

# OREGON DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

Vicki S. McConnell, State Geologist



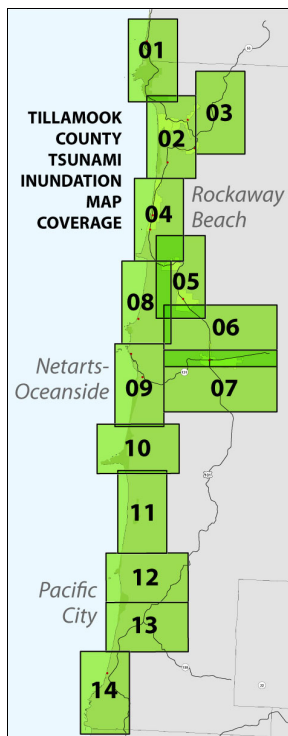
NEWS RELEASE: July 20, 2012

## Tsunami inundation maps for entire coastline of Tillamook County available

Portland, Oregon: With the release of tsunami inundation maps for Arch Cape - Falcon Cove, Cape Lookout, Sand Lake, Pacific City, Nestucca Bay, and Neskowin, the Oregon Department of Geology and Mineral Industries has now mapped the entire coastline of Tillamook County to 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 provide 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 Tillamook County. Green boxed areas are available as separate publications.*

*TIM-Till-01, Arch Cape – Falcon Cove*

*TIM-Till-02, Manzanita - Nehalem*

*TIM-Till-03, Nehalem East*

*TIM-Till-04, Rockaway Beach*

*TIM-Till-05, Garibaldi - Bay City*

*TIM-Till-06, Tillamook North*

*TIM-Till-07, Tillamook South*

*TIM-Till-08, Cape Meares*

*TIM-Till-09, Netarts - Oceanside*

*TIM-Till-10, Cape Lookout*

*TIM-Till-11, Sand Lake*

*TIM-Till-12, Pacific City*

*TIM-Till-13, Nestucca Bay*

*TIM-Till-14, Neskowin*

Each publication includes two plates.

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

**Media contact:**  
**Carol DuVernois**

carol.duvernois@state.or.us

800 NE Oregon St., #28,  
Ste. 965

Portland, OR 97232

Phone: (971) 673-1555

Fax: (971) 673-1562

www.OregonGeology.org

**Mineral Land Regulation and Reclamation Program**

229 Broadalbin St. SW  
Albany, OR 97321

Phone: (541) 967-2039

Fax: (541) 967-2075

info@mlrr.oregongeology.com

Gary W. Lynch,  
Assistant Director

**Coastal Field Office**

313 SW 2nd, Ste. D  
Newport, OR 97365

Phone: (541) 574-6642

Fax: (541) 265-5241

Jonathan C. Allan,

Coastal Team Leader

**Eastern Oregon Field Office**

Baker County Courthouse

1995 3rd St., Ste. 130

Baker City, OR 978149

Phone: (541) 523-3133

Fax: (541) 523-5992

Jason D. McClaughry,

Regional Geologist

**Nature of the Northwest Information Center**

800 NE Oregon St., Ste. 965

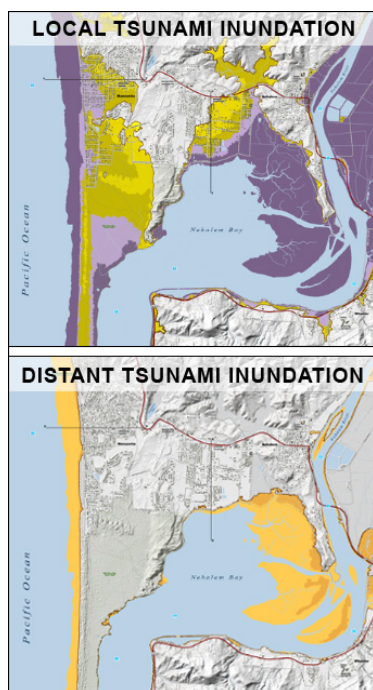
Portland, Oregon 97232

(971) 673-2331

Email: info@naturenw.org

Web: www.NatureNW.org

Donald J. Haines, Manager



Portions of DOGAMI TIM-Till-02 maps, showing inundation of Manzanita-Nehalem-Wheeler area.

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:

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

## Contact Information:

Oregon Department of Geology  
Ian Madin, Chief Scientist  
(971) 673-1542  
[ian.madin@state.or.us](mailto:ian.madin@state.or.us)

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>

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

## Media contact: Carol DuVernois

[carol.duvernois@state.or.us](mailto:carol.duvernois@state.or.us)  
800 NE Oregon St., #28,  
Ste. 965  
Portland, OR 97232  
Phone: (971) 673-1555  
Fax: (971) 673-1562  
[www.OregonGeology.org](http://www.OregonGeology.org)

## Mineral Land Regulation and Reclamation Program

229 Broadalbin St. SW  
Albany, OR 97321  
Phone: (541) 967-2039  
Fax: (541) 967-2075  
[info@mlrr.oregongeology.com](mailto:info@mlrr.oregongeology.com)  
Gary W. Lynch,  
Assistant Director

## Coastal Field Office

313 SW 2nd, Ste. D  
Newport, OR 97365  
Phone: (541) 574-6642  
Fax: (541) 265-5241  
Jonathan C. Allan,  
Coastal Team Leader

## Eastern Oregon Field Office

Baker County Courthouse  
1995 3rd St., Ste. 130  
Baker City, OR 978149  
Phone: (541) 523-3133  
Fax: (541) 523-5992  
Jason D. McClaughry,  
Regional Geologist

## Nature of the Northwest Information Center

800 NE Oregon St., Ste. 965  
Portland, Oregon 97232  
(971) 673-2331  
Email: [info@naturenw.org](mailto:info@naturenw.org)  
Web: [www.NatureNW.org](http://www.NatureNW.org)  
Donald J. Haines, Manager