

EWA BEACH: Multi Hazard Mitigation Preparedness Plan A Tsunami Ready/Storm Ready Community



Ewa Emergency Preparedness Committee



This plan is intended to serve as a reference and does not replace common sense, sound judgment, and prudent actions in response to a disaster. Every effort has been made to ensure the accuracy of this plan. However, the Ewa Emergency Preparedness Committee (Ewa EPC) along with the City and County of Honolulu Department of Emergency Management (DEM) and the State of Hawaii Emergency Management Agency (HI-EMA) assumes no responsibility and disclaim any liability for any injury or damage resulting from the use or effects of the products or information specified in this plan.

RECORD OF REVISIONS

It is the responsibility of the holder(s) of the plan to ensure that all changes and updates are made. The Plan Holders must:

CHANGE NUMBER	DATE OF CHANGE	AFFECTED PAGE NUMBER(S)	DESCRIPTION & REASON FOR CHANGE(S)
001	07/01/2013	All	Added Record of Revisions Page
002	08/01/2013	28	Updated State Hurricane Shelter List to reflect 7/2013 revision from State Civil Defense
003	12/1/2015	25, 26, 27	Updated Tsunami Evacuation Maps and Safe Sites
004	2/12/2018	6, 10, 12, 13, 18, 19, 30	Risks, Emergency Notification, Earthquake, Tsunami, Flooding, HazMat, SCD to HI-EMA, 7-days to 14 days, update Ewa EPC Contact Info

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PURPOSE AND OBJECTIVES OF PLAN

Purpose of Plan

The purpose of this Plan is to educate and train the Ewa Beach Community about the “All Hazard Approach” to disaster preparedness, mitigation, response, and recovery, and to reduce the impact of a disaster upon the Community.

Plan Objectives

- Ewa Beach shall become an “All Hazards” resilient community.
- Ewa Beach shall become a sustainable community during and after a disaster.
- Ewa Beach shall be self-sufficient for at least 72 hours or more, and able to sustain itself until County, State or Federal assistance arrives.

Geography and Demographics

The community is defined as ***Ewa Beach*** -as a whole- and incorporates all residents, businesses, community associations, faith-based groups, schools, and reestablished Community Medical facilities located in:

- 96706 Area Code (Ewa, Ewa Beach, Honouliuli, Iroquois Point, West Loch, Puuloa)
- Further Sub Districts to be determined in coordination with the City and County of Honolulu Department of Emergency Management (DEM)

Community Involvement

The City and County’s well-established elected Neighborhood Board system provides community-based forums and involves the general public to participate in government decision making which affects his or her community.

The Ewa Emergency Preparedness Committee (Ewa EPC) shall coordinate with the Ewa Neighborhood Board’s (ENB) Committee on Public Health and Safety (PH&S) to address disaster preparedness.

The Ewa Emergency Preparedness Committee (Ewa EPC) shall consist of Key Stake holders responsible with hazard mitigation planning.

Key Stakeholders include but are not limited to:

- Ewa Beach residents, businesses, community associations, faith-based groups, schools, and reestablished Community Medical facilities.
- Front line agencies involved in emergency and disaster response and recovery.
- Key sectors that are involved with sheltering, evacuation, and recovery.
- The Chair and two members of the Ewa EPC and one member from the ENB’s PH&S Committee.

Disaster Preparedness is an Individual Responsibility

Finalized March 2013 by the Ewa Emergency Preparedness Committee

PLAN DEVELOPMENT, IMPLEMENTATION AND MAINTENANCE

The Ewa Emergency Preparedness Committee (Ewa EPC) is charged with developing, implementing, and maintaining an emergency response infrastructure plan for Ewa Beach to be reviewed and coordinated with the Department of Emergency Management. The Plan shall be reviewed and updated annually.

Plan Description and Infrastructure

The Plan incorporates formation of work groups. Each work group consists of a Chair, Vice Chair, and additional members from the community and / or subject matter experts, as required. The work groups shall meet as often as necessary to accomplish their objectives. Each work group shall develop its goals and objectives to achieve based upon **SMART** objectives:

- **S** = Specific- Be precise about what the group will be achieving.
- **M** = Measurable – Quantify your objectives.
- **A** = Achievable – Are you attempting too much?
- **R** = Realistic – Goals need to be realistic (ability and commitment)
- **T** = Time – State when you will achieve the objective (i.e. within a month?)

Work Group Chairs and designees shall attend the over-all coordinating Ewa Emergency Preparedness Committee (Ewa EPC) meeting and present their progress reports and / or request for additional assistance. The Ewa Emergency Preparedness Committee (Ewa EPC) shall initially meet monthly.

WORK GROUPS

Work Group Title	Description and Purpose	<u>x</u>
<p>Resource Mapping of Community / Neighborhood (use of depiction to identify and locate resources and risks)</p>	<p>Identify what resources are available in the community:</p> <ul style="list-style-type: none"> - Police, Fire, EMS Stations, Wastewater Treatment Plant - Marine Corp Base Hawaii Range – Iroquois Point - Designated shelters and refuge areas, churches - Hospitals, Clinics, Pharmacies, - Animal Clinics - Hardware Stores, Heavy Equipment Stores, Warehouses - Neighbors who are Ham Operators, Health / Medical experience, Carpenters, Electricians, Plumbers - Community Emergency Response Team (CERT) and / or American Red Cross (ARC) trained volunteers <p>Identify risks and vulnerabilities in the community</p> <ul style="list-style-type: none"> - Areas subject to flooding i.e. canals, streams, marsh land - Coastal areas within tsunami evacuation zones - Areas prone to: debris/rockslide, wild fire - Sites that store Chemical, Biological, Nuclear and High Yield Explosive (CBRNE) - Soft and hard targets for potential terrorist attacks - Earthquake, Hurricane, Tsunami, Pandemic, Active Threat, Ballistic Missile Attack 	

WORK GROUPS (continued)

Work Group Title	Description and Purpose	<u>x</u>
Public Outreach and Information	<p>Get the word out to the community on disaster and notification information.</p> <ul style="list-style-type: none"> - Encourage public and vulnerable population to register / sign up with emergency notification systems and neighbors helping neighbors - Encourage population to download the HNL.Info app - Work with Neighborhood Security Watch organizations on disaster preparedness. - Conduct annual emergency / disaster preparedness fairs, outreach to schools, faith-based groups, care homes, and businesses to provide information about emergency plans, “go kits”, NOAA radios, etc. - Schedule speakers from local and state emergency management agencies, the National Weather Services, Pacific Tsunami Warning Center, American Red Cross and other preparedness organizations to town hall meetings. - Establish a public information sector to “get the word out.” - Develop public information packets for residents, businesses, visitors (English and multi-lingual) containing maps on tsunami evacuation route(s) / vertical evacuation, siren sounding, list of important phone numbers for visitors (foreign consulates, translators, etc.). 	

