Potential variations in community resilience to tsunami hazards

Recognizing regional differences in Cascadia

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Tsunami forces will vary across the region
Community resilience influenced by how communities use land in hazard zones
Community resilience influenced by pre-existing characteristics
Evacuation potential varies across the region.
Community clusters of tsunami vulnerability

- Number of people in hazard zones
- Type of residents in hazard zones
- Number of people with insufficient time to evacuate (slow walk)
- Number of people with insufficient time to evacuate (fast walk)
Community resilience to tsunamis will be contextual based on relative level of impact.
Resilience planning needs to recognize future growth.

Post-earthquake landscape will vary along the Pacific Northwest coast.

Estimated subsidence (in meters) from 1700 AD CSZ earthquake.

Peterson et al., 2000

- Ghost Forests

- Before earthquake
- Several months after earthquake
- Several decades after earthquake

- Land subsides during earthquake (p. 10)
- Tide
- Buried soil

- Map showing subsidence contours along the coast.

- Key: Core Site, Subsidence Contour (m)

Context matters for community resilience to tsunamis

- Extent of inundation will vary
- Current uses and population exposure varies
- Evacuation potential varies
- Relative exposure of community varies
- Post-earthquake landscape condition varies

For more information

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