



June 10, 2016

Mary Duda  
Senior Aquatic Ecologist  
Ministry of Natural Resources and Forestry, Policy Division  
Species Conservation Policy Branch, Fisheries Section  
300 Water Street  
Peterborough Ontario  
K9J 8M5

RE: EBR Posting 012-5045 - Application Guidelines for Cage Aquaculture Facilities

Dear Ms Duda,

We are submitting our response to the above captioned EBR posting at the same time as we are submitting our response to the EBR posting of MOECC # 012-7186 - Provincial Policy Objectives for Managing Effects of Cage Aquaculture Operations on the Quality of Water and Sediment in Ontario's Waters, as we see these two working in conjunction with one another and have overarching concerns regarding both.

Our main concern with this industry is their ongoing use of open net cages to grow their fish, which results in the disposal of their nutrient rich waste directly into public waters and onto public lakebeds, as well as the release of an unidentified quantity of antibiotics and escaped fish. We do not think that this industry has the social license to contaminate public resources in this fashion.

We appreciate that MNRF has a mandate to pursue opportunities to monetize the natural resources of Ontario for public benefit, but we feel that the licensing of public waters and lakebeds to a farm industry that releases 55 tonnes of Phosphorous per year into this shared environment is unjustifiable. We are troubled by the fact that the MNRF screens these open net cage operations under the Class EA RSFD to a Category A (category of lowest concern) when there have been clearly identified environmental impacts from specific cage operations in the past (La Cloche Channel and Grassy Bay) and suspected impacts from other cage operations (Lake Wolsey). All Great Lakes based fish farms should be treated as Category C in the Environmental Assessment process. The current Category A classification undermines public confidence and hence impedes the securing of social license.

The lack of public reporting back on this file also undercuts social license. For example, while the applications for licence renewal, and in some cases expansion of feed and types of fish to be farmed, was posted on the EBR for public comment in April 2015 there was no further posting advising what decision the MNRF had taken regarding these licences. This lack of further posting was despite a written commitment in the original postings to make such decisions publically known. We have contacted MNRF several times for confirmation on what has been approved and have

received no response. Based on a conversation that we had with the Environmental Commissioner of Ontario on this matter we conclude that the lack of response is because of the low risk EA classification that is attached to this file.

If this industry hopes to ever gain social licence we suggest that the MNRF and other government agencies be transparent on analysis and decisions that are made on this file.

## **Specific Points on the Coordinated Application Guidelines**

### **Section 1 Introduction**

We think that it would be helpful for the MNRF and MOECC to provide a definition for the term “ecologically sustainable” in referring to conduct of the cage aquaculture industry.

We appreciate that the “one window” approach coordinated by the MNRF would be helpful to the industry. We think this could also be helpful to the public, if the window was used for open and transparent communication on all government dealings with this industry (including water and sediment testing, antibiotic applications, fish stock escapes, licence evaluation and the rationale for decisions made).

### **Section 2.1 Application Type**

We appreciate that you are introducing more rigorous applications Types A and B (new farms and expansions to existing farms) as the “short form” risk analysis that has been used to date by the current operators is wanting.

We note that under Type B Applications the guideline refers to existing sites that may request a relocation of boundaries or the addition of a Secondary Site. This raises a flag to us as one way an operator may try to deal with a waste assimilation problem is to try to expand his licensed area and or establish a secondary site where cages can be fallowed. Nowhere in this guide is there any indication of how much Crown land may be allocated to any one operator or to the industry as a whole.

### **Section 3.1 Application Review Process and Timeline**

As mentioned elsewhere in our submission we believe that fish farms have the potential for greater environmental impact and hence public concern than has been heretofore assigned to them by MNRF. If they were to be classified as Category C in the Environmental Assessment process there would be a more appropriate amount of public engagement and opportunity for scrutiny of each individual application.

### **Section 3.3 Review Committee**

The Great Lakes Water Quality Agreement is not listed in Section 4. This is an important piece of legislation that deals with nutrient loading in the Great Lakes. Environment Canada should be included on the Review Committee or someone else should be assigned the responsibility to understand this Agreement and assess the impact of cage aquaculture activities on this Agreement.

### **Section 4.1.2. Public Lands Act**

In this section of the Guide it is stated: “The approved occupational authority, if granted (i.e. land use permit, licence of occupation, lease) will be issued...” This implies that cage aquaculture licenses could evolve from shorter term Land Use Permits to longer term Crown Leases. Given the inexact science as to the accumulative impact of cage farms on each site we recommend that shorter term (5 year renewal) LUPs be the only instrument that is allowed for these operations.

