

Tsunami Evacuation: Frequently Asked Questions

Q. I've heard about "local" and "distant" tsunamis. What's the difference, and why does it matter?

A. A LOCAL tsunami is caused by an earthquake RIGHT OFF OUR SHORE. The tsunami will hit our area only 15 or 20 minutes after the earthquake. The area flooded by a local tsunami will be extensive (see map information, below.)

A DISTANT tsunami is caused by an earthquake far away from our area (such as the large earthquake in Japan in March, 2011.) We will not feel this earthquake. We will have HOURS of warning of a distant tsunami approaching our shore. Also, a distant tsunami will cover a MUCH SMALLER area (inundation zone.)

Q. What kind of warning systems do we have in our area? How will we know that a local tsunami is coming? What about a distant tsunami?

A. For a LOCAL tsunami, THE EARTHQUAKE IS YOUR TSUNAMI WARNING.

For a DISTANT tsunami, there are a number of warning systems that will be activated (see below.) Remember, however:

- For a distant tsunami, we will have HOURS of warning.
- The inundation zone for a distant tsunami is quite small.

Q. What are some of the warning systems for a DISTANT tsunami?

A.

- NOAA Weather Radio warning.
- Local emergency personnel will warn people in affected areas directly, via a mobile loudspeaker system.
- The Civil Air Patrol has a speaker-equipped plane to warn people on beaches.
- Tillamook County will make Reverse 911 calls to affected areas
- You can sign up to get Reverse 911 calls or text messages on your cell phone. Reverse 911 text messages are likely to be more quickly received than voice messages.

For information about the Reverse 911 Notification System:

<http://www.tillamook911.com/911%20ALERTS.html>

To enroll for notifications from the Reverse 911 System:

http://entry.inspironlogistics.com/tillamook_911/wens.cfm

Q. How will I know when to evacuate?

A. In a DISTANT tsunami, you will be notified by local emergency personnel, by reverse 911, or by other methods (see above.)

In a LOCAL tsunami, evacuate only if you are in the inundation zone. As soon as the earthquake shaking stops, grab your 72-hour kit ("go bag") and evacuate to your nearest assembly site. DO NOT DRIVE – roads will almost certainly be damaged or blocked by debris.

Q. How do I know if I am in the inundation zone?

A. Consult the new maps recently published by the Oregon Department of Geology and Mineral Industries (DOGAMI.) You can also go online to an interactive website (<http://www.nanoos.org/nvs>) where you can put in your address and map your location relative to the inundation zone.

Q. How do I know where to evacuate to?

A. Assembly Site information is also on the new Tsunami maps. Find your nearest Assembly Site and practice walking to it, so you'll know how to get there and how long it takes.

Q. How long will we need to stay at the Assembly Site after the earthquake occurs?

A. Tsunami surges will continue for 12 to 24 hours. The first wave is not necessarily the largest. You will need to stay at the Assembly Site until an official All Clear has been declared.

Q. Why should we bring a 72-hour kit to the Assembly Site?

A. Because you will need to stay out of the inundation zone for 12 to 24 hours, you should bring a three-day emergency supply of food, water, clothes, medicines and other things you will need to support you and your family for the immediate period after the earthquake and tsunami. Community emergency services will very likely be overwhelmed during the early days after a disaster, so be prepared to meet your own needs as much as you can.

Q. Who identified and selected the Assembly sites?

A. Assembly Sites were selected by the Tillamook County Department of Emergency Management in conjunction with local authorities and Fire and Rescue Departments.

Q. How were tsunami inundation zones and safe areas determined?

A. Coastal areas were accurately surveyed by LIDAR, a laser based measurement system that accurately measures the local topography, both undersea and above ground. This topographic information was combined with fluid dynamic studies of ocean waves to determine the most probable areas of inundation.

Q. When was the last local earthquake that resulted in a tsunami?

A. The last large earthquake on the Cascadia Subduction Zone occurred in January, 1700. This date was determined by Oregon geologic studies and tsunami records from Japan.

Q. How often have large earthquakes occurred on the Cascadia Subduction Zone?

A. Geologic records show that there have been 20 large and 25 smaller earthquakes and tsunamis on the Cascadia Subduction Zone in the last 10,000 years. This averages out to about 1 earthquake on the Cascadia Subduction Zone every 250 years. Geologists at Oregon State University project that there is a 40% probability that a large earthquake will occur on the Cascadia Subduction Zone within the next 50 years.