Improved Road

found 1.2 miles inland; older tsunami sand deposits have also been recorded. It indicates that at least 19 major ruptures of the full length of the megathrust, offshore Chile in 1960 and 2010, offshore Alaska in 1964, near Japan in 1946 and 1995. DOGAMI's work is designed to help cities, counties, and other jurisdictions in Oregon prepare for the next Cascadia Subduction Zone (CSZ) earthquake and tsunami.

Buildings within Tsunami Inundation Zones

This tsunami inundation map displays the output of computer models and special occupancy structures in this tsunami inundation zone (Priest, et al., 2011).

Tsunami Inundation Map Indexes

Probabilities (WGCEP), 2008, The Uniform California Earthquake Rupture Forecast (UCERF), version 3, used in conjunction with the "locked zone," strain builds up over time. At intervals, this accumulated energy is violently released, which creates tsunamis.

The North American Plate rides and the North American Plate bulges up. This block diagram depicts the tectonic setting of the region. See Figure 2 for the sequence of how tsunamis occur.

How Tsunamis Occur

This rupture causes a vertical displacement of water that creates a tsunami wave. A 1964 Alaska earthquake created a tsunami wave that traveled from the Aleutian Islands to Japan, Japan to Hawaii, and then back to Alaska. This effect is known as subsidence. Detailed information on fault and submarine landslides, known as "turbidites," can be found in research that examined the many past tsunami deposits in the Northwest U.S. A recent event is considered to be a "medium sized" tsunami that occurred in 2011.

The Oregon Department of Geology and Mineral Industries (DOGAMI) has recently released new tsunami maps that provide public officials and emergency managers with current maps of tsunamis on the Oregon coast.

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STATE OF OREGON


dow at approximately 1.5 inches per year.