will subsequently advise the HPD Communications Division Watch Commander or Supervisor and request additional personnel be assigned to the uncovered area(s).
- F. OCDA will broadcast WARNING and ALL CLEAR messages over the Emergency Broadcast System (EBS) in eight different languages/dialects to assist the City's non-English speaking population in understanding and responding to tsunami events. Individual language announcements will be interspersed with other EBS material at regular intervals so that all will have been aired at least once each hour. An English version of the tapes is at Pages 68-69.
- G. All Response Agencies - Withdrawal of all response agency personnel from evacuation zones will be initiated 30 minutes prior to the SWAT or initial wave arrival time, whichever occurs first.
- H. Tsunami Warning Cancellation - OCDA will notify all tasked response agencies when a Tsunami Warning has

been canceled and will be solely responsible for directing the reentry of public safety personnel into the evacuation zones. Search and rescue will be conducted in each area and an appraisal of conditions and needs forwarded to OCDA as soon as possible.

VIII. Sheltering Analysis

A. As noted earlier in Section II of this plan:

1. Shelter/refuge areas identified in this plan were selected in sufficient numbers and in reasonably close proximity to the evacuating population to provide readily accessible "safe haven" and minimize, where possible, parking difficulties. Available shelter/refuge area space for evacuees, therefore, exceeds the estimated population at risk.

NOTE: It is not essential that evacuees utilize public shelters/refuge areas for their survival. If evacuees deem vertical evacuation or travel to a shelter/refuge area to be impractical or perhaps impossible (due to a lack of time, heavy traffic, or other constraints), they should individually relocate to any area outside of an evacuation zone even though cover from the elements or other necessities are not available. Such a personal evacuation strategy is highly recommended.

2. Depending on both the time available to wave arrival and the time of day, it must be recognized that Red Cross or City teams may not be able to reach their assigned shelters/refuge areas in time to prepare and organize them for evacuee arrival. Evacuee use of parking or open areas in close proximity to or inland of designated shelters and refuge areas, is considered a suitable and satisfactory alternative.
- B. The tables at Pages 100-102 summarize, by Civil Defense District, the estimated number of evacuees that could seek refuge in public shelters as well as the facilities to accommodate them.
- C. There are no shortfalls in the availability of shelters for the at-risk population assuming:
1. Military and civilian personnel on Department of Defense installations (Kaneohe MCAS, Hickam AFB, Barbers Point NAS, Iroquois Point Navy Housing, and Pearl Harbor) will be evacuated and sheltered within the confines of Federal property.

2. Individuals in those areas not requiring evacuation, i.e., Keehi Lagoon, Honolulu Harbor, Enchanted Lake, and the shoreline between Kualoa Point and Kaneohe MCAS, will not seek shelter.
 3. All individuals in qualified multi-story buildings will vertically evacuate.
- D. Some evacuee travel turbulence can be expected whether individuals utilize shelters or the refuge areas in the vicinity of the shelters. For example:
1. Because Waialua High and Intermediate is the only shelter for evacuees from Waimea Bay to Kaena Point, it is anticipated that Kamehameha Highway, westbound from Waimea, will be extremely congested with significant delays as vehicles enter the Haleiwa/Waialua traffic complex. As a result, overflow traffic will be directed to Wahiawa and the Wahiawa Recreation Center rather than the Waialua High area.
 2. Similar delays and traffic backlogs are expected from Waimea to Kahuku with only Sunset Beach Elementary and Kahuku High available as shelter/refuge areas.
 3. There may be insufficient shelter space for evacuees from Makaha to Lualualei. Evacuees from those areas may have to travel to Nanakuli, or perhaps even Makakilo to find suitable refuge.
 4. To minimize northbound traffic flows on the Windward coast, it is recommended that evacuees from Punaluu, Kahana Bay, Kaaawa, and Kualoa use either the Waiahole or Kahaluu shelters/refuge areas.
- E. In sum, while travel turbulence can present traffic problems along many of the City's coastal roadways, sufficient shelters/refuge areas are available island-wide to support the at-risk population.

IX. WARNING, EVACUATION, DIRECTION AND CONTROL, ROLES AND RESPONSIBILITIES, PUBLIC INFORMATION, AUTHORITIES

Guidance in each of the functional areas listed above is as outlined in the City Emergency Operations Plan, modified and supplemented by the hazard-specific instructions in paragraphs VI and VII above, and the checklists at Pages 75 through 93.

X. PLAN MAINTENANCE

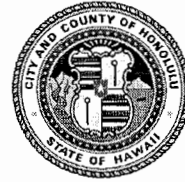
This plan will be reviewed annually or whenever new data is received which would require reassessment of the evacuation strategy or the sheltering of populations at risk. During the review, special attention will be given to:

- A. The accuracy and completeness of formatted public service announcements and Emergency Broadcast System scripts currently on file in OCDA.
- B. Broadcast and print media instructions to residents and responders on the primary and alternate evacuation and sheltering planning elements outlined on Pages 19-20 and 100-102.
- C. The status of current and projected tsunami education/awareness programs. Particular emphasis will be placed on the effectiveness of public and private sector information initiatives especially those involving the hotel and transportation industries, hospitals, nursing and adult residential care homes, schools and day care centers. (See Pages 70-72 for the tsunami evacuation guidance provided to City employees.)

XI. REFERENCES

- A. City and County of Honolulu Emergency Operations Plan.
- B. Communications Plan for the Tsunami Warning System, Eleventh Edition, Pacific Tsunami Warning Center, December 1987, updated January 15, 1991.
- C. Tsunami Bus Evacuation Plan, Department of Transportation Services, City and County of Honolulu, August, 1988.

OAHU CIVIL DEFENSE AGENCY
CITY AND COUNTY OF HONOLULU
650 South King Street
Honolulu, HI. 96813
(808) 523-4121



MEDIA BACKGROUND SHEET

November 7, 2005

CIVIL DEFENSE SIREN SYSTEM

- Sirens are purchased and installed by State Civil Defense.
- Maintained and operated by Oahu Civil Defense Agency.
- The Civil Defense Siren System includes pole-mounted units and Siren Simulators located indoors in public buildings, hotels, etc.
- **Sirens**

1. County	147
2. Military	29
Total Sirens	176
- **Siren Simulators**

1. County/Private	20
2. Military	9
Total Simulators	29
Total Island Wide Warning Systems	205
- All sirens including military units are activated simultaneously by Civil Defense. Sirens are built by Federal Signal Corporation – 360 degree coverage
- Audible output – 112 to 126 dB at 100' depending on type of siren.
- Audible effective ranges vary from 2,800 to 6,500 feet.
- Each siren costs \$70,000.00 or more to purchase and install.
- New sirens are battery operated with solar power for charging. They are not dependent on HECO power to operate.
- Sirens are only activated during actual emergencies or monthly tests. During either event, important information is simultaneously broadcast over local television and radio stations as part of the Emergency Alert System (EAS).
- The Civil Defense Siren Warning System is the primary means of alerting Oahu residents to island wide emergencies or evacuations.

-- END --

FOR FURTHER INFORMATION:

JOHN M. CUMMINGS III
PUBLIC INFORMATION OFFICER
(808) 527-5490

TSUNAMI EMERGENCY RESPONSE PROCEDURES

TSUNAMI INFORMATION BULLETIN

Date: _____

Accomplished
By Time

- | | | |
|--|-------|-------|
| 1. Receive/analyze PTWC/ATWC Bulletin (s). | _____ | _____ |
| 2. Plot location of epicenter. Calculate State Wave Arrival
Time (SWAT)_____ W. (UTC less 10 = _____W). | _____ | _____ |
| | | |
| A. IF PACIFIC-WIDE TSUNAMI WAS NOT GENERATED AND NO WATCH
OR WARNING IS ISSUED FOR THE PACIFIC REGION: | | |
| - Notify Mayor-MD/OIC/Staff/other City Departments
as necessary. | _____ | _____ |
| - Contact/discuss situation with Tsunami Advisor
(SSO TSU), as required. | _____ | _____ |
| - Respond to queries by news media/general public. | _____ | _____ |
| - Issue news releases, if appropriate. | _____ | _____ |
| - Monitor situation. Remain alert for
possible additional/stronger aftershocks. | _____ | _____ |
| - Update OCDA answering machines as necessary. | _____ | _____ |
| | | |
| B. PREPARE FOR <u>POSSIBLE</u> PTWC WATCH/WARNING | | |
| - Review Watch and/or Warning checklist at page _____. | _____ | _____ |
| - Consider notification of Mayor/MO/Key EOC staff
on checklist. | _____ | _____ |
| - Monitor situation until advised by PTWC that no
tsunami threat exists for Oahu/State. | _____ | _____ |
| - Update OCDA answering machines, as necessary. | _____ | _____ |
| | | |
| C. IF A TSUNAMI WATCH OR WARNING IS ISSUED, IMMEDIATELY GO TO WATCH OR WARNING
CHECKLIST AT PAGE <u>2</u> OR <u>9</u> . | | |

THIS SECTION MAY BE REMOVED FROM THIS PLAN
AND DUPLICATED FOR USE DURING EACH TSUNAMI EVENT

TSUNAMI/EMERGENCY RESPONSE PROCEDURES

TSUNAMI WATCH CHECKLIST

Date _____

NOTIFICATION DURING NON - WORKING HOURS:

1. The Administrator/first OCDA staff member notified will initiate recall/activation of the remaining OCDA staff and key City EOC staff and report to OCDA as soon as possible. (See item #7, Watch or Warning checklist).
2. Time and conditions permitting, the Administrator/designated OCDA staff member will contact the Mayor/Managing Director and discuss:
 - EOC activation/staff recall.
 - State/Oahu Wave Arrival Times. SWAT _____W OWAT _____W.
 - Civil defense siren schedule/EBS/EAS activation.
1st siren (State wide) at _____W.
 - Instructions to City Non-Disaster response workers.
(Do not report to work, report to work at _____W, leave work immediately, leave work at _____W).
 - Recommendations concerning State, Federal and private sector employees.
(Do not report to work, report to work at _____W, leave work immediately, leave work at _____W).
 - Recommendations to DOE/HAIS on public/private school operations.
(Schools remain closed, will close at _____W, will remain open until _____W).
 - Request to general public to curtail non-emergency travel and to avoid evacuation routes.
 - Evacuation of coastal tsunami threat areas commencing at _____W.
3. Once the above actions are accomplished, use the appropriate portions of the ADuring Working Hours checklist which follows.

NOTIFICATION DURING WORKING HOURS:

Accomplished
By Time

1. Acknowledge receipt of PTWC Bulletin.

2. Review/analyze bulletin.

3. Plot location of epicenter. Calculate:

State Wave Arrival Time (SWAT) _____ W.

Oahu Wave Arrival Time (OWAT) _____ W.

4. Activate City/District/Hotel EOCs:

City _____ W Hotel _____ W

D1 _____ W D2 _____ W D3 _____ W

D4 _____ W D5 _____ W D6 _____ W

- Request District EOCs report activation and number
Of volunteers available for assignment:

D1 _____ D2 _____ D3 _____

D4 _____ D5 _____ D6 _____

- Test all City EOC/District EOC:

- Communications.

- Vehicles.

- Backup Generators.

5. Activate EOC Communications Plan.

- Provide initial SITREP to District Coordinators.

- Make AEmergency Radio Transmissions only
announcements on LGRN.

- Notify SWP/SCD of City EOC activation (Teletype/HAWAS).

- Notify HMB security/parking lot operations
of EOC activation.

- Request EOC security from HPD.

- Dispatch IMA/RACES to Hotel EOC _____ W.

- Provide Watch information to hearing impaired (TDD).

- Request Immigrant Center to provide Tsunami Watch
advisories to non-English speaking population.

- Coordinate siren sounding with Military.

6. Contact CAP and:

- Alert/brief/request CAP warning mission(s):
(Provide SWAT ____W. OWAT ____W).
- Request aircraft & crew availability and earliest possible launch time(s).
- # Aircraft ____ # Crews ____ Launch ____W.
- Determine availability of CAP ERV for PASA.
- Coordinate area(s) to be warned.

