



MAKAH TRIBE

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September 29, 2017

Mary Verner
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600
Attn: Rebecca Inman

To Mary Verner,

The Makah Indian Tribe's ancestral homeland and its current reservation are located at the Northwest point of the Olympic Peninsula in Washington State. The reservation is 30,067 acres and our Usual and Accustomed Treaty Area is located in waters of the United States off the outer coastline north from 48° 02'15" latitude and east of 125° 44'00" longitude and in the western end of the Strait of Juan de Fuca east to 123° 41'56". The unique location of the Makah Tribe has allowed us to thrive on the Washington coast for thousands of years. However, due to geological processes, environmental changes and impacts to resource availability, the Makah Tribe is concerned about the availability of water to sustain the Makah people into the future.

Our location is particularly vulnerable to extreme events such as heavy precipitation, storms, coastal erosion, summer droughts, earthquakes, and tsunamis. The Makah Tribe's reservation is one of the most remote in Washington and is only accessible by one highway. The region is projected to undergo significant environmental shifts including changing precipitation patterns, warming air and water temperatures that may exacerbate effects of extreme events. The Tribe has already experienced impacts from extreme events, often due to too much or too little precipitation. Despite being on the edge of a temperate rainforest (average annual rainfall of over 100 inches), decreased summer precipitation and insufficient water storage infrastructure has led the Makah Tribal Council to declare a state of emergency for its summer water supply every summer since 2006; limited water restrictions were just implemented July 17 for the summer of 2017. Makah Tribal Council Resolution #44-07 is the resolution that implements mandatory water conservation April 1-October 31 each year.

The geological formation and terrain of the Makah Indian Reservation limits groundwater storage, between not having continuous water-bearing strata and the impervious sedimentary geology of the reservation; most precipitation runs off in surface flows to the sea. The remote location of the Makah Tribe along the Strait of Juan de Fuca and the Pacific Coast results in higher risk of saltwater intrusion in lower-elevation groundwater and piping water from distant sources to the reservation difficult. Previous efforts to identify groundwater storage have failed in several test locations on the reservation with

limited successful wells restricted to the Waatch/Educket confluence area and Tsoo-Yess River watersheds.

The water supply for the residents of the Tribe's population center, Neah Bay, is particularly taxed during summer months as there is limited summer precipitation compounded with peak tourism season. Water demands increase by at least 25% in the summer months. The compounding effect of tourism, crucial to the Makah economy, will likely worsen in the future. Climate models project that there will be drier summers in our section of the Olympic Peninsula, with an average decline of summer rainfall of 14% by 2080, and some reductions as high as 20-40%.¹ Models also show that winter and spring rainfall will increase moderately (+8% by 2080; RCP 4.5 and 6.0), but winter and spring snowpack will decline (-65% by 2080; RCP 4.5 and 6.0 scenarios).² Considering the Makah Tribe is a rain-dominant system and has experienced summer water shortages for over a decade, we are especially vulnerable to precipitation shifts and would benefit by improving water infrastructure and retainment.

The Makah Tribe has experienced extreme drought events and has had previous difficulty in having such events declared under current rules and regulations. **We are supportive of the change in language to allow for drought determinations to have more flexibility in sub-regions and sub-seasons.** We hope this change allows for smaller areas to receive necessary support during extreme events. We do have a question regarding the removal of funding assistance language and how this may affect funding determinations and dissemination of assistance. **We would appreciate clarity from the Department of Ecology on how the removal of such language will allow for more flexibility in funding assistance for droughts and assurances that this language change will not negatively affect the Makah Tribe. We are requesting to set up a meeting or conference call with Rebecca Inman to have this conversation with our technical staff.**

Thank you for your time and consideration. We look forward to learning more on how this proposed rule change may affect the Makah Tribe. Please contact the Natural Resource Policy Analyst for the Makah Tribe, Katie Wrubel (Katie.wrubel@makah.com or 360-640-2491) to set up a meeting date as well as if you have any questions or would like additional information.

Sincerely,

Katie Wrubel

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¹ Washington State Department of Ecology. (2012). Observed Trends and Future Projections 33. Preparing for a Changing Climate: Washington State's Integrated Climate Response Strategy, 33–44.

² Ibid.