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# Swinomish Indian Tribal Community

A Federally Recognized Indian Tribe Organized Pursuant to 25 U.S.C. § 476  
\* 11404 Moorage Way \* La Conner, Washington 98257 \*

June 8, 2020

Ms. Laura Watson, Director  
WA Department of Ecology  
Via email: [lnie461@ecy.wa.gov](mailto:lnie461@ecy.wa.gov)

Re: Cooke Aquaculture Pacific, LLC NPDES permit modification application

Dear Director Watson:

Thank you for the opportunity to review the request for a NPDES permit modification submitted by Cooke Aquaculture Pacific, LLC (Cooke) for its proposal to rear domesticated native Rainbow trout/Steelhead at the Hope Island net pen facility. Cooke's proposal to rear 350,000 domesticated native Steelhead poses new and different risks than rearing non-native Atlantic salmon. After reviewing the NPDES application materials that Cooke submitted to the Department of Ecology (Ecology), we believe it is necessary for Ecology to engage in a new permit process that includes new SEPA threshold determination and a public hearing. We have a number of concerns with Cooke's NPDES permit application, about which we offer the following comments.

## **Introduction**

The Swinomish Indian Tribal Community is a present-day successor in interest to the tribes and bands that signed the 1855 Treaty of Point Elliott ("Treaty") with the United States. One of the core rights reserved by the Treaty is the Tribe's right to fish in our adjudicated usual and accustomed fishing areas (U&As) in and around the Skagit River system, the Samish River system, and marine waters in northern Puget Sound. *United States v. Washington*, 459 F. Supp. 1020, 1049 (1975). The Swinomish Tribe and WDFW are co-managers of fisheries and fisheries

resources within western Washington and the Tribe's right to take fish under the Treaty of Point Elliott is a legally protected interest.

The Tribe's reservation is located on Fidalgo Island in northern Puget Sound, in Skagit County, Washington. The reservation's southern boundary is the north fork of the Skagit River, which is the only river in Washington that still supports six species of wild salmon. The DNR aquatic lands lease for Cooke's Hope Island net pen contains an official survey showing the lease area to be approximately 1,010-feet wide and 1,358- feet long, or approximately 31.5 acres. According to a January 2018 engineering inspection report of the Hope Island net pen facility, that structure is currently comprised of ten (10) 26-meter square net pen cages, as well as a feeding shack, walk ways and other infrastructure around the periphery of the facility. These cages were installed in September 2010, and have a lifespan of 10-15 years. The 2018 inspection report's Attachment A contains plans and drawings of the net pen structure showing that the net pen cages, facility, anchors and anchor lines expand across an area approximately 787- feet long 700-feet wide, or extending coverage over 12.65 acres.

Since time immemorial, the Tribe has lived, hunted, fished, and gathered in and around the Skagit River basin, the Samish River basin, and marine waters in northern Puget Sound. Anadromous fish, and particularly salmon, have played a central role in the Tribe's subsistence, economy, culture, spiritual life, and day-to-day existence. For thousands of years, our homeland contained no impediments to the Tribe's ability to fish and gather shellfish throughout our adjudicated U&As. Historically, much of the Swinomish Tribe's subsistence needs were met through fishing and shellfish gathering in and around the Skagit River basin, the Samish River basin, and marine waters in Skagit Bay. The Bay is historically and currently an important fishing place, both because it is where the mouth of the Skagit River meets Puget Sound, and because of its extremely close proximity to the Swinomish Reservation, making for ease of access by the Swinomish Tribe's fishing fleet. Tribal fishers have fished Skagit Bay and throughout the San Juans, for a variety of fish or shellfish species, including Chinook, coho, steelhead, halibut and Dungeness crab. Lone Tree Point on the Swinomish Reservation and directly across from the Hope Island net pen, has historically been a place for tribal members to gather in the summer, with the beach at Lone Tree Point serving as a fishing village with fishing shacks lining the beach with unimpeded views and access.

Tribal leaders want to ensure that their grandchildren and seven generations from now have the opportunity to fish in the same way that they have for decades and to restore the cultural import and use of Lone Tree Point. The Swinomish Tribe's Treaty Rights, and the cultural, historic and subsistence significance of Lone Tree Point depends, in large part, on salmon have clean waters that are free from chemicals or other introduced man-made substances.

Pursuant to WAC 173-220, no pollutants shall be discharged to any surface water of the state from a point source, except as authorized by an individual [NPDES] permit.<sup>1</sup> All discharges authorized by a NPDES permit shall be consistent with the terms and conditions of the permit.<sup>2</sup> Discharge of pollutants not expressly authorized by the NPDES permit is prohibited. The permit holder must report discharges and will be subject to CWA violations and penalties for discharges not covered under the permit.