7. Initiate City EOC staff recall/notification:

1 LINE NOTIFIER: 533-2148 Message # 0300 (Tsunami Watch)
4 LINE NOTIFIER: 527-5477 Message # 0300 (Tsunami Watch)

I. OCDA STAFF (List # 0100, Day//List # 0200, Night)

MAYOR	____//MD					
ADM	____	DP	____	P & O	____	D1
CLK	____	E & T	____	RAD/LOG	____	D2
COMM	____	HAZ	____	SEC	____	D3
						D4
						D5
						D6

II. NOTIFIER(1 LINE) (May report to EOC, also) (List # 0300, Day//List # 0400, Night)

AMB	____	DOH	____	DTS	____	HHA	____	RACES	____
ARC	____	DOT	____	FAB	____	HHSA	____	SSO EBS	____
CAP	____	DPR	____	HAH	____	HPTA	____	SSO TSU	____
DOE	____	DPW	____	HAIS	____	OIC	____	USAG-HI	____

III. EOC STAFFING(Reports to EOC, if activated) (List # 0500, Day//List # 0600, Night)

BWS	____	HAWTEL	____	HFD	____	OTS	____
CC	____	HD	____	HNG	____	SA	____
DCSR	____	HECO	____	HPD	____	WWM	____

IV. NOTIFY ONLY (Activate if required) (List # 0700, Day//List # 0800, Night)

AUD	____	COE	____	GCA	____	HSOD	____	RHB	____
BBH	____	CSVs	____	GIS	____	HTA	____	SDA	____
BHP	____	DDS	____	GTE	____	HVAN	____	SSO-ADM	____
BLD	____	DLNR	____	HCD	____	IC	____	SBCA	____
BOMA	____	DLU	____	HCMS	____	MAT	____	SHBR	____
BUD	____	DPL	____	HCSB	____	ME	____	SL	____
BYU	____	FD	____	HCTC	____	MRRC	____	USCG	____
CATH	____	FEB	____	HEER	____	MSO	____	VOAD	____
CDRLLL	____	FINSEC	____	HFIA	____	OXY	____	WS	____
CHEV	____	GASCO	____	HHS	____	PA	____		
COC	____	GASPRO	____	HOOPONO	____	PER	____		

8. Contact/brief Mayor/MD:

- EOC activation/staff recall (See item # 7).
- Wave Arrival Time(s) SWAT _____ W. OWAT _____ W.
- Civil Defense Siren schedule/EBS/EAS activation.
- Instructions to City Non-Disaster Response Workers.
- Recommendations concerning State/Federal/private sector employees to SCD/FEB.
- Recommendations to DOE/HAIS on public and private school operations.
- Request to public to curtail non-emergency travel.
- Evacuation of Tsunami Evacuation Zones.

9. Contact SCD/other County Civil Defense Agencies to coordinate:

- (OWAT) _____ W. (SWAT) _____ W.
- EBS/EAS Activation/message coordination.
- Proposed siren sounding schedule:

NOTE: If distant earthquake, consider day/night early siren activation(s):

- _____ hours prior to SWAT _____ W.
- _____ hours prior to SWAT _____ W.
- _____ hours prior to SWAT _____ W.
- 2 hours prior to OWAT _____ W.
- 1 hour prior to OWAT _____ W.
- 30 min. prior to OWAT _____ W.

- City/State/Federal Non-Disaster Response Workers instructions.
- Private sector workers instructions.
- Public/private/catholic schools - remain open, close at _____ W, or not open.
- Shelter operations (opening times/shelter lists).
- CAP assets available/mission times _____ W.

		Accomplished By	Time
10.	Calculate High Tide Times:	_____	_____
	HONOLULU _____ W HALEIWA _____ W		
	WAIANAE _____ W LAIE _____ W		
11.	Request Ambulance Dispatch provide Tsunami Watch advisories, SWAT _____ W, and OWAT _____ W to hospitals.	_____	_____
12.	Activate/Initiate Olelo Channel broadcasts. (Coordinate with SCD EOC).	_____	_____
13.	Activate/Staff Information Center.	_____	_____
14.	Request Hotel EOC provide Tsunami Watch advisories.	_____	_____
15.	Provide Tsunami Watch EPI via closed circuit EBS/EAS. (Coordinate with SCD/other County CDAs). (See book #____).	_____	_____
16.	Respond to media inquiries.	_____	_____
17.	Warn boat owners in marina/harbors to remain alert/put to sea, ASAP (SDOT/USCG).	_____	_____
18.	Alert/brief The BUS/Handi Van Operators.	_____	_____
19.	Discuss/activate Tsunami Bus Plan (HPTA) at _____ W.		
	- Start time _____ W Terminate Operations _____ W	_____	_____
20.	Coordinate/activate shelter operations (DPR/ARC/DOE).	_____	_____
21.	Prepare/implement Elderly/Disabled/PSN Assistance (DCSR).	_____	_____
22.	Prepare/initiate non-English speaking information.	_____	_____
23.	Coordinate/initiate:		
	- Warning and evacuation operations:	_____	_____
	HPD _____ HFD _____ CAP _____ USAG HI _____		
	D1 _____ D2 _____ D3 _____ HTL EOC _____		
	D4 _____ D5 _____ D6 _____		
	- Public Address System Announcement (PASA):	_____	_____
	HPD _____ WS _____ RAD/LOG _____ CAP _____		
	HTL EOC _____ D1 _____ D2 _____ D3 _____		
	HFD _____ D4 _____ D5 _____ D6 _____		

		Accomplished
		By Time
- Shelter Operators:	_____	_____
ARC _____ DPR _____ DOE _____ RACES _____ SCD _____		
(Evaluate surf before using Sunset Beach Elem).		
- Tsunami roadblocks/withdrawal time (HPD) _____ W.	_____	_____
- Possible use of Lualualei for Waianae Coast residents		
(Coordinate with SCD/USAG HI).	_____	_____
- FAA NOTAM for control of air traffic.		
(Coordinate with SCD _____ SDOT _____).	_____	_____
24. Relocation/protection of City Department Resources:	_____	_____
HPD _____ DPW _____ DPR _____ WWM _____		
HFD _____ HPTA _____ AMB _____ BWS _____		
25. Coordinate/Update volunteer availability:	_____	_____
D1 _____ D3 _____ D5 _____		
D2 _____ D4 _____ D6 _____		
- Coordinate with HPD for warning/evacuation/traffic		
control assignments.	_____	_____
- RACES operators availability/assignments:	_____	_____
Hotel EOC _____ Shelters _____		
26. HFD/HPD helicopter availability. Coordinate routing w/CAP.	_____	_____
27. Review siren gap areas and sirens that recently		
malfunctioned (HPD/COMM/VOLS).	_____	_____
- Assign/PA capable warning assets.	_____	_____
- Coordinate/dispatch Watch PASA..	_____	_____
28. Alert/brief/dispatch:		
- Damage Assessment Teams (DPW).	_____	_____
- Towing service companies (DTS).	_____	_____
29. Alert/implement "Plan Bulldozer" (DPW).	_____	_____

		Accomplished
		By Time
30.	Discuss/provide:	
	- Security for Evacuated Areas (HPD).	_____
	- Relocation/protection of City Resources (dispersal times/locations):	_____
	HPD _____ HFD _____ HD _____ DPW _____	
	DPW _____ BWS _____ HPTA _____	
31.	Advise EBS/EAS stations to:	
	- Brief personnel.	_____
	- Check/fill fuel and lubricant tanks for generators and test equipment.	_____
32.	Ensure TV stations are:	
	- Using Watch crawlers for hearing impaired.	_____
	- Announcing correct shelters and opening times.	_____
	- Encouraging curtailment of non-emergency travel.	_____
	- Encouraging swimmers/surfers/beach goers to evacuate and remain clear of the coastlines.	_____
	- Issuing watch advisories/updates/instructions to boat owners (DOT/USCG/CAP).	_____
33.	Coordinate upgrade to Tsunami Warning if cancellation is not received 3 hours prior to SWAT//OWAT.	_____

NOTES: If the Tsunami Watch is canceled advise all agencies/individuals previously notified. Refer to the Tsunami Watch/Warning Cancellation checklist on next page.

If PTWC is unable to confirm wave generation when 3 hours of travel time to Hawaii remains, they will either upgrade the Tsunami Watch to a Tsunami Warning or cancel the Watch. Coordinate possible upgrade with State Civil Defense and the other County Civil Defense Agencies as necessary.

If the Tsunami Watch is upgraded to a Tsunami Warning, review this checklist and complete any items previously not addressed.

TSUNAMI/EMERGENCY RESPONSE PROCEDURES

TSUNAMI WARNING CHECKLIST

Date _____

NOTIFICATION DURING NON - WORKING HOURS:

1. The Administrator/first OCDA staff member notified will initiate recall/activation of the remaining OCDA staff and key City EOC staff and report to OCDA as soon as possible. (See item #7 ADuring Working Hours≅)
2. Time and conditions permitting, the Administrator/designated OCDA staff member will contact the Mayor/Managing Director and discuss:
 - EOC activation/staff recall.
 - State/Oahu Wave Arrival Times. SWAT _____W OWAT _____W.
 - Civil defense siren schedule/EBS/EAS activation.
1st siren (State wide) at _____W.
 - Instructions to City Non-Disaster response workers.
(Do not report to work, report to work at _____W, leave work immediately, leave work at _____W).
 - Recommendations concerning State, Federal and private sector employees.
(Do not report to work, report to work at _____W, leave work immediately, leave work at _____W).
 - Recommendations to DOE/HAIS on public/private school operations.
(Schools remain closed, will close at _____W, will remain open until _____W).
 - Request to general public to curtail non-emergency travel and to avoid evacuation routes.
 - Evacuation of coastal tsunami threat areas commencing at _____W.
3. Once the above actions are accomplished, use the appropriate portions of the ADuring Working Hours≅ checklist below.

NOTIFICATION DURING WORKING HOURS:

Accomplished
By Time

1. Acknowledge receipt of PTWC Bulletin.

2. Review/analyze bulletin.

3. Plot location of epicenter. Calculate:

State Wave Arrival Time (SWAT) _____ W.

Oahu Wave Arrival Time (OWAT) _____ W.

4. Activate City/District/Hotel EOCs:

City _____ W Hotel _____ W

D1 _____ W D2 _____ W D3 _____ W

D4 _____ W D5 _____ W D6 _____ W

- Request District EOCs report activation and number of volunteers available for assignment:

D1 _____ D2 _____ D3 _____

D4 _____ D5 _____ D6 _____

- Test City EOC/District EOCs:

- Communications.

- Vehicles.

- Backup Generators.

5. Activate EOC Communications Plan:

- Provide initial SITREP to District Coordinators.

- Make AEmergency Radio Transmissions \cong only announcements on LGRN.

- Notify SWP/SCD of City EOC activation (Teletype/HAWAS).

- Notify HMB security/parking lot operations of EOC activation.

- Request EOC security from HPD.

- Dispatch IMA/RACES to Hotel EOC _____ W.

- Provide Warning information to hearing impaired(TDD).

- Request Immigrant Center to provide Tsunami Warning advisories to non-English speaking population.

- Coordinate siren sounding with Military.

