



Ontario Aquaculture Association

EAT ONTARIO FARMED SEAFOOD

December 12, 2019

Fisheries and Oceans Canada
Aquaculture Management Directorate
200 Kent Street (10th Floor)
Ottawa, Ontario K1A 0E6

RE: Ontario Aquaculture Sector's Engagement on Potential Aquaculture Act

The Ontario Aquaculture Association was created by industry to foster growth, innovation and community for the province's seafood farmers. By volume, we represent more than 98% of the aquaculture sector in Ontario. Our 44 members span the entire supply chain, including fish and shrimp growers, land-based and net-pen farms, seafood processors, Indigenous groups, feed and technology companies, and others invested in seeing Ontario's sector grow and thrive.

Ontario's aquaculture industry continues to be a world-leader in the production of eco-friendly proteins. Last year, we grew more than 100 million meals of farmed fish and shrimp in Ontario waters. Recently, we were recognized by both the Global Aquaculture Alliance's [Best Aquaculture Practices](#) program and [Ocean Wise](#) for growing some of the most sustainable seafood on the planet.

Aquaculture is the fastest growing food production sector globally, and it continues to grow at an unprecedented rate in Ontario. In the last five years, our farm-gate sales have nearly doubled to more than \$37 million and our farmers now contribute over \$122 million to Ontario's economy. We have significant potential to expand throughout the province — and expand sustainability — to bring more jobs than ever to rural, northern and Indigenous communities.

Ontario's seafood farmers support the spirit of this Aquaculture Act in Canada because it formally recognizes our sector, our farmers, and the eco-friendly proteins that we and our families work tirelessly to grow in Ontario.

We commend the Government of Canada, and specifically Fisheries and Oceans Canada, for creating a vision and roadmap for a thriving and competitive sector across the country. And we applaud them for ensuring that Canada's diverse communities, especially Indigenous groups, be part of the long-term plan for our sector.

Ontario's seafood farmers also support the existing Ontario-led approach to aquaculture management in our home province.

The vast majority (94%) of our industry relies on the sustainable production of rainbow and steelhead trout in freshwater net-pen farms. These net-pens are unique in comparison to others, and they require specialized operations and governance approaches. Several unique aspects include:

1. Ontario's net-pen farms have a positive impact on Great Lakes biodiversity

Earlier this year, a landmark 10-year study published in [Freshwater Biology](#) found that net-pen farms can increase populations of wild fish in Ontario's freshwater environments. Researchers placed a farm in a small lake in the Experimental Lakes Area that had similar characteristics to Georgian Bay and Lake Huron, and then compared the effects against an untouched lake.

They found that wild prey fish populations increased dramatically during the farm's operation, including with adult lake trout who saw populations double. However, two years after the farm was removed, the benefit to the local ecosystem disappeared and populations declined once again. This shows that the impacts of net-pens can be positive and are not permanent.

Dr. Cheryl Podemski, a scientist with Fisheries and Oceans Canada, [said to TVO](#): "We really overloaded the lake, and we did not cause the sort of things that people are scared about. We didn't cause huge problem for the native fish population; we didn't cause huge algal blooms... The study shows that aquaculture is an activity that can be done safely if regulated carefully. It's not something to be inherently scared of."

Although this ELA study was conducted in a small lake under "laboratory-like" conditions, there is additional research from ecology professor Dr. Neil Rooney and his team at the University of Guelph that is showing similar effects in real-world scenarios around many net-pen farms in northern Ontario.

2. Escaped rainbow trout do not out-compete wild populations

Ontario's fish farmers invest significantly in technologies and best management practices to avoid escaped fish. These measures are overseen by farm managers and owners, the Government of Ontario, and auditors from certifying bodies such as the Best Aquaculture Practices program. Any escaped fish has a direct impact on our livelihood and our bottom line.

However, up to 1 million juvenile rainbow trout (*Oncorhynchus mykiss*) are released into Ontario waters every year from the fish culture stations operated by the Ontario Ministry of Natural

Resources and Forestry and community-run hatcheries throughout the province. Rainbow trout are a naturalized species that have lived in Ontario for 120+ years, and they're a favourite for Ontario anglers. The stocked trout are a small fraction of the species released across Ontario to restock lakes and rivers for ecosystem restoration and recreational fishing.