Permits are issued for a fixed term not to exceed five years.<sup>3</sup> During the five-year permit term, the facility's effluent discharge conditions may change from those conditions reported in the permit application and the permit holder must notify Ecology if significant changes occur constituent with 40 C.F.R. § 122.42(a). Any facility expansions, production increases or process modifications which would result in new or increased discharges of pollutants causing effluent limitations in the permit to be exceeded must be reported to the department by submission of a *new* application or supplement thereto; or, if such discharge does not violate effluent limitations specified in the permit, by submission to Ecology notice of such new or increased discharges of pollutants.<sup>4</sup>

Ecology's stated role is to consider how the proposed new species effects the discharges from the operation and what is required to protect water quality as a result. It is Ecology's duty to ensure that discharges will not endanger human health or the environment.<sup>5</sup> It would be appropriate for Ecology to consider the availability of land-based, environment-controlled aquaculture systems and compare the water quality discharges from land-based aquaculture operations to the those proposed in Cooke's NPDES permit application. The reality is that the technology exists, and it is commercially viable, to grow fish in land-based, environmentally

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<sup>1</sup> WAC 173-220-020.

<sup>2</sup> WAC 173-220-150(a).

<sup>3</sup> WAC 173-220-180(1).

<sup>4</sup> WAC 173-220-150(b).

<sup>5</sup> WAC 173-220-150(d)(iv).

sustainable farms.<sup>6</sup> As a result, *there is simply no reason to continue allowing concentrated animal feeding operations that emit hundreds of thousands of pounds of fish feces, fish food, dead fish, and antibiotic-laced food into ecologically sensitive marine areas and designated critical habitat – particularly at the mouth of the Skagit River.*

As you may know, Demographically Independent Populations (DIPs) of both Skagit River Steelhead and Chinook are listed under the Endangered Species Act. Cooke’s net pen proposal to rear 350,000 domesticated native Rainbow trout/Steelhead presents a host of new, potentially adverse water quality impacts. These potential adverse impacts include antibiotic treatments for diseases like Rainbow trout fry syndrome, which has no vaccine but is pervasive. Adverse impacts also include the potential for increased spilled fish food, which acts as chum for native wild fish, attracting predatorial pinnipeds and birds, caused by an overall higher number of individual fish in the net pen facility.

An additional important point to note at the outset is the age of Cooke’s Hope Island facility. According to DNR Aquatic Lands Net Pen Lease for Hope Island, Cooke’s net pen cages were replaced in 2010 and have “an average expected service life of approximately 15 years.”<sup>7</sup> Given that the Hope Island net pen cages are entering the last one-third of their life expectancy, we believe it is necessary for Ecology to impose more stringent below-surface inspection requirements for this cage if a permit modification were granted. We address this concern in more detail in Section 2.B.

To protect water quality, human health and the environment from pollution emanating from Cooke’s Hope Island net pen facility, Ecology must analyze and address specific concerns including but not limited to the fact that Cooke has submitted an:

1. Incomplete and Deficient Pollution Prevention Plan, including Unaddressed Adverse Impacts on Water Quality and Ecosystem Health from Antibiotic Use.
2. Incomplete and Deficient Fish Escape Prevention Plan.
3. Incomplete and Deficient Fish Escape Response and Recapture Plan.

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<sup>6</sup> For example, AquaCare Environment is a company based in Bellingham, WA that “was established in 1987 dedicated to developing and marketing cost-effective equipment and systems for modern, intensive land-based fish farming.” [www.aquacare.com](http://www.aquacare.com)

<sup>7</sup> DNR Aquatic Lands Net Pen Lease 20-B12356, Exhibit B, p. 2.

Additionally, we believe that, given Cooke's history of Clean Water Act and NPDES permit violations, including –

- the 2017 catastrophic net pen collapse at Cypress Island that released over 200,000 non-native Atlantic salmon,
- the summary judgment ruling against Cooke on April 26, 2019 for Clean Water Act and NPDES permit violations, and
- the Orchard Rocks net pen facility partial sinking incident in late October 2019,

that Ecology must take Cooke's history of permit violations into account as it considers how to handle this application.

Specifically, Cooke has lost any benefit of the doubt that it may have once enjoyed due to its failures to follow basic procedural safeguards in prior NPDES permits. The stakes could not be higher for protecting water quality in Skagit Bay, and a worst-case scenario analysis for ESA-listed Steelhead and Chinook must be included in Ecology's water pollution calculus. Given these concerns and the new information in Cooke's NPDES permit application as highlighted below, we believe that Ecology should engage in its own SEPA analysis under RCW ch. 43.21c.

Ecology should engage in its own SEPA analysis because (1) Cooke's Pollution Prevention Plan is incomplete and deficient, (2) Cooke's Fish Escape Prevention Plan is incomplete and deficient, and given Cooke's history of non-compliance should have more accountability measures, (3) Cooke's Fish Recovery and Recapture Plan is incomplete and deficient, and (4) New Tier II analysis should be required in accordance to Washington's Antidegradation Policy.

The new information contained in Cooke's NPDES permit application materials was not included as part of Department of Fish & Wildlife's (WDFW) SEPA analysis. In order for Ecology to perform its duty to ensure that discharges will not endanger human health or the environment, it must take a thorough analysis of Cooke's application and should engage in its own SEPA analysis to determine if the NPDES modification without a new threshold determination. Some of the new and/or deficient information provided by Cooke in its NPDES permit application materials includes, but is not limited to, the following.

