

EXHIBIT 005

NSARB-2024-001-APP-005

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*By Nova Scotia Aquaculture Review Board at 6:39 pm, Jul 10, 2024*

# REPORT ON THE OUTCOMES OF CONSULTATION

AQ#1448

Submission to the Nova Scotia Aquaculture Review Board

Nova Scotia Department of Fisheries and Aquaculture

## TABLE OF CONTENTS – REPORT ON THE OUTCOMES OF CONSULTATION AQ#1448

DOCUMENT		PAGE #
1.0	APPLICATION DESCRIPTION	3
2.0	CONSULTATION WITH MUNICIPAL, PROVINCIAL AND FEDERAL AGENCIES	6
3.0	SUMMARY OF CONSULTATIONS WITH THE MI'KMAQ OF NOVA SCOTIA	9

## LIST OF APPENDICES

APPENDIX		PAGE #
Appendix A	Network Memo and Network Agency Review of an Aquaculture Application	11
Appendix B	Fisheries and Oceans Canada	17
Appendix C	Canadian Food Inspection Agency	40
Appendix D	Transport Canada	46
Appendix E	Environment and Climate Change Canada – Canadian Shellfish Water Classification Program	59
Appendix F	Environment and Climate Change Canada – Canadian Wildlife Service	64
Appendix G	NS Department of Environment and Climate Change	142
Appendix H	NS Department of Agriculture	146
Appendix I	NS Department of Municipal Affairs and Housing	151
Appendix J	NS Department of Communities, Culture, Tourism and Heritage	154
Appendix K	NS Department of Natural Resources and Renewables	173
Appendix L	NS Office of L'nu Affairs	181

## 1.0 APPLICATION DESCRIPTION

Alex Bouchie of C&G Aquaculture submitted an application to the Nova Scotia Department of Fisheries and Aquaculture (DFA) on September 21, 2021, for a new marine shellfish aquaculture licence and lease (Reference File AQ#1448), in Merigomish Harbour, Pictou County (Figure 1a). Following the internal review of the Development Plan, additional information was requested by DFA, which was incorporated into an updated Development Plan, received February 6, 2022. On April 4, 2024, DFA requested additional information be clarified by the applicant, which was received on April 16, 2024, and added as an addendum to the Development Plan. In early 2024, it was identified that the proposed lease area overlapped with two parcels of land on the adjacent Pig Islands. The applicant chose to revise the proposed lease boundary and remove the approximate 0.48-hectare overlap.

The proposed site size is 24.06 hectares (Figure 1b). The proposed activities are for suspended, bottom culture with gear, and bottom culture without gear of American oyster (*Crassostrea virginica*), Bay scallop (*Argopecten irradians*), Quahog (*Mercenaria mercenaria*), and Razor clam (*Ensis directus*).