6. Contact CAP and coordinate:

- Alert/brief/request CAP warning mission(s):
(Provide SWAT _____ W. OWAT _____ W.) _____
- Request aircraft & crew availability and earliest possible launch time(s). _____
- # Aircraft _____ # Crews _____ Launch _____ W. _____
- Determine availability of CAP ERV for PASA. _____
- Coordinate area(s) to be warned. _____

7. Initiate City EOC staff recall/notification:

1 LINE NOTIFIER: 533-2148 Message # 0100 (Tsunami Warning)

4 LINE NOTIFIER: 527-5477 Message # 0100 (Tsunami Warning)

I. OCDA STAFF (List # 0100, Day//List # 0200, Night)

MAYOR	____//MD					
ADM	____	DP	____	P & O	____	D1
CLK	____	E & T	____	RAD/LOG	____	D2
COMM	____	HAZ	____	SEC	____	D3
						D4
						D5
						D6

II. NOTIFIER(1 LINE) (May report to EOC, also) (List # 0300, Day//List # 0400, Night)

AMB	____	DOH	____	DTS	____	HHA	____	RACES	____
ARC	____	DOT	____	FAB	____	HHSA	____	SSO EBS	____
CAP	____	DPR	____	HAH	____	HPTA	____	SSO TSU	____
DOE	____	DPW	____	HAIS	____	OIC	____	USAG-HI	____

III. EOC STAFFING (Reports to EOC, if activated) (List # 0500, Day//List # 0600, Night)

BWS	____	HAWTEL	____	HFD	____	OTS	____
CC	____	HD	____	HNG	____	SA	____
DCSR	____	HECO	____	HPD	____	WWM	____

IV. NOTIFY ONLY (Activate if required) (List # 0700, Day//List # 0800, Night)

AUD	____	COE	____	GCA	____	HSOD	____	RHB	____
BBH	____	CSVs	____	GIS	____	HTA	____	SDA	____
BHP	____	DDS	____	GTE	____	HVAN	____	SSO-ADM	____
BLD	____	DLNR	____	HCD	____	IC	____	SBCA	____
BOMA	____	DLU	____	HCMS	____	MAT	____	SHBR	____
BUD	____	DPL	____	HCSB	____	ME	____	SL	____
BYU	____	FD	____	HCTC	____	MRRC	____	USCG	____
CATH	____	FEB	____	HEER	____	MSO	____	VOAD	____
CDRLLL	____	FINSEC	____	HFIA	____	OXY	____	WS	____
CHEV	____	GASCO	____	HHS	____	PA	____		
COC	____	GASPRO	____	HOOPONO	____	PER	____		

8. Contact/brief Mayor/MD:

- EOC activation/staff recall (See item # 7).
- Wave Arrival Time(s) SWAT _____ W. OWAT _____ W.
- Civil Defense Siren schedule/EBS/EAS activation.
- Instructions to City Non-Disaster Response Workers.
- Recommendations concerning State/Federal/private sector employees to SCD/FEB.
- Recommendations to DOE/HAIS on public and private school operations.
- Request to public to curtail non-emergency travel.
- Evacuation of Tsunami Evacuation Zones.

9. Contact SCD/other County Civil Defenses to coordinate:

- (OWAT) _____ W. (SWAT) _____ W.
- EBS/EAS Activation/message coordination.
- Proposed siren sounding schedule:

NOTE: If distant earthquake, consider day/night early siren activation(s):

- _____ hours prior to SWAT _____ W.
- _____ hours prior to SWAT _____ W.
- _____ hours prior to SWAT _____ W.
- 2 hours prior to OWAT _____ W.
- 1 hour prior to OWAT _____ W.
- 30 min. prior to OWAT _____ W.

(3 minutes on, 1 minute off, 3 minutes on.)

- City/State/Federal Non-Disaster Response Workers instructions.
- Private sector workers instructions.
- Public/private/catholic schools - remain open, close at _____ W, or not open.
- Shelter operations (opening times/shelter lists).
- CAP assets available/mission times _____ W.

10. Calculate High Tide Times:

Accomplished
By Time

HONOLULU _____ W HALEIWA _____ W
WAIANAE _____ W LAIE _____ W

11. Request Ambulance Dispatch provide Tsunami Warning advisories, SWAT _____ W, and OWAT _____ W to hospitals. _____
12. Activate/Initiate Olelo Channel broadcasts. _____
(Coordinate with SCD EOC) _____
13. Activate/Staff Information Center. _____
14. Request Hotel EOC provide Tsunami Warning advisories. _____
15. Provide Tsunami Warning EPI via closed circuit EBS/EAS _____
(Coordinate with SCD/other County CDAs). (See book #____). _____
16. Respond to media inquiries. _____
17. Warn boat owners in marina/harbors to remain alert/put _____
to sea, ASAP (SDOT/USCG). _____
18. Alert/brief The BUS/Handi Van Operators. _____
19. Discuss/activate Tsunami Bus Plan (HPTA) at _____ W. _____
- Start time _____ W Terminate Operations _____ W _____
20. Coordinate/activate shelter operations (DPR/ARC/DOE). _____
21. Prepare/implement Elderly/Disabled/PSN Assistance (DCSR). _____
22. Prepare/initiate non-English speaking information. _____
23. Coordinate/initiate: _____

- Warning and evacuation operations: _____

HPD _____ HFD _____ CAP _____ USAG HI _____
D1 _____ D2 _____ D3 _____ HTL EOC _____
D4 _____ D5 _____ D6 _____

- Public Address System Announcement: _____

HPD _____ WS _____ RAD/LOG _____ CAP _____
HTL EOC _____ D1 _____ D2 _____ D3 _____
HFD _____ D4 _____ D5 _____ D6 _____

		Accomplished
		By Time
- Shelter Operators:	_____	_____
ARC _____ DPR _____ DOE _____ RACES _____ SCD _____		
(Evaluate surf conditions before using Sunset Beach Elem.)		
- Tsunami roadblocks/withdrawal time (HPD) _____ W.	_____	_____
- Possible use of Lualualei for Waianae Coast residents. (Coordinate with SCD/USAG HI).	_____	_____
- FAA NOTAM for control of air traffic. (Coordinate with SCD _____ SDOT _____).	_____	_____
24. Relocation/protection of City Department Resources:	_____	_____
HPD _____ DPW _____ DPR _____ WWM _____		
HFD _____ HPTA _____ AMB _____ BWS _____		
25. Coordinate/Update volunteer availability:	_____	_____
D1 _____ D3 _____ D5 _____		
D2 _____ D4 _____ D6 _____		
- Coordinate with HPD for warning/evacuation/traffic control assignments.	_____	_____
- RACES operators availability/assignments:	_____	_____
Hotel EOC _____ Shelters _____		
26. HFD/HPD helicopter availability. Coordinate routing w/CAP.	_____	_____
27. Review siren gap areas and sirens that recently malfunctioned (HPD/COMM/VOLS):	_____	_____
- Assign/PA capable warning assets.	_____	_____
- Coordinate/dispatch Warning PASA.	_____	_____
28. Alert/brief/dispatch:		
- Damage Assessment Teams (DPW).	_____	_____
- Towing service companies (DTS).	_____	_____
29. Alert/implement "Plan Bulldozer" (DPW)	_____	_____

30. Discuss/provide:

- Security for Evacuated Areas (HPD). _____

- Relocation/protection of City Resources
(dispersal times/locations): _____

HPD _____ HFD _____ HD _____ DPW _____

DPW _____ BWS _____ HPTA _____

31. Advise EBS/EAS stations to:

- Brief personnel. _____

- Check/fill fuel and lubricant tanks for generators
and test equipment. _____

32. Monitor/Ensure TV stations are:

- Using Warning crawlers for hearing impaired. _____

- Announcing correct shelters and opening times. _____

- Encouraging curtailment of non-emergency travel. _____

- Encouraging swimmers/surfers/beach goers to evacuate
and remain clear of the coastlines. _____

- Issuing Warning advisories/updates/instructions to
boat owners (DOT/USCG/CAP). _____

33. DOCUMENT ACTUAL TIMES:

- SIRENS ACTIVATED AT: _____

_____ HOURS PRIOR TO SWAT _____ W.

_____ HOURS PRIOR TO SWAT _____ W.

_____ HOURS PRIOR TO SWAT _____ W.

2 HOURS PRIOR TO OWAT _____ W.

1 HOUR PRIOR TO OWAT _____ W.

30 MIN. PRIOR TO OWAT _____ W.

(3 MINUTES ON, 1 MINUTE OFF, 3 MINUTES ON.)

- EBS/EAS ANNOUNCEMENTS INITIATED AT _____ W. _____

- EVACUATION INITIATED AT _____ W. _____

THIS SECTION MAY BE REMOVED FROM THIS SOP
AND DUPLICATED FOR USE DURING EACH TSUNAMI EVENT

TSUNAMI EMERGENCY RESPONSE PROCEDURES

TSUNAMI WATCH/WARNING CANCELLATION
(THIS IS NOT THE SAME AS AALL CLEAR≡)

	Accomplished By	Time
1. Receive/analyze PTWC Tsunami Watch/Warning Cancellation.	_____	_____
2. Advise all agencies/individuals previously notified or recalled, if Tsunami Watch/Warning is canceled. (Note: This IS NOT the same as AAll Clear≡.)		
- Update Emergency Information answering machines.	_____	_____
3. Continue Shelter Operations, maintain Roadblocks in designated areas.	_____	_____
4. Direct public safety organizations to re-enter the evacuation areas, conduct search and rescue, and report damages/conditions to City EOC:		
HPD _____ WS _____ CAP _____ HTL EOC _____		
HFD _____ EMS _____ DPW _____ DPR _____		
- Request SITREPs from district spotters:		
D1 _____ D2 _____ D3 _____		
D4 _____ D5 _____ D6 _____		
5. Dispatch Damage Assessment Teams, if not already accomplished (DPW).	_____	_____
- Report Damages to City/District EOCs.	_____	_____
6. Upon receipt of reports from public safety organizations:		
- Respond to requests for assistance.	_____	_____
- Determine condition of coastal highways.	_____	_____
- Determine areas requiring closure/cordoning/security (HPD).	_____	_____
- Coordinate personnel/equipment needs (SCD/HNG/DPW/GCA).	_____	_____
- Consider activating "Plan Bulldozer" (DPR).	_____	_____
- Recommend curfew, if appropriate (Mayor/MD/CBO).	_____	_____
- Prepare/transmit PERDISREP/Spot Reports to SCD.	_____	_____

Accomplished
By Time

7. Coordinate:

- Shelter needs/closure (ARC/DOE/DPR/SCD) .
- Congregate care, food, water, clothing, medical, requirements, etc.
- Emergency transportation from shelters to evacuated areas/other requirements (DTS/HPTA) .
- Elderly/disabled/PSN assistance (DCSR) .
- Maintaining/removing roadblocks (HPD) .
- Care for evacuees/victims (ARC/SA/SDA/SBCA) .

8. "All Clear" determination for Oahu established at _____ W.

9. Coordinate with SCD/other County CDAs (prior to issuance of Statewide "All Clear"):

- Coordinate/establish "All Clear" for Oahu at _____ W.
(Consider using Attention/Alert sirens).
- Non Disaster response workers (City/State/Federal/Private) report to work at: _____ W.
- Tsunami Bus evacuation prior to: _____ W.
- Normal Bus/Handi Van service resumes at: _____ W.
- Emergency shelters cease operations at: _____ W.
- Public/Private/Catholic Schools re-open at: _____ W.
- Small boat owners - safe to return to port: _____ W.
- Evacuated areas/safe to return at: _____ W.
- Describe areas damaged/to remain closed
(Provide security).
- DACs/locations/opening times: _____ W.
- Roadblocks removed/resume normal traffic at: _____ W.
- HPD/HFD/VOLS - Damage Assessment reports.
- Need for continued NOTAM - DOT/FAA/SCD.

10. Broadcast "All Clear/Use Caution" over EBS/EAS. (See Book 14) .

- Outline areas closed/other restrictions.
- Request IC foreign language "All Clear" tapes.

Accomplished
By Time

Accomplished
By Time

- Ensure TV stations are using "All Clear" crawls for hearing impaired.
- Establish/maintain EIC/JIC, as needed.
- Update TDD with AAll Clear Message.