**1. Incomplete and Deficient Pollution Prevention Plan**

A Permittee is required to develop and implement a pollution prevention plan under WAC 173-221A-110(4)(c).<sup>8</sup> The plan must contain operating, spill prevention, spill response, solid waste, and stormwater discharge practices to prevent or minimize the release of pollutants from the facility to the waters of the state.<sup>9</sup> A Permittee is required to submit the plan within six months of permit issuance, and review the plan at least annually. If changes occur, the permittee must update the plan and inform Ecology.

The pollution prevention plan must address how solid and biological wastes are collected, stored, and ultimately disposed of at an upland facility. Solid wastes of concern for marine salmon net pens include fish mortalities under normal operations, fish mortalities due to a fish kill involving more than five percent of the fish, blood and waste from harvesting operations, and sanitary waste and operational debris.

The draft pollution prevention plan submitted by Cooke in the 2020 application does not address changes in procedure related to raising native domesticated trout/steelhead. Therefore, it is likely the pollution prevention plan does not take into consideration any differences involved in native steelhead versus Atlantic salmon. The permit modification application states that Cooke is in the process of updating the pollution prevention plan, spill prevention control and response plan, and fish escape prevention plans, which will be submitted to Ecology and WDFW. None of the drafts mention steelhead or address differences in steelhead versus Atlantic salmon, and Ecology should not grant the permit until it closely examines the differences.

**A. Increased Numbers of Fish Equals More Fish Food, Antibiotics and Fish Feces**

Cooke states that growth projections for the triploid steelhead stock and the smaller targeted average harvest size may shorten the saltwater growth cycle by several months in comparison to Atlantic salmon. Yet when comparing the 2020 NPDES permit modification application to the 2017 NPDES permit application, the pounds of fish and pounds of food is estimated to be the same or greater in the 2020 application compared to the 2017 application. If steelhead are harvested at a smaller size than that of Atlantic salmon, then to achieve the same poundage rate, more fish would need to be in the net pen. If that is true, then more feed and antibiotics will be required. This, in turn, will result in more discharge of fish feces. Given harvest size for steelhead is different from that of Atlantic salmon, Ecology should expect

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<sup>8</sup> The Permittee is also required to review, update, and maintain a fish escape prevention plan and a Fish Escape Reporting and Response Plan in compliance with WAC 220-370.

<sup>9</sup> WAC 173-221A-110(4)(c)(i).

discharges to be greater for raising steelhead versus Atlantic salmon and therefore should take this into consideration when evaluating the permit modification application.

The information provided by Cooke about fish feed consumption rates and the amount of excess feed spilling out of the net pen facility is indeterminate. Section 4 of the pollution prevention plan states that:

4. "... The feeding strategies prioritize the minimization of uneaten food, thus minimizing the amount of food that falls through the cages and onto the ocean floor below. Cooke has developed Feeding Strategies to provide standards for the initial startup feeding of new smolts when they arrive on site, the size of the feed pellets, the duration time of the feeding process and the types of feed diets. As the fish grow, the Site Managers will adjust the feeding schedules ..."

This language is well-intentioned but insufficient for purposes of a NPDES permit. Cooke provided an estimate of the monthly fish feed at maximum production.<sup>10</sup> It should be required to provide an estimate of the amount of feed that is uneaten. This uneaten fish food that falls through the net pen into surrounding waters is a recurring discharge that also serves as chum to attract native fish, as well as predatorial birds and pinnipeds. Until Ecology establishes with reasonable certainty the amount of fish feed released from the net pen facility, it cannot perform an adequate assessment of the adverse impacts to water quality, human health and the environment.

Further, there is no mention in Cooke's application materials about the differing feed conversion rates between domesticated Atlantic salmon and rainbow trout. Generally speaking, science has shown Atlantic salmon to be generally more efficient at converting feed to biomass than trout, the latter being more variable in feed conversion rates and more susceptible to environmental controls (temperature and salinity) on growth.<sup>11</sup> As such, more feed is likely to be needed for trout/steelhead, which would produce more waste into the marine environment. Even though this issue is not addressed in the NPDES permit modification application Ecology should consider how the new species would increase the level of discharges.

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<sup>10</sup> Cooke January 2020 NPDES permit application, p. 9.

<sup>11</sup> Jillian P Fry *et al* 2018 *Environ. Res. Lett.* **13** 024017. <https://iopscience.iop.org/article/10.1088/1748-9326/aaa273/meta>

## **B. Antibiotic Harms to Aquatic Life and Human Health**

Ecology determined discharges may contain chemicals of concern for human health, specifically federally-approved antibiotics for fish.<sup>12</sup> Antibiotics have the potential to create antibiotic resistant bacteria in the sediment, and that resistance could be transmitted to human bacteria. Antibiotics are widely found in surface waters across the country,<sup>13</sup> and they cause known, antimicrobial-related adverse effects on both wildlife and human health at the pollution levels currently found in our waterways.

