Improved Road Source locations. For these reasons the hypothetical "Alaska tsunami" witnessed in 2011 near Depoe Bay, Oregon had higher energy directed toward the Oregon coast than other Alaskan tsunami events. The model used extreme fault model parameters that result in maximum tsunami wave heights. The earthquake and resulting tsunami event is the same model used by the U.S. Geological Survey (USGS) in their work for the Cascadia Subduction Zone, which has been identifying and mapping the tsunami inundation hazard along the entire Oregon coast to prepare for the next Cascadia Subduction Zone earthquake.

Distant earthquake/tsunami events have affected the Oregon coast: one in 1964, a magnitude 9.2 event in the Aleutian Subduction Zone, and another in 2018, a magnitude 7.9 event along the Kurile Subduction Zone. These events have highlighted the need for ongoing research and preparedness. In addition to the 1964 Cascadia Subduction Zone earthquake, the Cascadia Subduction Zone is part of the Ring of Fire but not directly off the Oregon coast, they take more time to travel the Pacific Ocean and arrive onshore in Oregon (Figure 2). This tsunami inundation map displays the output of computer models using these data. Annotations on the map include the location of fault slip, the maximum wave elevation, and locations of wet/dry zones.

The National Oceanic and Atmospheric Administration (NOAA) and the Nature of the Northwest Information Center (NNIC) have been working with the Oregon Department of Geology and Mineral Industries (DOGAMI) to provide tsunami hazard information to the public. Tsunami risk management policies have been implemented in the state of Oregon, and more than 80 tsunami warning systems are now operational. Tsunami inundation maps are used to guide development and infrastructure planning. Source Data: For copies of this publication contact: Daniel E. Coe, Paul A. Ferro, Sean G. Pickner, Rachel R. Lyles Smith, Kathryn Collingsworth, Deborah A. Schueller, Kaleena L.B. Hughes, Sean G. Pickner. Source Data: Lidar data are from DOGAMI Lidar Data Quadrangles LDQ-2009-100, 1:10,000 scale, in press, 2012. Base map information and building footprints were created by DOGAMI. Senate Bill 379 line data were redigitized from Nature of the Northwest Information Center (NNIC) data by DOGAMI. Source Data: Tsunami Pilot Study Working Group (TPSW), 2006, Seaside, Oregon Geology and Mineral Industries Open-File Report O-95-67, 95 p. References: Priest, G. R., 1995, Explanation of mapping methods and use of the Tsunami Inundation Scenarios Map Data Creation/Development: Tsunami Inundation Map Curr-06: Don W.T. Lewis, Rachel R. Lyles Smith. Software: Esri ArcGIS® 10.0, Microsoft Excel®, and Adobe® Photoshop®.