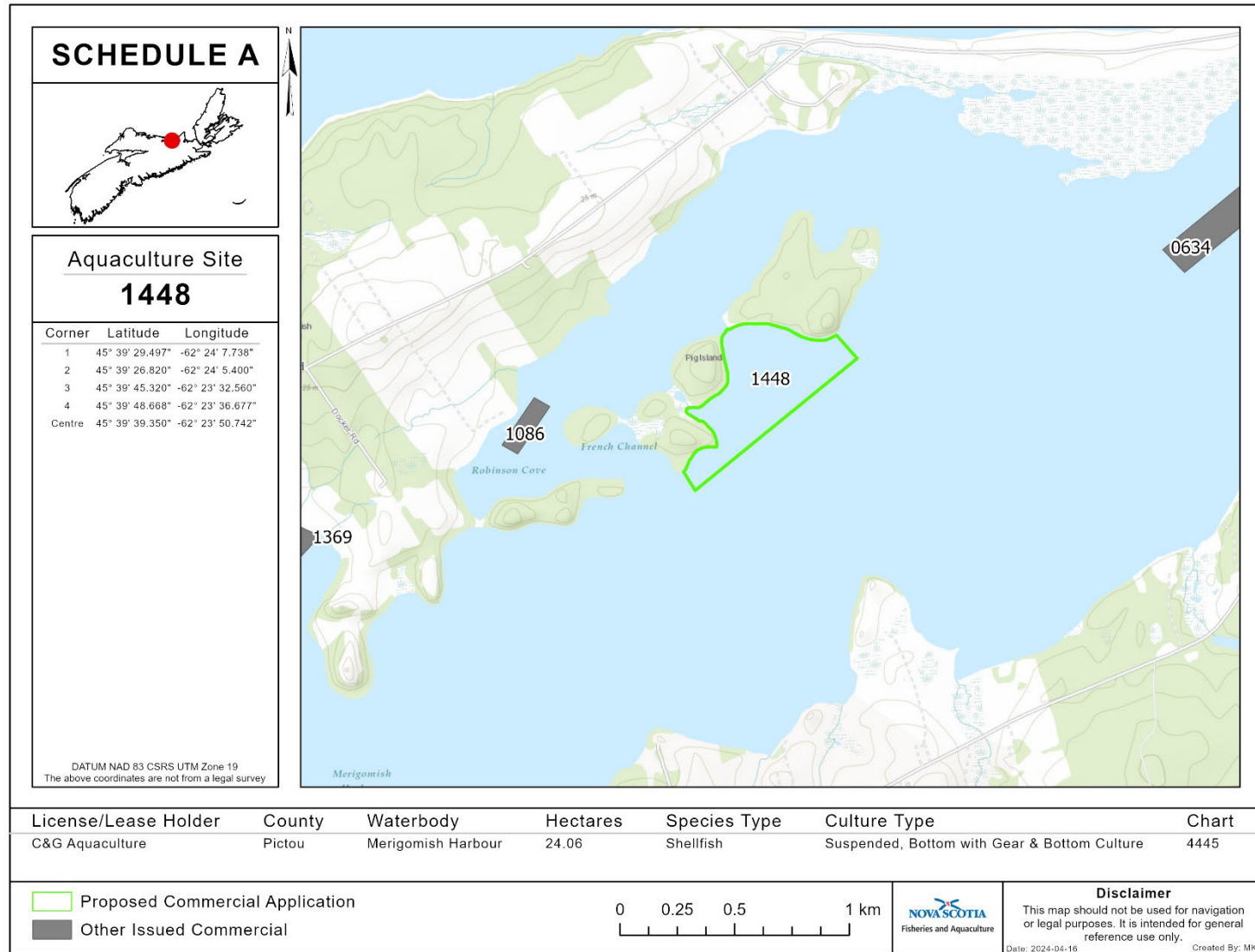


Figure 1a. Proposed new marine shellfish site AQ#1448. Please refer to DFA's Site Mapping Tool at <https://novascotia.ca/fish/aquaculture/site-mapping-tool/> for an interactive map showing the proposed new site.



