

Hello Nova Scotia!

Cermaq Canada is thinking about expanding its salmon farming industry into Nova Scotia and wants to hear from you.

June 2019 Update

What we were up to in May?

As you may have heard, Cermaq Canada is currently investigating the possibility of expanding our Atlantic salmon farming operations into Nova Scotia - specifically the Digby, Guysborough and Richmond areas.



Since we announced our intentions on April 3, 2019, we have started to reach out to local government, associations, groups and the Mi'kmaq of Nova Scotia.



Our website – www.HelloNovaScotia.ca – continues to receive lots of traffic, and we would like to say thanks to everyone who has taken the time to visit the site. You can sign up for notifications at the bottom of the home page.



By providing your email address, you will receive an email alert when ever new content is loaded onto the site. Don't worry, we promise not to use it as a distribution list, and we will never share your details.

In June, some of our team members travelled to the Chedabucto Bay and Digby regions to speak with local researchers, biologists, governments and associations. We have started to deploy sensors into waters in the identified areas of interest that will measure and collect real-time data of current speeds, wave action and water temperatures. We have also been collecting historical temperature and current information from regulators, government and research facilities as available.

We are now starting to compile historic and sensor information to create a baseline of information which we will use moving forward as part of our feasibility work. We have not identified specific potential sites at this point as we are still working to establish a baseline for conditions and we will need to look at sea floor conditions as well.

Moving forward, when we are in the region, we will be letting residents know through signage. We have sandwich boards which will be placed in the area where we will be working. If you have any questions, please give us a call to find out more about why we are in the area, what we are doing and how the work we are doing will be used moving forward.



We will be looking to begin formal public engagement later this summer and will share more details as we begin to formalize a plan.

We are using feedback, which we are receiving now, to customize engagement for audiences, communities and interests. We want to talk to as many people as possible to ensure we are getting the full scope of opinions and information as we move along the Option process. So far, our engagement plans include the creation of community advisory committees in the regions of interest, community participation, door-to-door visits, open house meetings and continued monthly updates.

We are open to ideas though and appreciate any ideas or feedback you may have. Also, if you know of a group, association or club which would like more information, please contact Amy Jonsson, communications specialist at amy.jonsson@cermaq.com.

What we have heard and learned so far.

We continue to receive lots of great questions and feedback though our website, email (questions@cermaq.com) and our Facebook page. We are also learning more about Nova Scotia, local priorities, values and the history of the fishery. We have received lots of questions regarding the

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sustainability of the industry, the ability of aquaculture and exiting Nova Scotia fisheries to work alongside each other, and our day-to-day practices.

We are going to continue to use our social media and our website to answer these questions – but if you have a questions that you haven't seen addressed – we want to hear from you. Please reach out and we will make sure it is added to the website and shared through this newsletter. Email questions@cermaq.com, or call Amy Jonsson at 1-250-202-7680 (collect calls will be accepted).

Let's talk about movies.

Recently there has been talk in the media and among some local groups about two movies which focus on aquaculture, specifically salmon farming. We aren't here to dispute or disagree with the movies, but we would like to provide some context.

The one film, *Salmon Confidential*, is from 2013 and looks at declining wild salmon populations in BC and the potential role of the Piscine Reovirus (PRV), Infections Salmon Anemia (ISA) and Salmon Alphavirus in that decline.

We do have PRV in our waters on the west coast, but there are a few important facts that we want to share about PRV virus. The first is that PRV is naturally occurring in the Pacific and the fact that our fish once moved to our ocean farm sites may be exposed to the virus and test positive for the virus is not a surprise to us. There have been several strains of PRV identified and are native to specific geographic regions. The one found in the waters around Vancouver Island is local to the area and is different from the PRV found in other parts of the world such as Norway, Iceland, Japan and Chile.

We test our broodstock for the virus as it can be passed on through the eggs and milt, and we also test our smolt for PRV before transferring them to our ocean farm sites. The Pacific Ocean strain of PRV has so far shown itself to be innocuous through research and testing. When introduced to both wild and farmed salmon, no symptoms or disease have been detected even though the virus is present in blood samples. As an industry, we are taking action and researching the virus to eventually development a treatment or vaccine.

Infectious Salmon Anemia (ISA) is a virus, and we are fortunate in that we do not have the virus in the waters off of BC. The virus has been present at our operations in Chile, but we have now developed an effective vaccine for the virus, and we do inoculate our fish prior to transfer to our ocean farms in that region. To help ensure our waters remain ISA free, we test all of our broodstock – as the virus can be passed through eggs and milt.

And lastly, the Salmon Alphavirus (SA). We do not have the SA virus in North America, but it is present in some waters in Europe. The virus has been linked with internal organ damage in both wild and farmed fish.

At Cermaq we have a dedicated Fish Health team, which includes biologists, veterinarians and specialist. We work within strict fish health guidelines, testing and monitoring program to ensure that our eggs, fish and milt are healthy and virus free. We also do not import fish, eggs or milt from other operations or countries which eliminates the risk of bringing viruses such as SA and ISA here to Canada.

We do have very stringent and strict fish health, testing and vaccinations schedule as we want to ensure the health of both wild and farmed salmon. Because of this, we are confident in saying that all of our fish enter our ocean sites healthy and disease and parasite free.

The second film which you may be hearing about is called *ArtiFISHal*. There is a lot in that movie that we agree with and actively support.

We agree that our wild salmon is at risk, and that every effort needs to be made to support this iconic and important species. We agree that climate change is one of the largest threats we are facing as a

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planet, and that the oceans plastic problem needs to be addressed. We also really like that the film points out that salmon are a complex and highly evolved species and a sentient being.

Here is where we start to differ.

