

# Martha Hall

Thank you for the opportunity to submit comments. Thank you also for the informational meeting and hearing in Anacortes.

I am submitting comments because I am concerned about risks involved in this action which will continue fish farming until 2022. I appreciate the fact that the new state law will mean a phase out of these 4 sites with Atlantic salmon net pen, but between now and then, what are the risks of continuing this until 2022 - with the proposed and hopefully better safe guards? Please explain these risks to our Salish Sea and its native salmon species and other wildlife and ecosystems. Risk assessment is difficult at best. What were the perceived risks before the collapse of the net pen on Cypress Island and how much will these risks be reduced in the new permits with the additional requirements? What is the risk of another small or major release of Atlantic salmon into our waters as happened at Cypress Island? What is the risk of the Atlantic salmon in these pens coming down with a disease that might need to be treated and which might be transmitted to native fish? What is the risk of having to use antibiotics and what is the risk of putting these antibiotics into the ecosystems and wildlife in the Salish Sea? When all of these risks are combined, is it worth it to continue allowing these 4 sites to operate? Is the possibility of and cost of litigation if the permits are not issued - are these factors being considered as these permits are being renewed? How much money would be spent on this litigation before 2022 if the permits were denied as compared to the risks of issuing new permits?

I also question why the permits do not include an estimation of the amount of pollution that they will allow as if often the case in permits for pollution? It seems like the permit should include the total amount of pollution that is being allowed in Puget Sound, including all parts of the operation such as the pounds of Atlantic salmon themselves, the amount of their feces, the amount of the food that is fed to the salmon, both consumed and not consumed, amount of expected antibiotics and other chemicals that might be added, the amount of added feces and other pollutants added when the fish nets are cleaned and serviced, etc. Shouldn't each of these be addressed and quantified in the permit and disclosed?

Shouldn't the permits also identify the areas in the Puget Sound and possibly beyond that might be impacted by this point source of various forms of pollution from each facility? How far does each travel and what native species and ecosystems will come into contact with these pollutants? Shouldn't factors like nearness to especially rich or important habitats be considered, when assessing the impacts of these pollutants? For instance, a fish farm location that will impact major estuaries, such as the one near the mouth of the Skagit River, or near eelgrass beds might be unacceptable because of esp. high risks to native salmon and other native species.

Many of us, from experience, have learned that sometimes the consultants and workers that are hired by companies like fish farms are not totally objective and honest in identifying and reporting problems. Yet, some of the safe guards being used in these permits depend on people and consultants hired by the owners, not hired by the State of Washington. These people have a vested interest that is very different from the interests of the public in our native salmon and in our marine resources. How can this problem be addressed so we, the public, are not having to depend on monitoring and reporting done by those employed by the owners of the fish nets? Is

there a way to assess fees to pay a "third party" to do this monitoring and reporting, someone with no vested interest? However, shouldn't fish nets be cleaned on land to reduce the amount of pollution into the water which is far more serious? Might this be required in the new permits?

We learned a lot from the collapse of the pens at Cypress Island, and unfortunately, one thing we learned was that we could not believe everything we were told by the owner and operator of the fish pens that collapsed. This should result in much tighter regulations that are monitored and reported on by "third parties" with no vested interest. Is it true that even after the company said the area had been totally cleaned up after removal of the fish farm, that this was not true when the area was checked by WA State?

Because the pens are to be phased in 2022, what incentive is there for the company to invest a lot of money in improved facilities? How motivated are they to uphold the highest standards? It seems like this situation increases the need for third party monitoring and reporting.

When will the NMFS and EPA complete their formal consultation under Section 7 of the ESA on EPA's approval of Ecology's sediment management standards for marine fish farms? Why doesn't it make sense to wait until those standards are finalized before acting on these new permits? Is there any reason not to wait for these standards? Is it possible to not allow use of these 4 sites until those standards can be considered before finalizing these permits? Could you explain whether WA State has the right to with-hold use of these 4 pens until that time and when those standards are expected to be finalized? Is there any chance that new and better ideas and standards will come out of that process, standards that should be part of this process?

Related to that consultation, is the State of WA legally allowed to write new permits BEFORE that consultation is completed since it is expected sometime in the next 6 months? Weighing the risks involved, is NOT waiting a good choice for DNR and our state?

