

Ronald Howlett

There is no mitigation that can make wild fish safe from aquaculture pens. Our wild salmonids are under threat from habitat destruction, pollution and introduced diseases. This is partly due to the unnatural concentrations and feeding of penned finfish. If we are to protect and rebuild our native salmon, steelhead and other sea run trout populations, it cannot be done in conjunction with the toxicity created by fish farming in adjacent waters. This permit must be revoked, with no equivocation.

Note: Regarding fish Waste:

No matter the species, there is no mechanism to capture waste from open water net pen aquaculture. Fish waste, excess food, dead fish, and tissue sloughed off of live fish, all flow from net pens into surrounding waters. This nutrient imbalance in the vicinity of pens can be harmful to some wild species, and can cause unhealthy growth of other species, including algal blooms. Additional climate change impacts suggest die-offs from algal blooms could be more frequent. Read about an example in BC's Clayquoet Bay.

Unlike highly-regulated land-based agriculture and production where animal manure is collected and composted, waste (feces, urine, medicines, and uneaten feed) from open water is discharged directly into public water. The most prominent organic nutrient waste involved are phosphorus (P) and nitrogen (N). Based on calculations made by Wild Fish Conservancy using a bioenergetics program and data provided by Cooke in their monthly NPDES reports, the estimated amount of untreated N discharged by Atlantic salmon net pens in Puget Sound on a daily basis is roughly equivalent to the amount of N discharged in waste treated by the city of Tacoma. For the same comparison with regards to P, the amount of discharge is roughly equivalent to the cities of Port Angeles, Everett, Bellingham, and Tacoma combined.

The attraction of wildlife including birds, sea lions, orcas, seals, and other fish (described in 5a) concentrates animal waste near the pens, further increasing levels of phosphorous and nitrogen.

Currently, Ecology only considers the impacts of the nutrients and chemicals discharged on the environment directly below or in close vicinity to the pens. As part of risk assessment and monitoring, Ecology should utilize the Pacific Northwest National Laboratory's Salish Sea Model, a predictive ocean-modeling tool developed by the federal government for coastal estuarine research, restoration planning, water-quality management, and climate change response. This tool could analyze how discharge and pollution from net pens travels through the dynamic, tidal marine environment, therefore allow Ecology to better evaluate the risk the pollution poses and the geographic range the pollution would impact.

Basically, this is way to much waste for Rich Passage, and must be stopped!!!

Sincerely,

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