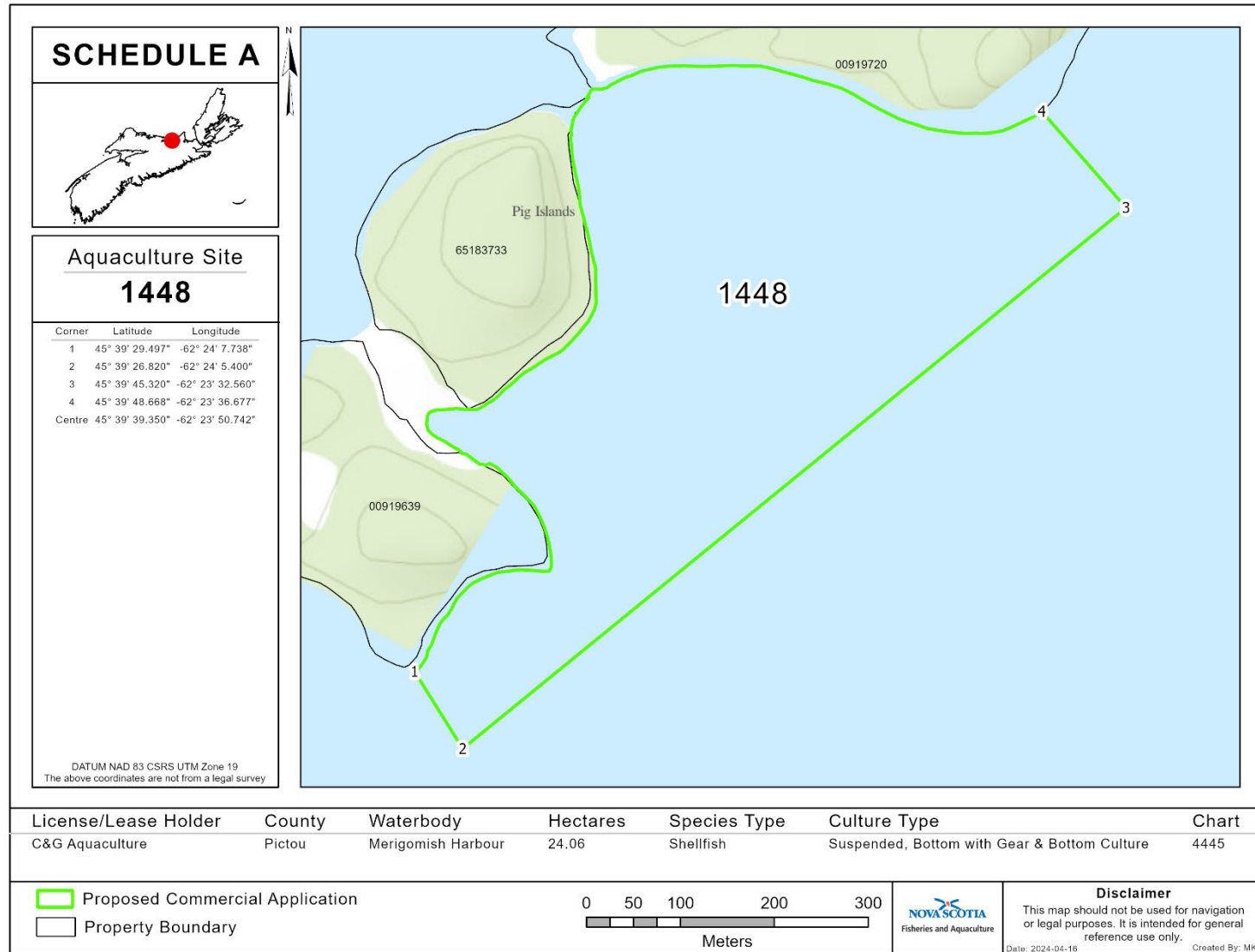


Figure 1b. Proposed new marine shellfish site AQ#1448. Please refer to DFA's Site Mapping Tool at <https://novascotia.ca/fish/aquaculture/site-mapping-tool/> for an interactive map showing the proposed new site.

## 2.0 CONSULTATION WITH MUNICIPAL, PROVINCIAL AND FEDERAL AGENCIES

DFA requested review of the application by Municipal, Provincial and Federal agencies listed in Table 1 through a network memo (see Appendix A, page 12). An additional network memo was provided to the network agencies following the proposed boundary change to remove the overlap with two parcels of land on the adjacent Pig Islands (see Appendix A, page 15).

These agencies provided advice to DFA on the proposed application based on their respective mandates. All feedback from the network review were shared with the applicant for their consideration. DFA coordinated with the applicant and the network agencies to respond to questions or comments regarding the application.

**Table 1: List of Appendices**

Network Memos and Network Agency Review of an Aquaculture Application	<b>Appendix A</b>
Fisheries and Oceans Canada	<b>Appendix B</b>
Canadian Food Inspection Agency	<b>Appendix C</b>
Transport Canada	<b>Appendix D</b>
Environment and Climate Change Canada – Canadian Shellfish Water Classification Program	<b>Appendix E</b>
Environment and Climate Change Canada – Canadian Wildlife Service	<b>Appendix F</b>
NS Department of Environment and Climate Change	<b>Appendix G</b>
NS Department of Agriculture	<b>Appendix H</b>
NS Department of Municipal Affairs and Housing	<b>Appendix I</b>
NS Department of Communities, Culture, Tourism and Heritage	<b>Appendix J</b>
NS Department of Natural Resources and Renewables	<b>Appendix K</b>
NS Office of L'nu Affairs	<b>Appendix L</b>

## Summary of Network Consultations

Below are summaries of the individual network agency consultations undertaken by DFA for the adjudicative new marine shellfish application for lease AQ#1448. Please see the appendices outlined in Table 1 for the associated documents related to each of the following network agency summaries. All correspondence is included for full transparency on the timeline and information requests raised during the consultation period. The final comments provided by each network agency are indicated by page number below:

**Fisheries and Oceans Canada (DFO)** reviewed the application according to their legislative mandate which includes the *Fisheries Act*, *Species at Risk Act* (SARA), *Oceans Act* and applicable regulations. DFO's Science Branch of DFO Gulf Region (see Appendix B, page 33) and Fish and Fish Habitat Protection Program (FFHPP) (see Appendix B, page 38) assessment of the application resulted in their submission of information, advice and recommendations which were provided to DFA for consideration and provided to the applicant as information awareness recommendations for the applicant to consider ensuring they would operate in compliance with DFO's legislated mandate.

DFO Gulf Region provided feedback on the eelgrass habitat using satellite imagery captured of the Merigomish Harbour, which includes the proposed site area. DFO concluded that given the available information it is unlikely that approval of this application would result in severe impacts on eelgrass habitat in the harbour. If the application is approved by the NSARB, DFA will work with DFO to ensure that the advice and recommendations provided are appropriately incorporated into the required Farm Management Plan (FMP), including mitigation measures to reduce the potential impacts to eelgrass beds.

**Canadian Food Inspection Agency (CFIA)** reviewed the application and did not raise any questions with the proposed new marine shellfish site. As per Section 9.1.3 of the Canadian Shellfish Sanitation Program (CSSP) Manual, if the proponent plans to use floating bag technology, an approved harvest plan with appropriate control measure will need to be submitted to the regional shellfish control authority (see Appendix C, page 44).

**Transport Canada (TC)** reviewed the application and there were no anticipated issues related to navigable waters concerns pertaining to the proposed new marine shellfish site (see Appendix D, page 58). This request will be addressed under Transport Canada's *Canadian Navigable Waters Act* (CNWA) through the Navigation Protection Program (NPP) approval process, upon a decision from the NSARB.

**Environment and Climate Change Canada (ECCC) – Shellfish Water Classification Program (SWCP)** reviewed the application and did not raise any questions with the proposed new marine shellfish site (see Appendix E, page 62). The proposed site is in approved waters.

**Environment and Climate Change Canada (ECCC) - Canadian Wildlife Services Division (CWS)** reviewed the application and provided operational advice and recommendations that DFA referred to the applicant, which were an information awareness recommendation for the applicant to

ensure they were compliant with CWS's legislated mandate (see Appendix F, page 66). If approved by the NSARB, DFA will work with the applicant to ensure that the advice and mitigations provided by CWS are appropriately incorporated into the applicant's FMP.

