



# New Extreme Tsunami Evacuation Zones City and County of Honolulu Kirk Caldwell, Mayor



## INFORMATION UPDATES AND FREQUENTLY ASKED QUESTIONS

### Terminology:

Extreme Tsunami (XT): Very large (Magnitude 9+) earthquake and tsunami.

Inundation Zone: Inland areas where the tsunami is expected to go beyond just the immediate shoreline.

Run Up: The vertical extent (from mean sea-level) of tsunami inundation.

Evacuation Zone: Inundation zone plus an additional buffer area for safety and evacuation.

Great Aleutian Tsunami (GAT): An Extreme Tsunami produced by a very large subduction zone earthquake located in the Aleutian Islands.

Extreme Tsunami Evacuation Zone (XTEZ): New secondary evacuation zone for Extreme Tsunami events only.

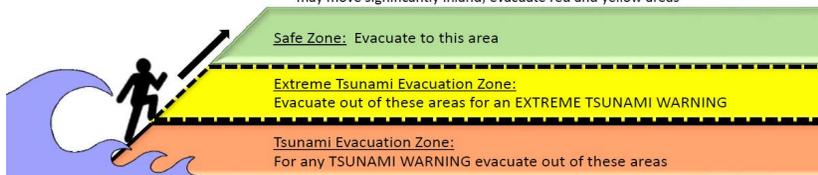
Tsunami Refuge Area: Safe congregation zones identified outside of evacuation zones; these areas will be identified based on location, capacity and proximity but will not be shelters and may not have support staff.

**If you feel an earthquake,  
a tsunami may be  
coming...**

### Important New Information

- A new set of tsunami evacuation zones called XTEZ, refuge areas and routes have been developed to complement the current tsunami evacuation maps.

1. TSUNAMI WARNING: Destructive waves from a tsunami may inundate all coastlines; evacuate red areas
2. EXTREME TSUNAMI WARNING: In the unlikely event of an extreme tsunami, waves may move significantly inland; evacuate red and yellow areas



### **WHAT TO DO:**

- **DROP, COVER, HOLD** until the earthquake is over; protect yourself
- **MOVE IMMEDIATELY INLAND** to high ground and away from low-lying coastal areas
- **DO NOT WAIT** for an official warning
- **GO ON FOOT** if at all possible
- **DO NOT PACK** or delay
- **DO NOT RETURN** to the beach – large waves may continue to come onshore for several hours
- **WAIT** for an "all clear" from local emergency officials before returning to low-lying areas

- The XTEZ does not replace the current tsunami evacuation zone; it adds a *second* zone for a potential XT event.
- Existing tsunami evacuation maps were developed in 1991 and updated in 2010; since the 2011 Tohoku (Japan) tsunami, there is a newly recognized risk of tsunami from a very large Aleutian event.
- The Extreme Tsunami Evacuation Zone (XTEZ) is for events with low probability, but having high impact "worst-case" inundations.
- Vertical Tsunami Evacuation - Evacuate to the **FOURTH** floor or above in a reinforced concrete or structural steel building of TEN stories or more. All others, evacuate inland to higher ground.

### How will I know which zone to evacuate to?

- A new warning procedure is currently under development for an Extreme Tsunami event; it would be announced via traditional emergency communication means including radio, television, email, text messages, etc.

### What has changed?

- New evacuation maps with both regular zones and XTEZ.
- A new two-zone evacuation area, and identified safe areas.
- New refuge areas being developed for the XTEZ.



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**What has not changed?**

- Our Message - Evacuate during a Tsunami Warning if you are in the evacuation zones.
- Stay Put - If you are NOT in the evacuation zone, stay off the roads to minimize traffic.
- Go To Higher Ground - If you are near the shoreline and feel an earthquake, immediately head to higher ground outside of the evacuation zone.
- Tsunami evacuation maps are for public safety and do not change FEMA Flood Insurance Rate Maps.

**What was the process to develop the new maps?**

- The project was a collaboration with the Tsunami Inundation Mapping Project at the University of Hawaii, Manoa.
- The XTEZ maps use the same computer model as the current evacuation zones.
- The City Department of Emergency Management conducted a series of island wide outreach workshops to inform coastal communities of the new XTEZ.

**What else should we be considering?**

- Know ahead of time where the regular Tsunami Evacuation Zone and XTEZ are located; a tsunami warning can occur any time of day or night.
- Take the time to learn more about tsunami hazards, have a friend or family that you can move inland to, and a route for you and your loved ones.
- Anticipate that the phone lines may be out of service during a tsunami emergency and make a plan to meet your family members at pre-arranged safe areas or refuges.
- Getting gas and supplies during an evacuation brings traffic to a stop and puts everyone at risk. Have a kit in advance, and go to higher ground immediately.
- Know that shelters will only be opened after a destructive tsunami has impacted Oahu and the danger to our shorelines has passed; otherwise refuge areas are only for staging in a safe location.
- Sign up for emergency text messages and emails from the Department of Emergency Management by logging into **[www.NIXLE.com](http://www.NIXLE.com)**

**How can the public find out if they are in a tsunami evacuation zone?**

- Download pdf files from the Department of Emergency Management website at **[www.oahuDEM.org](http://www.oahuDEM.org)**
- Oahu telephone books will display the new maps in the near future

ADDITIONAL INFORMATION:  
**Department of Emergency Management  
City and County of Honolulu**  
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On the worldwide web: [www.oahuDEM.org](http://www.oahuDEM.org)