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Oregon Department of Geology and Mineral Industries
800 NE Oregon Street #28, Suite 965
Portland, OR 97232
(503) 731-4100
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Nature of the Northwest Information Center
800 NE Oregon Street #5, Suite 177
Portland, OR 97232
(503) 872-2750
<http://www.naturenw.org/>

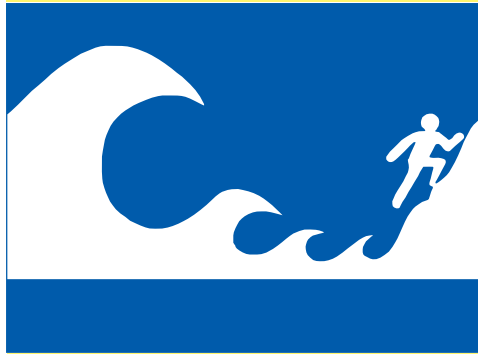
International Tsunami Information Center
737 Bishop Street, Suite 2200
Honolulu, HI 96813-3203
(808) 532-6422
<http://www.pr.noaa.gov/itic/>



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TSUNAMI EVACUATION MAP Manzanita-Nehalem Wheeler



IF YOU FEEL AN EARTHQUAKE:

- Until the earthquake is over, protect yourself—**DROP, COVER, HOLD**
- **MOVE IMMEDIATELY INLAND** to high ground and away from low-lying coastal areas
- **GO ON FOOT** if at all possible
- **DO NOT WAIT** for an official warning
- **DO NOT PACK** or delay
- **DO NOT RETURN** to the beach
- **WAIT** for an "all clear" from local emergency officials before returning to low-lying areas

A TSUNAMI MAY BE COMING IN A FEW MINUTES.

LARGE WAVES MAY CONTINUE TO COME
ONSHORE FOR SEVERAL HOURS.

The information in this brochure
could save your life.
Please read it and share it
with your family and friends.



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 80 years, have been 20–45 feet at the shoreline. However, because of local conditions a few waves have been much higher—as much as 100 feet or more.

We distinguish between a tsunami caused by an undersea earthquake **near** the Oregon coast (LOCAL TSUNAMI) and one caused by an undersea earthquake **far away from** the coast (DISTANT TSUNAMI).

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!**

A **DISTANT TSUNAMI** will take four hours or more to come onshore. 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 a **STEADY 3-MINUTE SIREN BLAST** and an announcement over NOAA weather radio that the local area has been put into an official TSUNAMI WARNING. In isolated areas along beaches and bays you may not hear a warning siren. Here, a **SUDDEN CHANGE OF SEA LEVEL** should prompt you to move immediately inland to high ground. If you hear the 3-minute blast or see a sudden sea level change, first evacuate away from shoreline areas, then turn on your local broadcast media or NOAA weather radio for further information.

FOR BOTH LOCAL AND DISTANT TSUNAMIS:

1. **Evacuate on foot**, if at all possible. Follow evacuation route signs and arrows.
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 that you have special skills and can help, or if you need assistance with locating lost family members.

Be prepared! Assemble emergency kits with at least a 3-day supply for each family member.

1. First aid kit and reference guide.
2. Water—1 gallon per person per day; for drinking, hygiene, and cooking.
3. Food (packaged, canned, no-cook, as well as baby food and food for special diets).
4. Can opener (non-electric).
5. Blankets or sleeping bags.
6. Fire extinguisher (standard).
7. Essential medications.
8. Money.
9. Food and water for pets.
10. Portable radio, NOAA weather radio, flashlights, and batteries.
11. Alternate cooking source & matches.
12. Heavy gloves and sturdy shoes.
13. Crescent wrench for utility shut off (12" or longer).

TSUNAMI EVACUATION MAP Manzanita-Nehalem Wheeler

After you feel an earthquake:
Move immediately inland
Follow evacuation route signs
Do not wait for an official



Sign Post Banding

Look for colored bands near the tops of sign posts

A **YELLOW** band indicates that you are **within** the tsunami hazard zone.

A **GREEN** band indicates that you are **outside** the tsunami hazard zone.

NOTICE

The evacuation zone on this map was developed by the Oregon Department of Geology and Mineral Industries in consultation with local officials. It is intended to represent a worst-case scenario for a local tsunami from an earthquake near the Oregon Coast. The evacuation routes were developed by local emergency officials and reviewed by the Oregon Department of Emergency Management.

The Oregon Department of Geology and Mineral Industries is publishing this brochure because the information furthers the mission of the Department. The map is intended for emergency response, and should not be used for site-specific planning.