**Nova Scotia Department of Environment and Climate Change (NSECC)** reviewed the application and had no concerns regarding the proposed new marine shellfish site (see Appendix G, page 145).

**Nova Scotia Department of Agriculture** reviewed the application and noted there could be a risk of impact from nearby agricultural activities to the proposed new marine shellfish site (see Appendix H, page 149). If the application is approved by the NSARB, these issues are mitigated by the CSSP program, which the operator will have to adhere to.

**Nova Scotia Department of Municipal Affairs and Housing** The memo serves as a notification of the proposed development to Municipal Affairs only and no response was required (see Appendix I, page 153).

**Nova Scotia Department of Communities Culture, Tourism and Heritage (CCTH)** reviewed the application and noted there are 12 pre-contact archaeological sites recorded in the vicinity of this proposed development. Two of the sites intersect with the proposed development area. CCTH recommends an archaeological resource impact assessment (ARIA), potentially including underwater investigations, be conducted prior to operation of the site (see Appendix J, page 157). Following the submission of the side scan sonar data collected by DFA and submitted to CCTH for review, it was recommended by CCTH that a marine archaeologist with demonstrated expertise in the review of sonar data assess the images provided and confirm that there are no anomalies (see Appendix J, page 161). DFA provided a review memo to CCTH in response to their recommendation for an ARIA, indicating that it was not warranted that the applicant or the Department undertake a formal ARIA prior to the submission of the application to the NSARB (see Appendix J, page 164).

A review of the side scan sonar data was completed by Dr. Aaron Taylor (Archeologist) and Dr. Ian Spooner (Environmental Geoscientist), and a report was prepared and submitted to DFA, which was shared with CCTH (see Appendix J, page 168). Based on their review, given the bathymetric data and the assessment of geomorphological conditions at and near the proposed site, it is likely that the location of the proposed shellfish lease and associated activity has very low potential for impacting a pre-contact settlement. If the application is approved by the NSARB, DFA will work with the applicant to ensure that the advice and recommendations provided by CCTH are incorporated into the applicant's FMP or conditions of licence as required, for site AQ#1448.

**Nova Scotia Department of Natural Resources and Renewables (NRR)** reviewed the application and had no concerns regarding the proposed new marine shellfish site (see Appendix K, page 179).

**Nova Scotia Office of L'nu Affairs (OLA)** reviewed the network memo containing information relating to the application and provided advice on the duty to consult with the Mi'kmaq of Nova

### 3.0 SUMMARY OF CONSULTATIONS WITH THE MI'KMAQ OF NOVA SCOTIA

## Summary of Consultations with the Mi'kmaq of Nova Scotia

### Level of Consultation and the First Nations Communities Offered Consultation

The application was sent to the Nova Scotia Office of L'nu Affairs (OLA) to screen the application for Aboriginal consultation purposes. OLA found the application to potentially involve impacts to Mi'kmaw Aboriginal and Treaty rights at the minimal end of the Haida spectrum.

The criteria used to assess the potential for intrusion on asserted or established Aboriginal or Treaty rights is further described in the initial offer to consult letter. These criteria included:

- The scope and scale of physical works required for the project;
- The proximity to Mi'kmaw communities;
- Regulatory requirements associated with the project (which estimate potential environmental impacts to waterways); and
- The potential for the existence of – and impacts to – heritage resources of Mi'kmaw origin within the project area.

On balance, DFA offered to consult the Mi'kmaq of Nova Scotia at a minimal level and reached out via a letter sent on May 30, 2022, to the Chief and Council of the First Nation closest to the project area in the form of community-level and collectively held knowledge of potential adverse impacts to Aboriginal rights practiced within the project area, which could be used to inform the results of the screening and open the consultation dialogue.

Consultation was initiated with the following groups:

- Pictou Landing First Nation

### Issues Raised by the Mi'kmaq of Nova Scotia During Consultation

There were no issues raised by the Mi'kmaq of Nova Scotia in relation to this application.

### DFA Assessment

There were no issues to assess in relation to this application.

### Accommodation

The DFA decided to proceed with processing this application.

The Chief and Council of Pictou Landing First Nation and KMKNO (the executive body that leads consultation efforts on behalf of the Assembly of Nova Scotia Mi'kmaw Chiefs) was informed of this decision, via a letter, sent on July 21, 2022.

