

OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

Vicki S. McConnell, State Geologist



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New tsunami maps for Clatsop County coastline

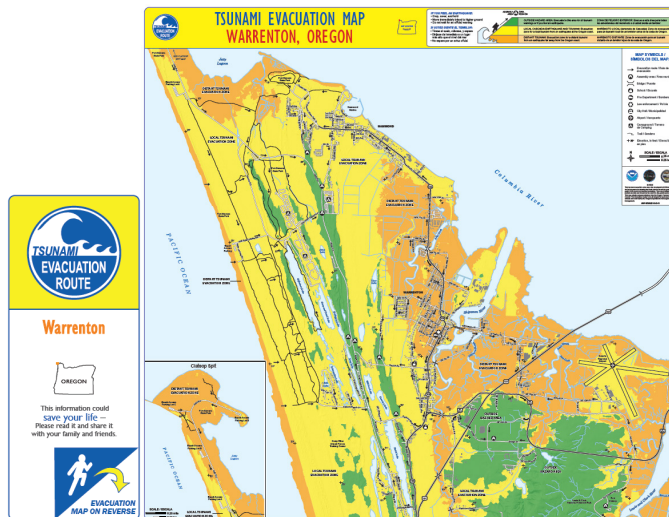
Attend an upcoming readiness rally, learn how to protect your family

Portland, Oregon: The Oregon Department of Geology and Mineral Industries (DOGAMI) today is releasing 10 new tsunami inundation maps. These form the basis for seven new evacuation brochures covering population centers from Astoria to Arch Cape.

“This is a new generation of tsunami maps based on the latest science, new mapping technology, and lessons learned from earthquakes and tsunamis around the globe over the last 10 years,” said Vicki McConnell, State Geologist. “Two years after Japan’s devastating tsunami, they are still working to recover. In Oregon, we feel a special urgency to prepare. These new maps, along with our outreach program, are helping coastal communities to do just that.”

The maps show tsunami evacuation zones for a *local* tsunami generated by an earthquake just offshore, along the Cascadia subduction zone, which would send tsunami waves at our coast 15-20 minutes later. If the ground shakes for an extended period of time, don’t wait for more warning; evacuate to high ground as fast as possible.

Maps also show danger zones for a *distant* tsunami caused by an earthquake in Alaska, with waves reaching Oregon some four hours after. Evacuation routes are shown on the maps, directing people to assembly areas on high ground.



Example of a tsunami evacuation map (brochure). Evacuate from yellow and orange areas to green area. Seven brochures are being published, including Astoria, Warrenton, Youngs River Valley, Sunset Beach and Del Rey Beach, Seaside and Gearhart, Cannon Beach, and Arch Cape.

Where to find new evacuation maps

- **Paper copies:** Brochures are available at upcoming Tsunami Readiness Rallies

DOGAMI's mission is to provide earth science information and regulation to make Oregon safe and prosperous.

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(see below) or from select local fire stations and city halls.

- *Web:* Visit <http://www.OregonTsunami.org> for download, printing, or for the interactive Evacuation Zone Map Viewer, which allows users to enter an address
- *Smart phone app:* TsunamiEvac-NW is the free app for iPhone and Android users with a location-based, interactive map format.

Upcoming Tsunami Readiness Rallies

These events are free, open to the public, and include a slide presentation by DOGAMI staff on earthquake and tsunami science, lessons from Japan's 2011 tragedy, what the new maps tell us, and how to prepare in Oregon. New, free evacuation maps will be distributed. Some rallies will include information tables from local readiness groups like American Red Cross and CERT.

Warrenton | Thu June 20 at 7pm

Warrenton Community Center, 170 SW Third St.

Astoria | Sat June 22 at 10am

Clatsop Community College, Main Campus
1651 Lexington Ave., Columbia Hall, Rm. 219

Seaside/Gearhart | Thu June 27 at 7pm

Broadway Middle School, 1120 Broadway St.,
Seaside

Arch Cape | Sat June 29 at 10am

Arch Cape Fire Station, 79729 Hwy 101

Tsunami inundation maps (TIMs)

The free evacuation brochures shown on page 1 are based on the more detailed and technical tsunami inundation maps (TIMs), which contain a wealth of information, including estimated tsunami wave height time series charts and a measurement of the exposure each community has to the various tsunami scenarios: we count the number of buildings that are inundated by each scenario. We hope that the public, planners, emergency managers and first responders, elected officials, and other local decision makers will use these detailed and innovative TIM map products to mitigate risk and to reduce the loss of life and property.

