June 6th, 2017

The Honourable Catherine McKenna, Minister of Environment and Climate Change
The Honourable Jane Philpott, Minister of Health
The Honourable Dominic LeBlanc, Minister of Fisheries, Oceans and the Canadian Coast Guard

Dear Ministers McKenna, Philpott and LeBlanc:

We are writing to express our serious concerns about a proposal for commercial production of genetically modified (GM) Atlantic salmon in Canada, and to request a comprehensive toxicity assessment. Such an assessment is required, according to the Federal Court and subsection 106(1) of CEPA, if the company AquaBounty wishes to manufacture or use its genetically modified "AquAdvantage" salmon (AAS) outside the company's facility at Souris, PEI.

Commercially rearing these organisms has not been subject to a risk assessment under the Canadian Environmental Protection Act (CEPA). Rather, experts with Fisheries and Oceans Canada (DFO) conducted a risk assessment in 2013 on the manufacture in Canada of GM salmon eggs. The assessment was clear that were these genetically modified fish to be grown out to maturity in Canada, a further risk assessment would be needed to ensure protection of the Canadian environment and biodiversity. However, the company Aquabounty now proposes to produce the GM salmon at a new facility in Rollo Bay West, Kings County, PEI and has requested approval from the Province of Prince Edward Island for construction of the facility.

We urge you to ensure that the necessary federal environmental risk assessment is conducted before genetically modified salmon are commercially produced in Canada. We also urge you to ensure meaningful opportunities for public consultation as part of this process, given significant interest in this issue on the part of citizens, environmental and civil society groups, and recreational and commercial fishing organizations.

Environmental Risks of Genetically Modified Salmon

AquaBounty's GM Atlantic salmon is the first genetically modified animal in the world approved for human consumption.

The company AquaBounty (now a subsidiary of Intrexon) owns the rights to the organism, which contains genes transferred from two other species – an ocean pout and a Chinook salmon. The company claims that the fish grow to adult size faster than conventional Atlantic salmon.

CEPA aims to ensure that all new substances are assessed for their potential harm to the environment and human health prior to their import, manufacture, or sale in Canada. Fisheries and Oceans Canada conducts CEPA risk assessments for fish products of biotechnology and recommends any necessary risk management measures to the Minister of the Environment and Climate Change and Minister of Health. CEPA risk assessments evaluate whether a given substance or organism is "toxic" for the purposes of section 64 of the Act.

DFO's expert risk assessment of AAS was premised on AquaBounty's stated intent to produce AAS eyed-eggs at the company's facility in Souris, PEI and to export up to 100,000 of those eggs annually for grow-out in Panama. Although the eggs are produced to be all-female and sterile, up to 5% could be fertile. DFO's risk assessment noted that there is no information on the reproductive behavior of AAS females – a knowledge gap characterized as "significant".

The DFO risk assessment found the potential hazard of AAS to wild populations of Atlantic salmon to be high with reasonable uncertainty, with the potential hazard of AAS to biodiversity in Canada being unknown. On the recommendation of DFO, then-Ministers Ambrose and Aglukkaq granted AquaBounty a waiver of the legal requirement to provide data from a test to determine the invasiveness and toxicity of AAS. This recommendation was based on AquaBounty's commitment to manufacture only eggs, and to contain AAS at its Souris, PEI facility so as to protect the environment.

Based on AquaBounty's proposed use scenario of manufacturing up to 100,000 AAS eggs, which would be exported for grow-out in Panama, the risk assessment concluded that the risks to the Canadian environment were low. That is, the eggs could be contained at the Souris, PEI facility and if any were released into the natural environment they were unlikely to survive.

However, the DFO risk assessment made it clear that any changes to this proposed use scenario could result in a different risk assessment conclusion. Unlike eggs, AAS at later stages of development could survive and thrive in the natural environment in Canada if released.

The DFO risk assessment was clear that changes to AquaBounty's proposal may result in the entry or release of AAS into the environment in a quantity, manner or circumstances significantly different than what was assessed. Given the potential hazard of AAS to the environment, including potential invasiveness, new activities such as commercial grow-out of AAS in Canada could result in a different risk assessment conclusion.

The company is currently proposing to produce 250 metric tons of GM Atlantic salmon per year at its Rollo Bay Facility. If the company's eventual goal is full-scale commercial production, this will require further expansion. Large-scale commercial production could involve the raising of GM fish in the millions at numerous facilities. As the scale of an operation increases, the chance of escapes increases, as does the probability that some of the escapees will be fertile and capable of breeding with wild Atlantic salmon and/or other species. Researchers have stated that the probability of inter-breeding could be significant with long-term, full-scale commercial production in Canada.

Commercial Production at a New Facility Must be Subject to a CEPA Toxicity Assessment

Then-Ministers Ambrose and Aglukkaq issued a Significant New Activity Notice for AAS in November 2013 that was significantly broader than that recommended in the DFO risk assessment, and the use proposed by the company. However, as confirmed by the courts in subsequent decisions, Aquabounty is restricted by subsection 106(10) of the Act to using and manufacturing AAS at its Souris, PEI facility because it was granted a waiver of information requirements pursuant to subsection 106(8)(b) of CEPA for use at this facility only.

We were therefore surprised and concerned to learn that Aquabounty is now proposing to commercially produce AAS at its new facility in Rollo Bay West, Kings County, PEI. According to the Federal Court and subsection 106(1) of CEPA, if Aquabounty wishes to manufacture or use AAS at a facility other than its Souris, PEI facility it must file a new Notification under section 106(1).

We therefore request that a comprehensive toxicity assessment based on all legally mandated information be conducted before Aquabounty is permitted to engage in commercial production outside of its Souris, PEI facility. Such an assessment is necessary to ensure the protection of the Canadian environment and biodiversity. We also request transparency and meaningful opportunities for public consultation during this process. To date there has been no consultation with Canadians on the manufacture or production of GM fish in this country.

Sincerely,

Lucy Sharratt, Coordinator, Canadian Biotechnology Action Network (CBAN)
Theresa McCLenaghan, Executive Director, Canadian Environmental Law Association
Lois Corbett, Executive Director, Conservation Council of New Brunswick
Brent Patterson, Political Director, The Council of Canadians
Peter Robinson, President, David Suzuki Foundation
Mark Butler, Executive Director, Ecology Action Centre
Tim Gray, Executive Director, Environmental Defence
Sidney Ribaux, Executive Director, Equiterre
Beatrice Olivastri, CEO, Friends of the Earth Canada
Joanna Kerr, Executive Director, Greenpeace Canada
Karen Wristen, Executive Director, Living Oceans Society
Gretchen Fitzgerald, National Program Director, Sierra Club Canada Foundation

CC:
The Honourable Robert Mitchell, Minister of Communities, Land and Environment, Prince Edward Island

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[i] DFO. 2013. Summary of the Environmental and Indirect Human Health Risk Assessment of AquAdvantage Salmon. DFO Can. Sci. Advis. Sec. Sci. Resp. 2013/023. Available online: http://waves-vagues.dfo-mpo.gc.ca/Library/361091.pdf.

[ii] For information regarding the proposal, see, e.g. https://www.princeedwardisland.ca/en/information/communities-land-and-environment/redevelopment-facility-aqua-bounty-canada-ltd-eia.

[iii] Note that this Panamanian facility is permitted for research and development. The facility has been permitted to produce one batch of AAS eggs from 2016, but full regulatory approval for commercial production and local sale in Panama is still needed. If commercial production at the Rollo Bay, PEI facility is approved it will be the world's first commercial GM fish production facility.