WORK GROUPS (continued)

Work Group Title	Description and Purpose	<u>x</u>
Training and Exercise	<ul style="list-style-type: none"> - Coordinate and schedule Community Emergency Response Team (CERT), American Red Cross (ARC), and other preparedness organization's training events for the Ewa Beach Community. - Provide information on business continuity plans (BCP) for businesses in Ewa Beach. - Continue to conduct annual exercises (i.e. tabletops) on disaster preparedness with participation from public / private agencies, residents, community organizations, businesses, reestablished Community Medical Center, elected officials, volunteer groups, etc. 	
Mass Care and Sheltering	<p>Explore ways to feed and shelter general population, special needs population to include individuals with access and functional needs and pet sheltering.</p> <ul style="list-style-type: none"> - Shelters Hub shelter concept General, special needs, pet shelters - Feeding Continue to work with the American Red Cross (ARC) to identify restaurants and food establishments in Ewa Beach for emergency feeding. - Establish meals ready to eat (MRE) and emergency ration / water resources. - Emergency Communications Amateur radio – classes and testing information. Develop a pool of licensed amateur radio operators who will establish emergency communications at selected shelters and command and control sites. Family Radio Services 	

WORK GROUPS (continued)

Work Group Title	Description and Purpose	x
Evacuation and Signage	Identify evacuation routes and installation of City and County of Honolulu approved evacuation signs. <ul style="list-style-type: none"> - Establish evacuation procedures - Identify ideal signage locations and work to get Tsunami signage posted in those locations. - Identify Tsunami Safe Sites and work to get signage posted to those designated centers. 	
Tsunami Ready Program	Establish Tsunami Ready Community for Ewa Beach Area <ul style="list-style-type: none"> - Develop and maintain update of community plan for the Tsunami Ready grant program and seek program from State of Hawaii Emergency Management Agency (HI-EMA). - Continue with community preparedness (all Work Groups) - Develop, review and maintain formal Tsunami Hazard Operation Plan. 	

EMERGENCY DISASTER GUIDELINE

This guideline is intended to serve as a reference and does not replace common sense, sound judgment, and prudent actions in response to a disaster.

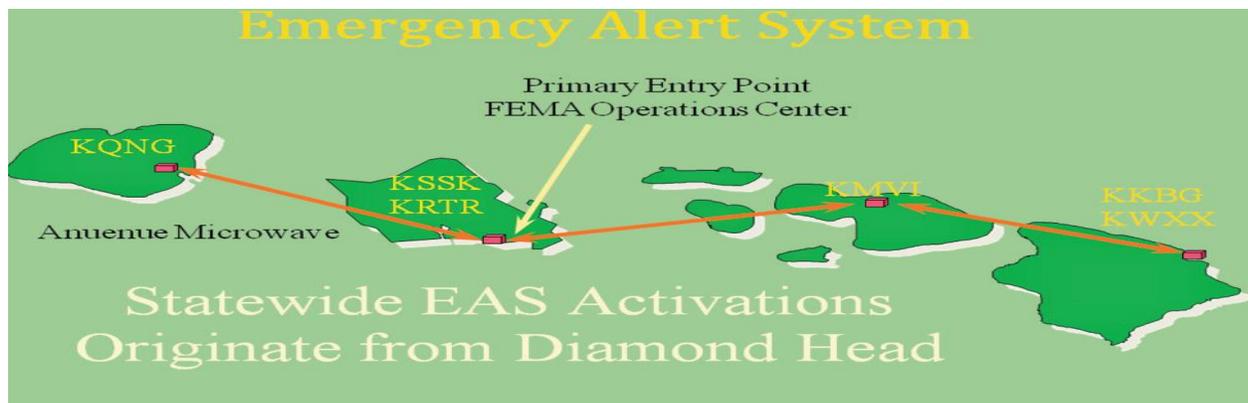
Communication Redundancy Plan

The State of Hawaii has a robust Outdoor Warning Siren System; however, with population and development growth more sirens are being planned to be installed; however, the Outdoor Warning Siren System is just one way to receive emergency alerts. It is strongly recommended to have multiple methods of receiving emergency information. These methods include HNL.info push alerts/email/SMS text messaging via app download from the App Store or Google Play Store or via online registration at <https://hnl.info/alerts/register.php>, accessing Emergency Alert System (EAS) messages broadcast over local TV and Radio, accessing the Wireless Emergency Alert (WEA) system by having it set in the "On" mode on Smart Phone devices and having a NOAA AM/FM weather radio with Specific Area Message Encoding (SAME). In addition, consider a 2-way Family Radio Service (FRS) radio or acquiring an Amateur (HAM) Radio License to not only be able to receive emergency information but to be able to communicate emergency information. HAM Radio is the communication system that the Military Auxiliary Radio System (MARS) and the Amateur Radio Emergency Services (ARES) along with the City and State Radio Amateur Civil Emergency Services (RACES) utilizes when landlines and cell phones are inoperable.

Local TV and Radio Broadcasting

Emergency information such as evacuation instructions may be issued over the Emergency Alert System (EAS) via TV and Radio. Radio Stations include but are not limited to the following:

- KSSK AM 590 / FM 92.3
- KZOO AM 1210 (Japanese Language Station)
- KREA AM 1540 (Korean Language Station)
- KNDI AM 1270 (Multi-Cultural Language Station to include: Ilocano, Tagalog, Hispanic, Cantonese, Mandarin, Laotian, Okinawan, Vietnamese, Samoan, Tongan, Marshallese, Chuukese, Pohnpeian, and English)



Family Preparedness

Your family preparedness plan should include:

- Escape routes: Draw a floor plan of your home with escape routes from each room. Identify a safe place to meet in the event of an emergency.
- Communications plan: Your family may not be together when disaster strikes, so plan how you will contact one another and where to go in an emergency. Consider having an out-of-state point of contact where each family member checks in via text stating their “safe status”.
- Utility shut-off and safety: In the event of a disaster, you may be instructed to shut-off the utility service at your home. Because there are different gas shut-off procedures for different gas meter configurations, it is important to contact your local gas company for guidance on preparation and response regarding gas appliances and gas service to your home.
- Water shut-off valve: Close the water shut-off valve to minimize water loss. Cracked lines may pollute the water supply to your house.
- Electrical box: Locate your electricity circuit box and show family members how to shut-off the electricity.
- Insurance and vital records: Gather property, identification, health, and life insurance documents and keep in a safe place.
- Consider purchasing flood insurance to reduce your risk of flood loss.
- Inventory: Take photos or a video of the interior and exterior of your home and include personal belongings in your inventory for insurance purposes.
- Money: Keep some cash in a safe place at home as automated teller machines (ATM) machines may not work following a disaster.
- Special needs: If you or someone close to you has a disability or a special need, you may have to take additional steps to protect yourself and your family in an emergency. Make arrangements for special assistance such as transportation to a shelter. You may also need to keep specialized items ready, including medications, oxygen, medical devices and any other items needed so consider alternative source of power, such as backup solar battery / generator.
- Caring for animals: Identify pet friendly shelters. Gather pet supplies including a pet carrier. Ensure your pet has proper ID and current veterinarian records.
- Safety skills: Learn first aid, cardiopulmonary resuscitation (CPR) and how to use an automated external defibrillator (AED) and how to operate a fire extinguisher.
- Disaster supply kit: Your disaster supply kit should contain essential food, water, and supplies for at least 14 days. Keep this kit in a designated place and have it ready in case you have to leave your home quickly. You may also want to consider having a kit for your work place and automobile.
- Medication list: Keep a current list of medication needed by all family members and keep on hand medications and supplies to last at least 14 days. Take them with you if you have to evacuate to a shelter or other location.

Evacuation guidelines: The amount of time you have to leave will depend on the hazard. Know your evacuation route. Keep a full tank of gas in your car if an evacuation seems likely. Make transportation arrangements if you do not own a car. Leave early enough to avoid being trapped by severe weather.