### **Section 4.1.3 Ontario Water Resources Act and the Environmental Protection Act**

We understand that cage fish farms do not have an end of pipe to focus on as per other potential sources of pollution as identified in the Ontario Water Resources Act. That said, we think that it can be reasonably argued that each cage aquaculture farm is in itself a point source for pollution. It can be calculated how much nutrient is released from each farm based on an analysis of phosphorous in feed going into the farm minus the amount of assimilation of this phosphorous into the fish that are harvested from each farm (based on scientifically substantiated conversion rates). Therefore, this industry can be compared with other point sources of nutrients going into the Great Lakes whether they be from cities, land based farms, cottages, etc. We have had a long standing question as to why government allows this industry the free use of public waters to dispose of its untreated nutrient rich waste while cities, farmers and other stakeholders need to treat their waste. On a straight farm to farm comparison the cage aquaculture farmers have a distinct competitive advantage over land based farmers of protein because they do not have to implement waste treatment strategies under the Nutrient Management Act. We do not think that this is fair or justifiable.

### **Section 4.1.6 Environmental Bill of Rights, 1993**

As detailed at the outset of this submission and again in the next Section we feel that cage aquaculture has been misclassified by MNRF with regard to the extent of the environmental screening that should be done on each application. Hence there is less opportunity than we think is warranted for public disclosure of details on each site through the EBR and elsewhere.

### **Section 4.1.7 Class Environmental Assessment for MNRF Resource Stewardship and Facility Development Projects (Class EA-RSFD)**

To date every cage farm licence, whether for the 5 –year reissuance of its licence, or for increase in feed quota, or request for Crown lease from that of Land use Permit, has been screened to Category A (Potential for low net negative environmental effects and/or concerns) under the MNRF’s Class EA-RSFD structured guide. We believe that history has proven that each site presents its own unique challenges and sometimes decisions were made using the Category A screening to license operations that turned out to be wrong (i.e. La Cloche Channel). There even seem to be some ongoing challenges in Lake Wolsey that may be exacerbated by the fish farm in that location that were not identified during the license screening for that location.

Given this history and taking into account that any activity that releases nutrients into the

Great Lakes should have regard for the bi-national Great Lakes Water Quality Agreement, we recommend that each application (renewal or new) be subject to the scrutiny required under Category C of the Class EA. The continuation and growth of this industry should be done with precaution so as to try to avoid long term and possibly irreversible damage (i.e. La Cloche Channel).

### **Section 4.2.1 Fisheries Act**

The GBA is aware that Sections 35 and 36 of the Fisheries Act may be overruled by the Aquaculture Activities Regulations Act (AAR). MNR is premature in its mention of these Acts without also mentioning that both are currently under review by the Department of Fisheries and Oceans, and the AAR has yet to be implemented. If the MNR is the lead organization now for the Ontario operations, then they ought to be the ones responsible (not the operators) for ensuring that aquaculture operations are meeting the requirements of all applicable legislation and regulations

### **Section 4 and 5 (Ontario and Federal)**

We believe that the following pieces of legislation should be included in any review done by the MNR on cage aquaculture applications:

- ***Invasive Species Act***

We know that the nutrients from cage farms promote the growth of the Zebra and Quagga Mussel population and suspect that they also promote Round Gobi. Neither of which should be encouraged.

- ***Great Lakes Protection Act***(in support of the Great Lakes Strategy)

The essence of the Great Lakes Protection Act is to maintain Lakes that are “drinkable, swimmable, fishable”. As has been demonstrated in many locations across the Great Lakes (including Lake Wolsey), nutrient loading can lead to cyanobacteria outbreaks which render the public water to be undrinkable, unswimmable and unfishable. All activities that release nutrients into the Great Lakes should be regulated closely and open to full public scrutiny.

- ***Great Lakes Water Quality Agreement***

Ontario is the only Great Lakes jurisdiction that allows cage aquaculture in its part of the Lakes. Interestingly the State of Michigan has recently undertaken a study of the possibility of allowing cage aquaculture in their jurisdiction. A great amount of research was undertaken culminating in a report entitled: “**A Synthesis Report Regarding Net-Pen Aquaculture in the Great Lakes, March 9, 2016**”. ([http://www.michigan.gov/documents/mdard/Synth-Paper-NetPENS-09Mar2016\\_516439\\_7.pdf](http://www.michigan.gov/documents/mdard/Synth-Paper-NetPENS-09Mar2016_516439_7.pdf)) The study concludes by stating: “While not recommending the pursuit of commercial net-pen aquaculture in the public waters of the Great Lakes, the state can and will continue to work within existing authorities to assist the industry in development of well designed flow through, closed and recirculating aquaculture facilities.”

Given that Ontario through Canada is party to the Great Lakes Quality Agreement and

given that this agreement addresses nutrient loading in the Great Lakes, we feel that this Agreement should be used as a screen on all licenses for cage aquaculture operations (new and existing).

Moreover, we have yet to receive an answer to our question as to why this farming sector is not held to the same standards as other farm operations in Ontario that must comply with the **Nutrient Management Act**. This gives this sector an unfair economic advantage as they have free use of public waters to dispose of their waste.