Do the new permits adequately address air pollution? Anacortes, as well as other neighbors, have learned that the netting becomes very foul and net cleaning and storage creates a huge amount of air pollution. Who is responsible for these and how are these to be limited to a standard that is acceptable? Will this be monitored and if so, by who? Will the new permits also address lighting and how that will be limited and monitored so it is acceptable and does not increase predation of native salmon stocks in adjacent areas? What is known about the predation of native salmon and other native fish near fish pens, fish that may have been attracted by the fish pens over what might be normal predation by gulls, herons, seals, etc?

Could you explain the extent that fish farm nets attract native salmon species and other native fish species and other native species, through food, etc. and how much this might contribute to predation on these native species? How much of a factor is this in the areas where these 4 facilities are located? One is located near the estuary of one of our most important rivers, the Skagit River, where we have spent millions of dollars to improve salmon habitat. Let's hope we have many native salmon migrating through and using this area at different times of the year. Please explain how lighting impacts this predation. How could these impacts be mitigated? What studies have been done to show how many and what species of native fish and wildlife are attracted to these fish farms, how much time they spend near and, when possible, in the net pens, and what the impact is on these species?

Doesn't the current disperse the feed in fish pens over a wide area which would attract other fish and wildlife from a wide area? How wide an area is effected at these 4 sites?

At the presentation in Anacortes, we heard about studies of areas directly below the pens to see

recovery times and rates, but doesn't the impact spread much farther and do these studies capture the data when the net pens are being used? It seems not.

How is harvesting of the fish monitored? If native fish including salmon do enter the pens, are they too harvested? What studies have been done to show if this is a problem and if so, how serious is it? Are injuries and deaths reported? If so, what have they been in past operations? Could that information be shared? If these fish, dead or injured, are discarded, how has this monitored and reported in the past? Is there an unintentional take of endangered salmon and of other native fish species that is allowed?

When pharmaceuticals and other chemicals are used in fish farms, how much of these are consumed by native fish near and in the pens? Is it known if the level is safe for human consumption if these fish are caught within a few days and eaten by humans and other species such as seals and herons? Have these been tested for safe levels on all species consuming these pharmaceuticals and chemicals? Do we know how far other species and fish who consume these substances are traveling? Is the public warned to not consume fish caught in the area during this time? Are any of these substances ones that are contributing to the increasing problem we are having with the effectiveness of our standard antibiotics in humans and other animals? Should this pollution from pharmaceuticals and other chemicals be added to the amount of these substances that is entering Puget Sound from stormwater and from water treatment plants where these are not removed? How much of a problem do these substances present to the health of our marine waters and the wildlife that live in these waters? Have the levels of these substances been tested in native fish near net pens when these substances are being used and afterwards? Is it higher than areas where there are no fish farms?

Is the discharge of pathogens found in farmed fish in fish farms considered a hazardous waste? Should it be? How likely is it that native salmon and other species would be infected? What is the infection rate found in studies when there have been outbreaks?

The threshold explain at the meeting seemed far too low before treatment and before total removal of the fish. Are the pathogens found in farmed fish in fish farms more common in fish farms than in our native species? If so, this seems like a risk that may not be acceptable. Congregating many animals in a small area always increases the risk of disease and creates the need to use antibiotics. If native salmon and other species also congregate in higher numbers around fish farms, this too needs to be considered when calculating risks of fish farms infecting our native fish.

Finally, I support requiring large bonds from the owners, up front, that will adequately cover any need at any time to remove pens, in 2022 or before, as part of the permits, if permits are issued. What did full removal and clean-up at Cypress Island cost? How much of this was paid by the State of WA and our tax payers, costs such as monitoring, etc. ?

Thank you again for allowing me to comment. Like many, I see no way to safely farm fish in net pens floating in our marine waters. So much has been learned since the original permits were approved. So much more has not yet been learned. Is it worth the risks to continue this practice until 2022? What would it cost to NOT issue new permits for discharge of pollutants? Maybe paying the legal costs makes sense.

I hope the Department of Natural Resources, the Department of Ecology, and the WA Department of Fish and Game will begin to consider the value of natural ecosystems that are left to be natural, that are not rented out, leased, or otherwise disturbed. Many of our state's lands might have far more value if they were not leased out for cattle or sheep grazing - values that result

from healthier streams and riparian areas, more forage for wildlife, and far more value as recreational areas. The same might be true of some of our state's forest lands. Natural ecosystems provide many services that have not been adequately identified and quantified. It is time for us to do this so we will understand their value.

Martha Hall  
Anacortes, WA  
[pondfrog.mh@gmail.com](mailto:pondfrog.mh@gmail.com)