

Decision on Application to Amend a Marine Aquaculture Licence and Lease

Application to the Administrator:

On February 21, 2022, the Nova Scotia Department of Fisheries and Aquaculture (the “Department”) received an application to amend Aquaculture Licence and Lease #0325 (AQ#0325), as described below:

Application Summary:

Type: Marine	Size: 105.58 HA
Number: AQ#0325	Current Cultivation Method: Bottom cultivation without gear
Applicant: Ellen Ferguson	
Location: Tatamagouche Bay, Colchester County	Current Species: American oyster, Bay quahog
Proposed Amendment:	
<ol style="list-style-type: none"> 1. Addition of Marine Plant Species: Sea Lettuce (<i>Ulva lactuca</i>), Sugar Kelp (<i>Saccharina latissima</i>), Oarweed (<i>Laminaria digitata</i>, also known as Horsetail kelp) 2. Addition of Shellfish Species: Blue mussel (<i>Mytilus edulis</i>) 3. Addition of Cultivation Methods: Bottom cultivation with gear and suspended cultivation 	

Site History:

AQ#0325 was first issued to Douglas W. Ferguson in March 2002 for a ten-year term. AQ#0325 was assigned to Donna Ferguson on May 1, 2012. The site has been consecutively renewed with the most recent licence and lease having been renewed on May 4, 2017 whereby the licence was renewed on for a ten-year term (January 20, 2017 to January 20, 2027) and the lease was renewed for a twenty year term (January 20, 2017 to January 20, 2037). AQ#0325 was assigned to Ellen Ferguson on July 25, 2022.

Performance Reviews Conducted by Administrator:

A performance review was conducted on the aquacultural operation of site AQ#0325, pursuant to Sections 71-72 of the *Aquaculture Licence and Lease Regulations* (the “Regulations”). Concerns raised during the performance review are detailed in the Factors section below.

Consultations on Application to Administrator:

The application was sent for consultation to the following departments or agencies of the Government of Nova Scotia, pursuant to Clause 40(1)(a) of the Regulations:
Community, Culture, Tourism and Heritage (CCTH)
Natural Resources and Renewables
Office of L'nu Affairs (OLA)

The application was sent for consultation to the following departments or agencies of the Government of Canada, pursuant to Clause 40(1)(b) of the Regulations:
Canadian Food Inspection Agency (CFIA)
Canadian Wildlife Services (CWS)
Department of Fisheries and Oceans Canada (DFO)
Environment and Climate Change Canada
Transport Canada (TC)

Public Submissions on Application to Administrator:

Pursuant to Section 41 of the Regulations, notice of the application was published on the Department's website and in the Royal Gazette Part I inviting the public to submit written comments on the application to the Administrator within the 30 days following the date the notice was published. This notice was published on January 12, 2023.

Zero submissions were received by the Department during the 30-day public comment period.

Factors to be Considered (as set out in Section 3 of the Regulations):

The optimum use of marine resources

The proposed species in this amendment application are suitable to this area and are native species to the waters around Tatamagouche Bay. The performance review conducted by the Department raised a concern regarding historical utilization of the site. Implementation of the proposed development plan would return the site to full utilization. Department staff will continue to monitor that production plans are implemented as submitted and that the site is utilized for Aquaculture.

The contribution of the proposed operation to community and Provincial economic development

Implementation of the proposed development plan would return the site to full utilization within an acceptable proposed timeframe. As a result, the applicant has indicated that they would rely on local suppliers wherever possible. In addition, the proposed development plan, if implemented, would increase employment opportunities for the community as the site grows and develops. The applicant has provided examples of how their business plan would support the local economy.

It was noted that aquaculture of marine plants is still a new industry for Nova Scotia, and the applicant is utilizing experience from other international sources.

Fishery activities in the public waters surrounding the proposed aquacultural operation

Review and feedback received for this application to amend an existing aquaculture licence and lease raised no issues related to impacts to the fishery activities in the public waters near the existing site.