## APPENDIX A – NETWORK MEMOS AND NETWORK AGENCY REVIEW OF AN AQUACULTURE APPLICATION

## MEMORANDUM

**To:** Network Review Agencies

**From:** Robert Ceschiutti  
Manager, Licensing and Leasing

**CC:** Nathaniel Feindel, Manager, Aquaculture Development  
Melinda Watts, Aquaculture Advisor  
Lynn Winfield, Licence Coordinator  
Matthew King, GIS Analyst

**Date:** April 25, 2022

**RE:** New Marine Aquaculture Application AQ#1448 – Merigomish Harbour, Pictou County – Aquaculture Network Review

Attention network agencies, the Nova Scotia Department of Fisheries and Aquaculture has received a new marine aquaculture application (AQ#1448). Below you will find information related to the application:

Application No	AQ#1448
Proponent	C&G Aquaculture
Application Type	New Marine Licence and Lease
Method(s) of Cultivation	Suspended Shellfish Bottom Shellfish Cultivation With Gear Bottom Shellfish Cultivation Without Gear
Species	American oyster, Quahog, Bay scallop, Razor clam
Location	Merigomish Harbour (Pig Island)
County	Pictou

Please find attached information relating to the aquaculture marine shellfish application.

To facilitate the screening process, NSDFA offers the following points of information:

1. Following the review of the application by our Network Partners, this application will be provided to the Aquaculture Review Board (ARB) for final decision.
2. The proponent has made application to Transport Canada for an authorization under the *Canadian Navigable Waters Act* for the placement of gear in the water. TC Reference number 2021-204968.

We request that you review and submit all comments that pertain to this application by **June 25, 2022**.

Note: We require a written (mail or email) response from each of our review agencies in order to process this application.

You may contact Lynn Winfield, Licensing Coordinator by phone at 902-875-7440 or by email at [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca) if you have any questions.



## Network Agency Review of an Aquaculture Application

Agency	
Division (if applicable)	
Date	
File No.	<b>AQ#1448 – C&amp;G Aquaculture</b>
Type of application	<b>Marine Shellfish</b>
Information Provided	

Please provide comments, concerns, recommendations, or requirements on the above stated application for a marine aquaculture licence. Please include the criterion /criteria within your jurisdiction or mandate that your feedback is based upon. Similarly, if additional information is required to make a determination, please include the criterion /criteria within your jurisdiction or mandate that your request is based upon.

- ☐ No concerns regarding the proposed development
- ☐ Concerns with development are expressed below
- ☐ Request modifications to the proposed development (described below)
- ☐ Required or recommended conditions (described below)
- ☐ Request additional information (described below)
- ☐ Request meeting with applicant and NSDFA (described below)
- ☐ No comments on the application

Comments, concerns, recommendations, and/or required conditions including the criterion /criteria within your jurisdiction or mandate that your feedback is based upon. (Attach comments if preferred, or add additional pages, as required.):

## **Public Notice and Disclosure**

As part of the process for deciding on an application, it may be necessary for the Nova Scotia Department of Fisheries and Aquaculture (“Fisheries and Aquaculture”) to disclose the collected network review information to the applicant and other government bodies, including, if applicable, the Nova Scotia Aquaculture Review Board for use at an adjudicative hearing relating to the application in question.

In accordance with departmental policy, which seeks to promote public involvement in the process for deciding on aquaculture applications, Fisheries and Aquaculture will disclose aquaculture application information, including network review information, on the departmental website.

## **Privacy Statement**

***The network review information collected as part of an aquaculture application will only be used or disclosed by Fisheries and Aquaculture for the purpose of deciding on the application.***

All application information collected is subject to the Freedom of Information and Protection of Privacy Act (“FOIPOP”) and will only be used or disclosed in accordance with FOIPOP.

# Network Notification Memorandum

**To:** Network Review Agencies

**From:** Robert Ceschiutti, Manager, Licensing and Leasing  
Nova Scotia Department of Fisheries and Aquaculture

**CC:** Nathaniel Feindel, Manager, Aquaculture Development  
Melinda Watts, Aquaculture Advisor  
Lynn Winfield, Licensing Coordinator

**Date:** April 17, 2024

**RE: Change in Application for New Marine Aquaculture Application AQ#1448 –  
Merigomish Harbour, Pictou County**

The purpose of this memo is to inform you of a change made to the application for a new marine aquaculture licence and lease (AQ#1448). Below you will find the general information related to the application:

Application No	AQ#1448
Proponent	C & G Aquaculture
Application Type	New Marine Licence and Lease
Method(s) of Cultivation	Suspended Shellfish Bottom Shellfish Cultivation with Gear Bottom Shellfish Cultivation without Gear
Species	American oyster, Quahog, Bay scallop, Razor clam
Location	Merigomish Harbour (Pig Island)
County	Pictou

Below are details related to the change:

1. The site boundaries have been modified to remove any overlap with existing riparian property boundaries, resulting in a decrease in total size from 24.54 to 24.06 hectares.
2. No new or additional space is being considered since the original application.
3. A copy of the proposed site map (Schedule “A”) developed by the Department and accepted by the applicant to accompany their application is attached to this correspondence.

There is no requirement for you to respond to this notification unless you have questions or concerns regarding this change, in which case you may contact Lynn Winfield, Licensing Coordinator by phone at 902-875-7440 or by email at [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca).

