



**AQUATACTICS™**  
Fish Health

June 8, 2020

To Whom it May Concern:

**Regarding Cooke Aquaculture Permit switch from Atlantic salmon to sterile Rainbow Trout**

I am a veterinarian that runs a private practice out of Kirkland, WA and am licensed to practice in several states, including Washington. In the course of my 30-year career, my clients have included public and private fish stock enhancement facilities, private aquaculture, tribal hatcheries, and non-profit entities across the US. I have done work for Cooke Aquaculture and am familiar with their facilities, people, fish culture acumen and expertise. I am commenting in support of the proposed switch from Atlantic salmon to sterile native rainbow trout for their net pens in Puget Sound. In particular, I will address concerns on the fish disease front, an area central to my qualifications and expertise and one that I have seen mischaracterized by opponents as per suggested risk to our valuable wild salmon stocks.

Net pen aquaculture has been accused of putting wild fish at risk from disease. These allegations are mostly baseless and from unqualified detractors. They ignore basic epidemiological principles of pathogen transfer and herd immunity. Wild fish and animals are naturally exposed to countless bacteria, viruses, and parasites which are omnipresent in the environment. After initial exposure, there are some losses and then an immunity is set up within a population, with impact minimal and/or ebbing and flowing with a myriad of external factors through their lifetime. Farmed fish do not have this natural and gradual exposure and generally come out to net pens without any pathogens. Skilled stockmen and licensed fish health professionals realize this and take several measures to prevent and/or minimize losses from exposure to natural carrier wild fish. These measures include: intense husbandry and care consideration of the welfare of this fish to minimize stress as much as feasible in order to keep a fish's immune system as responsive as possible (undue stress can "turn off" the immune system); vaccination in the hatchery to most of the common pathogens that wild fish carry; and continual fish health and performance monitoring of the stock in order to spot any issues as soon as possible. In fact, because farmed fish are in pens, their health status can be monitored with a degree of rigor not possible with wild fish, this can actually give the impression that farmed fish have more diseases because the weaker "canaries" do not get picked off by predators as they do in the wild. Again, it is in the farmers financial interest to deftly apply sound husbandry practices to minimize disease risk. Avoiding stressful practices that interfere with growth and feed conversion (often indicators of stress and precursors to disease) are basic tenets that skilled and experienced fish farmers employ. In the event that disease outbreaks from wild fish pathogens do occur (as with all agricultural animals) mitigation practices are quickly put in place with licensed products, under the supervision of licensed professionals. These fish health tools have been intensely scrutinized by the FDA and/or EPA for both food and environmental safety prior to being legally available. Again, the danger of disease back to wild fish is minimal as they have already been exposed to the pathogens that the farmed fish have not. It is my professional opinion that native rainbow trout pose no significant risk to wild salmonids of Puget Sound.

Regards,

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Veterinarian