Tsunami Inundation Map (TIM) series for Clatsop County. Boxed, numbered areas are available as separate publications.

TIM-Clat-01, Clatsop Spit

TIM-Clat -02, Warrenton North

TIM-Clat-03, Warrenton South - Rilea

TIM-Clat-04, Astoria

TIM-Clat-05, Youngs River North

TIM-Clat-06, Youngs River South

TIM-Clat-07, Del Rey Beach

TIM-Clat-08, Gearhart-Seaside

TIM-Clat-09, Ecola – Tillamook Head

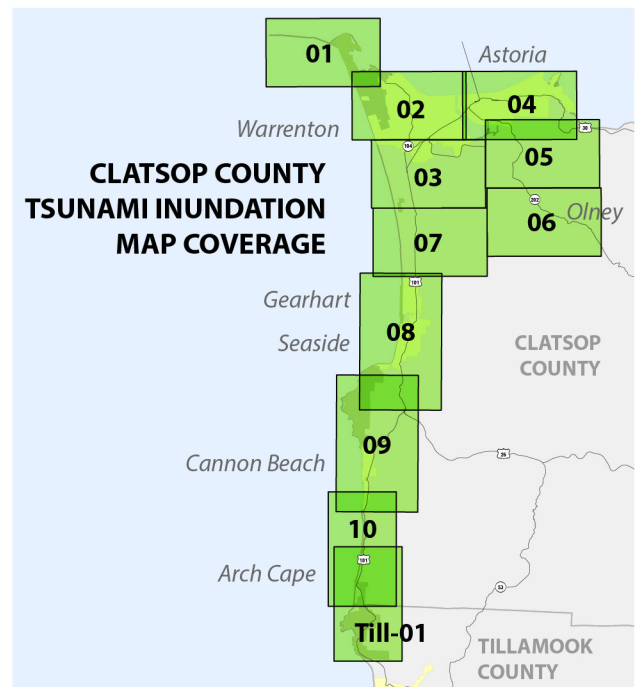
TIM-Clat-10, Cannon Beach

To see current tsunami inundation map (TIM series) coverage for the entire Oregon coast, visit

<http://www.OregonTsunami.org>

Each TIM publication includes two plates.

Plate 1 displays five scenarios, labeled as "T-shirt sizes" (S, M, L, XL, and XXL), of the impact of Cascadia Subduction Zone tsunamis that reflect the full range of what was experienced



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in the past and will be encountered in the future. The geologic record shows that the amount of time that has passed since the last great Cascadia earthquake (313 years since January 26, 1700) is not a reliable indicator of the size of the next one, so the size ranges are intended to fully bracket what might happen next.

Plate 2 shows tsunami inundation scenarios for two distant-source tsunamis that were modeled and originate in Alaska. These distant tsunamis are not nearly as dangerous as the local ones, as Oregonians will have several hours instead of only minutes to evacuate and the tsunamis themselves are much smaller. For these reasons DOGAMI's focus is on the big Cascadia events. If the ground shakes for an extended period of time, don't wait for more warning, evacuate to high ground as fast as possible.

To learn more about these publications, visit:

<http://www.oregongeology.org/pubs/tim/p-TIM-overview.htm>

To download free tsunami evacuation maps based on TIM maps, visit:

<http://www.oregongeology.org/tsuclearinghouse/pubs-evacbro.htm>

DOGAMI TIM publications can be purchased on CD-ROM for \$10 each from the Nature of the Northwest Information Center (NNW), 800 NE Oregon Street, Suite 965, Portland, Oregon, 97232. You may also call NNW at (971) 673-2331 or order online at <http://www.NatureNW.org>. There is a \$4.95 shipping and handling charge for all mailed items.

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The Oregon Department of Geology and Mineral Industries is an independent agency of the State and has a broad responsibility in developing an understanding of the state's geologic resources and natural hazards. The Department then makes this information available to communities and individuals to help inform and reduce the risks from natural hazards, such as earthquakes, tsunamis, landslides, floods and volcanic eruptions. The Department assists in the formulation of state policy where an understanding of geologic materials, geologic resources, processes, and hazards is key to decision-making. The Department is also the lead state regulatory agency for mining, oil, gas and geothermal exploration, production and reclamation.

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