## APPENDIX B – FISHERIES AND OCEANS CANADA

**From:** Winfield, Lynn

**Sent:** April 25, 2022 8:53 AM

**To:** Comeau, Sandra J <[Sandra.Comeau@dfo-mpo.gc.ca](mailto:Sandra.Comeau@dfo-mpo.gc.ca)>; [Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca); [joe.boutilier@inspection.gc.ca](mailto:joe.boutilier@inspection.gc.ca); [NPPATL-PPNATL@tc.gc.ca](mailto:NPPATL-PPNATL@tc.gc.ca); [david.macarthur@ec.gc.ca](mailto:david.macarthur@ec.gc.ca); [monique.breau@canada.ca](mailto:monique.breau@canada.ca); Kittilsen, Michael A <[Michael.Kittilsen@novascotia.ca](mailto:Michael.Kittilsen@novascotia.ca)>; Cottreau-Robins, Catherine M <[Catherine.Cottreau-Robins@novascotia.ca](mailto:Catherine.Cottreau-Robins@novascotia.ca)>; Boudreau, Louise O <[Louise.Boudreau@novascotia.ca](mailto:Louise.Boudreau@novascotia.ca)>; Birch, Angela <[Angela.Birch@novascotia.ca](mailto:Angela.Birch@novascotia.ca)>

**Cc:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>; Feindel, Nathaniel J <[Nathaniel.Feindel@novascotia.ca](mailto:Nathaniel.Feindel@novascotia.ca)>; King, Matthew S <[Matthew.King@novascotia.ca](mailto:Matthew.King@novascotia.ca)>; Watts, Melinda <[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>; Buchan, Carla M <[Carla.Buchan@novascotia.ca](mailto:Carla.Buchan@novascotia.ca)>; Cusack, Roland R <[Roland.Cusack@novascotia.ca](mailto:Roland.Cusack@novascotia.ca)>; Swim, Amanda K <[Amanda.Swim@novascotia.ca](mailto:Amanda.Swim@novascotia.ca)>

**Subject:** AQ#1448 - C&G Aquaculture - New Shellfish Application

Attention: Network Review Agencies

Please see the attached memo for a new Aquaculture Application No. 1448 in Merigomish Harbour (Pig Island), Pictou County.

Please respond with your feedback by **June 25, 2022.**

The attached zipped shapefile requires specific geospatial software to open and is intended for convenient use by GIS professionals only.

Thanks,

*Lynn*

*E. Lynn Winfield*

**Licensing Coordinator,**

**Nova Scotia Department of Fisheries and Aquaculture**



1575A Lake Road

Sandy Point, NS B0T 1W0

Phone: 902-875-7440

Fax: 902-875-7429

Email: [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)

[NS Department of Fisheries & Aquaculture Website](#)

**\*Please refer to Application Package AQ#1448, Section 2.0 - Applicant's Aquaculture Development Plan, for documents sent to and reviewed by Fisheries and Oceans Canada (DFO).**

**From:** St.Louis, Danielle <Danielle.StLouis@novascotia.ca>  
**Sent:** April 26, 2022 3:39 PM  
**To:** Comeau, Sandra J <Sandra.Comeau@dfo-mpo.gc.ca>; Braid, Leanna <Leanna.Braid@dfo-mpo.gc.ca>  
**Cc:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Sandra and Leanna,

I just sent you the baseline data files related to the new shellfish application AQ#1448 submitted by C&G Aquaculture via our secure file transfer system. If you have any questions or concerns, please do not hesitate to contact me.

All the best,

Danielle

**Danielle St. Louis, MREM**

Aquaculture Biologist  
 NS Department of Fisheries and Aquaculture  
 1575 Lake Road  
 Shelburne, NS  
 B0T 1W0

P: (902) 875-7449  
 C: (902) 874-1726  
 F: (902) 875-7429

**From:** Comeau, Sandra J <Sandra.Comeau@dfo-mpo.gc.ca>  
**Sent:** April 26, 2022 4:27 PM  
**To:** St.Louis, Danielle <Danielle.StLouis@novascotia.ca>; Braid, Leanna <Leanna.Braid@dfo-mpo.gc.ca>  
**Cc:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

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Hi Danielle,

Works for me. Thank you!

*Sandra Comeau*

*Aquaculture Management / Gestion de l'aquaculture  
 Téléphone / Téléphone 506-626-0031*

**From:** Braid, Leanna <Leanna.Braid@dfo-mpo.gc.ca>  
**Sent:** April 29, 2022 10:16 AM  
**To:** St.Louis, Danielle <Danielle.StLouis@novascotia.ca>; Comeau, Sandra J <Sandra.Comeau@dfo-mpo.gc.ca>  
**Cc:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

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Thanks Danielle

I have tried, without success, to access the MP4 files... even when directly linked to our DFO network at the office, the files show a download time of days!

Any thoughts on how else it could be sent/compressed/accessed?