The oceanographic and biophysical characteristics of the public waters surrounding the proposed aquacultural operation

The site is in an approved area, classified under the Canadian Shellfish Sanitation Program. Concerns were raised regarding the proposed development in relation to the portion of the site that is relatively shallow and prone to seasonal ice coverage. Some areas within the site are traditionally not suitable for suspended cultivation methods. The applicant has proposed ways to mitigate the concerns raised through modified gear configurations, avoidance and/or seasonal use of the shallow areas. Per the current *Aquaculture Management Regulations*, the applicant is required to have an approved Farm Management Plan prior to commencing any aquaculture.

The other users of the public waters surrounding the proposed aquacultural operation

Concerns were raised regarding four recorded archaeology sites in the vicinity of the aquaculture site (but not within the site boundaries). The proposed amendment is not expected to have an unacceptable level of impact to wildlife or wildlife habitat, provided that waste material is disposed of properly. Recommendations were provided by one or more departments or agencies of the Government of Canada and the Government of Nova Scotia, to mitigate any potential impacts to other users including wildlife. These recommendations were shared with the operator.

Concerns were raised regarding the invasive nature of Sea lettuce (*Ulva lactuca*), in that the introduction of the product could displace existing marine plant species. It was noted that Sea lettuce is already present within the boundaries of the site and is currently naturally growing on the existing aquaculture gear. However, cultivation (including the harvesting) of any particular species of product naturally growing on aquaculture gear is not permitted without an aquaculture licence and lease. These concerns are addressed in the Modification section below.

The public right of navigation

The operator will be required to adhere to the site marking requirements according to their Notice of Works to be issued by Transport Canada under the *Canadian Navigable Waters Act*, reference number 2002-200387.

The sustainability of wild salmon

There is no indication that the proposed operation of the site for shellfish and marine plant aquaculture will pose negative ecological concerns or have a negative impact on the sustainability of wild salmon.

The number and productivity of other aquaculture sites in the public waters surrounding the proposed aquacultural operation

Aquaculture site AQ#0325 is located in Tatamagouche Bay, approximately 0.5km North-East of the community of Bayhead, with the majority of the site being within Colchester County. Tatamagouche Bay itself is part of both Colchester County and Cumberland County, and currently contains a total of

10 active aquaculture sites, all of which are for shellfish aquaculture. The nearest site is AQ#1014, issued to James Sproul, situated directly North-East to AQ#0325. There is no evidence to suggest that the existing aquaculture in this area has exceeded the carrying capacity of the harbour.

Decision:

Based on the factors considered above, AQ#0325 Licence and Lease shall be amended with modifications in accordance with the applicant's proposal as follows:

- The bottom cultivation without gear, bottom cultivation with gear and suspended cultivation of American oyster (*Crassostrea virginica*) and Bay quahog (*Mercenaria mercenaria*);
- The suspended cultivation of Blue mussel (*Mytilus edulis*); and
- The bottom cultivation with gear and suspended cultivation of Sea Lettuce (*Ulva lactuca*), Sugar Kelp (*Saccharina latissima*) and Horsetail kelp (*Laminaria digitata*).

Except as expressly amended, AQ#0325 shall remain unchanged in full force and effect, including any terms and conditions. Documents shall be prepared to effect the above-approved amendments respectively to the Licence and Lease, in accordance with the Department's standard operating documents and shall be made publicly available subject to the provisions of the *Freedom of Information and Protection of Privacy Act*.

Modifications

Note that the applicant requested the addition of the species Oarweed, however the more common name used by the Department is Horsetail kelp and as such the Licence and Lease will use the latter name.

Conditions shall be added to both the Licence and the Lease, in the form of an undertaking, to address the following:

1. The cultivation of the species Sea lettuce (*Ulva lactuca*) will be limited to any product that naturally grows on the Aquaculture gear (including lines).
2. Introducing any Sea lettuce to the site is prohibited.



Robert Ceschiutti
Aquaculture Administrator
Nova Scotia Department of Fisheries and Aquaculture

April 19, 2023

Date