11. Notify all agencies/individuals of AAll Clear status and or any restrictions:

1 LINE NOTIFIER: 533-2148 Message # - as needed.

4 LINE NOTIFIER: 527-5477 Message # - as needed.

I. OCDA STAFF (List # 0100, Day//List # 0200, Night)

MAYOR ____//MD ____

ADM	____	DP	____	P & O	____	D1	____	D4	____
CLK	____	E & T	____	RAD/LOG	____	D2	____	D5	____
COMM	____	HAZ	____	SEC	____	D3	____	D6	____

II. NOTIFIER(1 LINE) (May report to EOC, also) (List # 0300, Day//List # 0400, Night)

AMB	____	DOH	____	DTS	____	HHA	____	RACES	____
ARC	____	DOT	____	FAB	____	HHSA	____	SSO EBS	____
CAP	____	DPR	____	HAH	____	HPTA	____	SSO TSU	____
DOE	____	DPW	____	HAIS	____	OIC	____	USAG-HI	____

III. EOC STAFFING (Reports to EOC, if activated) (List # 0500, Day//List # 0600, Night)

BWS	____	HAWTEL	____	HFD	____	OTS	____
CC	____	HD	____	HNG	____	SA	____
DCSR	____	HECO	____	HPD	____	WWM	____

IV. NOTIFY ONLY (Activate if required) (List # 0700, Day//List # 0800, Night)

AUD	____	CSVS	____	GTE	____	IC	____	SHBR	____
BBH	____	DDS	____	HCD	____	MAT	____	SL	____
BHP	____	DLNR	____	HCMS	____	ME	____	USCG	____
BLD	____	DLU	____	HCSB	____	MRRC	____	VOAD	____
BOMA	____	DPL	____	HCTC	____	MSO	____	WS	____
BUD	____	FD	____	HEER	____	OXY	____		
BYU	____	FEB	____	HFIA	____	PA	____		
CATH	____	FINSEC	____	HHS	____	PER	____		
CDRLLL	____	GASCO	____	HOOPONO	____	RHB	____		
CHEV	____	GASPRO	____	HSOD	____	SDA	____		
COC	____	GCA	____	HTA	____	SSO-ADM	____		
COE	____	GIS	____	HVAN	____	SBCA	____		

		Accomplished	
		By	Time
12.	Determine status of:		
	- Hospitals.	_____	_____
	- Blood Bank.	_____	_____
	- Drinking/waste water (BWS/DPW/DOH/WWM).	_____	_____
	- Vehicle refueling/gasoline resupply (DPW).	_____	_____
	- HECO/HAWTEL/GASCO/Refineries.	_____	_____
	- Airports.	_____	_____
	- Harbors.	_____	_____
13.	Consider need for:		
	- Road closures. (Coordinate with DOT).	_____	_____
	- Temporary business closure. (Coordinate with COC/HCVB).	_____	_____
	- Public/Private/Catholic schools and day care center closures. (Coordinate with DOE/DHS/private schools).	_____	_____
	- Extended employee excusals (Coordinate with PER/SCD).	_____	_____
	- Cancellation of NOTAM restricting air traffic (OCDA).	_____	_____
14.	Activate Volunteer Processing Center, as required (PER)	_____	_____
15.	Open ARC/City Disaster Assistance/Assessment Centers, as needed.	_____	_____
16.	Establish EOC shift schedules, as required.	_____	_____
17.	Provide Comprehensive Damage Assessment estimates to the Mayor/MD/CBO (DDS).	_____	_____
18.	Prepare/transmit PERDISREP to SCD.	_____	_____
19.	Prepare Mayor's Request for State/Federal Assistance, if required. (See the State Plan for Emergency Preparedness, Volume III, Attachments 2-5.)	_____	_____
20.	Dispatch OIC photographer to record/document damages.	_____	_____
21.	Continue/deactivate Olelo broadcasts.	_____	_____
22.	Update Emergency Information answering machines.	_____	_____
23.	Implement Recovery operations. (See Appendix 7, Annex S of the EOP)	_____	_____

OAHU CIVIL DEFENSE AGENCY EVACUATION MAPS



**650 South King Street
Honolulu, HI. 96817
(808) 523-4121
www.oahucivildefense.com**

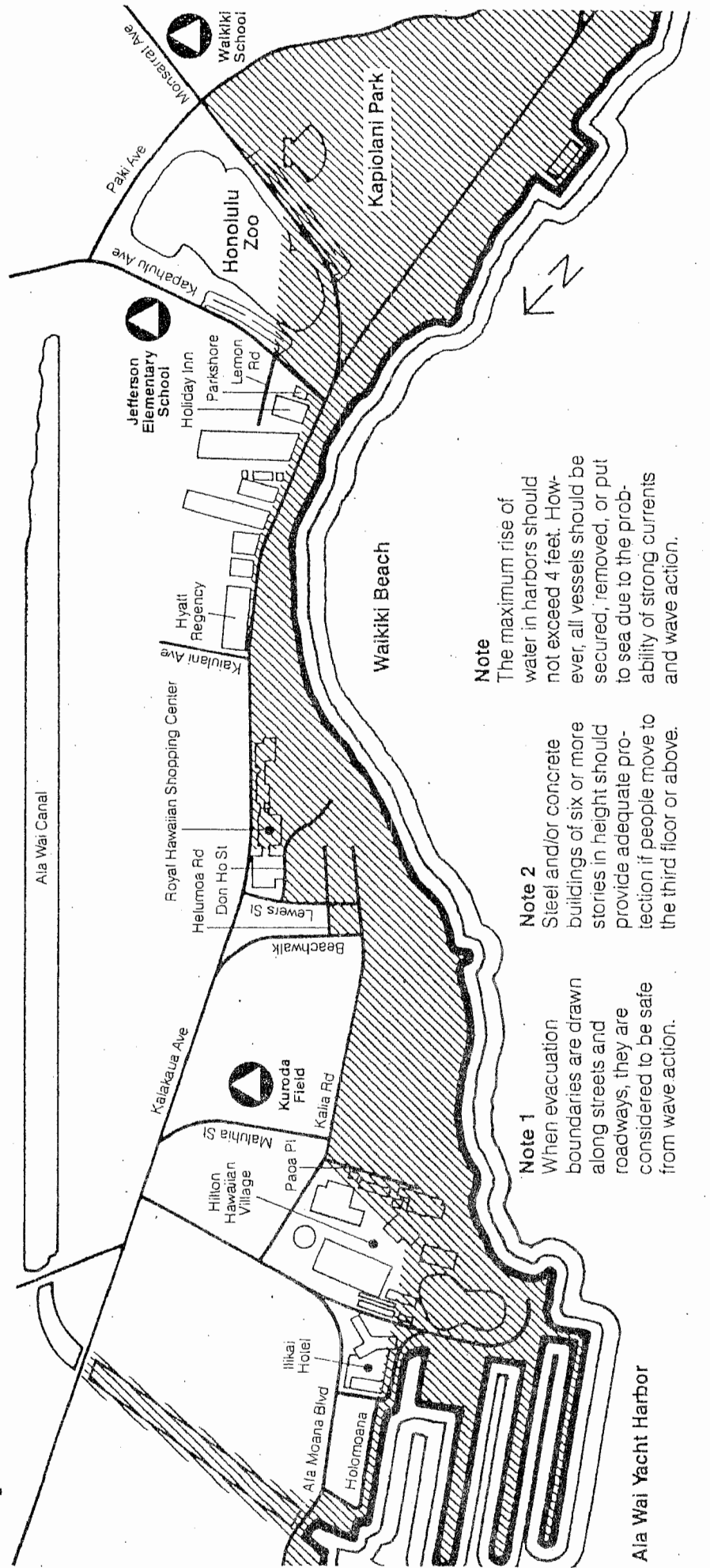
Tsunami Evacuation Maps

OAHU CIVIL DEFENSE AGENCY

FACTS

- Developed by Dr. George Curtis and first published in the Hawaiian Telephone White Pages in 1991. Now being carried as a public service by *Verizon Hawai'i Super Pages* Statewide.
- Maps developed using "One Dimensional Modeling". 100-years of historical and scientific data including 6-Hawai'i Tsunami events.
- If you live, work, or spend time in any of the mapped gray areas, know that sometime in the past 100-years these zones have been impacted by tsunami wave action.
- If you live **IN** the zone you **MUST EVACUATE** if ordered to do so.
- If you live **OUTSIDE** of the zone **STAY AWAY** from the shoreline and do not tie up traffic!
- Maps are also available on-line at:
www.oahucivildefense.com
- Currently Dr. Curtis' maps are the best and most accurate Tsunami Wave and Hurricane Storm Surge evacuation tools available. They are based on scientific and historical fact.
- ALL State DOE schools in the zones have evacuation plans and exercise them annually.

Map 1: Waikiki



Note

The maximum rise of water in harbors should not exceed 4 feet. However, all vessels should be secured, removed, or put to sea due to the probability of strong currents and wave action.

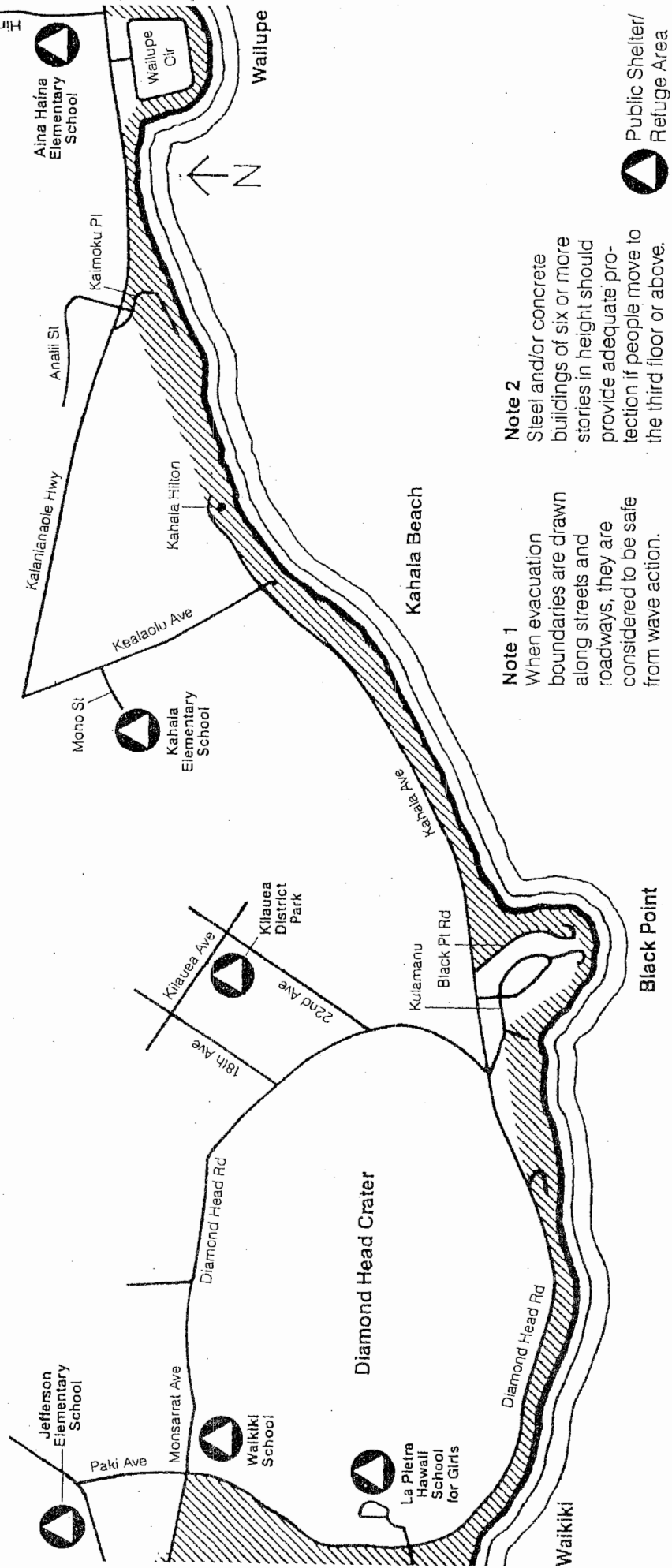
Note 2

Steel and/or concrete buildings of six or more stories in height should provide adequate protection if people move to the third floor or above.