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Fire

Brush fire prevention tips:

- Check your insurance for adequate coverage from a fire hazard.
- People start most wildfires. Promote and practice fire safety with all members of your family.
- Do not discard cigarettes from moving vehicles. Use ashtrays instead.
- Properly extinguish fire when cooking or grilling outdoors and never leave fire unattended.
- Plan several escape routes away from your home.
- Design and landscape your home with wildfire safety in mind. Create a buffer zone of non-combustible material around your home.
- Rake leaves and remove dead limbs and twigs. Clear all flammable vegetation next to the home.
- Have a garden hose long enough to reach any area of your home and property.
- Use non-combustible materials on the roof, if possible, and regularly clean the roof and gutters.

When Wildfires Threaten:

- Listen to the radio or television for information about where the danger is.
- Prepare your family, pets, and supplies in case you have to evacuate.
- If told to evacuate, do so immediately.
- Drive a route away from the fire hazard and listen to public safety officials.

Red Flag Warning:

- A Red Flag Warning is a forecast warning issued by the National Weather Service (NWS) to inform area firefighting and land management agencies that conditions are ideal for brushfire ignition and propagation due to drought conditions and very low humidity, and especially when high or erratic winds are a factor.
- Outdoor burning bans may also be proclaimed by local officials based on Red Flag Warnings.
- To the public, a Red Flag Warning means high fire danger with increased probability of a quickly spreading brushfire in the area within 24 hours. Early notification is critical to responding agencies - report problems as soon as you are made aware of them. Most importantly, have a family evacuation plan in place. If given only 5 minutes to evacuate your home, consider in advance what items you would take with you.

Earthquake

During an Earthquake: (Drop / Cover / Hold)

- Stay calm. First and foremost, having an emergency plan will help you and your family / employees remain calm.
- Turn on your radio for information.
- Stay put. If you are indoors, stay there. If outdoors, stay there.
- Take cover. If indoors, take cover under a desk, table or bench, stand in a supported reinforced doorway, or alongside an inside wall or corner. Avoid windows, bookcases, hanging fixtures, or outside walls until the shaking stops.
- If no protection is available, drop to the floor and cover your head with your hands. Make sure others are in “drop, cover and hold” positions as well.
- Don't be surprised if the electricity goes out or if fire alarms and sprinklers go on.

After an Earthquake:

- If in a Tsunami Evacuation Zone, immediately move inland to high ground or evacuate vertically to the 4th floor or higher in a building 10 stories or taller.
- Keep others safe and relaxed. Carefully evaluate the situation and make sure everyone is alright.
- Don't move the seriously injured unless they are still in danger. Administer first aid if necessary.
- Check natural gas, water and electrical lines for damage.
- Do not use the telephone, light switches, matches, candles, or other open flame unless you are absolutely certain there is no natural gas leaking.
- Do not touch electrical power lines or broken electrical equipment.
- Be prepared for aftershocks.
- **Note: A strong local earthquake may generate a tsunami. Evacuate to high ground immediately if you are in a tsunami evacuation zone.**

Tsunami

Tsunamis can occur at any time. Check to see if your home, office, church, school, etc. are within a tsunami evacuation zone. Look at the new tsunami evacuation maps in several publications (Yellow Pages phone book or map book), downloadable electronic files

(<http://www.honolulu.gov/demhazards/tsunamimaps.html>) Map 18: Ewa Beach.

You are generally safe from tsunami waves if you evacuate a half-mile inland from the coastline. If you are outside a tsunami evacuation zone, stay where you are and stay off the roads.

Distant Tsunami

- Tsunami Watch: A Tsunami Watch is issued when a major earthquake has occurred in distant areas of the Pacific Basin and a tsunami may have been generated that will impact Hawaii. Prepare to evacuate the coastlines. The media may announce a tsunami watch.
- Tsunami Warning: A Tsunami Warning is issued when the Pacific Tsunami Warning Center has confirmation that a tsunami has been generated. **Evacuate the coastlines immediately!** The State of Hawaii Emergency Management Agency (HI-EMA) will sound sirens statewide, at least three hours prior to first wave arrival in Hawaii. Individuals in the Tsunami Evacuation Zone or Red Zone will need to evacuate inland or vertically.
- Extreme Tsunami Warning: In the unlikely event of an extreme tsunami, an Extreme Tsunami Warning will be issued when the Pacific Tsunami Warning Center has confirmation that a 9.0+ magnitude earthquake has generated an extreme tsunami. **Evacuate the coastlines immediately!** The State of Hawaii Emergency Management Agency (HI-EMA) will sound sirens statewide, at least three hours prior to first wave arrival in Hawaii. Everyone in the Tsunami Evacuation Zone or Red Zone and Extreme Tsunami Evacuation Zone or Yellow Zone will need to evacuate inland to the Safe Zone or Green Zone or vertically.

Stay at least 100 feet away from streams, canals and marinas connected to the ocean since powerful waves and flooding are possible.

- Sirens: When you hear the sirens, turn on your radio or television. Listen to Civil Defense / Emergency Management official announcements and instructions.
 - Sirens will sound 2 hours prior, 1 hour prior and 30 minutes prior to wave arrival for all counties.
- Evacuation: Shelters are NOT opened for tsunami evacuation prior to wave arrival; however, designated Tsunami Safe Sites will be made available. (Refer to page 27 for a list of Tsunami Safe Sites in or around Ewa)

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- Vertical Evacuation: Occupants of steel and/or reinforced concrete buildings of ten (10) or more stories in height located in tsunami evacuation zones should immediately go to the 4th floor and above for safety in a tsunami warning.
- Shelter In Place: Occupants located to be outside of the evacuation zone or in a steel and/or reinforced concrete buildings of ten (10) or more stories in height on the 4th floor or high, take shelter where you are, and do not get on the roads. Leave roads free for emergency vehicles and for people who are evacuating to higher ground.
- All Clear: Listen to radio or television for the State of Hawaii Emergency Management Agency (HI-EMA) “All Clear” announcement that it is safe to return to the coastline. While it may be safe to return to your homes, it may not be safe to return to the ocean as the water still poses a threat due to the amount of energy generated by the tsunami.

Local Tsunami

- **If you feel the ground shake and are along the coastline, see the ocean recede, and/or hear the roar of the wave immediately evacuate inland to higher ground** or evacuate vertically to the 4th floor or higher in a building 10 stories or higher. Don’t wait to be told to evacuate. An earthquake in the Hawaiian Islands may have generated a local tsunami which could strike the coastline in minutes. Turn on your radio and / or television once out of the evacuation zone for instructions.
- Urgent Tsunami Warning: A large earthquake has occurred in the Hawaiian Islands and a local tsunami may have been generated. Immediately evacuate low-lying coastal areas. Sirens will sound in all counties. When you hear the sirens, turn on your radio or television once out of the evacuation zone for instructions. Listen to State of Hawaii Emergency Management Agency (HI-EMA) official announcements and instructions.
- All Clear: Listen to radio or television for the State of Hawaii Emergency Management Agency (HI-EMA) “All Clear” announcement that it is safe to return to the coastline. While it may be safe to return to your homes, it may not be safe to return to the ocean as the water still poses a threat due to the amount of energy generated by the tsunami.