Thanks  
 Leanna

Leanna Braid

Resource Management Officer  
 Fisheries and Oceans Canada  
 Government of Canada  
 Gulf Nova Scotia  
 2920, Highway 104  
 Antigonish County, NS B2G 2K6  
[Leanna.braid@dfo-mpo.gc.ca](mailto:Leanna.braid@dfo-mpo.gc.ca)  
 902-735-7130

Agent de gestion des ressources  
 Pêches et Océans Canada  
 Gouvernement du Canada  
 Nouvelle Écosse – Golfe  
 2920 route 104  
 Comté d'Antigonish (N.-É) B2G 2K6  
[Leanna.braid@dfo-mpo.gc.ca](mailto:Leanna.braid@dfo-mpo.gc.ca)  
 902-735-7130

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**From:** St.Louis, Danielle <[Danielle.StLouis@novascotia.ca](mailto:Danielle.StLouis@novascotia.ca)>  
**Sent:** Tuesday, May 3, 2022 11:14 AM  
**To:** Braid, Leanna <[Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca)>; Comeau, Sandra J <[Sandra.Comeau@dfo-mpo.gc.ca](mailto:Sandra.Comeau@dfo-mpo.gc.ca)>  
**Cc:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Leanna,



I will send the files to you on a Flash Drive. I attempted to compress the files, but am having some issues on my end now. Is the address listed below the correct mailing address?

All the best,  
Danielle

**To:** St.Louis, Danielle <[Danielle.StLouis@novascotia.ca](mailto:Danielle.StLouis@novascotia.ca)>; Comeau, Sandra J <[Sandra.Comeau@dfo-mpo.gc.ca](mailto:Sandra.Comeau@dfo-mpo.gc.ca)>

**Cc:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>

**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

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Yes, thank you that is the correct address!

**From:** St.Louis, Danielle <[Danielle.StLouis@novascotia.ca](mailto:Danielle.StLouis@novascotia.ca)>

**Sent:** May 3, 2022 1:30 PM

**To:** Braid, Leanna <[Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca)>; Comeau, Sandra J <[Sandra.Comeau@dfo-mpo.gc.ca](mailto:Sandra.Comeau@dfo-mpo.gc.ca)>

**Cc:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>

**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Great. Thank you! It's in the mail now, so hopefully it should arrive by the end of the week.

All the best,  
Danielle

**From:** Braid, Leanna <[Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca)>

**Sent:** May 9, 2022 10:04 AM

**To:** St.Louis, Danielle <[Danielle.StLouis@novascotia.ca](mailto:Danielle.StLouis@novascotia.ca)>

**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

**\*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\***

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Hi Danielle

I received the files and unfortunately cannot open them do to the security set up on our DFO computers which prevents us from opening any USB drives that have not been encrypted through DFO protocol. I am sorry I didn't realize this before asking you to go to the trouble of sending it to me.

Would it be possible to share the files via dropbox? or another application that allows for large file sharing?

I am going to be circulating the application this morning to all relevant DFO sectors and those people will

also need access. I am going to copy you on those emails as I think that might be the fastest way to connect them to you once we have a way to share the files....

I hope this is ok with you – we will hopefully get the file issue resolved soon as we won't be able to complete the network agency review without it!

Thank you, have a good week...

Leanna

Leanna Braid

Resource Management Officer  
Fisheries and Oceans Canada  
Government of Canada  
Gulf Nova Scotia  
2920, Highway 104  
Antigonish County, NS B2G 2K6  
[Leanna.braid@dfo-mpo.gc.ca](mailto:Leanna.braid@dfo-mpo.gc.ca)  
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Agent de gestion des ressources  
Pêches et Océans Canada  
Gouvernement du Canada  
Nouvelle Écosse – Golfe  
2920 route 104  
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[Leanna.braid@dfo-mpo.gc.ca](mailto:Leanna.braid@dfo-mpo.gc.ca)  
902-735-7130

---

**From:** Braid, Leanna <[Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca)>  
**Sent:** Monday, May 9, 2022 10:12 AM  
**To:** Ouellette, Marc <[Marc.Ouellette@dfo-mpo.gc.ca](mailto:Marc.Ouellette@dfo-mpo.gc.ca)>; Barrell, Jeffrey <[Jeffrey.Barrell@dfo-mpo.gc.ca](mailto:Jeffrey.Barrell@dfo-mpo.gc.ca)>  
**Cc:** St.Louis, Danielle <[Danielle.StLouis@novascotia.ca](mailto:Danielle.StLouis@novascotia.ca)>  
**Subject:** AQ#1448 - C&G Aquaculture - New Shellfish Application  
Hello,

Please see attached the network agency review documents for Aquaculture Application 1448 in Merigomish Harbour: new lease application.

Note that I have not been able to open the large files and have alerted Danielle with NSDFA (who has been copied here) about the problem with accessing large files – so hopefully we will find a way to get them shared via dropbox or another method.

In the meantime, I wanted to send this for your review and ask that you have any science feedback back to me by June 10<sup>th</sup>.

