# OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

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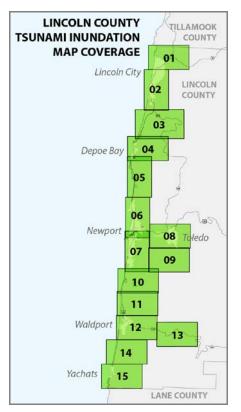
## Tsunami inundation maps available for entire Lincoln County coastline

Free evacuation brochures for residents and visitors due out later this spring

Portland, Oregon: The Oregon Department of Geology and Mineral Industries has completed tsunami inundation maps for all of Lincoln County. These maps show modeled extents for local-source (Cascadia Subduction Zone) and distant-source (Alaska) tsunami inundation scenarios.

These maps incorporate all the best tsunami science available today, including recent publications by colleagues studying the Cascadia Subduction Zone, updated computer simulation models using high-resolution lidar topographic data, and knowledge gained from the 2004 Sumatra, 2010 Chile, and 2011 Tōhoku earthquakes and tsunamis.

The maps, which provide the basis for the evacuation brochures, 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 coverage for Lincoln County. Boxed, numbered areas are available as separate publications.

TIM-Linc-01, Lincoln City North

TIM-Linc-02, Lincoln City South

TIM-Linc-03, Gleneden Beach–Siletz River

TIM-Linc-04, Depoe Bay

TIM-Linc-05, Otter Rock–Beverly Beach

TIM-Linc-06, Newport North

TIM-Linc-07, Newport South

TIM-Linc-08, Toledo

TIM-Linc-09, Yaquina River

TIM-Linc-10, Seal Rock

TIM-Linc-11, Driftwood Beach

TIM-Linc-12, Waldport

TIM-Linc-13, Tidewater

TIM-Linc-14, Ocean Shores

TIM-Linc-15, Yachats

To see current tsunami inundation map (TIM series) coverage for the entire Oregon coast, visit <a href="http://www.OregonTsunami.org">http://www.OregonTsunami.org</a>

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

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# Mineral Land Regulation and Reclamation Program

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#### **Coastal Field Office**

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#### Nature of the Northwest Information Center

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### OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES





DISTANT TSUNAMI INUNDATION

Portions of DOGAMI TIM-Linc-12, Waldport maps, showing modeled tsunami inundation for Waldport and Bayshore communities.

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 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 (312 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: <a href="http://www.oregongeology.org/pubs/tim/p-TIM-overview.htm">http://www.oregongeology.org/pubs/tim/p-TIM-overview.htm</a>

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 <a href="http://www.NatureNW.org">http://www.NatureNW.org</a>. There is a \$4.95 shipping and handling charge for all mailed items.

### **Contact Information:**

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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.

Learn more about Oregon's geology online: http://www.OregonGeology.org

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