Hurricane

To prepare for a hurricane, you should take the following measures:

- Make plans to secure your property. Prepare to board up windows with 5/8" plywood or other recommended coverings. Tape does not prevent windows from breaking.
- Install hurricane straps or additional hurricane clips to securely fasten your roof to the frame structure. This will reduce roof damage.
- Place important documents, i.e. insurance policies, bank account information, credit card information, important contact numbers, etc. in a water-proof sealed plastic container to ensure their availability after the storm passes.
- Be sure trees and shrubs around your home are well trimmed and secure outdoor furniture and loose objects.
- Clear clogged rain gutters and downspouts.
- Clear debris from your streambed.
- Consider building a safe room.
- Listen to the radio or television for updated weather information.
- Turn off utilities (water, gas, electricity) if instructed to do so. Otherwise, turn the refrigerator / freezer thermostat to its coldest setting and keep its doors closed. Fill any open shelf space with containers of water or food stocks.
- Avoid using the phone, except for serious emergencies. Use text messaging instead of voice if needed (uses less bandwidth).
- Ensure a supply of water for sanitary purposes such as cleaning and flushing toilets. Fill the bathtub and other large containers with water. In an emergency plan on one gallon of water per person per day for drinking, cooking and sanitation needs.
- Have at least a 14 days disaster supply kit (including water, food, medication) available.
- Prepare to evacuate when directed to by local authorities or when you feel you are in danger. Have a plan for what to do with your pets if you need to evacuate. Take your emergency supply kit with you.

After the hurricane has passed:

- When safe to do so following the "All Clear", return to your home to assess the damage. Take photos to document the damage for insurance purposes.
- Be aware of hazards, i.e. down power lines, broken gas lines, contaminated water, weakened structures, broken glass, etc.
- Remove standing water from your home including soiled carpets, mattresses and other items which may contribute to the growth of mold.
- Seek assistance in the repair and clean-up of your home.
- Contact your insurance agent to file a claim.

Floods

To prepare for a flood, you should:

- Avoid building in a floodplain unless you elevate and reinforce your home.
- Gather important documents such as your flood insurance policy. Flood losses, however, are not covered under homeowners' insurance policies.
- Keep a supply of sandbags to direct floodwater from entering the building or home.
- Seal walls 1 to 2 feet above baseboards with waterproofing compounds.
- Listen to the radio or television for information. Be aware of streams, drainage channels, roads, and other areas known to flood suddenly.
- Be aware that flash flooding can occur quickly and without warning. Be prepared to evacuate and move immediately to higher ground. Do not wait for instructions to move.
- Secure your home and elevate essential items. Turn off utilities if instructed to do so. Disconnect electrical appliances and do not touch electrical equipment if you are wet or standing in water.
- If on the road driving and fast-moving water is on the road, "Turn Around, Don't Drown". Six (6) inches of rapidly moving water can knock a person off his/her feet or sweep a vehicle off the road.

Following a flood, you should:

- Listen for news reports to learn whether the community's water supply is safe to drink. You may need to boil tap water before drinking.
- Avoid floodwaters; water may be contaminated by oil, gasoline, or raw sewage. Water may also be electrically charged from underground or downed power lines. Keep away and report downed power lines to the power company.
- Be aware of areas where floodwaters have receded. Roads may have weakened and could collapse under the weight of a car.
- Return home only when authorities indicate it is safe.
- Stay out of any building if it is surrounded by floodwaters as there may be hidden structural damage to the foundation.
- Service damaged septic tanks, cesspools, and leaching systems as soon as possible. Damaged sewage systems are serious health hazards.
- Clean and disinfect everything that got wet. Mud left from floodwater can contain sewage and chemicals

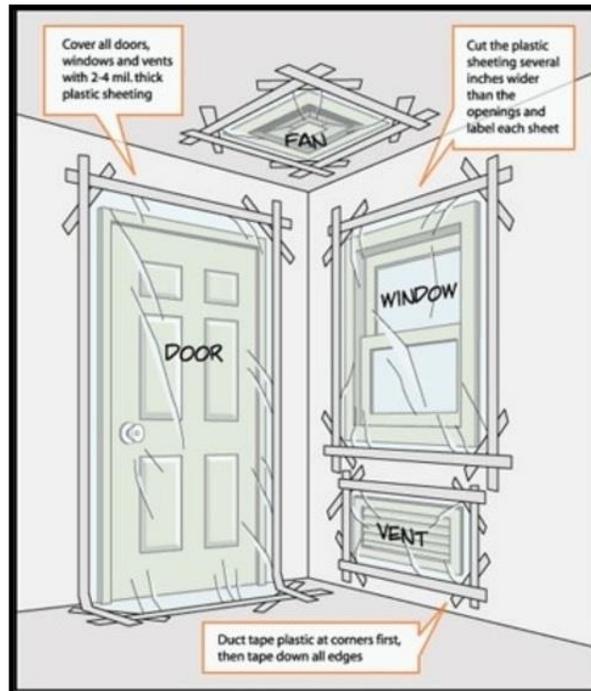
Hazardous Material (HAZMAT) Release

An incident involving hazardous materials (HAZMAT) can expose the public to dangerous airborne contaminants that may be hazardous and / or deadly. These hazardous agents may be in the form of chemical, biological, or nuclear particles that are colorless and odorless. You may be directed to shelter in place if:

- It is dangerous to be outside
- There is little time to evacuate

The shelter in place concept is intended to minimize the amount of contaminated outside air from entering your home, business, school or other location. You must remain in place until you are notified by officials that the hazard has passed.

- Supplies needed to shelter in place should be available and ready before the need arise.
- Turn off heating, ventilation and air-conditioning (HVAC) systems.
- Close and lock all windows and doors.
- Seal gaps under doorways and windows with wet towels and duct tape.
- Seal gaps around windows with air-conditioning units, around exhaust fans in the kitchen and bathrooms, stove and dryer vents using duct tape and plastic sheeting, aluminum wrap or wax paper.
- Close fire place dampers - if your home or work place contains them.
- Choose a centralized location / room that can be easily sealed off. The location / room should contain a telephone, water, toilet, radio and flash lights. Close off other non-essential rooms.



Ballistic Missile

In the unlikely event of a Ballistic Missile Attack, the nuclear explosion can cause significant damage and casualties from the blast, heat, and radiation but you can keep your family safe by knowing what to do and being prepared if it occurs.

A nuclear weapon is a device that uses a nuclear reaction to create an explosion. Nuclear devices range from a small portable device carried by an individual to a weapon carried by a missile. A nuclear explosion may occur with or without a few minutes warning. Fallout is most dangerous in the first few hours after the detonation when it is giving off the highest levels of radiation. It takes time for fallout to arrive back to ground level, often more than 15 minutes for areas outside of the immediate blast damage zones. This is enough time for you to be able to prevent significant radiation exposure by following these simple steps:

- **GET INSIDE**
Get inside the nearest building to avoid radiation. Brick or concrete are best. **Remove contaminated clothing and wipe off or wash unprotected skin** if you were outside after the fallout arrived. **Go to the basement or middle of the building.** Stay away from the outer walls and roof.
- **STAY INSIDE**
Stay inside for 24 hours unless local authorities provide other instructions. Family should stay where they are inside. Reunite later to avoid exposure to dangerous radiation. **Keep your pets inside.**
- **STAY TUNED**
Tune into any media available for official information such as when it is safe to exit and where you should go. Battery operated and hand crank radios will function after a nuclear detonation. Cell phone, text messaging, television, and internet services may be disrupted or unavailable.