### *1. Harm to Aquatic Wildlife*

In a recent nationwide study of stream sites, maximum antibiotics concentrations ranged from 12 nanograms per liter up to 1.8 micrograms per liter (parts per billion), with many sites hosting multiple antibiotics.<sup>14</sup> Concentrations of just 0.5 micrograms per liter have been shown to change aquatic microbial communities.<sup>15</sup> One risk of these microbial changes is that the antibiotics suppress beneficial bacteria in the water, thereby harming aquatic organisms that rely on healthy levels of “good” bacteria.<sup>16</sup>

Furthermore, the presence of antibiotics in the water has led to increases in the growth of antibiotic resistant bacteria in surface waters. Studies have found that aquatic organisms also contain these antibiotic resistant bacteria. For example, studies of orcas in the Salish Sea have found antibiotic resistant bacteria in orca blow (respiratory exhalation) and feces.<sup>17</sup> In the orca feces study, 100% of samples showed resistance to at least one antibiotic, and over 70% of samples showed resistance to multiple antibiotics.<sup>18</sup>

There is a commonly occurring disease in farmed rainbow trout at the fry, fingerling and juvenile life stages requiring the use of anti-biotics because there is no vaccine.<sup>19</sup> *Flavobacterium*

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<sup>12</sup> Hope Island Net Pen Fact Sheet 08-10-19

<sup>13</sup> Bradley, Paul M et al. “Expanded Target-Chemical Analysis Reveals Extensive Mixed-Organic-Contaminant Exposure in U.S. Streams.” *Environmental science & technology* vol. 51,9 (2017): 4792-4802, at 4799.

<sup>14</sup> *Id.*

<sup>15</sup> *Id.*

<sup>16</sup> James P. Meador et al., *Contaminants of Emerging Concern in a Large Temperate Estuary*, ENVIRONMENTAL POLLUTION 264 (2016), at 263.

<sup>17</sup> Sara L. Potter, *Antimicrobial Resistance in Orcinus Orca Scat: Using Marine Sentinels as Indicators of Pharmaceutical Pollution in the Salish Sea*, Thesis for The Evergreen State College at 78 (Dec. 2013).

<sup>18</sup> *Id.* at 78.

<sup>19</sup> Nejdet Gultepe and T. Tansel Tanrikul, 2006. Treatment Methods of *Flavobacterium psychrophilum*: Cause of Rainbow Trout Fry Syndrome (RTFS) and Bacterial Cold-water Disease (BCWD) in Turkey. *Journal of Fisheries International*, 1: 102-105.



*psychrophilum* is the causative agent of Rainbow Trout Fry Syndrome (RTFS).<sup>20</sup> Both living and dead fish can be a source for the bacterium but “dead fish show a higher rate of bacterial release into the surrounding water.”<sup>21</sup> The principal infection control measure is to administer the antibiotic florfenicol, which is one of the three anti-biotics listed for use by Cooke.<sup>22</sup>

Despite the legal framework of Washington’s water pollution control laws, dilution of point source pollution emanating from a marine-based concentrated animal feeding operation is still seen as the solution to pollution, regardless of the impacts on known ESA-listed fish. Ecology must consider a worst-case scenario for the use of antibiotic medicated feed and extra-precautions taken to find diseased fish, treat diseased fish, and regularly dispose of dead fish.

## 2. Harm to Human Health

Aside from potential concerns about humans consuming low levels of antibiotics in their drinking water, aquatic antibiotic pollution poses the most substantial health threat to humans because it increases the rate of antibiotic resistance. At least two million people are infected with antibiotic-resistant bacteria in the U.S. each year, and 23,000 of those individuals die from the infection.<sup>23</sup> Studies have linked pharmaceutical water pollution to the growth of antibiotic resistance, including a recent EPA study which found that current antibiotic levels in water could inhibit some naturally occurring and potentially beneficial bacteria and trigger some antibiotic resistance.<sup>24</sup> One example of this link is provided by the common antibiotic ciprofloxacin, a drug that was recently found at about a quarter of studied stream sites across the country at concentrations up to 400 nanograms per liter.<sup>25</sup> Ciprofloxacin has been found to select for resistant bacteria at levels of only 100 nanograms per liter (parts per trillion) – well below the levels actually found in the recent nationwide stream site study.<sup>26</sup> Therefore, studies have already demonstrated that the current levels of aquatic antibiotic pollution are contributing to increasing levels of antimicrobial resistance.

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<sup>20</sup> Bebak JA, Welch TJ, Starliper CE, Baya AM, Garner MM. Improved husbandry to control an outbreak of rainbow trout fry syndrome caused by infection with *Flavobacterium psychrophilum*. *J Am Vet Med Assoc*. 2007;231(1):114-116. doi:10.2460/javma.231.1.114.

<sup>21</sup> <https://thefishsite.com/articles/rainbow-trout-fry-syndrome-rtfs-explained-1>

<sup>22</sup> Cooke Aquaculture Pacific, LLC NPDES Permit Modification Application, pdf p. 10.

<sup>23</sup> Centers for Disease Control and Prevention, Antibiotic/Antimicrobial Resistance, <https://www.cdc.gov/drugresistance/>.

<sup>24</sup> See, e.g., Meador et al., *supra* note 16.

<sup>25</sup> Bradley et al., *infra* note 6 at 4799.

<sup>26</sup> *Id.*

### 3. *Bioaccumulation of Pharmaceuticals*

Pharmaceuticals have a high potential to bioaccumulate through the aquatic food chain, with corresponding adverse impacts for aquatic and non-aquatic species alike. Even non-aquatic species that eat fish or insects can be harmed by the bioaccumulation of pharmaceutical pollution in water.

