Comments on the draft NPDES permit modifications for Cooke Aquaculture's Puget Sound open water net pens at Hope Island and Rich Passage

Over-arching comments

As noted in comments I submitted on the applications for these permits, I have serious concerns and request that you **not proceed** with issuance of these permit modifications.

1) This company and its predecessors have a poor record in maintaining the structural integrity of their facilities and reporting issues and emergencies in a rapid and timely manner so that appropriate mitigation can take place before there is excessive release of fish or other environmental harm. In the release of Atlantic salmon at Cypress Island in 2017, Cooke Aquaculture avoided responsibility for the fish release in their public statements and did not promptly inform authorities. Why should we expect them to behave differently now or trust their management to protect the environment from harm when their bottom line is profits?

2) Given how much additional experience and information is now available pertaining to the safety and issues associated with in-water net pen culture of finfish, proceeding with this permit without an updating and thorough review of the SEPA document from the 1990's, that is the basis for assessing environmental impacts of this industry, is irresponsible and an abrogation of the State's responsibility to protect the waters of the state.

3) The people of this State and the Legislature have expressed their high priority for protecting the ESA-listed native salmonid runs and the endangered southern resident Orca population in Puget Sound. Given that, what is the basis for furthering an activity in public waters that adds pollutants to the Sound, interferes with salmonid migration routes, and in particular, poses a risk of amplifying disease in the native fish populations? This is not just a question of whether the permit modifications will increase the level of pollution over the current discharges, but about whether these permits are an appropriate use of the state's waters in light of the ESA listings. Evaluating risk involves both looking at the likelihood of an occurrence and the severity of the potential impacts. Likelihood of some escape and likelihood of disease are both high, based on the past record of this industry. Impacts are serious if they affect the native runs of salmonids in the Sound.

I have not reviewed each of the four draft modified permits, but have chosen to review the draft permit for the Clam Bay net pen facility, WA0031526, as an example of what I presume are parallel conditions, but on different pages, of the other draft permits. Therefore, please apply my permit comments to all four draft permits for Cooke Aquaculture under consideration with the public notice.

Specific Comments on Permit Terms and Conditions

My primary concerns, beyond those expressed above, have to do with the monitoring and reporting requirements.

1) If I understand correctly, under Section S1, Discharge Limits, page 7, any release of fish from the net pens is prohibited and each fish released is a separate permit violation. Section G3 A.1., on page 29, goes on to state under Permit Actions that a violation of any permit term or condition is cause for "terminating the permit during its term or for denying a permit renewal application." I support these terms and hope that the State will respond appropriately when a release occurs, both terminating the permit, and fining the company per permit violation, as found under Section G.14., page 33.

2) Section 2, Monitoring Requirements. Monitoring should be done by a third party contractor agreed to by Ecology, not by the company. This section is confusing in terms of how the decisions proceed on whether to perform Exceedance and Enhanced Monitoring. What governs how soon after the initial sediment monitoring the applicant is required to perform Exceedance and Enhanced Monitoring? Sediment biological impacts and toxicity should be assessed as soon as an exceedance is detected, not after the annual monitoring report is submitted to Ecology in January, in order to accurately assess the full extent of impacts from the exceedance.

3) Section S 2.L, Antibiotic Resistance Monitoring, on page 13 should be a required element of this permit modification rather than requiring reliance on the vague threshold of an "unusually high usage" level, and the administrative processes to revise the permit requirements after the fact. Antibiotic usage should be assumed to be ongoing with these facilities, and antibiotic addition to the marine environment is a pollutant with ecosystem impacts.

4) Section S3, Reporting and Recording Requirements

   S3.B.3.a. – Fish Mortality Monitoring and Reporting – it appears that the only concern is to report to WDOH when fish mortality exceeds 5% of the fish in any calendar week due to a harmful algal bloom. This is important in terms of monitoring toxic algal blooms and potential impacts on shellfish harvesting, fishing and ingestion of water by swimmers. However, what does not appear to be addressed is how a decision is made as to when the fish disease incidence and mortality from pathogens in the pens is at a level that is an unacceptable risk to native fish and wildlife nearby. Monthly DMR reporting of fish mortality is insufficient to halt a serious disease outbreak that threatens populations outside the net pens. Increase reporting of fish mortality and its causes.

   S3.G.2.b. – page 18, 24-hours is too long a period to allow for reporting of a noncompliance occurrence that "may endanger health or the environment." For

example, an accidental release of fish from a net pen failure should be reported immediately. How is the quoted phrase above to be interpreted?

5) Section 4, Operations and Maintenance Manual

S4.A.3.e. – pg. 20, How is "frequent basis" defined for removal of fish carcasses? Disintegrating carcasses can carry disease and become particles that are disease vectors in either the water column or sediments outside the pens. Please specify a frequency and what would constitute a reason to increase that frequency of removal of carcasses.

S.4.a.3.l – pg 21. There should be no discharge of toxic chemicals unless specifically authorized by the permit.

S9. Fish Escape Prevention, Reporting and Response Plan

S.9.N, pg 26 – fish escapes must be reported immediately, not within 24 hours. The initial response is critical for recovering fish and assessing the size of the escapement

S.9.X, pg 27 – Ironically, an Annual Fish Release Report presupposes that this activity will result in release of fish. This entire circumstance is unacceptable and has already been declared as a permit violation that can (and should) result in termination of the permit.