In most cases, the rainbow trout being released for these purposes are genetically similar — if not identical — to the rainbow trout we rear in farms throughout the province. There is absolutely zero concern that a rainbow trout that has escaped from a farm would out-compete their “wild” counterparts.

3. There is limited risk with diseases or parasites being transmitted from farmed to wild fish

Ontario fish farmers are extremely fortunate that there are no major diseases, viruses, or parasites present in Ontario waters that could have detrimental impacts on either farmed or wild populations. This means there is little risk of pathogens or parasites (such as sea lice) transferring between cultured and wild fish.

This is due, in part, to strict biosecurity regulations for the transfer of aquatic species across provincial and national borders that our sector strongly supports. Our farmers will continue supporting these strict regulations if transport guidelines are enshrined within a new Aquaculture Act.

4. Indigenous communities play a central role in bringing sustainable Ontario trout to market

All of Ontario's net-pen farms are either owned, operated, or sanctioned by Indigenous communities, and you would struggle to find a First Nations community in Ontario that is opposed to the sector.

Several net-pen farms are entirely Indigenous owned, while others operate through a shared equity arrangement. Others exist through long-term partnerships with Ontario-owned businesses that guarantee Indigenous employment and royalties back to the community.

The majority of these net-pen farms are certified through the Best Aquaculture Practices program, which holds them to an international standard for their environmental stewardship, fish welfare and social responsibility. This standard is often higher than any net-pen licencing requirements from the provincial or federal government.

In Ontario alone, there are also more than 30 Indigenous-led aquaculture projects in the construction and development stages. There are even more in the feasibility and planning



phases, with many tied to the Waubetek Business Development Corporation and DFO's Northern Integrated Commercial Fisheries Initiative.

Even with an Aquaculture Act, our sector believes that the Government of Ontario is best situated to understand, regulate and develop this earth-friendly sector in the province.

Furthermore, in addition to focusing on increased trout production, the Ontario Aquaculture Association and our members are working hand-in-hand with new companies, new partners and all levels of government to diversify the sector. Together, they are developing new and novel technologies, species and practices to grow more sustainable seafood than ever before.

Several OAA members are trying out new rearing techniques to grow pacific white shrimp. On Manitoulin Island, members are partnered in a pilot project to grow lake whitefish in net-pens, which are a species of significance to northern Ontario Indigenous communities.

Others are exploring practical and economically viable applications for recirculating aquaculture systems, including with hatchery scenarios and with warm-water species such as barramundi. Although they hold great promise, these systems have high capital and operating costs, technical complexity and a shortage of operational expertise that currently hinder any meaningful expansion both in Ontario and across Canada.

Ontario's seafood growers ask that federal and provincial agricultural ministries play a greater development role for the sector.

There is nothing more important to us than the health of Ontario's lakes and rivers. Without them, our farmers and their families have no livelihoods. Our supporting companies and our processors have no business. And our rural, northern and Indigenous communities that rely on the sector have diminished employment.

Our farmers support consistent and common-sense environmental regulations for the Ontario aquaculture sector. Our existing farming families believe in using internationally-recognized best management practices to bring sustainable seafood to market, and we expect all those farming fish and shrimp in Ontario in the future to do the same.

We look forward to working with Fisheries and Oceans Canada, Ontario's environmental and natural resource ministries, Indigenous communities, and environmental groups to ensure that we are growing protein in Ontario waters sustainably for generations to come.

However, in addition to being careful stewards of Ontario waters, we are also farmers. We worry about our fish. We fret about weather and climate change. We live on-site and our jobs are often 24/7. And most of our businesses are family owned and operated, with many passing to the second generation.

We ask to be recognized as the farmers that we are, and this means calling upon Agriculture and Agri-Food Canada and the Ontario Ministry of Agriculture, Food and Rural Affairs to formalize their role in advocating for the growth of the sector — similar to other agricultural livestock commodities.

Canada's new Aquaculture Act should lay out a long-term vision for an aquaculture industry that is environmentally, socially and economically sustainable. Equipping the federal and provincial agriculture ministries to advocate for the growth of the sector — as opposed to the environmental and natural resources ministries that regulate and manage the sector — will ensure the ambitious plan of an Aquaculture Act will be realized.

On behalf of Ontario's seafood farmers, we thank you for the opportunity to share an accurate, up-to-date, apolitical and evidence-based perspective on Ontario's aquaculture industry.

We look forward to continuing the dialogue as you bring forward this important and valuable legislative recognition of our sector.

Respectfully,



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