

To: Rich Doenges  
Washington State Department of Ecology  
PO Box 47600  
Olympia, WA 98504  
Submitted online via online form: <http://ws.ecology.commentinput.com/?id=7kdj4>

February 25, 2019

## **RE: Atlantic Salmon Net Pen Updated Water Quality Individual Permits**

Dear Rich Doenges,

Thank you for taking the time to consider our comment on the updates to the individual Atlantic salmon net pen water quality permits. While these 4 net pens are scheduled to phase out in our state by 2022, it is important to still protect water quality and to ensure that no further damages are caused by these operations.

RE Sources for Sustainable Communities is a local organization in northwest Washington, founded in 1982. RE Sources works to build sustainable communities and protect the health of northwest Washington's people and ecosystems through the application of science, education, advocacy, and action. Our North Sound Baykeeper program is dedicated to protecting and enhancing the marine and nearshore habitats of northern Puget Sound and the Georgia Strait. Our chief focus is on preventing pollution from entering the North Sound and Strait, while helping our local citizenry better understand the complex connections between prosperity, society, environmental health, and individual wellbeing. Our North Sound Baykeeper is the 43<sup>rd</sup> member of the Waterkeeper Alliance, with over 300 organizations in 34 countries around the world that promote fishable, swimmable, drinkable water. RE Sources has over 20,000 members in Whatcom, Skagit, and San Juan counties, and we submit these comments on their behalf.

### ***A threat to native species:***

As we write this comment letter there are bills in both the House and Senate (1579 and 5580, respectively) that are working to increase Chinook salmon and forage fish abundance to address the alarmingly low populations of the Southern Resident Orca Whale. Net pens have the potential to have adverse effects on the orca food chain including ESA listed Chinook and forage fish. The high density of Atlantic salmon in the net pens leads to the emergence of diseases and parasites that can spread to native fishes.<sup>1,2</sup> In addition, escaped Atlantic salmon could potentially compete with Chinook salmon for forage fish (over 180,000 Atlantic salmon remained unaccounted for from the Cyprus Island Net Pen



collapse of 2017)<sup>3</sup>. One of the quickest ways we can help our dwindling Southern Resident Orca Whales is to remove this potential threat to their primary food base.

***Uncontrolled pollutants contaminating our ocean:***

We are also concerned with the pollutants that are associated with the net pens. The fact sheets provided for the 4 net pen permits list the following as potential pollutants: uneaten fish food, fish feces, disease control chemicals administered in food, marine fouling organisms displaced from the nets during net cleaning, and escaped fish. Specifically, Romet® 30 and Oxytetracycline are listed as disease control agents that are used to treat bacterial infections in these salmon. These drugs have a 30-70 day withdrawal period,<sup>4</sup> meaning the salmon are unsafe to consume for up to 70 days after the drugs are administered. There is no guarantee that all of the drug infused food will be ingested by the net pen fish which therefore, exposes our native fish to these drugs and potentially to people who may eat such fish. The only way to truly control all of the harmful pollutants associated with net pens is to remove them from our oceans and construct the facilities inland.

Additionally, pollutants can have impacts on other important water quality parameters, such as dissolved oxygen (DO). In late summer when water temperatures are warmer, or other times when DO requirements are harder to meet, there should be a threshold included in the permit that would cause implementation of mitigation and/or corrective action measures for the permit holder. This appears to be left out of the current permit and should be included to ensure the surrounding aquatic organisms are protected.

***Unreliable technologies:***

It was also noted in the fact sheets that the Pollution Control Hearing Board heard testimony on 3 alternative technologies to marine net pens prior to reissuance of the 2002 permit. The Board “ruled that none of the technologies constituted AKART because they were not technologically reliable and/or economically feasible, and dismissed with prejudice all AKART issues relating to all structural alternatives to net pens.” We interpret this to mean that the current net pen technologies being used in these 4 net pen operations may not be technologically reliable to prevent or control waste discharges to the waters of the state as mandated by Washington State’s Waste Discharge Permit Program, WAC 173-216-020(1). Furthermore, “Ecology concludes requiring any major changes to net pen siting [it] is not feasible in the limited time the pens can continue to operate.” Because all Atlantic Salmon net pen facilities will be closed by 2022 in Washington State, in lieu of requiring upgrades or changes to the current technology, Ecology will rely on “lessons learned” from the net pen failure of 2017 to construct this permit. While we agree that increased monitoring of sediment, dissolved oxygen, velocity, and the net pen itself is really important we are not convinced that it is enough to prevent irreparable damage to the sound given the unavoidable pollutants being discharged from the net pens coupled with the less-than-perfect track record demonstrated by Cooke Aquaculture.