The concern that scientists have been underestimating levels of contamination in fish was reinforced in a more recent study of 150 contaminants of emerging concern in three estuaries in Puget Sound, two of which receive effluent from waste water treatment plants (WWTPs).<sup>27</sup> The study analyzed the levels of these emerging contaminants (including pharmaceuticals) found in wastewater effluent, estuarine water, and two species of fish: Pacific Staghorn Sculpin and juvenile Chinook.<sup>28</sup> The fish in this study had higher levels of contamination than would be expected based solely on the levels of contamination present in the estuarine waters, suggesting there were either upriver sources of contamination in addition to the wastewater effluent or bioaccumulation impacts through the food web, or both.<sup>29</sup> Additionally, the authors noted that there is a larger potential for bioaccumulation in water with a higher than neutral pH, such as marine waters.<sup>30</sup> In all, forty-two contaminants were found in fish tissues, including nine contaminants which were absent from both the wastewater effluent and estuarine water samples.<sup>31</sup> Importantly, juvenile Chinook had significantly higher levels of contamination than the Pacific Staghorn Sculpin, perhaps because of their high rates of ingestion and gill ventilation.<sup>32</sup> Therefore, some species such as Chinook may be especially vulnerable to pharmaceutical bioaccumulation. This variability in bioaccumulation rates between species, as well as the variability in bioaccumulation rates between specific contaminants, underscores the need to protect aquatic wildlife from foodweb magnification of pharmaceutical pollution.

In sum, bioaccumulation is likely occurring from the existing discharges and with the anticipated increase in fish and feed involved in raising steelhead bioaccumulation is likely to increase. The true amount of pharmaceutical pollution in Puget Sound is relatively unknown, and during a time when disease is causing a national pandemic, Ecology should be extra cautious

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<sup>27</sup> Meador et al., *infra* note 16.

<sup>28</sup> *Id.*

<sup>29</sup> *Id.* at 263.

<sup>30</sup> *Id.* at 263.

<sup>31</sup> *Id.* at 258.

<sup>32</sup> *Id.* at 263.

when evaluating increased discharges of antibiotics under Cooke’s NPDES permit modification application.

### **C. New Fish Mortality Information**

Cooke’s pollution prevention plan includes new quantitative fish mortality information that was not provided by Cooke to WDFW in its SEPA materials. It is unclear whether this significant new information is based on Atlantic salmon mortality. The new fish mortality information includes the following.

- a) Expected average monthly fish mortality at the Hope Island net pen is 5,000 pounds of fish biomass, or 0.17% of the total 2,800,000 lbs of annual fish biomass that Cooke expects to rear at Hope Island.
- b) These dead fish are collected three times per week by divers, except in the event of adverse weather conditions, and disposed of in landfills or compost facilities.
  - It is unclear from Cooke’s application what happens when divers are not able to retrieve the dead fish – if are they left to decay at the bottom of the net pen, what is the maximum threshold for this type of pollution discharge?
- c) Divers make what amounts to an educated guess by noting the “presumed cause of death” in their weekly reports as to the cause of the fish mortality, yet no specimens are required to be sent to a lab facility for testing.
  - Is this what Cooke considers as having a “licensed veterinarian monitor the health of fish stocks raised at the facilities” as referenced in the plan’s section 5.2?
  - Why are these fish not regularly tested at a lab for diseases, pathogens and parasites?
  - What exact training to staff have to diagnose the cause of death for several thousand pounds of fish mortality each week?
- d) The WA Department of Health (DOH) is only notified when a “large mortality event” occurs, defined as 5% mortality (140,000 pounds of fish biomass) in a one-week period. This is 28-times more than the “average” expected weekly mortality rate, but there is no information or explanation provided for why DOH notification is not required until an event of such magnitude occurs.

- Stated another way, why does an event that is 5- or 10-times the normal mortality not require DOH notification?
- Is a lower threshold for DOH engagement appropriate given the potential for disease in a net pen to infect native wild Steelhead?
- What is the plan for handling a medium-sized or large mortality event when inclement weather prevents divers from retrieving the dead fish?
- There do not appear to be notice requirements to the Tribes – why not?

- e) With respect to section 5.2, it is unclear from the plan under exactly what circumstances Cooke would engage a licensed veterinarian. Section 5.2 reads:  
A licensed veterinarian monitors the health of the fish stocks raised at the facilities. The veterinarian is used to identify the type of pathogen causing disease and the effective course of management to control the pathogen.

The claim that a licensed veterinarian “monitors the health of fish stocks” is contradicted by other statements in Cooke’s permit application. If Cooke is not required to regularly test the weekly batches of dead fish, then it seems that a veterinarian is not “monitoring” the health of the fish stock, particularly if a veterinarian does not engage until a massive fish mortality event. All indications are that it is up to technicians with completely unknown or unquantified technical training to make judgment calls about fish mortality. If veterinarians actually do “monitor” the health of fish stocks at a net pen facility, what specifically does this entail, how often do they consult with local staff, what tests are run and under what circumstances?

- f) With respect to section 5.3, the words in Section 5.3 are phrased more as a goal rather than permit conditions. It fails to state specific steps that Cooke will take to ensure the minimization of medicated feed into the environment. Section 5.3 reads:

5.3 Site Managers are responsible for the administration and keeping records of disease control chemicals used at the facilities. Site Managers work closely with the attending veterinarian to ensure that medicated feed is administered appropriately and used in a manner that minimizes the discharge of uneaten medicated feed into the environment.