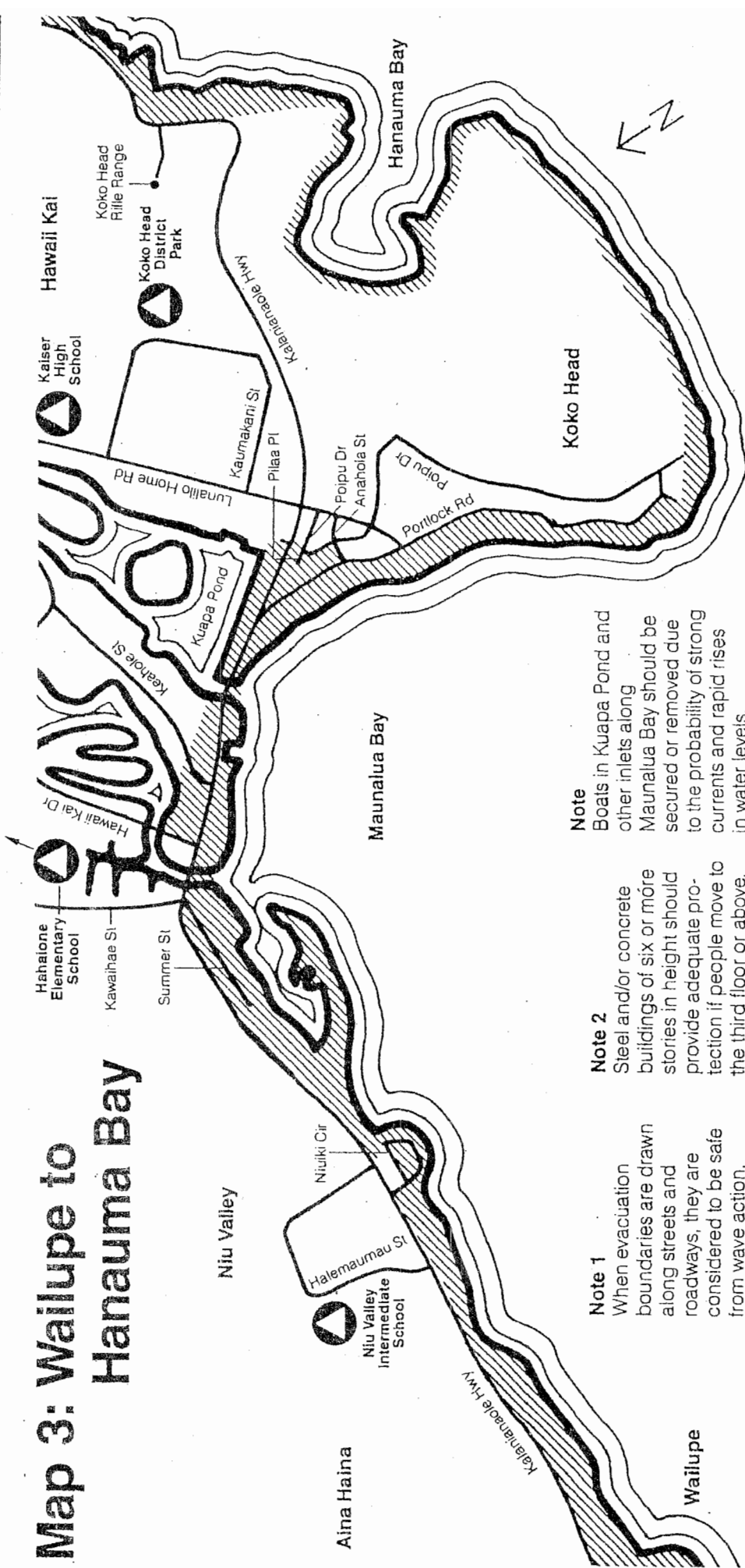
Note 1

When evacuation boundaries are drawn along streets and roadways, they are considered to be safe from wave action.

Map 2: Waikiki to Wailupe



Map 3: Wailupe to Hanauma Bay



Note
Boats in Kuapa Pond and other inlets along Maunaloa Bay should be secured or removed due to the probability of strong currents and rapid rises in water levels.

Note 2
Steel and/or concrete buildings of six or more stories in height should provide adequate protection if people move to the third floor or above.

Note 1
When evacuation boundaries are drawn along streets and roadways, they are considered to be safe from wave action.

Map 4: Hanauma Bay to Makapuu

This map illustrates the coastline from Hanauma Bay to Makapuu. Key locations and features include:


- Hanauma Bay** (North)
- Koko Head District Park**
- Kaiser High School**
- Lunaliio Home Rd**
- Kalamiaale Pl**
- Kalamiaale Hwy**
- Queen's Gate**
- Golf Course**
- Makapuu**
- Kalamia Valley**
- Sea Life Park**
- Oceanic Institute**
- Sewer Treatment Plant**
- Kealahou St**
- Makapuu Pl**
- Blow Hole**
- Sandy Beach**
- Kalamiaale Hwy**
- Koko Head Rifle Range**

A north arrow is located in the upper right corner of the map.

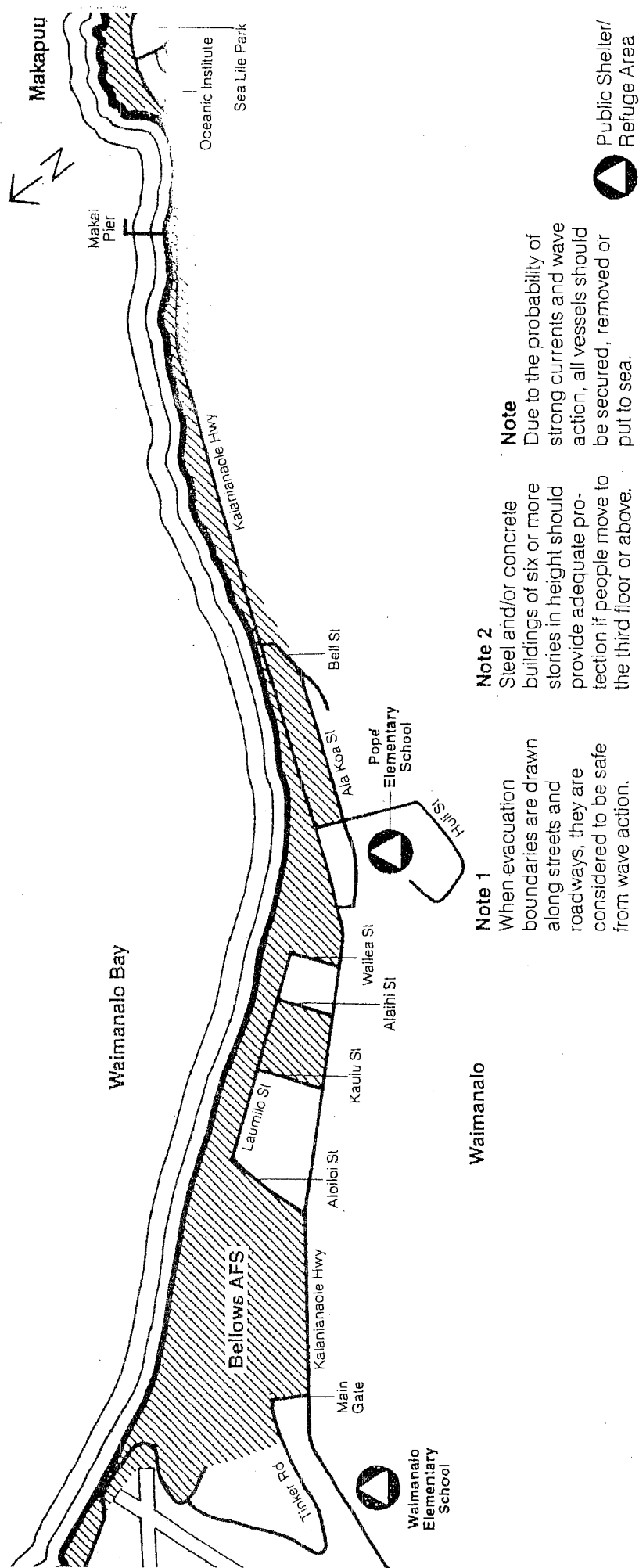
When evacuation boundaries are drawn along streets and

Steel and/or concrete buildings of six or more stories in height should

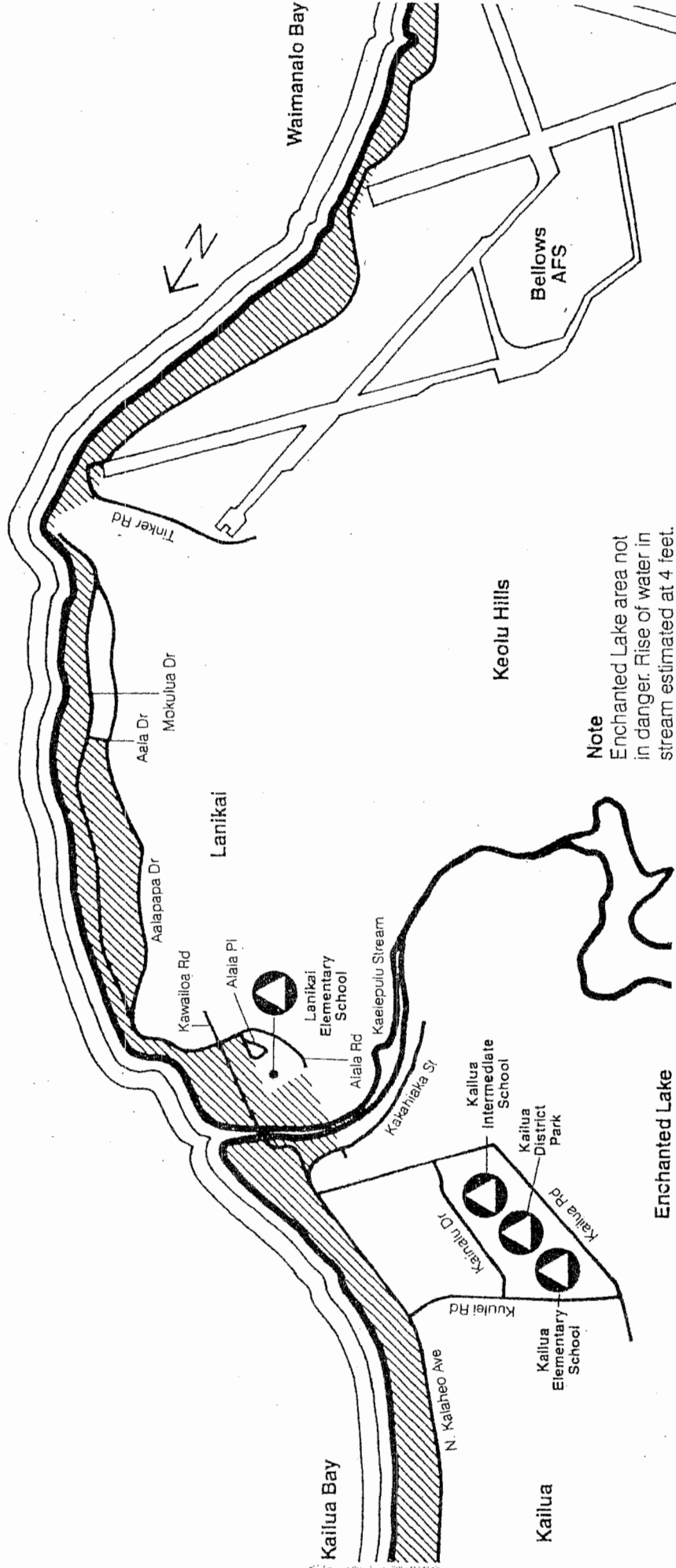
provide adequate protection. If people move to the third floor or above,

