





#### CONTACTS

Astoria Fire Department
555 30th Street
Astoria, OR 97103
(503) 325-2345
https://www.astoria.or.us

storia Police Departm 555 30th Street Astoria, OR 97103 (503) 325-4411 www.astoria.or.us

800 Exchange Street, Suite 40 Astoria, OR 97103 (503) 325-8645 https://www.co.clatsop.or.us/e

Oregon Office of Emergency Management 3225 State Street, Room 115 Salem, OR 97301 (503) 378-2911 https://www.oregon.gov/OEM/

Oregon Department of Geology and Mineral Industrie
800 NE Oregon Street, Suite 965
Portland, OR 97232
(971) 673-1555
https://www.oregongeology.org
http://oregontsunami.org

National Tsunami Warning Center (NTWC) 910 S. Felton St. Palmer, AK 99645 (907) 745-4212

https://www.tsunami.gov

### **WHAT TO KNOW about tsunamis**

A **tsunami** is a series of sea waves, usually caused by a displacement of the ocean floor by an undersea earthquake. As tsunamis enter shallow water near land, they increase in height and can cause great loss of life and property damage.

Recent research suggests that tsunamis have struck the Oregon coast on a regular basis. They can occur any time, day or night. Typical wave heights from tsunamis occurring in the Pacific Ocean over the last 500 years have been 20–65 feet at the shoreline. However, because of local conditions a few waves may have been much higher — as much as 100 feet.

We distinguish between a tsunami caused by an undersea earthquake near the Oregon coast (a local tsunami) and an undersea earthquake far away from the coast (a distant tsunami).

#### **BE PREPARED!**

Assemble **emergency kits** with at least a 2-week supply for each family member:

- Local map showing safe evacuation routes to high ground
- First-aid supplies, prescriptions and non-prescription medication
- Water bottle and filtration or treatment supplies capable of providing 1 gallon per person per day
- Non-perishable food (ready-to-eat meals, canned food, baby food, energy bars)
- Cooking and eating utensils, can opener, Sterno® or other heat source
- Matches in water-proof container or lighter
- Shelter (tent), sleeping bags, blankets
- Portable radio, NOAA weather radio, flashlight, and extra batteries
- Rain gear, sturdy footwear, extra clothing
- Personal hygiene items (toilet paper, soap, toothbrush)
- Tools and supplies (pocket knife, shut-off wrench, duct tape, gloves, whistles, plastic bags)
- Cash

#### How to help with tsunami awareness in your community

- Start a tsunami buddy system
- Make and distribute emergency packs
- Initiate or participate in a local preparedness program

Visit **OregonTsunami.org** to find more great resources!



# WHAT TO DO for both local and distant tsunamis

I. Evacuate on foot, if at all possible. Follow evacuation signs and arrows to an Assembly Area.\*



- 2. If you need help evacuating, tie something white (sheet or towel) to the front door knob. Make it large enough to be visible from the street. If the emergency is a distant tsunami, then help may arrive. In the event of a local tsunami, it is unlikely that anyone will help you, so make a plan and be prepared!
- 3. Stay away from potentially hazardous areas until you receive an ALL CLEAR from local officials. Tsunamis often follow river channels, and dangerous waves can persist for several hours. Local officials must inspect all flooded or earthquake-damaged structures before anyone can go back into them.
- 4. After evacuation, check with local emergency officials if you think you have special skills and can help, or if you need assistance locating lost family members.

\*Assembly areas are shown on the map. Do not confuse Assembly Areas with Evacuation Centers, which are short-term help centers set up *after* a disaster occurs.



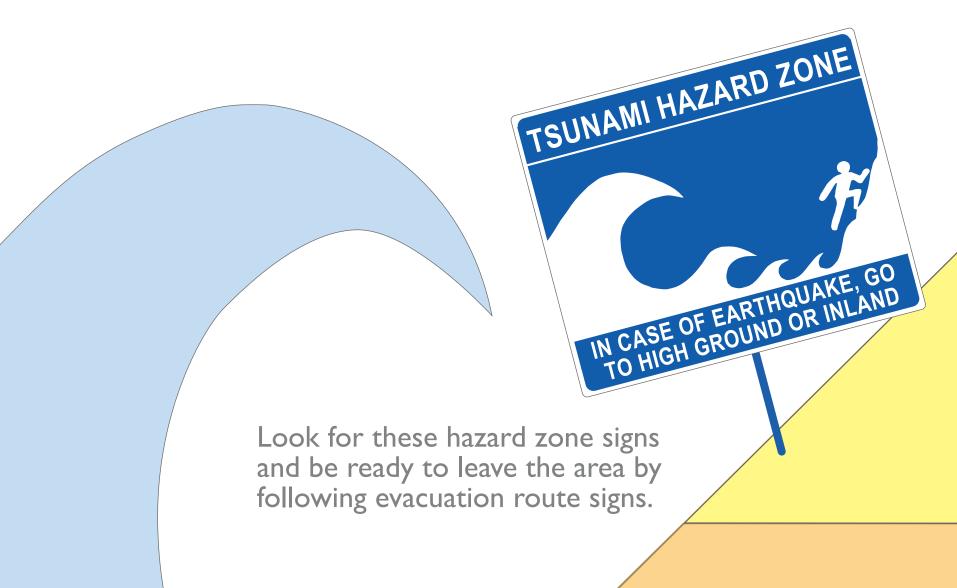


DROP, COVER, HOLD until the earthquake is over; protect yourself high ground and away from low-lying coastal areas
 DO NOT WAIT for an official warning
 DO NOT RETURN to the beach large waves may continue to come large waves may continue to come onshore for several hours
 WAIT for an "all clear" from local emergency officials before returning to emergency officials before returning to emergency officials before returning to

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a tsunami may be coming...

If you feel an earthquake,



## **Local tsunamis**

A *local tsunami* can come onshore within 15 to 20 minutes after the earthquake — before there is time for an official warning from the national warning system. Ground shaking from the earthquake may be the only warning you have. Evacuate quickly!

## **Distant tsunamis**

A *distant tsunami* will take 4 hours or more to come ashore. You will feel no earthquake, and the tsunami will generally be smaller than that from a local earthquake. Typically, there is time for an official warning and evacuation to safety.

Evacuation for a distant tsunami will generally be indicated by an announcement over NOAA weather radio that the local area has been put into an official TSUNAMI WARNING. If you do not hear an announcement, a **sudden change of sea level** should prompt you to move immediately to high ground. If you see a sudden sea level change, first evacuate away from shoreline areas, then turn on your local broadcast media or NOAA weather radio for more information.