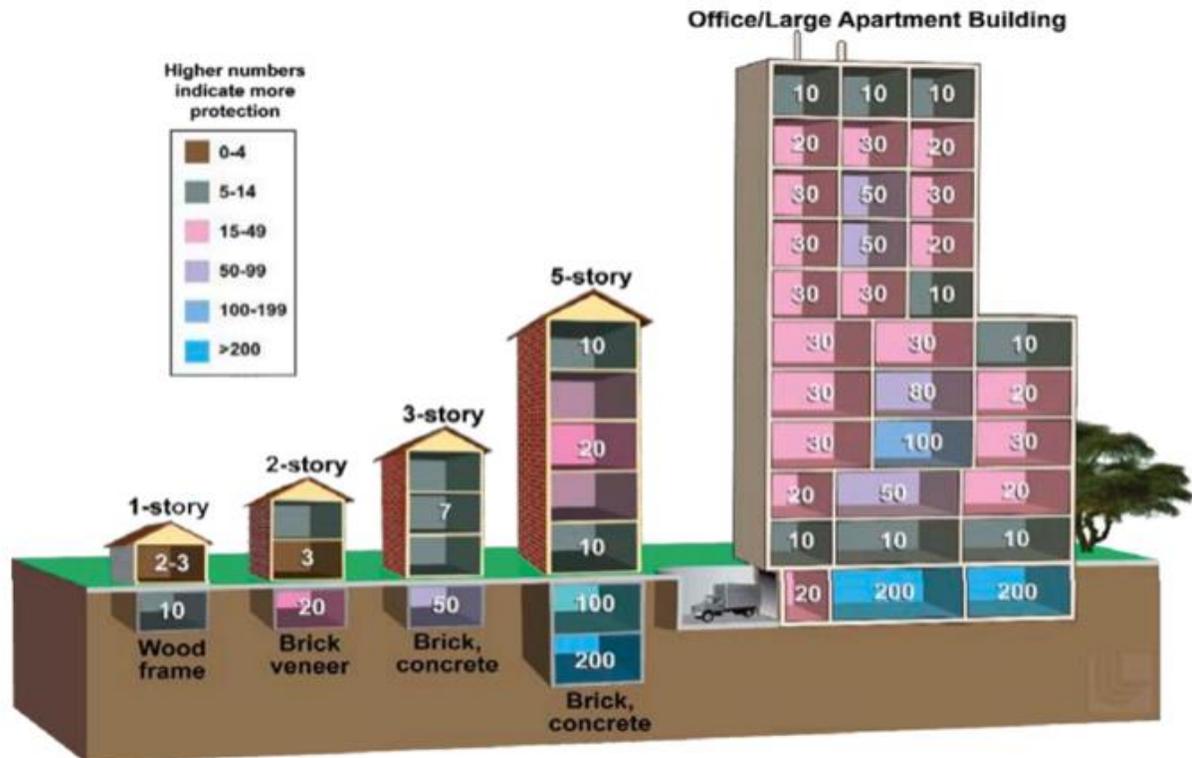
How To Stay Safe In The Event Of A Nuclear Explosion

- **What to do NOW: Prepare**
 - **Identify shelter locations.** Identify the best shelter location near where you spend a lot of time, such as home, work, and school. The best locations are underground and in the middle of larger buildings.
 - **While commuting, identify appropriate shelters to seek in the event of a detonation.** Outdoor areas, vehicles, mobile homes do NOT provide adequate shelter. Look for basements or the center of large multistory buildings.
 - Make sure you have an **Emergency Supply Kit** for places you frequent and might have to stay for 24 hours. It should include bottled water, packaged foods, emergency medicines, a hand-crank or battery-powered radio to get information in case power is out, a flashlight, and extra batteries for essential items. If possible, store supplies for at least 14 days.

Ballistic Missile (continued)

➤ What to do DURING: Survive

- **If warned of an imminent attack, immediately get inside** the nearest building and move away from windows. This will help provide protection from the blast, heat, and radiation of the detonation.
- **If you are outdoors when a detonation occurs** take cover from the blast behind anything that might offer protection. Lie face down to protect exposed skin from the heat and flying debris. If you are in a vehicle, stop safely, and duck down within the vehicle.
- After the shock wave passes, **get inside the nearest, best shelter location** for protection from potential fallout. You will have 10 minutes or more to find an adequate shelter.
- **Be inside before the fallout arrives.** The highest outdoor radiation levels from fallout occur immediately after the fallout arrives and then decrease with time.
- **Stay tuned** for updated instructions from emergency response officials. If advised to evacuate, listen for information about routes, shelters, and procedures. If you have evacuated, do not return until you are told it is safe to do so by local officials.



Ballistic Missile (continued)

➤ What to do AFTER: Be Safe

- **Immediately after you are inside shelter, if you may have been outside after the fallout arrived:**
- **Remove your outer layer of** contaminated clothing to remove fallout and radiation from your body.
- **Take a shower or wash** with soap and water to remove fallout from any skin or hair that was not covered. **Do** not use hot water or hair conditioner. If you cannot wash or shower, use a wipe or clean wet cloth to wipe any skin or hair that was not covered.
- **Clean any pets that were outside after the fallout arrived.** Gently brush your pet's coat to remove any fallout particles and wash your pet with soap and water, if available.
- **It is safe to eat or drink packaged food items or items that were inside a building. Do not consume food or liquids that were outdoors uncovered and may be contaminated by fallout.**
- **If you are sick or injured,** listen for instructions on how and where to get medical attention when authorities tell you it is safe to exit.
- **Hazards related to nuclear explosions**
 - **Bright FLASH** can cause temporary blindness for less than a minute.
 - **Blast Wave** can cause death, injury, and damage to structures several miles out from the blast.
 - **Radiation** can damage cells of the body. Large exposures can cause radiation sickness.
 - **Fire and Heat** can cause death, burn injuries, and damage to structures several miles out.
 - **Electromagnetic Pulse (EMP)** can damage electrical power equipment and electronics several miles out from the detonation and cause temporary disruptions further out.
 - **Fallout** is radioactive, visible dirt and debris raining down from several miles up that can cause sickness to those who are outside.

Resources

Governmental Agencies

Federal

[Federal Emergency Management Agency](#)

<http://www.fema.gov>

www.ready.gov

[U. S. Naval Observatory Time Clock](#)

<http://tycho.usno.navy.mil/cgi-bin/timer.pl>

[Pacific Disaster Center](#)

<http://www.pdc.org>

State

[State of Hawaii Emergency Management Agency](#)

<http://dod.hawaii.gov/hiema/>

[University of Hawaii Sea Grant Program](#)

Homeowner's Handbook to Prepare for Natural Hazards

<http://seagrant.soest.hawaii.edu/homeowners-handbook-prepare-natural-hazards>

County

[City and County of Honolulu Department of Emergency Management](#)

www.honolulu.gov/DEM

Weather

[National Weather Service Forecast Office Honolulu](#)

www.prh.noaa.gov/hnl

Tsunami

[Pacific Tsunami Warning Center](#)

<http://ptwc.weather.gov/?region=2>

[Tsunami Resources](#)

<http://www.ess.washington.edu/tsunami/index.html>

[Pacific Tsunami Museum](#)

<http://www.tsunami.org>

Hurricane

[Central Pacific Hurricane Center](#)

