

**Testimony of Timothy J. Greene  
Chairman, Makah Tribal Council  
Neah Bay, Washington  
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**House Appropriations Subcommittee on Interior, Environment, and Related Agencies**

Good afternoon Madam Chair and Members of the Subcommittee, I am Timothy J. Greene, Chairman of the Makah Tribal Council. Thank you for this opportunity to present testimony on behalf of the Makah Indian Tribe.

I would take this time to testify on some of our tribal priorities related to climate change:

- 1.) Our concerns regarding changing ocean conditions and impacts to our community;
- 2.) Our chronic drinking water shortages on our Reservation;
- 3.) Our efforts to relocate our community above the tsunami inundation zone; and
- 4.) Oil spill response and pollution prevention.

Federal Departments and Agencies involved are: EPA, Bureau of Indian Affairs, US Fish and Wildlife Service, Dept. of Health and Human Services, Indian Health Services, Housing and Urban Development, Historic Preservation, NOAA, Army Corps, and US Coast Guard.

**Introduction**

The Makah Tribe is located on the northwest tip Washington State, about 2 hours from the nearest city of Port Angeles and more than 4 hours from Seattle. We have archeological evidence of our continued presence in the Cape Flattery area for at least 5,000 years. The Makah Tribe is the only tribe under the 1855 Treaty of Neah Bay in which we reserved the right to fish, whale, seal, hunt, and gather at usual and accustomed areas. The Makah people and culture are depended upon natural resources, especially from the ocean, for our livelihood, subsistence, identity, and spirituality. Fishing comprises approximately 50% of the Neah Bay economy. Nearly every family on the reservation (~85%) has someone in the residence who fishes, with fishing being the main occupation for nearly two-thirds of our households. Makah culture and traditions, in conjunction with the remoteness of the reservation, make the Tribe especially reliant on subsistence resources, with 99% of households relying on fishing, shellfish, and hunting for a portion of their diet. For some members of our community, 90% of their diet comes from subsistence resources. Climate Change threatens Makah's treaty interests, reserved rights, economy, and way of life. We view the means to address the threats and impacts of climate change as spanning multiple federal agencies, some of which are not under the jurisdiction of this subcommittee.

**Changing Ocean Conditions**

The Makah Tribal Council view the impacts of changing ocean conditions on our fisheries as one of our top concerns. We have experienced warming ocean waters via marine heatwaves (also

known as the Warm Blob), increased hypoxia (or low oxygen waters) and ocean acidification (OA) along our coast, and harmful algal blooms (HABs) and biotoxins – all of which pose a serious threat to our treaty resources and community's health. We are collaborating on several projects focused on changing ocean conditions. For example, we are monitoring for Harmful Algal Blooms (HABs) off our waters as part of the Monitoring and Event Response for Harmful Algal Blooms (MERHAP) partnership to improve HAB forecasting. Funding for key federal programs to address changing conditions and human health should continue for Tribes who are on the front lines of climate change and are already experiencing impacts in order for the federal government to begin to meet their Trust Responsibility to the Makah Indian Tribe. For example, we need continued support for Puget Sound and salmon recovery through funding and the federal commitment to EPA's National Estuary Program (NEP). Critical to our ability to engage directly on climate related issues is the continued Congressional appropriations of the Bureau of Indian Affairs Tribal Resilience Program, which provides funding to support tribal projects and capacity to address climate change adaptation and ocean and coastal management planning

Tribal fisheries are vital for Makah culture, subsistence, and economy. In this past decade, three fisheries disasters have been declared due to fluctuations in marine conditions that have affected salmon distribution, migration, and abundance. Fisheries disasters hit our community particularly hard. The delays on disaster relief funds coming to our community adds further strain and stress on our families. We need a solution to expedite the fisheries disaster relief process, especially for small fishing communities like Neah Bay who are entirely dependent on fisheries and are hit especially hard during the disasters and subsequent waiting periods. Having a Fisheries Disaster Fund that has funding appropriated in advance helps immensely. Congress should continue to designate funding to a National Fisheries Disaster account, as it has done in FY18 and FY19.

We are facing an infestation of European green crabs on the Makah reservation, to date we have trapped over 2,000 crabs in the past 2.5 years. European green crab has been shown to impact native commercial clam fisheries as well as eelgrass habitats on the east coast. We are concerned as to what their impacts may be for our eelgrass habitats on reservation as well as impacts on native species, like Dungeness crab. There are currently no other efforts to monitor for green crabs on the outer Washington coast, due to limited resources being targeted in Puget Sound. We need an increase of funding for European green crab monitoring programs to include the Outer Coast of Washington, possibly under the USFWS Aquatic Invasive Species Program.