 Public Shelter/
Refuge Area

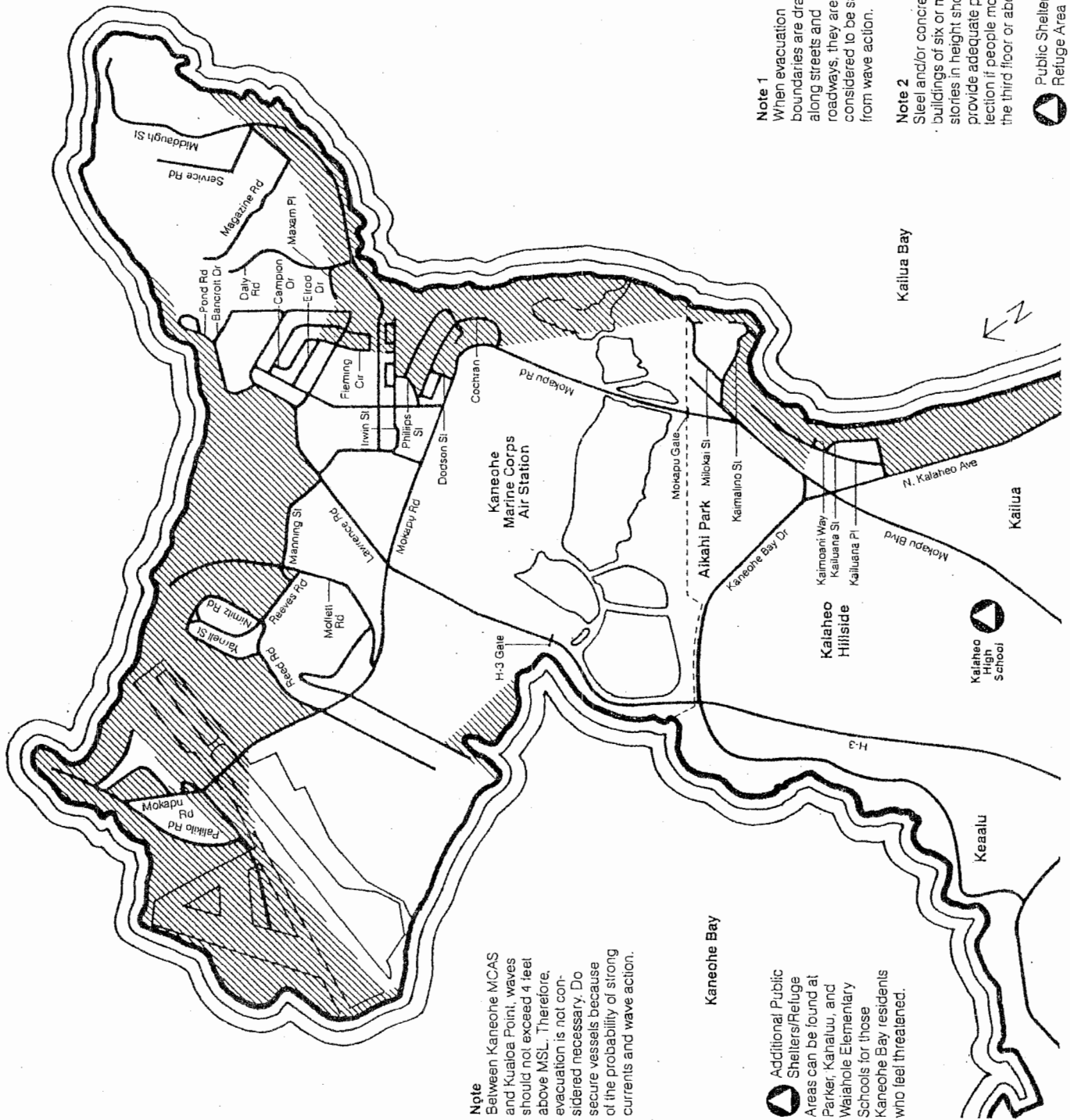
Map 5: Makapuu to Waimanalo



Map 6: Waimanalo to Kailua

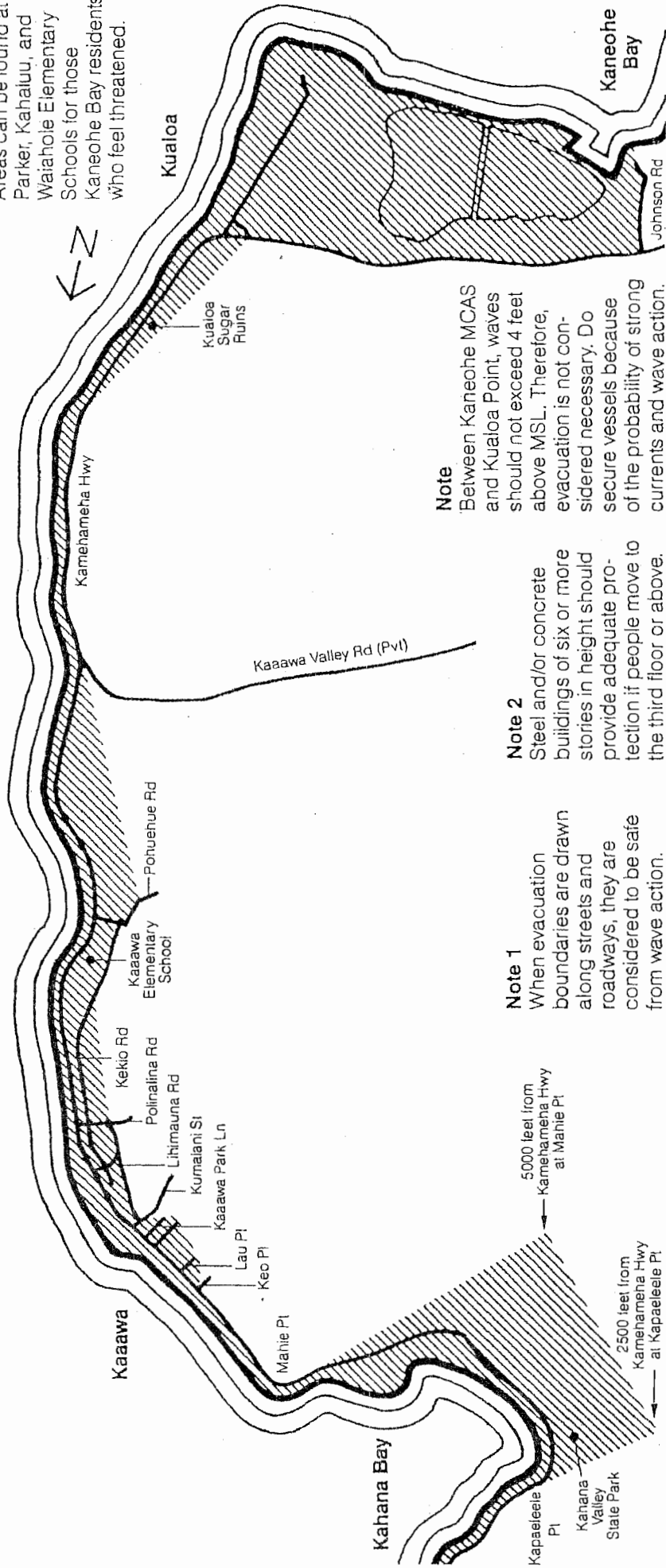


Map 7: Kailua to Kaneohe Bay

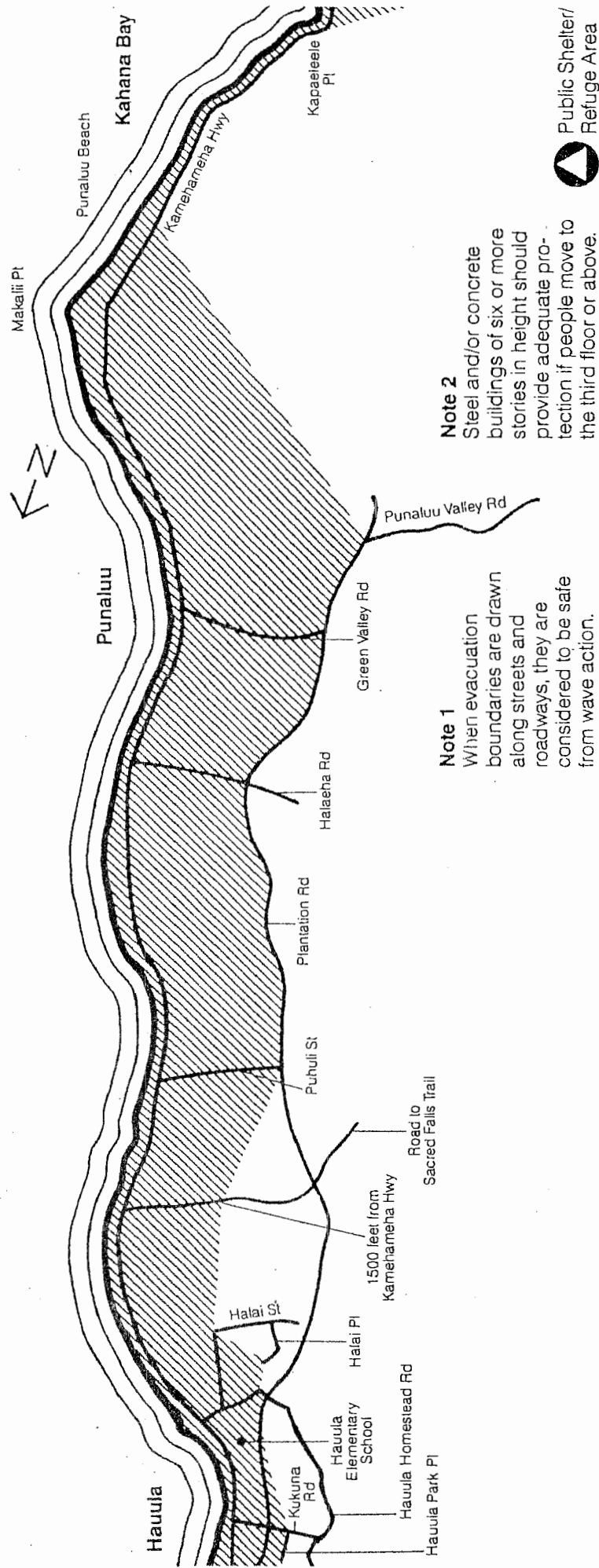


Map 8: Kaneohe Bay to Kahana Bay

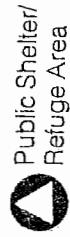
Additional Public Shelters/Refuge Areas can be found at Parker, Kahaluu, and Waiahole Elementary Schools for those Kaneohe Bay residents who feel threatened.



