



July 24th, 2017

Mary Ellen Winborn, Director
Clallam County DCD
223 E. 4th St. Suite 5
Port Angeles, WA 98362

RE: Clallam County Community Development Case # SHR2016-00002

On behalf of the Olympic Peninsula Chapter of the Surfrider Foundation, thank you for the opportunity to provide public comments on the Cooke Aquaculture Pacific/American Gold Seafood proposal to relocate and expand their aquaculture net pen facility. We are a volunteer led, community-based organization dedicated to the protection and enjoyment of our ocean, waves and beaches. We represent surfers, beach goers, and recreational ocean users of the Olympic Peninsula and are actively involved in beach cleanups, coastal access improvements, and the enhancement of water quality along the Strait of Juan de Fuca and outer coast of Washington. **We have a number of questions and concerns about the proposal as currently written, as well as the MDNS that was granted, and recommend additional information be evaluated before the DCD and state agencies grant any approval to move forward.**

As you may know, coastal recreation and tourism is very popular in Washington State. In fact, Washington residents were estimated to have taken 4.1 million trips to the coast during 2014, of which approximately 20% were destinations within Clallam County¹. It's worth noting that the scope of the study that these numbers come from only includes Washington residents, and there are many visitors from other states and countries that visit our coast. Coastal recreation opportunities provide significant economic and social benefits to both visitors and resident coastal communities such as the financial impact of direct expenditures (e.g., hotel stays, dining, shopping) and non-market benefits such as enhanced human well-being. For many of us, the quality of life that is associated with these recreational activities are why we choose to reside and work in Clallam County. In the referenced study, respondents spent an average of \$117.14 per trip, and it is estimate that total annual coastal visitation trip expenditures contribute approximately \$481 million to coastal communities and the Washington State economy. The area included in the proposal was not thoroughly evaluated for the impacts to existing recreational resources and hotspots as part of the MDNS. **The unique wave resources found at Green Point and locations further east in the Strait are significant attractions to the local and statewide surfing community and would be directly impacted by the placement of this array.**

As part of the current and wave report, an instrument recorded observations at a site nearby the proposed location, during the month of August and part of September 2015. As anyone who lives in the Pacific Northwest knows, these are two of the calmest, or best weather months of the year. Yet, it's worth noting that there was significant swell reaching the site from an expected source in the North Pacific Ocean with an angle of 290-300 deg. Taking measurements from two of the calmest months and attempting to extrapolate results to predict conditions for the entire year is

totally inadequate, and a potential recipe for drastic failure. Additionally, buoy observations from stations within Port Angeles Harbor and the New Dungeness Buoy are not comparable for historical data comparison as both of these buoys receive wind and swell from very different angles than the proposed location. There is a very narrow band of swell angle that produces breaking waves within the Strait that are a valuable resource to the surfing community, it has been demonstrated from other studies that wave height attenuation (reduction) can be predicted when you place a dense array of large objects offshore and occupy the majority of the water column₂. Any reduction in wave height at Green Point and other locations is unacceptable, and it is reasonable to predict that the siting of this project in the proposed location will have a direct adverse impact to the unique wave quality at Green Point. Additionally, there is the potential for this placement to direct increased wave energy towards other locations and potentially exacerbating coastal erosion, and this has not been adequately addressed. Studies have demonstrated that since the late 60's, extreme wave height has been increasing in the North Pacific and is expected to continue to do so with a warming ocean in the future₃. Predictions for extreme events based upon the inadequate monitoring and modeling fail to account for the full range of conditions that this project will be subjected to, especially westerly gales that often occur in the winter months. Because of this risk, there is a significant potential for the array to break free and become marine debris along our shoreline, threatening public safety and scenic enjoyment of our beaches. **If this project is to be approved as proposed, the state and county should require the project developer to put up sufficient bonding to fully cover removal and site restoration/mitigation in the event of a worst case scenario so that volunteers and taxpayers are not left footing the bill and cleaning up the mess.**

As a group focused on improving water quality along the Clallam County shorelines, we are especially concerned about the potential impacts that this project could have on local water quality. Due to the poor food conversion efficiency of salmon, facilities like this are known to produce large amounts of fish waste. Additionally, facilities like this with high concentrations often need to use antibiotics and pesticides to control disease and parasites. **We are concerned about the potential impacts to the benthic invertebrate community, as well as the potential for impacts to the larger marine food web and human health.**

If this project were to be permitted as proposed, this would result in the presumptive exclusion of other aquatic uses such as fishing, recreation, and navigation from this area. It's worth noting that this proposal is being evaluated outside of a comprehensive marine spatial planning process, similar to what is currently being done for the Washington outer coast. How or if this project moves forward will have a direct impact on current and existing uses around these marine waters, as well as other new potential future uses. **In short, this individual project should not be considered without evaluating the other uses that it might adversely impact, and other potential uses in the future.**

In conclusion, we have strong concerns about the project as proposed and suggest delaying approval of this project until additional information has been gathered and fully evaluated for the impacts on other existing aquatic uses has fully been considered. The location and scale of the project has the potential to have significant adverse impacts to recreational enjoyment and unique wave resources within the adjacent area at Green Point and other locations further east.

We recommend the project proponents modify their proposal for an upland, closed system facility to avoid impacts to the marine ecosystem and other existing aquatic users.

Respectfully submitted,

Joe Johnson
Surfrider Foundation Olympic Peninsula Chapter, Chair

References cited:

1. Point 97 and Surfrider Foundation (2015). An Economic and Spatial Baseline of Coastal Recreation in Washington. Report to the Washington Department of Natural Resources. Portland, Oregon.
2. Haller, M et al. 2011 Laboratory Observations of Waves in the Vicinity of WEC- Arrays. <http://oregonwave.org/oceanic/wp-content/uploads/2013/09/LaboratoryObservations-of-Waves.pdf>
3. Ruggerio, P. 2010 Maximum Height of Extreme Waves up Dramatically in the Pacific Northwest. <http://oregonstate.edu/ua/ncs/archives/2010/jan/maximum-height-extreme-waves-dramatically-pacific-northwest>