The decline of wild salmon is a very complex issue, and we believe and research is showing that salmon are facing variety of challenges, including ocean acidification, warming ocean temperatures from climate change, plastics, loss of habitat through urbanization, pollution, and increased ocean traffic and use.

We are working actively to support wild salmon through enhancement programs with local associations, First Nations and non-profit organizations. We think that enhancement hatcheries have a role to play in helping to build wild salmon stocks and work with these hatcheries to help build capacity and provide financial and in-kind support. Our whole business is salmon so we are comfortable in saying that when it comes to rearing, feeding and growing salmon, we have quite a bit of expertise to share.

We are working to reduce ocean plastics through our operations and local initiatives such as beach clean ups and community events and awareness. We are also committed to raising our salmon in the most sustainable way - which right now, means using a combination of land and ocean based operations. To go to solely land-based operations at this point would mean adding fossil fuels back into our operations, as well as increasing our fresh water usage and land mass. To us, this feels like taking a step backwards. It would require is to relocate our operations closer to markets, which would pull our operation out of the small coastal communities who rely on aquaculture as part of the local economy. It also means taking our fish back to a more crowded and dense environment, which we know is not optimal for fish welfare and really, with the current technology available, represents feed-lot conditions for the fish.

We are doing our part to continue to evolve and develop as an industry, which means continuing to support research and technology into closed or semi-closed ocean systems and non-pesticide or medicated treatments for sea lice. We are testing a semi-enclosed system in Norway which is showing great results, and we are working to get a system here in Canada to trial.

That isn't to say that down the road – moving to land-based wouldn't make sense. Ten years ago, we wouldn't have believed that we would be able to treat an entire farm for sea lice in three days using only fluctuating water pressure changes - but here we are with a Hydrolicer.

We are happy to have the conversation as there is always value in talking, even when we don't agree.

What are we planning in the coming months?

We are looking for a full-time Sustainable Development Specialist to be based in Guysborough. If you are interested, or know someone who would be a good fit, please visit the [Career section](#) of our website for a full position description as well as information on how to apply. You can also reach out directly to the local firm we are using to manage the hiring by contacting [Cynthia at Summit Search Group](#) in Halifax.

We will be having a more visible presence as summer ramps up and we are able to get on the water and into the communities. We are also going to continue to engage with local governments, groups and associations.

We have taken our lead from the preliminary conversations we have had, and are waiting until after lobster season to begin to engage with communities, but looking to slow it down before hunting season start up later this fall. We will be placing ads on our website, social media and with local publications to share meetings dates and schedules for public consultation which we anticipate will start in August and continue through to the end of the fall.

We are sponsoring some local community events this summer and would be happy to meet with you and listen to your input. We have confirmed our participation so far in the Digby Lobster Bash from July 5 to the 7, and the Stan Rogers Festival in Canso from July 25 to the 28.

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Updated Frequently Asked Questions (FAQs)

What is happening with sea lice counts on the west coast?

The good news is that we are currently experiencing incredibly low sea lice counts at our ocean farms on both the east and west coast of Vancouver Island. There are however some residual issues which we are dealing with on the west coast of the Island from the challenges faced in 2018. In spring and summer 2018, we experienced unusual weather conditions in the Tofino region. Record heat in the region, combined with drought conditions created warm ocean water with increased salinity (no fresh water from rain fall or run off, creates saltier ocean conditions) which created ideal conditions for lice. As a result, we saw very high lice levels at some farms. The management team took some difficult but proactive measures to help reduce the overall amount of sea lice in the region by accelerating our harvesting and continuing sea lice treatments.

Coming into 2019, we have three farms which continued to see elevated sea lice levels, so as a management team, the tough decision was again made to accelerate the harvest schedule. This does have a negative impact on our bottom line, but it was the right decision to support wild salmon.

Moving forward, we have improved area-based management techniques, and have invested in a new Hydrolicer which removes sea lice using only fluctuating ocean water pressure to first loosen and remove the sea lice. The machine also triple filters, then captures lice eggs and other biological matter which is then captured and contained on the barge, then disposed of on land.

Has Cermaq been impacted by the toxic algae blooms in northern Norway?

Unfortunately, yes - we have been impacted by the toxic algae blooms which occurred in May in Northern Norway, specifically the Troms and Nordland regions. Cermaq Norway has lost several thousand tonnes of fish along with many other salmon farmers in the region.

The specific type of algae – *Chrysochromulina leadbeateri* – can be toxic to marine life at different life-cycles. Although the algae is common to the Norwegian coast, it hasn't been seen this far north. We have provided advice and support to our Norwegian colleagues, and hope the blooms end soon.

Will you be hiring more employees soon?

We are currently recruiting for a Sustainable Development Specialist to be based in Guysborough. More information is available in our [Careers](#) page on HelloNovaScotia.ca. Moving forward, we anticipate that we will need additional support to assist with planned engagement and feasibility work. As opening become available, we will continue to share through our website, social media and local advertising.

Is Cermaq Salmon genetically modified?

No. We do have a biologist on our team who oversees our breeding program and mapping of our fish families. We carefully select our broodstock – our select pool of fish which we use for breeding the next generation – for consistent and strong growth, health and resistance to early maturation. In the future, we would like to be able to further selectively breed and would be looking for traits such as resistance to common pathogens and water temperature fluctuations. We do not however conduct any type of gene modification.

Watch for information about meeting dates and locations as well as other planned events in local newspapers, on our engagement website at www.hellonovascotia.ca, our social media and through online community calendars. You can also sign up for email notifications, or send questions directly to us at questions@cermaq.com. In the meantime, if you want to talk with someone, please contact Amy Jonsson who works on our Environment and Sustainable Development team at 1-250-286-0022 between 8:00 a.m. PST and 5:00 p.m. PST, or email her at amy.jonsson@cermaq.com. Collect calls are accepted.