Introduction

The Cascadia Subduction Zone (CSZ) is a geological boundary where the North American Plate moves westward and interacts with the Juan de Fuca Plate. This interaction generates significant seismic activity that can lead to tsunamis. The CSZ has been a source of historical tsunamis in the Pacific Northwest, and ongoing research aims to better understand and mitigate the risks associated with future events.

Map Exploitation

This map provides a visual representation of the tsunami inundation zones along the Oregon coast, indicating areas at risk of significant water levels during a tsunami event. The map uses color-coded areas to denote the extent of inundation for different scenarios.

Buildings within Tsunami Inundation Zones

The map highlights the locations of buildings within the tsunami inundation zones, demonstrating the potential impact on residential and commercial structures.

Enhanced Tsunami Wave Height through Time for Simulated Gauge Station

Data Utilization

The data used in creating this map were sourced from various agencies and organizations, including the National Oceanic and Atmospheric Administration (NOAA), the U.S. Geological Survey, and the Oregon Department of Geology and Mineral Industries. The map was developed using Geographic Information System (GIS) technology to integrate and visualize multi-source data accurately.

References


Tsunami Inundation Map Index

The index provides a comprehensive overview of the map layers, including color-coded inundation zones, buildings, and other relevant data layers. It serves as a guide for users to explore and understand the map's content more effectively.

Basemap Data

Baseline and cartographic design: Don W. T. Lewis, Rachel R. Lyles Smith

Map Legend

- Orange: Coastal inundation zone (CIZ-1)
- Yellow: Coastal inundation zone (CIZ-2)
- Green: Coastal inundation zone (CIZ-3)
- Blue: Coastal inundation zone (CIZ-4)
- Purple: Coastal inundation zone (CIZ-5)

Tsunami Inundation Map Tillamook

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