<http://www.prh.noaa.gov/hnl/cphc>

Earthquake

[Volcano Watch from the USGS Hawaiian Volcano Observatory](#)

<http://hvo.wr.usgs.gov>

[Earthquake Catalogs](#)

<http://wcatwc.arh.noaa.gov>

Amateur Radio

[Emergency Amateur Radio Club](#)

<http://www.earchi.org>

[University of Hawaii Amateur Radio Club](#)

<http://www.chem.hawaii.edu/uham>

[Amateur Radio Information \(Ham Radio\)](#)

<http://www.voicenation.com/resources/general-resources/article-library/all-about-ham-radios.shtml>

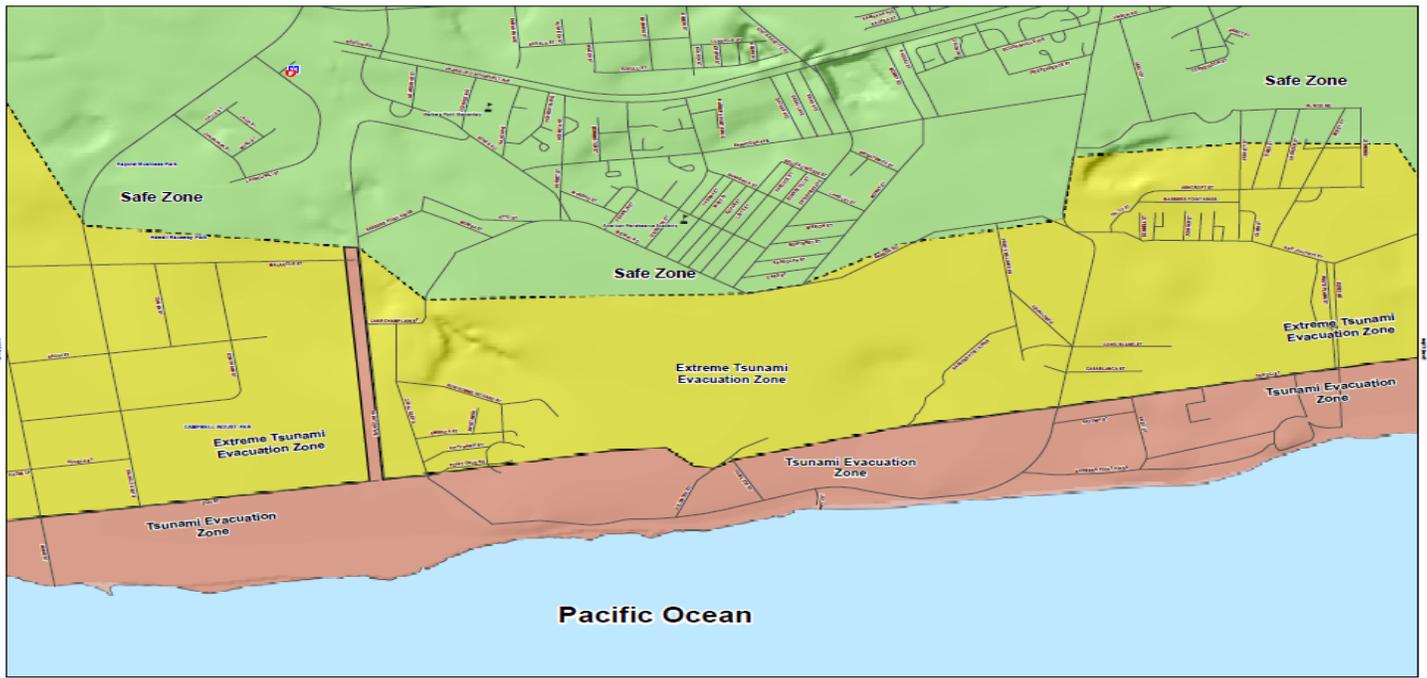
Glossary

ACRONYM	DEFINITION
AAR	After Action Report
AED	Automated External Defibrillator
ARC	American Red Cross (Hawaii State Chapter)
ARES	Amateur Radio Emergency Services
ARRL	Amateur Radio Relay League
BYU	Brigham Young University - Hawaii
CAP	Civil Air Patrol
CBRNE	Chemical, Biological, Radiological, Nuclear and Explosive
CD	Civil Defense
CDC	Centers for Disease Control and Prevention
CERT	Community Emergency Response Team
CPHC	Central Pacific Hurricane Center
CIKR	Critical Infrastructure Key Resources
CIP	Critical Infrastructure Protection
COOP	Continuity of Operations
CPR	Cardiopulmonary Resuscitation
DBEDT	State Department of Business, Economic Development and Tourism
DECON	Decontamination
DEM	Department of Emergency Management
DHS	Department of Homeland Security
DMAT	Disaster Medical Assistance Team
DMORT	Disaster Mortuary Operational Response Team
DOC	Department Operations Center
DOD	U.S. Department of Defense
DOE	Department of Education (State)
DOE	U.S. Department of Energy (U.S.)
DOH	Department of Health (State)
DOJ	Department of Justice
DOT	Department of Transportation (State)
DRC	Disaster Recovery Center
DTS	Department of Transportation Services
EAS	Emergency Alert System
ECC	Emergency Command Center
EIS	Environmental Impact Statement
EMRC	Emergency Management Reserve Corps
EMS	Emergency Medical Service

ACRONYM	DEFINITION (continued)
EMT	Emergency Medical Technician
EOC	Emergency Operating Center
EOD	Explosive Ordnance Disposal
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency (U.S.)
EPC	Emergency Preparedness Committee
ESF	Emergency Support Function
FAA	Federal Aviation Administration
FAC	Family Assistance Center
FAST	Field Assessment Team
FCC	Federal Communications Commission
FCO	Federal Coordinating Officer
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency (DHS)
FIRM	Flood Insurance Rate Maps (FEMA)
FOUO	For Official Use Only
FRC	Federal Response Center (HAZMAT)
FYSA	For Your Situational Awareness
GASCO	Gas Company
GCA	General Contractors Association
GIS	Geographic Information Systems
GMT	Greenwich Mean Time (also referred to as ZULU or UTC)
GPS	Global Positioning System
GSA	General Services Administration (U.S.)
HAZMAT	Hazardous Materials
HBWS	Honolulu Board of Water Supply
HECO	Hawaiian Electric Company
HELOS	Helicopters
HFD	Honolulu Fire Department
HESD	Honolulu Emergency Services Department (Ambulance)
HFIA	Hawaii Food Industry Association
HHEM	Hawaii Healthcare Emergency Management
HIANG	Hawaii Army National Guard
HIEMA	State of Hawaii Emergency Management Agency
HPD	Honolulu Police Department