Map 9: Kahana Bay to Hauula



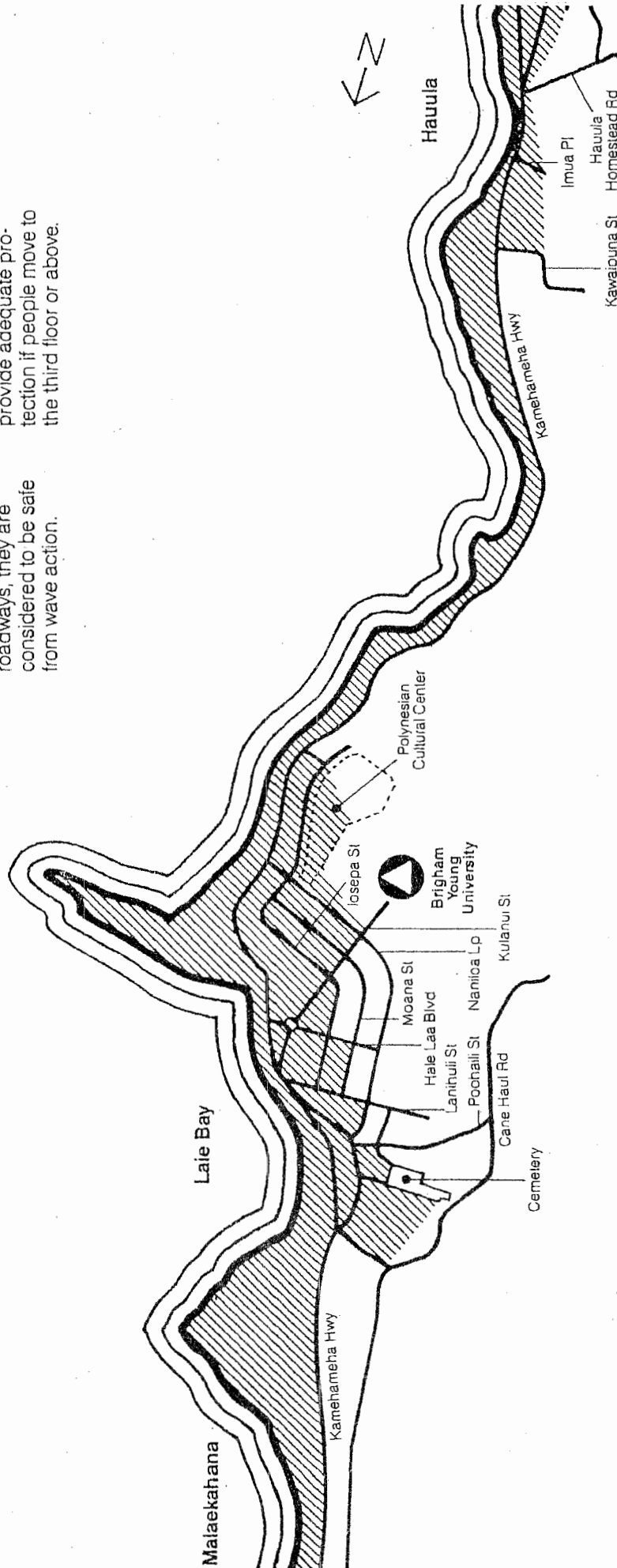
Map 10: Hauula to Malaekahana



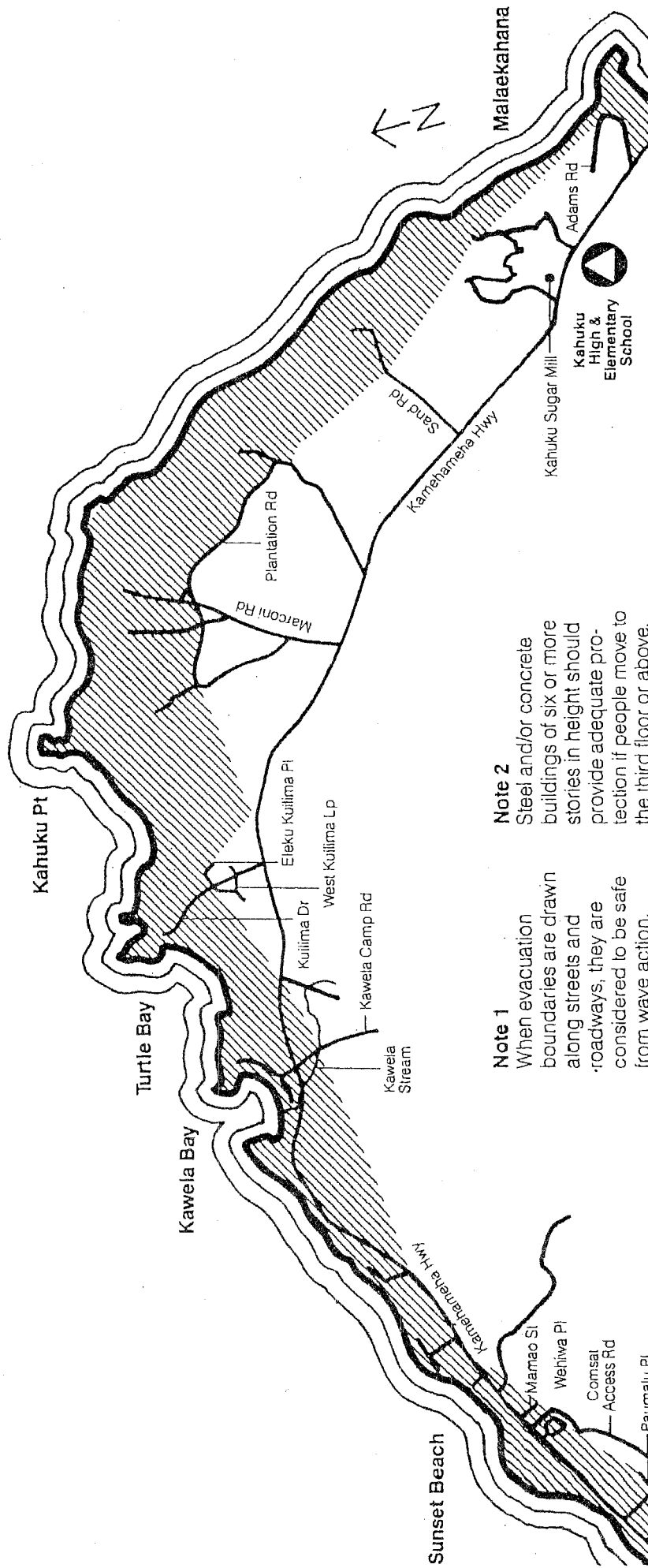
Note 2
Steel and/or concrete buildings of six or more stories in height should provide adequate protection if people move to the third floor or above.

Note 1
When evacuation boundaries are drawn along streets and roadways, they are considered to be safe from wave action.

Laie Pt

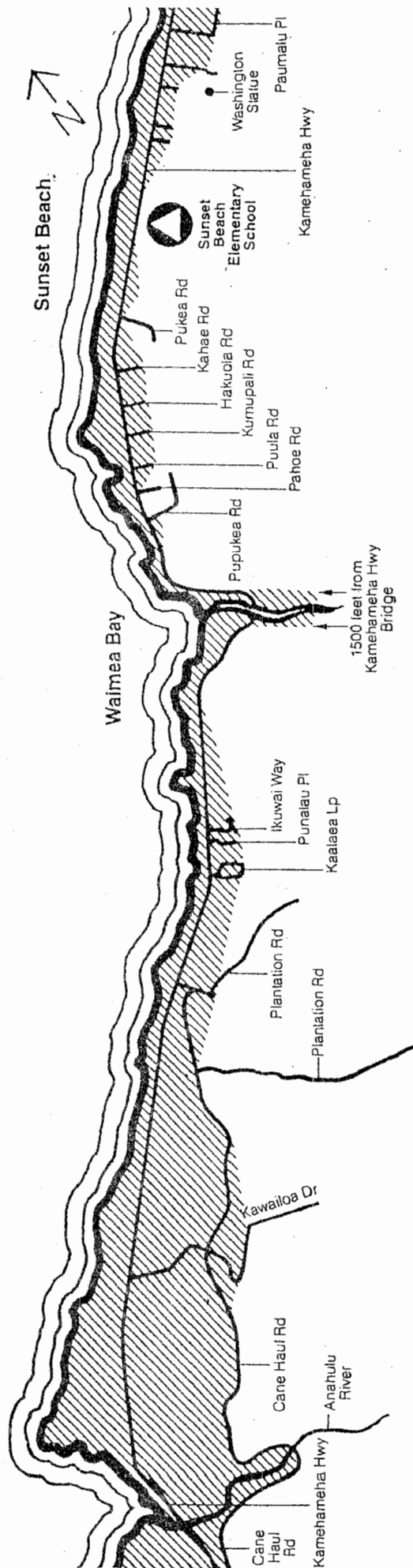


Map 11: Malaekahana to Sunset Beach



Map 12: Sunset Beach to Waialua Bay

Waialua Bay



Note 1

When evacuation boundaries are drawn along streets and roadways, they are considered to be safe from wave action.

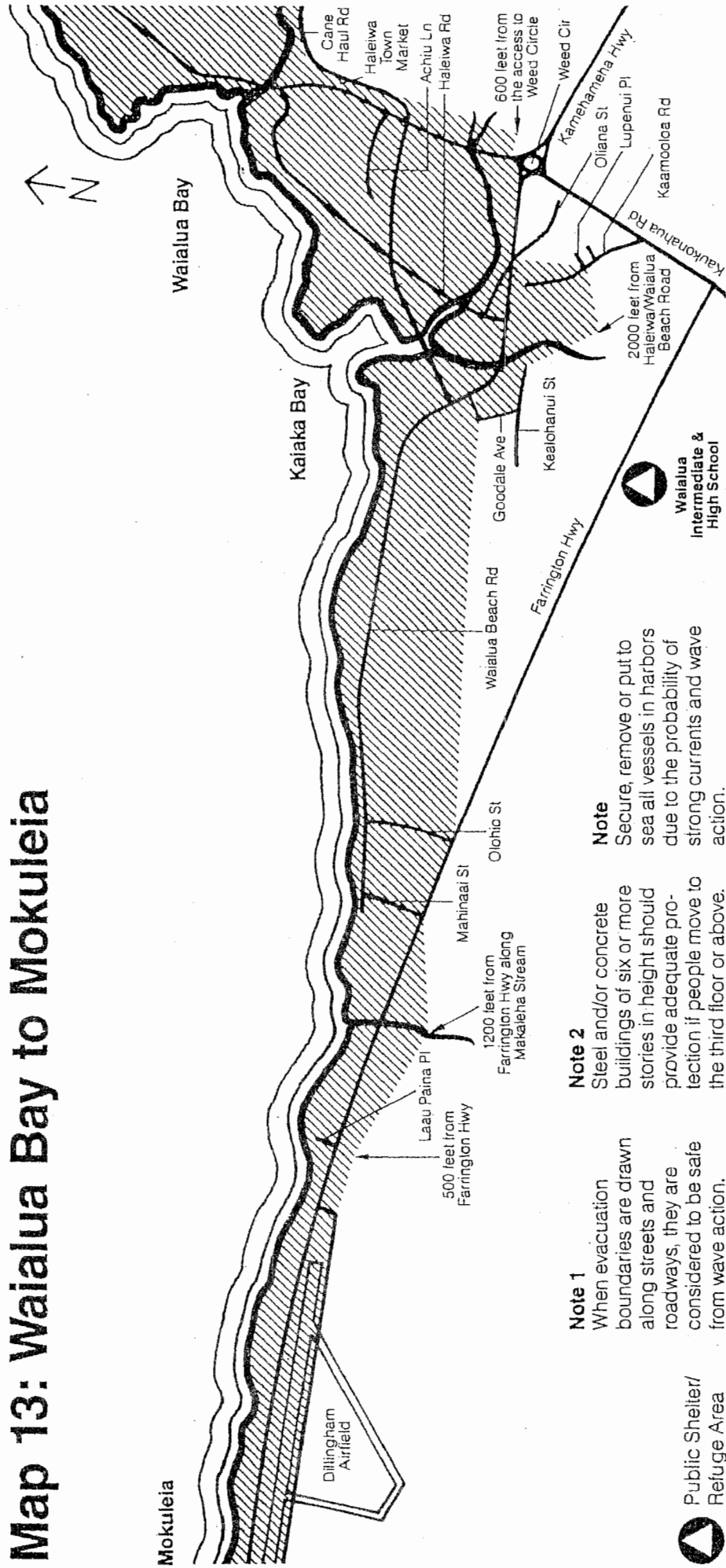
Note 2

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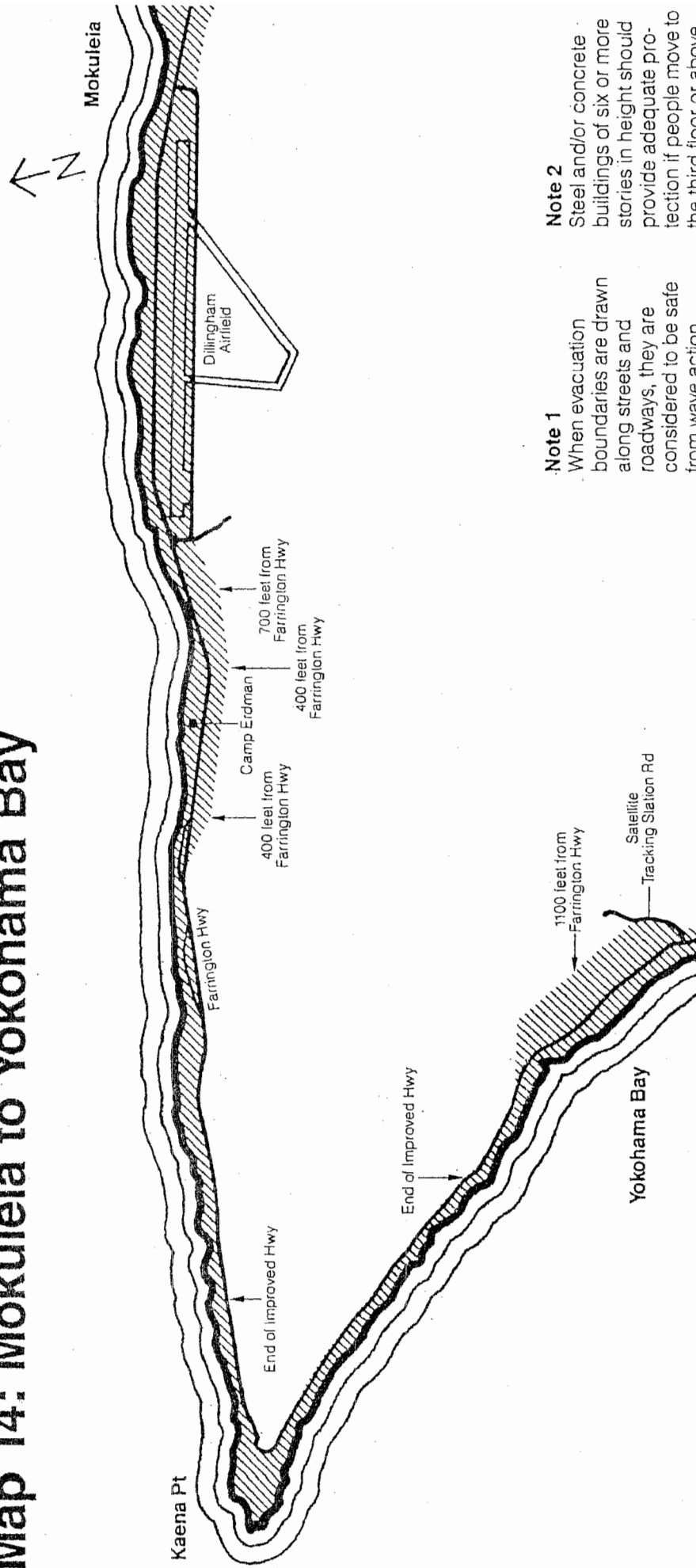
Note

Secure, remove or put to sea all vessels in harbors due to the probability of strong currents and wave action.