## **Section 5.2 Public Consultation and Notification**

In order to build public confidence in an industry that uses the Great Lakes for direct disposal of its high nutrient and possibly antibiotic laden effluent, public consultation must not be made exempt by the MNRF's continuous use of Section 32 of the EBR, nor by O. Reg 681/94, which allows the Ministry to absolve itself of public consultation requirements when issuing licences through its Class EA process and through the EBR. The GBA continues to request greater transparency on the part of both MNRF and the MOECC with the issuance of cage aquaculture licences and ongoing monitoring in the Great Lakes (Georgian Bay and its North Channel to Lake Huron).

## **Appendix B: Applicant Instructions for Sampling and Reporting Requirements**

In order to gain public trust and social license we believe that all cage operations should be required to undertake: 1. Baseline Water Quality Reports; 2. Supplemental Water Quality Monitoring; 3. Sediment Monitoring and Depositional Modelling and; 4. A Fisheries Background Report. The use in some cases of "may be required" rather than, "will be required" in reference to the industry requirements for reports, modelling, and monitoring concerns us. We feel that all operators should be required to comply with these.

Further the MNRF should work with MOECC to model the long term, long range effects should the industry continue to grow and expand in light of the likely impacts of climate change on the Lakes such as higher water temperatures, lower water levels, and severe storm outbreaks.

The GBA has been informed of a certain DNA bar coding method to help identify organisms, food webs, the impact of ecosystem changes on diversity, and help identify hotspots in biodiversity that need protection. This method should be used to study the effects that mass escapes and excess nutrients from open net aquaculture operations have upon all these aquatic conditions within the Great Lakes ecosystem. We recommend that the MNRF to conduct these studies.

## **Sections 5 and 6, Spawning Habitat Survey and Fish Spawning Survey**

Again, we ask the MNRF to explain their rationale for using the very loose term of "may be required" to complete these surveys, rather than make it a requirement that all applicants "will complete" these surveys, thereby gaining more public trust and accountability.

## **Section 7. Fish Containment Assessment**

History shows that even the best cage nets can, and do, repeatedly rip apart and suffer damage through ice and storm and other conditions resulting in large numbers of escaped farmed fish. The government should work with the operators to expand this industry's application of land-based and/or closed contained systems in order to ensure zero escapes and address the waste treatment issue.

### **Appendix C: Application Review: Water and Sediment Quality**

GBA reminds the MNRF that the water quality parameters for Total Phosphorus (10 ug/litre) and Dissolved Oxygen (above 54%) are set too low for the natural background quality of Lake Huron and Georgian Bay as pointed out in the quote from the GLWQA and its guidance that waters of Lake Huron maintain an oligotrophic state as noted above in reference to Section 4.1.7.

### **Appendix D: Application Review: Fisheries**

The GBA is pleased to see that it is MNRF who determines that, if there is known spawning habitat in the Assessment Area and if that is the case, the proposed site will be deemed ineligible due to the high potential of negative impact on the identified spawning habitat. This potential risk supports our contention that these operations should be subject to Category C of the Class EA, because that would ensure that spawning areas that may have come into existence since the farm began its operations will be identified.

### **Appendix E: Relevant Legislation, Regulations, Policies and Guidelines**

As noted above there is no mention of the Invasive Species Act, Great Lakes Protection Act, Nutrient Management Act or Great Lakes Water Quality Agreement, all of which should be included in any reviews of licenses (new or old).

### **Appendix F: Cage Aquaculture management and Monitoring Plans**

Under Fish Health Management, there is no mention of the use of antibiotics (reporting and monitoring, its release into the natural environment and its effects on the receiving body of water, other aquatic fish and organisms).

The Fish Containment Plan says nothing about the requirement to inform the public when large escapes occur, nor does it include how often such containment reports are to be required and the inspection methods.

Again, in regards to Water Quality Monitoring, the Guide states that in the case where the PWQO's are not being met the Licensee "may be required" to implement management actions. We ask MNRF to change this to "will be required".

The Decommissioning Plan ought to require a bond to be posted by each licensee towards ensuring that meeting any decommissioning requirements for returning the site back to its original state is guaranteed. This would avoid a future La Cloche Channel situation.

The Waste Disposal Plan is totally deficient in that there is absolutely no collection of fecal matter and nitrogen! This could be accomplished by using land-based and/or floating contained systems instead of open net systems.

**Other**

The GBA requests that MNRFC discontinue the use of the Short Form water quality and Risk Analysis for existing cage farm applications for licence reissuance or otherwise. Existing sites should, at the very least, be requested to refer back to any earlier water and sediment quality assessments to estimate the impact on the environment from before they started their operations up to the present. This information should be part of the public record. It would help build the argument for this industry to have a social license to continue and grow.

We would be willing to meet again with MOECC and MNRFC to discuss any and all of these points in more detail.

Sincerely,



Claudette Young  
Chair - Aquaculture Committee



Bob Duncanson  
Executive Director