ACRONYM	DEFINITION (continued)
HPU	Hawaii Pacific University
HSPD	Homeland Security Presidential Directive
IAP	Incident Action Plan
IC	Incident Commander
ICS	Incident Command System
IED	Improvised Explosive Device
JFO	Joint Field Office
JIC	Joint Information Center
JIS	Joint Information System
JISCC	Joint Incident Site Communication Capability
JOC	Joint Operations Center
JTF-HD	Joint Task Force – Homeland Defense
KCC	Kapiolani Community College
LCC	Leeward Community College
MHz	Megahertz
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MSDS	Material Safety Data Sheet
NCO	Neighborhood Commission Office
NDPTC	National Disaster Preparedness Training Center
NFIP	National Flood Insurance Program
NIMS	National Incident Management System
NOAA	National Oceanic Administrative Agency
NRF	National Response Framework
NSSE	National Special Security Event
NTSB	National Transportation Safety Board
NWS	National Weather Service
OPS	Operations Unit
OTS	Oahu Transit Services
P&O	Plans and Operations Officer
PDA	Preliminary Damage Assessment
PIO	Public Information Officer
PPE	Personal Protective Equipment
PRDPC	Pacific Regional Disaster Preparedness Center
PTWC	Pacific Tsunami Warning Center
RACES	Radio Amateur Civil Emergency Services
ROC	Regional Operations Center

ACRONYM	DEFINITION (continued)
SAR	Search and Rescue
SBA	Small Business Administration
SCD	State Civil Defense Division
SCO	State Coordinating Officer
SERT	State Emergency Response Team
SOG	Standard Operating Guidelines
SOP	Standard Operating Procedures
UC	Unified Command
UH	University of Hawaii
USACE	U.S. Army Corps of Engineers
USAR	Urban Search and Rescue
USCG	United States Coast Guard (DHS)
USDA	United States Department of Agriculture
USGS	United States Geological Survey
UTC	Utilities & Transportation Commission
UTC	Coordinated Universal Time (also referred to as ZULU or GMT)
VA	Veteran's Administration
VBIED	Vehicle Borne Improvised Explosive Device
VOADs	Voluntary Organizations Active in Disasters
WMD	Weapons of Mass Destruction



**Kahe Pt to Ewa Beach
Map 17 Inset 2**

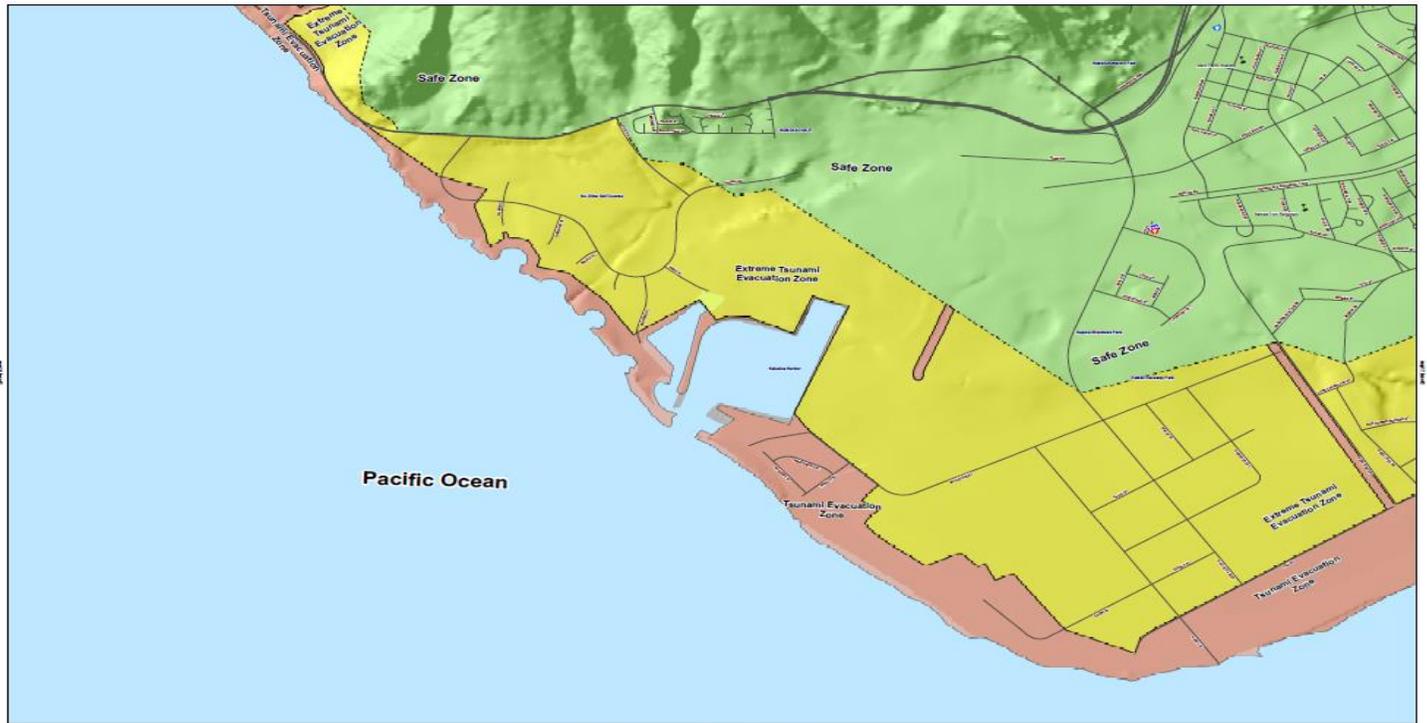
Note: Data represented on this map is not intended to replace site survey.
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Date Prepared: April 2015



After most Tsunami warnings, evacuate out of the red zone in the coastal zone of the "Extreme Tsunami Warning" evacuate out of the red and yellow zones.
Remain at least 100 feet away from inland waterways and marshes connected to the ocean coast to allow surge and possible flooding.
Adequacy should move vehicles to at least 500 feet from the coast of the first.
Structure steel or reinforced concrete buildings of two or more stories provide increased protection or climb the fourth floor, if you are caught near the structure consider using vertical evacuation.
These maps do not consider the destructive effects of a locally generated tsunami. A 100-foot elevation zone based on FEMA's 100-year return period is shown in yellow.
The evacuation zone is a guideline and should be considered the minimum safe evacuation distance.

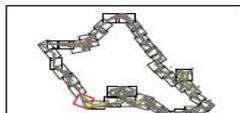
Legend

- Fire Station
- Hospital
- EMS
- Police
- Public/Private School
- Safe Zone
- Extreme Tsunami Evacuation Zone
- Tsunami Evacuation Zone
- Major Street
- Street



**Kahe Pt to Ewa Beach
Map 17 Inset 1**

Note: Data represented on this map is not intended to replace site survey.
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Date Prepared: April 2015



After most Tsunami warnings, evacuate out of the red zone in the coastal zone of the "Extreme Tsunami Warning" evacuate out of the red and yellow zones.
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Legend

- Fire Station
- Hospital
- EMS
- Police
- Public/Private School
- Safe Zone
- Extreme Tsunami Evacuation Zone
- Tsunami Evacuation Zone
- Major Street
- Street

Tsunami Safe Sites: Ewa Beach

The City and County of Honolulu, Department of Emergency Management will open Tsunami Safe Sites during a Tsunami Warning and Evacuation. They recommend that everyone should know the location of the 2 nearest Tsunami Safe Sites in the area. The Safe Sites in or around Ewa Beach are:

TSUNAMI SAFE SITES IN EWA	
Asing Community Park 91-1450 Renton Road Ewa Beach, HI 96706	Ewa Mahiko District Park 91-1161 Renton Road Ewa Beach, HI 96706
Holomua Elementary School 91-1561 Keaunui Drive Ewa Beach, HI 96706	Iroquois Point Neighborhood Park 91-15XX Keaunui Drive Ewa Beach, HI 96706
Ewa by Gentry Community Park 91-1795 Keaunui Drive Ewa Beach, HI 96706	Hoalauna Community Park 91-11330 Keaunui Drive Ewa Beach, HI 96706
Keone'ula Elementary School 91-970 Kaileolea Drive Ewa Beach, HI 96706	Ocean Pointe District Park 91-203 N. Road Ewa Beach, HI 96706
TSUNAMI SAFE SITES NEAR EWA	
Kapolei Regional Park 92-1440 Makakilo Drive Kapolei, HI 96707	Kroc Salvation Army Center 91-3257 Kualakai Parkway Ewa Beach, HI 96706

Tsunami Safe Sites may not always be open, so listen to the radio and television for Tsunami Safe Site locations, instructions and opening schedule.