Map 13: Waialua Bay to Mokuleia



Map 14: Mokuleia to Yokohama Bay



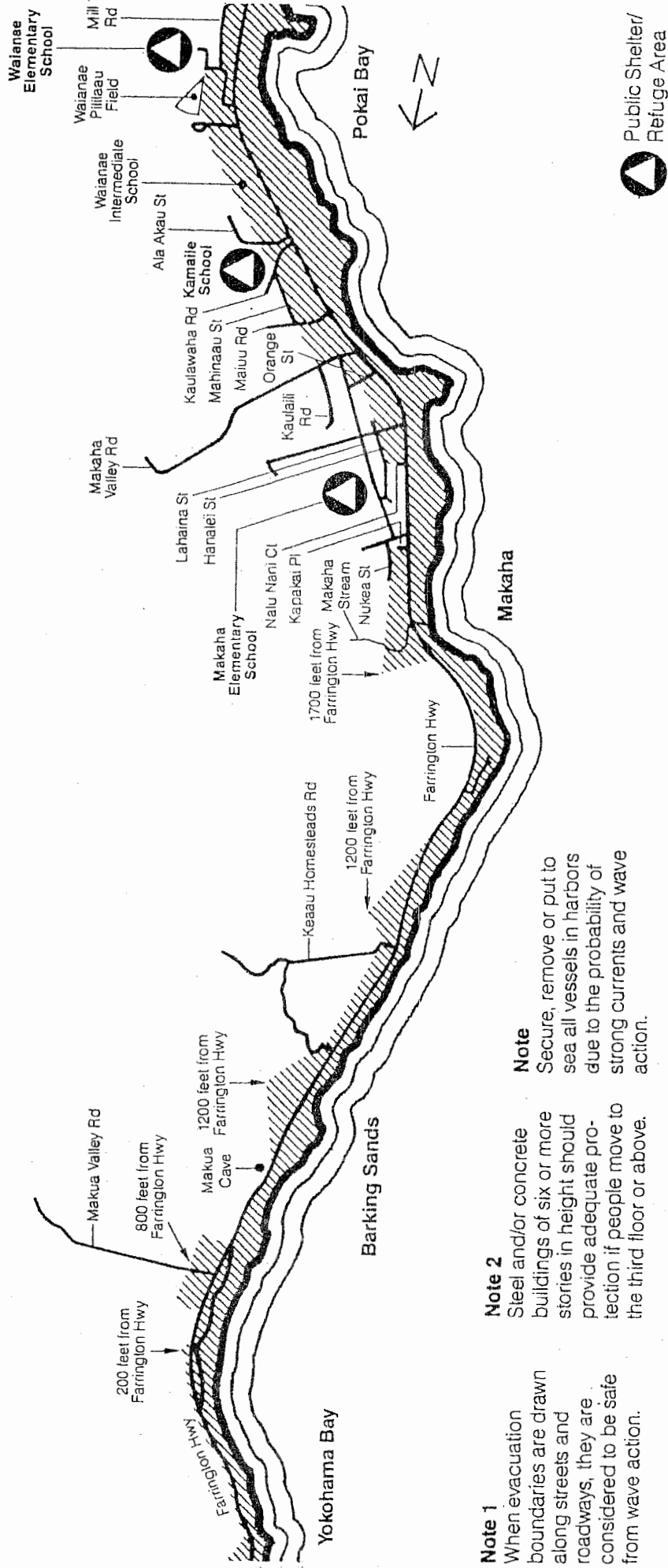
Note 1

When evacuation boundaries are drawn along streets and roadways, they are considered to be safe from wave action.

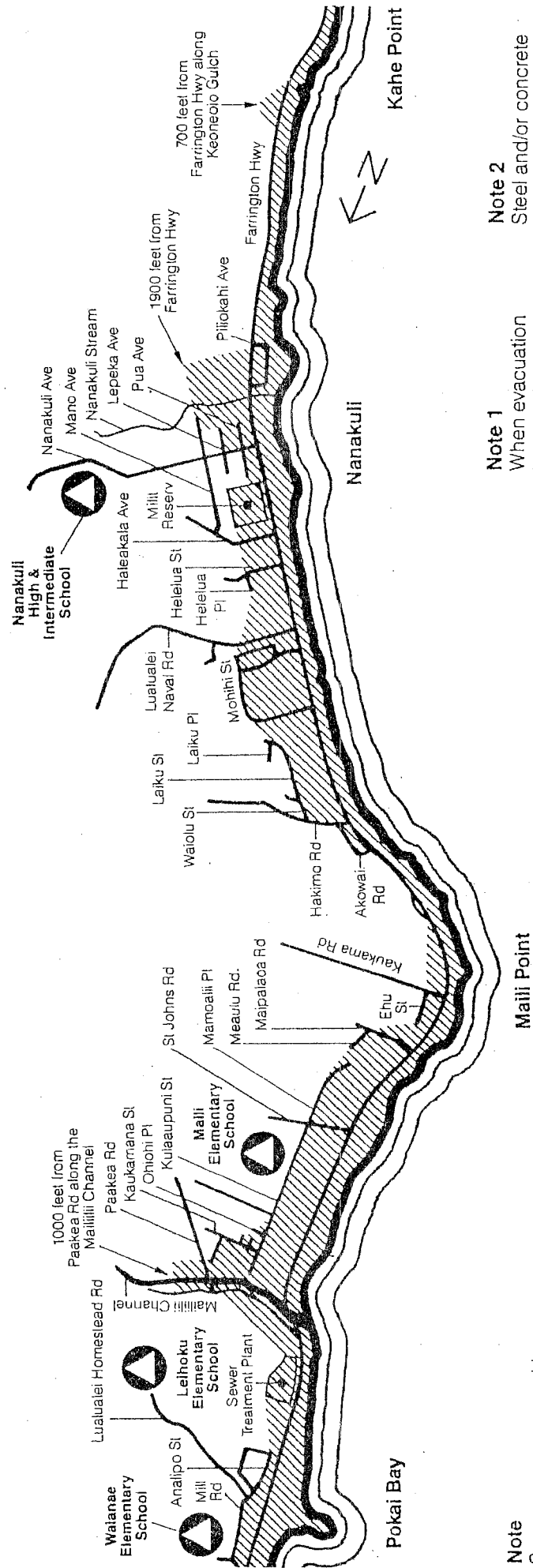
Note 2

Steel and/or concrete buildings of six or more stories in height should provide adequate protection if people move to the third floor or above.

Map 15: Yokohama Bay to Pokai Bay



Map 16: Pokai Bay to Kahe Point



Note 2

Steel and/or concrete buildings of six or more stories in height should provide adequate protection if people move to the third floor or above.

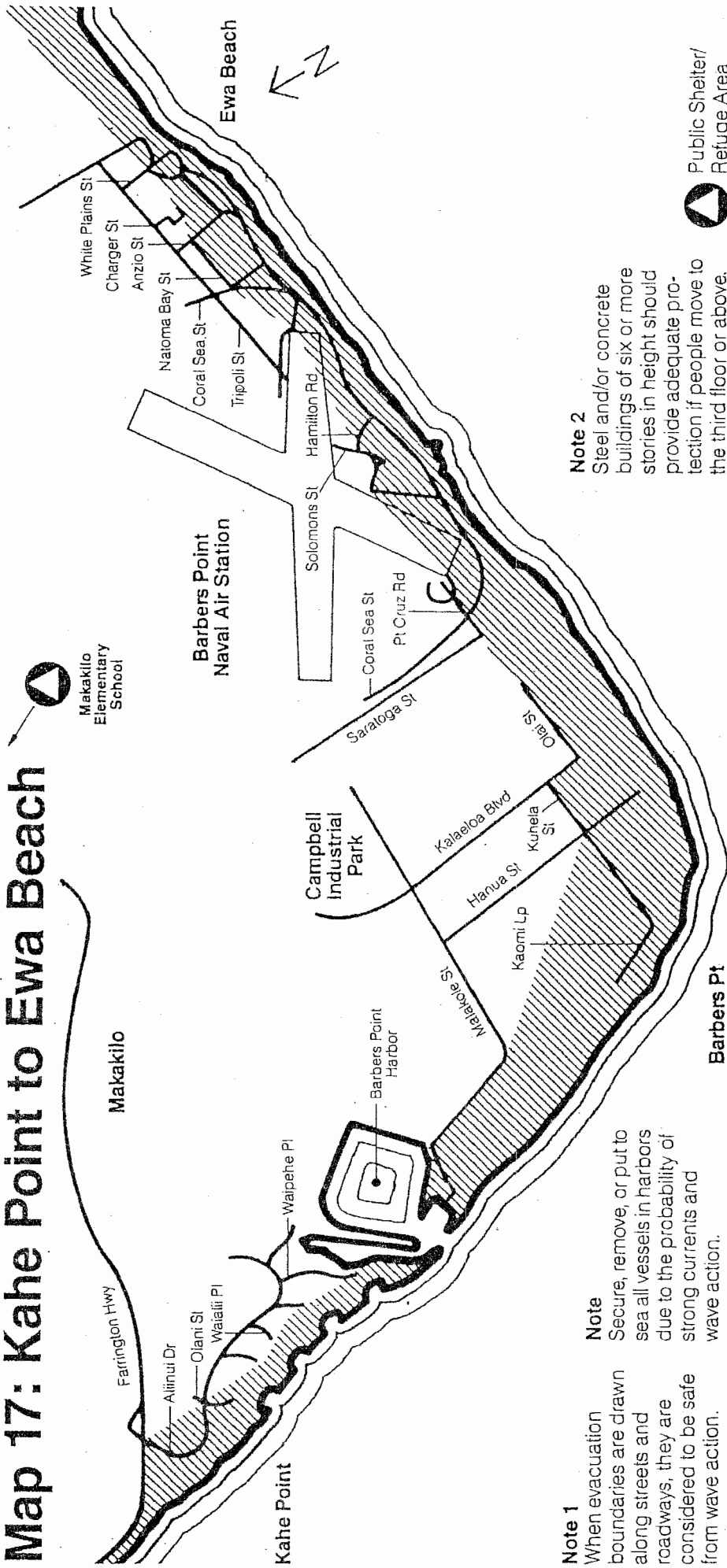
Note 1

When evacuation boundaries are drawn along streets and roadways, they are considered to be safe from wave action.

Note

Secure, remove or put to sea all vessels in harbors due to the probability of strong currents and wave action.

Map 17: Kahe Point to Ewa Beach



Note 1

When evacuation boundaries are drawn along streets and roadways, they are considered to be safe from wave action.

Note

Secure, remove, or put to sea all vessels in harbors due to the probability of strong currents and wave action.

Note 2

Steel and/or concrete buildings of six or more stories in height should provide adequate protection if people move to the third floor or above.



Public Shelter/
Refuge Area

Map 18: Ewa Beach to Airport