***Questionable record from Cooke Aquaculture:***

An investigation following the Cypress Island net pen collapse in August 2017 highlights the failures of Cooke Aquaculture to prevent the catastrophic collapse<sup>3</sup>. Emergency measures or special monitoring was not put in place when the net pens began to fail in July. They also did not properly report the July failings, therefore, government agencies were not aware of the extent of damage that was beginning to occur. Inadequate inspection and maintenance of the nets in conjunction with the failure and

unreliability of net washing systems most likely contributed to the collapse. Following the collapse, Cooke Aquaculture was slow to respond and underreported the amount of fish that escaped by nearly half and then during the cleanup phase, post-collapse, they did not provide all of the documents that the investigative team requested. In addition, Cooke Aquaculture has not yet paid their fines for the net pen collapse as they have appealed the court's decision.

Meanwhile, down south at the Fort Ward net pen operation there were another series of violations occurring from August to December 2017. Ecology staff sent 2 separate notices and called multiple times regarding illicit discharges coming from the facility with no response from Cooke. Cooke Aquaculture was fined \$8,000 for this infraction.

The behavior from Cooke Aquaculture during these 2 instances makes us skeptical that they will be good stewards of their net pens and the environment in which they are housed. The NPDES permit relies on a self-monitoring program and history shows that Cooke Aquaculture may not be reliable to adequately monitor and maintain the health of these 4 net pens. If you decide to issue these permits despite the potential environmental risks we strongly encourage you to require a 3rd party to regularly monitor the net pens for both effluent limitations and structural integrity. This goes for the cleanup process as well that will commence in 2022.

For the reasons listed above, our recommendation is to close the Cooke Aquaculture net pens as quickly as possible without wasting any of the fish that are currently being raised in the pens. Deconstructing and cleaning up after the pens are removed will take time to complete, therefore, the sooner we start the deconstruction process the better it will be for the Puget Sound and all the organisms that depend on it for their survival. Furthermore, we recommend that Cooke Aquaculture be held accountable for the cleanup procedures and associated costs. Thank-you for your time and consideration.

Sincerely,

Kirsten McDade  
Pollution Prevention Specialist

Eleanor Hines  
North Sound Baykeeper, Lead Scientist

#### Resources

<sup>1</sup>Walker, Peter & R Winton, James. (2010). Emerging Viral Diseases of Fish and Shrimp. Veterinary research. 41. 51. 10.1051/vetres/2010022.

<sup>2</sup>Bateman, Andrew W, and S.J. Peacock, B. Connors, Z. Polk, D. Berg, M. Krkosek and A. Morton. 2016 Recent Failure to Control Sea Louse Outbreak on Salmon in the Broughton Archipelago. Canadian Journal of Fisheries and Aquatic Sciences

<sup>3</sup>Lee, Kessina, Windrope, Amy, & Murphy, Kyle 2018. 2017 Cypress Island Atlantic Salmon Net Pen Failure: An Investigation and Review. Retrieved from:

[https://www.dnr.wa.gov/sites/default/files/publications/aqr\\_cypress\\_investigation\\_report.pdf?vdqj7rk&exb4gd](https://www.dnr.wa.gov/sites/default/files/publications/aqr_cypress_investigation_report.pdf?vdqj7rk&exb4gd)

<sup>4</sup>Guide to using Drugs, Biologics, and Other Chemicals in Aquaculture. (2016). American Fisheries Society Fish Culture Section. Retrieved from: <https://www.syndel.com/downloads/dl/file/id/112/>