Tsunami Safe Sites do not stock supplies. You must bring all of your emergency supplies with you.

Remember, as a community, we need to help one another. If you know someone who does not speak English or someone who, due to a disability cannot receive emergency information readily, please help them.

For a complete listing of the Tsunami Safe Site locations, click [here](#) or visit www.honolulu.gov/DEM.

Hurricane Shelters: Ewa Beach

During a Hurricane, residents living in homes built before 1995 and / or in the Evacuation Zone should plan to go to the nearest Hurricane Shelter or to a friend's or relative's home not located in an evacuation area. The Hurricane Shelters designated in Ewa Beach are highlighted with neighboring shelter locations in Kapolei and Waipahu listed below:

HURRICANE SHELTERS IN EWA				
SCHOOLS	ADDRESS	AREA	SPECIAL	PET
Campbell High	91-980 North Rd	Ewa Beach	X	X
Ewa Beach Elementary	91-740 Papipi Rd	Ewa Beach		
Ewa Elementary	91-1280 Renton Rd	Ewa Beach	X	
Holomua Elementary	91-1561 Keaunui Dr	Ewa Beach		
Ilima Intermediate	91-884 Fort Weaver Rd	Ewa Beach	X	X
Kaimiloa Elementary	91-1028 Kaunolu St	Ewa Beach		
Pohakea Elementary	91-750 Fort Weaver Rd	Ewa Beach		
HURRICANE SHELTERS NEAR EWA				
SCHOOLS	ADDRESS	AREA	SPECIAL	PET
Barbers Point Elementary	3001 Boxer Rd	Kapolei		
Kapolei Elementary	91-1119 Kamaaha Lp	Kapolei	X	X
Kapolei High	91-5007 Kapolei Pkwy	Kapolei	X	X
Makakilo Elementary	92-675 Anipeahi St	Kapolei		
Mauka Lani Elementary	92-1300 Panana St	Kapolei	X	X
August Ahrens Elementary	94-1170 Waipahu St	Waipahu		
Honowai Elementary	94-600 Honowai St	Waipahu	X	X
Kaleiopuu Elementary	94-465 Waipahu St	Waipahu		
Waipahu Elementary	94-465 Waipahu Street	Waipahu	X	X
Waipahu High	94-1211 Farrington Hwy	Waipahu	X	X
Waipahu Intermediate	94-455 Farrington Hwy	Waipahu	X	

Hurricane Shelters may not always be open, so listen to the radio and television for locations, instructions and opening schedule. Hurricane Shelters do not stock supplies. You must bring all of your emergency supplies with you.

Remember, as a community, we need to help one another. If you know someone who does not speak English or someone who, due to a disability cannot receive emergency information readily, please help them.

Emergency Shelter Information

- Public emergency shelters are located in areas and facilities that maximize the safety of its occupants.
- During an emergency or threat of disaster the City and County of Honolulu Department of Emergency Management (DEM) / the State of Hawaii Emergency Management Agency (HI-EMA) information will be broadcasted over local radio and television stations. When an evacuation is necessary these broadcasts may include information about the location of public emergency shelters and / or refuge sites in affected areas.
- More information, including the location of shelters designated for persons with special needs, and facilities for household pets may be broadcasted, as well as when volunteers will be available to open shelters and direct evacuees to the appropriate areas.
- Since public shelters do not stock supplies, please bring provisions from your emergency supply kit at home. You will need at least two days worth of food, water, and personal items for yourself, family members, and household pets.
- Facilities designated to serve as special needs shelters provide limited support to persons who need the added space and accessibility to restrooms. Special health needs evacuees must either be capable of taking care of their own needs or be accompanied by a caregiver.
- Household pets entering a pet friendly shelter must be caged for safety. Pet owners must provide water and food for their pets.

Evacuation and shelter information will be provided by the City and County of Honolulu Department of Emergency Management via local TV and Radio as to which shelters will be opened and times.

Emergency Supply Kit Items

Water, food, and clean air are important things to have if an emergency happens. Each family or individual's kit should be customized to meet specific needs, such as medications, infant formula, & incontinent supplies. It should be customized to include important family documents.

Recommended Supplies to Include in a Basic 14-Day Kit:

- Water, one gallon of water per person per day, for drinking, cooking and sanitation
- Food, at least a 14-day supply of non-perishable food
- Battery-powered radio and a NOAA Weather Radio with tone alert, & extra batteries for both
- Flashlight and extra batteries
- First Aid kit
- Whistle to signal for help
- Infant formula and diapers, if you have an infant
- Moist towelettes, garbage bags and plastic ties for personal sanitation
- Dust mask or cotton t-shirt, to help filter the air
- Plastic sheeting and duct tape to shelter-in-place
- Wrench or pliers to turn off utilities
- Can opener for food (if kit contains canned food)

Clothing and Bedding:

If you live in a cold weather climate, you must think about warmth. It is possible that the power will be out and you will not have heat. Rethink your clothing and bedding supplies to account for growing children and other family changes. One complete change of warm clothing and shoes per person, including:

- A jacket or coat
- Long pants
- A hat and gloves
- Study Shoes
- A Long Sleeve Shirt
- A sleeping bag or warm blanket for each person

Other items for your family to consider adding to its supply kit: Some of the below items,

especially those marked with a * can be dangerous, so please have an adult collect these supplies.- Emergency reference materials such as a first aid book or a print out of the information on www.ready.gov

- Rain gear
- Mess kits, paper cups, plates and plastic utensils
- Cash or traveler's checks, change
- Paper towels
- Fire Extinguisher
- Tent
- Compass
- Matches in a waterproof container*
- Signal flare*
- Paper, pencil
- Personal hygiene items including feminine supplies
- Disinfectant*
- Household chlorine bleach* - You can use bleach as a disinfectant (diluted nine parts water to one part bleach), or in an emergency you can also use it to treat water. Use 16 drops of regular household liquid bleach per gallon of water. Do not use scented, color safe or bleaches with added cleaners.
- Medicine dropper
- Important Family Documents

Disaster Preparedness is an Individual Responsibility

Finalized March 2013 by the Ewa Emergency Preparedness Committee

EWA EMERGENCY PREPAREDNESS COMMITTEE (Ewa EPC)

Contact Information

Mailing Address: Ewa Emergency Preparedness Committee
P.O. Box 2106
Ewa Beach, HI 96706

Email: EwaEPC@gmail.com

Telephone: 808-682-0111

Facebook: Ewa EPC

Website: www.EwaEPC.com

501(c)3 Non-Profit Organization EIN#46-3760067

Island Preparedness Group DBA-Ewa Emergency Preparedness Committee



Ewa EPC Recognition Ceremony by the Ewa Neighborhood Board - 2013



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