

## Agreement to Shut Down Some Salmon Aquaculture Operations in BC: First Nations to Monitor Remaining to Protect Health of Wild Salmon

Open-net Atlantic salmon fish farms have been very controversial among First Nations in coastal British Columbia. But rather than occupying the farms, the Broughton Archipelago First Nations now visit them to monitor the health of industry's captive fish. Their aim is to ensure the protection of the wild Pacific salmon in their territory on the northeastern flank of the Queen Charlotte Strait off the coast of British Columbia.

In a remarkable development following years of protests and court hearings, Broughton Archipelago First Nations and the Province of British Columbia agreed in a landmark Letter of Understanding (LOU) to develop a consensus-based process to develop recommendations related to open-net fish farms. Consensus recommendations were developed in the fall 2018, including the decommissioning of 10 of 17 operating farms by 2022, the establishment of an independent genomic lab, and the creation of Indigenous monitoring and standards for the remaining fish farms by First Nations to determine whether the remaining tenures may be renewed to continue operations. These recommendations were also supported by the two companies operating the fish farms in the region.

*“There’s been a tremendous shift...it’s been quite an amazing journey,” says Kelly Speck of the ‘Namgis First Nation. ‘Namgis, Kwikwasut’inuxw-Haxwa’mis, and Mamalilikulla comprise the Broughton Archipelago First Nations.*

“The ‘Namgis First Nation was in the middle of planning a court case against the Department of Fisheries and Oceans in the fall of 2017 when everything changed in the relationship with the Province,” says Speck who was a First Nations representative throughout the process to reach the LOU.

Canada is the fourth largest farmed salmon producer in the world and Atlantic salmon is Canada’s largest aquaculture export. In 2017, Atlantic salmon aquaculture production was valued at one billion

dollars and British Columbia was the main producing province. However, open-net aquaculture has been the subject of a great deal of debate regarding the role of viruses, diseases and sea lice from these operations in the sharply declining wild salmon populations.

The current BC government wanted to embrace free, prior and informed consent as outlined in the UN Declaration on the Rights of Indigenous People and met with First Nations in October of 2017 to begin to talk about fish farms among other issues. They agreed to a shared decision-making process based on consensus to resolve the issue of the farms, since the tenure licences for all 17 fish farms in the Broughton region were up for renewal at the time.



LOU signing. Photo Credit: Bob Chamberlin

“We created a true government-to-government process,” says James Mack, Assistant Deputy Minister at the BC Ministry of Agriculture, Science and Policy. Being equals in the decision-making process enabled both First Nations and government to develop an understanding of each other and their different interests and priorities, and to reach consensus on the way forward Mack says.

“This is a flagship case on reconciliation goals,” he says. It provides a concrete example of how “taking a different approach in looking at First Nations governance resulted in an outcome that works for everyone.”

In the LOU, the BC government agreed that the industry required consent of the Broughton Archipelago First Nations to work in their territory after 2022.

*“It was a perfect storm of events,” says Bob Chamberlin, a former elected Chief of the Kwikwasut’inuxw-Haxwa’mis First Nation. Although Chamberlin had opposed the farms for all 14 of his years as an elected chief, immediately getting rid of the farms would have economic impacts locally and be unfair to the industry and its employees he said.*

A transition plan was hammered out through many meetings in 2018 with consensus that the farms were having an impact on the environment and wild salmon. The transition plan integrated traditional ecological knowledge on salmon migration which became the basis for decommissioning the first farms to protect migration routes says Chamberlin.

Of the 10 farms to be decommissioned, seven have already been pulled out of the water and the Indigenous Monitoring and Inspection Plan (IMIP) has begun thanks to the support of the BC Salmon Restoration and Innovation Fund. Under the IMIP, First Nations are leading the monitoring of fish health, sea lice, pathogens, disease agents and diseases before and after introduction of fish into the fish farm.

In co-operation with aquaculture companies, First Nations are also taking samples of smolts (young salmon) from industry hatcheries. These are being tested for piscine orthoreovirus (PRV) which is quite common even in healthy farmed Atlantic salmon. If PRV is detected, smolts will not be transferred into saltwater net pens. The testing is done by the

Okanagan Nation Alliance’s (ONA) kł cpəlk’stim lab that supports the ONA’s hatchery in Penticton, BC.

“We’ve been testing for PRV since the fall of 2019,” says Chad Fuller, the ONA Fisheries Research and Diagnostic Biologist. Only one sample so far has been found affected by heart and skeletal muscle inflammation, the disease linked to PRV says Fuller.

The partnership between ‘Namgis First Nation and the ONA is a first step to establish an independent BC First Nations’ Genomic Lab that will offer state-of-the-science, high-throughput pathogen testing using the Fluidigm BioMark™ technology.

Infectious disease contributes to declines in wild salmon populations and is detrimental to the success of salmon enhancement activities. Sea lice are another major concern as they often infest farmed salmon and when vulnerable wild juvenile salmon passing by the net-pens on their migration they too can become infested.

“We want to do live and area-based sampling to find out how the lice might spread between farms,” says Speck of ‘Namgis First Nation. And, under the monitoring plan there will be tighter control of lice on farmed salmon in the pens. “We work with the companies but we collect and analyze the data allowing for more transparency and independence,” she says.

Previously First Nations didn’t have a relationship with the aquaculture companies. However, through the various shared decision-making processes that led to the agreement, all parties have learned from each other says Speck. “We had to accept that the companies have a business to run while they now understand they need our co-operation if they want to be in our territory.”

It has taken a lot of dialogue and learning over the past two years but the results have been “very satisfying and rewarding” said Speck. This includes rebuilding strong relationships between the three Broughton Archipelago First Nations.

“I think we also have a foundation for a new relationship between government and First Nations,” she concluded.



Photo Credit: Bob Chamberlin

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*Commitment to Reconciliation*