### **Severe Water Shortage**

The Makah Reservation receives high seasonal precipitation (~100 inches of rainfall annually), but due to the geology of the reservation we have limited groundwater storage capacity. As a result, we experience chronic and severe water shortages every summer, which are exacerbated by climate change as we experience longer, drier summers. Water shortages restrict the Tribe's ability to provide sufficient housing for our community, limit economic development

opportunities and tsunami relocation efforts. We are researching possible additional sources of water and mitigation actions (infrastructure fixes, increasing reservoir storage capacity, etc.) and hope to conduct a feasibility study to analyze available options. We request Federal funding increase for programs, like IHS and BIA, to address water shortage issues on Tribal reservations, to support feasibility studies and implementation actions to provide water security to the Makah Tribe for current uses and future growth.

### **Tsunami Relocation Efforts**

The Cascadia Subduction Zone fault lies off the West Coast and extends from Northern California to British Columbia and is only ~32 miles offshore from the Makah Indian Reservation. The Cascadia fault is capable of producing 9.0 magnitude earthquakes and generating a tsunami that would threaten coastal areas along the Pacific Ocean. The Makah village, 60% of the population, our schools, clinic, and all of our critical infrastructure are located within the Tsunami Inundation Zone (TIZ). We are working to develop a comprehensive relocation plan for our community, including moving schools, childcare, health and emergency services, and housing (especially for seniors) to higher ground. Implementation of the relocation plan is restricted by our limited water supply, which inhibits building of new infrastructure, as well as funding for this large undertaking. We want to work with programs, like IHS, HUD, BIA, and others to identify solutions for this imminent threat and to utilize funding opportunities to move our community to safety.

### **Fund Tribal Capacity in Pollution Prevention and Policy Engagement**

Since the 1970s, over 1.5 million gallons of oil have been spilled within the Makah Treaty Area. The Strait of Juan de Fuca is the point of entry and egress on the West coast for every inbound vessel to the Ports of Seattle, Tacoma, and Everett and Vancouver, BC., making it is a high-risk area concerning vessel traffic where ocean and weather conditions are often severe. Climate change also complicates spill response on the remote outer coast through more intense winter storms, more frequent flooding of access roads to Neah Bay, and water shortages and blackouts in the summer. The combined impacts of climate change and a significant spill would be devastating to our treaty resources – particularly the ocean resources upon which the Tribe relies.

Because of the risks in our region, the Makah Tribe is engaged in oil pollution prevention and vessel traffic safety, as well as climate and ecosystem recovery policy and planning forums at multiple scales. This policy work facilitates the inclusion of our tribal priorities, concerns, and knowledge into Puget Sound, state, regional, and transboundary decision-making. Our policy engagement work is partially supported by the EPA's NEP funding and Brownfields Program funding, which provide essential capacity.

Tribes have unique and detailed local knowledge which can improve the effectiveness and success of environmental policies. We are essential partners in climate change, ecosystem

recovery, and spill response planning. Continued federal funding and policy direction to support tribal programs and tribal engagement through the NEP and Brownfields programs, as well as throughout federal environmental programming is vital to maintaining tribal capacity and ensuring effective environmental protection.

### **Oil Spill Preparedness & Prevention Infrastructure**

While the Makah Tribe is already thinking about climate change adaptation and a transition to renewable energy sources, we are seeing Canada expand fossil fuel infrastructure and facilitate continued reliance on fossil fuels through projects like the expansion of the Trans Mountain Pipeline and Roberts Bank Terminal. As a result of these projects, Canadian oil tanker traffic is expected to increase at least sevenfold. These vessels will transport diluted bitumen (dilbit), a heavy viscous oil which may sink. Currently, effective clean-up options for a dilbit spill do not exist, making prevention and preparedness even more crucial.

The Port of Neah Bay is home to an Emergency Rescue Towing Vessel (ERTV) which has made over 70 saves since its stationing. While we are taking climate action, we also need to ensure that we are protected from the impacts of oil spills to our treaty resources, while fossil fuel dependence endures. The Makah Tribe has already invested \$13M in tribal funding to expand the infrastructure at the Port of Neah Bay to better house the ERTV and meet the needs of other oil spill prevention and response assets. We need additional federal funding to widen and deepen the channel and to build an oil spill response dock.

### **Coastal erosion at Hobuck and Ozette Beaches**

Climate change-driven increases in coastal storms and winter precipitation are causing significant coastal erosion at some of our beaches – particularly at Hobuck and Ozette Beaches. Hobuck Beach is one of the primary public access beaches on the outer Washington coast, with nearly one-hundred thousand visitors annually. Erosion at Hobuck poses risks to our infrastructure, public safety, and cultural practices. The Ozette Indian Village Site was preserved after a mudslide inundated the site several hundred years ago and was discovered and excavated after artifacts were exposed via coastal erosion in the late 1960s resulting in an 11-year excavation effort. The Ozette Indian Village Archaeological Site was registered under the U.S. National Register of Historic Places in 1974. Many of these artifacts are on display at the Makah Museum. Coastal erosion at Ozette risks cultural artifacts becoming exposed, increasing their risk of dislodging and being lost at sea or taken. We need federal funding to support implementation of erosion prevention, habitat restoration, and cultural resource protection for our remote coastal beaches.

Thank you Madam Chair and Members of the Subcommittee for this opportunity to testify before you today.