Ecology needs to include some measure of quantification to direct this, rather than granting Cooke this vague, discretionary decision-making authority. Why aren't there additional requirements imposed to protect water quality from medicated feed, like an additional net, or pumping out each net pen cage of fish to treat them on land? The prevalence of antibiotics and potential adverse impacts to native wild Steelhead must be taken seriously. These are basic questions that are not answered in Cooke's pollution prevent plan and for which we request an in-depth analysis as part of SEPA review and/or a full permit modification process.

## **2. Fish Escape Prevention Plan**

This plan is dated January 27, 2020, was not included with Cooke's permit application to WDFW, and as submitted is incomplete and deficient. Cooke's escape prevention plan must be reviewed in the context of Cooke's previous Clean Water Act and NPDES violations.

### **A. Cooke is Not a Trustworthy Permit Operator**

Any NPDES permit can be revoked or modified in whole or in part during its terms for: violation of any term or condition of the permit; obtaining a permit by misrepresentation or failure to disclose fully all relevant facts; a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge; or a determination that the permit activity endangers human health of the environment, or contributes to water quality standard violation.<sup>33</sup> The department shall modify or revoke permits only after public notice and opportunity for public hearing in those instances where changes are proposed which lessen the stringency of effluent limitations.<sup>34</sup>

The state agency report on the investigation into Cooke's August 19, 2017 catastrophic net pen failure is damning. The report highlights outright lies and misinformation that Cooke told state agency officials and tribal governments. The 2018 investigation report found, among other things, that:

- The "probable cause of both the July incident and the August failure was the failure of Cooke to adequately clean the nets containing the fish."<sup>35</sup>

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<sup>33</sup> WAC 173-220-150(1)(d); WAC 172-220-190.

<sup>34</sup> WAC 173-220-190(3).

<sup>35</sup> 2017 Cypress Island Atlantic Salmon Net Pen Failure: An Investigation and Review. WA Departments of Ecology, Fish & Wildlife, and Natural Resources. January 30, 2018. P. 6.

- “Cooke did not provide accurate and complete information to the state about the July incident. Consequently, the state agencies did not investigate further.”<sup>36</sup>
- “In August and September, Cooke reported harvesting/extracting 145,000 fish from the collapsed net pen. The Panel (of state agency investigators) concluded that Cooke could only have extracted 42,000 to 62,000 fish, 43% of what Cooke reported.”<sup>37</sup>
- “The Panel estimates that between 243,000 and 263,000 fish actually escaped. Previous estimates, based on Cooke’s reports, put that number at 160,000 fish.”<sup>38</sup>
- “Of the escaped fish, 57,000 have been caught (recovered). Between 186,000 and 206,000 Atlantic salmon remain unaccounted for.”<sup>39</sup>
- “Cooke removed the surface portions of the net pen by September 24. Although Cooke stated by letter that it had removed all debris from the bottom of Deepwater Bay, an inspection by DNR on October 27 showed that substantial debris remained. DNR required further cleanup that lasted into January 2018.”<sup>40</sup>

On October 20, 2019, there was an incident at Cooke’s Rich Passage net pen facility where a corner of the facility became partially submerged as a result of Cooke’s inaction. Cooke failed to adhere to regulatory provisions in its fish escape prevention plan that were specifically enacted in response to Cooke’s net pen failure in 2017. While the investigation was ongoing, Ecology issued a letter dated October 25, 2019 that directed Cooke to review the provisions of its escape plan, and in particular, pointed out “that one technology to minimize fish escapement is the routine repair and maintenance of cage structures and mooring equipment, individual actions of which you (Cooke) outlined in the plan. From the lesson learned in the boat collision at Clam Bay in November 2018, Cooke was expected to use the Emergency and “Unusual Events” Call Down List to phone agency staff of an unusual event.”

Apparently neither of these things occurred as they were supposed to. In the end, no action was taken against Cooke despite the determination that the Cooke’s Orchard Rocks

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<sup>36</sup> Id. At p. 8.

<sup>37</sup> Id.

<sup>38</sup> Id.

<sup>39</sup> Id.

<sup>40</sup> Id.

facility did experience an “unusual event”<sup>41</sup> and that there was significant repair work needed to fix two of the net pen facility pontoons that keep the cages and structure afloat.<sup>42</sup> The reality is, Cooke waited and watched the Orchard Rocks facility slowly sink for multiple days before it took any action, and when it did act, it sent emails rather than making a simple phone call.

From the Swinomish Tribe’s perspective, it is clear that Cooke has lost the confidence of the public to be a trustworthy steward of our marine waters. Most of the new regulations enacted in 2018 by state legislature rely on unbiased self-reporting. Ecology needs to consider Cooke’s continued failure to comply with permit conditions in assessing whether Cooke will actually implement the permit conditions it may impose. Because Cooke has shown repeatedly that it is not capable of being a trustworthy, reliable net pen operator, the presumption on this critical question should go against the applicant. More than a listing of permit conditions is needed. Ecology must also assess whether Cooke should be granted the privilege of operating in Washington’s waters. An unbiased review of the track record supports denial on that basis alone.

