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FA21 Management of Public Health Disasters, Section 001

Threat and Hazards Assessment Table

Coastal Zones of Washington

Natural Hazards: acts of nature	**Technological Hazards:** accidents or the failures of systems and structures	**Human-caused Incidents:** the intentional actions of an adversary
Flooding: Washington's highly expose shores are at risk of flooding due to climate-driven sea level rise. There is over an 80% chance that 10 or more floods will happen in any given year in the state. They can be caused by prolonged winter rains in Western Washington, spring snow melts and rain-on-snow events in Eastern Washington, or coastal storm surges, flash floods, ice jams, channel migrations, and overwhelmed storm drains. This leads to destruction of property, coastal economies, mudslides, infrastructure, and roads. **Earthquakes:** this area is at great risk for a Cascadia Subduction Zone Earthquake (CSZE) which is a 9.0+ earthquake with the ability to cause cataclysmic events like tsunamis, soil erosion, and landslides. **Tsunamis:** In the event of a tsunami, communities in Aberdeen, Ocean Shores, Long Beach, Hoquiam, Westport, Cosmopolis, and the Makah, Quiluete, Hoh,	**Physical Infrastructure:** bridges and roads connecting coastal communities and reservations are not disaster resistant, and in the event of one would most likely be inaccessible for emergency responders. Most of the coast is only accessible by one main road. It would take months for responders to deliver resources to these communities. There is also a lack of earthquake resistant buildings and schools. **Physical Isolation:** communities are relatively isolated and far apart resulting in limited access evacuation routes, difficulty in distributing supplies, and creates further difficulty in evacuation communication. For example, Clallam and Jefferson counties are geographically isolated between the Olympic Mountain Range and the Pacific Ocean. **Communication: Infrastructure:** there is limited broadband access and cellular communication gaps along the coast.	**Oil Spill:** shifts in the sea floor due to underwater landslides or earthquake could impact oil machinery such as communications cables, pipelines, and oil platforms. This results in oil spills causing mass devastation to the coastal economies, such as tourism and fishing, and would be an environmental disaster.

Quinault, and Shoalwater Bay reservations could be eliminated. There is a lack of tsunami-evacuation structures in place, and it is unlikely that the people within these communities would be able to reach high ground in time **Coastal Erosion & Sediment Movement:** coastal communities, specifically Grays Harbor and Pacific County are at immediate risk of coastal erosion as parts of the coast is eroding at over 100 feet per year. This could result in the loss of homes, buildings, businesses, and is an immediate threat to State Highway 105 and the multi-million-dollar cranberry industry. Coastal erosion can also lead to coastal landslides. **Ocean acidification:** defined as the increase in acidity in the ocean, the coast is very vulnerable as it will impact coastal economies and food security. It especially impacts the shellfish industry and tribes that harvest native mollusks.	Communication infrastructure is not resilient and impacts governance, education, and healthcare. In the event of a natural disaster, it is highly likely that telecommunication systems will be down, which could lengthen response time.	

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