#### **B. Deficient Notification Provisions**

Cooke’s draft escape prevention plan relies on a deficient threshold for notification to state agencies and tribal governments, and there are no procedures listed for monitoring the implementation of the plan components as required in WAC 220-370-110 (1)(e). The “Responding to Structural Integrity Emergencies” of Cooke’s escape prevention plan states in Section 2.1 that:

Cooke facility staff who observe an actual or potential structural integrity issue that poses an imminent risk of structural collapse and the release of fish into the environment shall implement the following procedure:

This section sets out the threshold for when Cooke’s staff must invoke the internal chain of emergency calls and then calls to state agencies and tribal governments, but the threshold is far too high. It is unacceptable to allow Cooke - particularly given the recent partial sinking of the net pens at Cooke’s Orchard Rocks facility – to make a unilateral judgment call about when and whether it believes there is an “imminent risk of structural collapse” before invoking the

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<sup>41</sup> October 2019 Unusual Event Summary, Orchard Rocks South, Rich Passage Atlantic Salmon Farm Operated by Cooke Aquaculture Pacific, Version 10/301/19.

<sup>42</sup> Assessment of Orchard Rocks SE pontoon repair, DSA, by Colin Wilson, Peng, Nov. 21, 2019.

notification provisions of the Prevention Plan. Cooke's judgment cannot be relied upon or trusted.

The specific trigger for invoking notification to state agencies – Ecology, WDFW and DNR – should be much lower; in order to meet Ecology's duty to protect water quality and prevent ecological harm, Cooke cannot be trusted to self-regulate any longer. There is simply no basis for that given its past behavior. There must be unequivocal language that would require Cooke staff to initiate emergency notification procedures at the outset of any potential emergency or unusual situation, regardless of whether Cooke believes it poses an imminent risk of structural collapse. This is particularly important in light of Cooke's failure to follow procedures last October with the Orchard Rocks net pen incident, as documented by Ecology in its October 25, 2019 letter.

### **C. Net Pen Life Expectancy**

As noted above, the DNR lease clearly states that the existing net pen cages were replaced in late summer 2010, and that they have a life expectancy of approximately 15 years. Section 9.4 of the plan contains an error by stating that Cooke's "cage systems may have a life of 20 years" when the facts do not support that statement. Given age [10 years] and life expectancy of net pen cages [10-15 years] more frequent below surface inspections should occur for the entire mooring system, marine engineering inspection, and ultrasonic surveys if in fact Cooke is ultimately granted a new or modified NPDES permit. More frequent inspections are especially important and necessary considering Cooke's 2017 and 2019 net pen failures. Cooke's failure to increase monitoring inspections given the life expectancy is another example of the plan's deficiency.

### **3. Fish Escape Reporting and Recapture Plan**

Cooke's Recapture Plan, dated January 27, 2020, was not included with Cooke's permit application to WDFW and is an incomplete and deficient plan as submitted. It contains multiple sections that raise concerns, including fish recapture procedures that purport to rely extensively on tribal fishermen and tribal fishing vessels despite a complete lack of communication from Cooke on this matter.

The recapture procedures in Cooke's recapture plan apparently conflict with statutory requirements. WAC 220-37-120 unequivocally states, "[i]t is the responsibility of aquatic farmers to report an escape of marine finfish and to attempt to recapture escaped fish." However, Cooke's recapture plan grants Cooke's Emergency Management Team full discretion regarding



the order in which it proceeds to secure the net pen site, all the while feral fish are escaping.

Section 4.1 on the recapture procedures states that:

4.1 Recapture Procedures In the event of a catastrophic structural failure of the equipment, securing the net pen structure may be necessary in order make the site safe for employees and subsequent fish recapture actions. The safety of Cooke employees and contractors takes priority over fish recapture. This determination is made at the discretion of Cooke EMT.

While the safety of human life is undoubtedly a priority, securing the net pen should happen *simultaneously* with the emergency notification and recovery of feral fish, not afterward, and not at the discretion of Cooke.

Section 4.1 goes on to state that:

The next priority is to determine and attempt to correct the cause of the accidental fish release by repairing the breach or implementing some form of secondary containment, if possible.

Cooke EMT maintains an Emergency Work Vessel Contact List. The contact list is provided in Appendix B. The Permit Coordinator will update this list annually. The operators of emergency work vessels will keep Cooke apprised of changes in personnel or contact information.

This last provision is problematic both procedurally and substantively. Cooke should be required to keep a list of willing vessel owners who have agreed ahead of time to be on call to come under contract at a pre-arranged and agreed upon rate and terms. In the event of another net pen failure, there is no time for contract negotiations. Further, Cooke should not be allowed to require work vessels to have to update their information to Cooke – this responsibility should rest solely with Cooke.

Section 4.1 Recapture Procedures continue as follows:

Upon receiving authorization from WDFW, the Cooke EMT will commence recovery of escaped fish through one or more of the following actions:

- a. Deploying Cooke skiffs and seine nets to recapture escaped fish.
- b. Contacting the Northwest Indians Fishery Commission and nearby tribal Natural Resource managers to help facilitate the recapture of escaped fish.
- c. Contacting and engaging the services of local vessels of opportunity to facilitate the recapture escaped fish.

We believe it would be imperative that Cooke engage in all three of those actions simultaneously, and that WDFW, Ecology, DNR and the affected tribal governments work together in making these decisions. Cooke should have no discretion in making these types of important decisions that would impact fishery resources.

Section 4.2 addresses recapture vessels, gear, and methods, and includes that:

Cooke will work with nearby tribes to review appropriate fisheries and gear types and identify the key natural resource contacts in the areas near each of the marine net pen farming locations. The tribal contact list is presented in Section 2.

This is a huge assumption on the part of Cooke. In essence, they are relying on tribal fishery expertise, boats and gear, yet have not approached anyone at the Swinomish Tribe about this potential. Thus, we are a cornerstone of Cooke's recapture plan yet they do not believe it is important to start by asking whether and how we may want to engage with them in these efforts.

Section 4.2.2 discusses potential contractor equipment, yet contains a fundamental error.

Commercial fishing contractors can employ the following methods of capturing and removing fish:

1. Purse seining - These vessels allow the nets to be gathered and the captured fish to be pumped onto a harvest vessel using the vacuum pump.
2. Gill netting – These vessels capture fish by encircling them with nets that the fish become tangled in. This method is effective if the fish are within the size range that gill-net vessels target. Target fish size for most gillnets is between three pounds and 15 pounds.

According to Swinomish Tribe fishermen, only gill netting, and not purse seining, would work to try and recover escaped fish in Skagit Bay. This further highlights Cooke's failure to work with nearby tribes to review appropriate fisheries and gear types, although it claims that it will.

Section 7.1 discusses the reliance upon a Unified Command system in the event of an emergency. We find the provisions in this plan particularly inadequate and believe this plan is fundamentally flawed and incomplete. Cooke must ensure that Swinomish Tribe representatives are included in the Unified Command system as an equal partner and decision maker.

Finally, we respectfully request that Ecology refrains from issuing the NPDES permit for Hope Island unless and until Cooke has initiated, and has reached agreement with all parties on, the requirement in the January 21, 2020 WDFW permit to develop a "no-recovery option" for escaped fish with numerous state agencies, tribes and NOAA. The WDFW permit requirement states:

"3. It is conceivable that an attempt to recover fish after an escape event might negatively affect native Pacific salmonids more than no attempt to recover fish. Cooke is required to work with WDFW, Ecology, DNR, affected treaty tribes, and NOAA to include a no-recovery option in the 2021 Fish Escape Prevention, Response, and Reporting Plan, to be

finalized December 2020. This option should include when, where, and under what conditions a recovery effort should not be attempted. A no-recovery option would be triggered by the state, in consultation with co-managers and federal agencies for the purpose of protecting native Pacific salmonids.”

We believe it is incumbent upon Ecology to require that Cooke initiate this process and reach agreement with all appropriate state and federal agencies and tribal governments on the “no-recovery option” *prior to* any steelhead being placed in the Hope Island net pen.

#### **4. New Tier II Analysis Required**

The Clean Water Act requires that water quality standards protect existing designated uses by establishing the maximum level of pollutants allowed in surface water. Washington requires extra protections for water that is already cleaner than the standards. The Washington State Antidegradation Policy<sup>43</sup> functions to restore and maintain the highest possible quality of the surface waters of Washington. The policy applies to human activities that are likely to have an impact on the water quality of the surface water.<sup>44</sup>

The Policy applies three tiers of protection for surface waters of the state and the proposed facilities are under Tier I. Tier I requires dischargers maintain and protect existing and designated uses.<sup>45</sup> Ecology must not allow any degradation that will interfere with, or become injurious to, existing or designated uses, except as provided for in chapter 173-201A WAC. Tier II review is required when a physical expansion of the facility (production or wastewater system expansions with a potential to allow an increase the volume of wastewater or the amount of pollution) or activity. New or expanded actions that are expected to cause a measurable change in the quality of the water may not be allowed unless the department determines that the lowering of water quality is necessary and in the overriding public interest.<sup>46</sup>

In 2017 Ecology made a determination that Tier II analysis was not required because the receiving water quality constituents had not been demonstrated to be higher than the criterion designated by state water quality standards. Now that Cooke is planning to raise an increased number of fish, which is likely to lead to an increase in discharge, Ecology should make a new

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<sup>43</sup> WAC 173-201A-300 - 173-201A-330.

<sup>44</sup> *Id.*

<sup>45</sup> WAC 173-201A-310.

<sup>46</sup> WAC 173-201A-320(1).

determination as to whether Tier II analysis is required to protect existing and designated uses of the receiving water.

**Conclusion**

For the foregoing reasons, we believe that Ecology should perform its own SEPA analysis to ensure the health and safety of Washington state waters and people. In doing so, Ecology must take into full account Cooke's pattern of violations of the Clean Water Act and requirements of its NPDES permits.

Thank you for your consideration of our comments and concerns. We look forward to our government-to-government consultation with you on Thursday, June 11<sup>th</sup>.

Sincerely,

A handwritten signature in black ink that reads "Amy Trainer". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Amy Trainer, Environmental Policy Director  
Swinomish Indian Tribal Community