Thank you,

Leanna  
Leanna Braid

Resource Management Officer  
Fisheries and Oceans Canada  
Government of Canada  
Gulf Nova Scotia  
2920, Highway 104  
Antigonish County, NS B2G 2K6  
[Leanna.braid@dfo-mpo.gc.ca](mailto:Leanna.braid@dfo-mpo.gc.ca)  
902-735-7130

Agent de gestion des ressources  
Pêches et Océans Canada  
Gouvernement du Canada  
Nouvelle Écosse – Golfe  
2920 route 104  
Comté d'Antigonish (N.-É) B2G 2K6  
[Leanna.braid@dfo-mpo.gc.ca](mailto:Leanna.braid@dfo-mpo.gc.ca)  
902-735-7130

**From:** Ouellette, Marc <[Marc.Ouellette@dfo-mpo.gc.ca](mailto:Marc.Ouellette@dfo-mpo.gc.ca)>  
**Sent:** Tuesday, May 10, 2022 8:36 AM  
**To:** Braid, Leanna <[Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca)>  
**Cc:** St.Louis, Danielle <[Danielle.StLouis@novascotia.ca](mailto:Danielle.StLouis@novascotia.ca)>; Sonier, Remi <[Remi.Sonier@dfo-mpo.gc.ca](mailto:Remi.Sonier@dfo-mpo.gc.ca)>;  
Barrell, Jeffrey <[Jeffrey.Barrell@dfo-mpo.gc.ca](mailto:Jeffrey.Barrell@dfo-mpo.gc.ca)>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Salut Leanna,

Please note that I have changed position and Rémi Sonier has replaced me as the Section Head for Aquaculture and Coastal Ecosystems. I will forward him the documents and Jeff can brief him about this process.

Thanks/Merci

Marc

**Marc Ouellette**

*Manager, Aquatic Health Division \ Gestionnaire, Division de la santé aquatique*

Gulf Fisheries Centre \ Centre des Pêches du Golfe  
Science Branch \ Direction des sciences

Mobile: (506) 988-7373

**From:** King, Matthew S <Matthew.King@novascotia.ca>  
**Sent:** May 10, 2022 11:38 AM  
**To:** Renelle.Doucette@dfo-mpo.gc.ca  
**Cc:** Watts, Melinda <Melinda.Watts@novascotia.ca>; Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Renelle,

I trust things are well.

My name is Matthew King and I'm the Aquaculture Planning & GIS Officer for provincial Fisheries and Aquaculture. My colleague Lynn had asked that I reach out to on the shapefile pertaining to proposed lease 1448.

The shapefile is a geospatial file that can only be viewed within geographic information systems (GIS), a specific software or web based computer interface. In this case, the shapefile shows the boundary of proposed lease 1448, with general information about the proposed lease holder, license holder, species, size and a few other details that you find elsewhere in the documents accompanying the shapefile. The reason we include the shapefile in the emails is for departments that have GIS capabilities that want to overlay their geospatial information with that of boundary of the proposed lease to help inform respective decision makers on the advice given to our department on the proposed aquaculture development.

I hope this explanation helps you but if you would like to have more details on the shapefile, please reach out to me via phone. My number is below.

Take care,  
Matthew  
1-902-875-6064

---

**From:** St.Louis, Danielle <Danielle.StLouis@novascotia.ca>  
**Sent:** May 12, 2022 8:21 AM  
**To:** Braid, Leanna <Leanna.Braid@dfo-mpo.gc.ca>  
**Cc:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>; Watts, Melinda <Melinda.Watts@novascotia.ca>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Leanna,

Sorry for the late response as I've been in the field all week. Unfortunately, I can not access dropbox or Google drive on my computer as they are blocked on our network. Does DFO have a large file transfer system that you could request files from me? If not, I can try to send each file separately via our system, however, I'm assuming the video transect will still take a significant time to download on your end. Another option - would it be possible for you to mail me an USB drive that has been encrypted through DFO protocol?

Sorry for all the trouble with receiving these videos. In the past, I have always sent them via our file transfer system and there wasn't any issues.

All the best,  
Danielle

**From:** St.Louis, Danielle <Danielle.StLouis@novascotia.ca>  
**Sent:** May 12, 2022 8:34 AM  
**To:** Doucette, Renelle <Renelle.Doucette@dfo-mpo.gc.ca>  
**Cc:** Watts, Melinda <Melinda.Watts@novascotia.ca>; Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Renelle,

I hope you are doing well. My colleague, Matthew King, has indicated that you would like to speak to someone about the benthic habitat near the proposed site AQ#1448. I'm participating in a course today, however, I should be free sometime between 11:00-11:30 AM – would you be available then for a quick call? If so, could you provide me with a number best to reach you at?

All the best,  
Danielle

---

**From:** Doucette, Renelle <[Renelle.Doucette@dfo-mpo.gc.ca](mailto:Renelle.Doucette@dfo-mpo.gc.ca)>  
**Sent:** May 12, 2022 10:25 AM  
**To:** St.Louis, Danielle <[Danielle.StLouis@novascotia.ca](mailto:Danielle.StLouis@novascotia.ca)>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

**\*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\***

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Hi Danielle,  
Thanks for the quick reply. I am actually in CPR training today and tomorrow. Would Monday work for you?

Renelle

---

**From:** St.Louis, Danielle <[Danielle.StLouis@novascotia.ca](mailto:Danielle.StLouis@novascotia.ca)>  
**Sent:** May 12, 2022 12:54 PM  
**To:** Doucette, Renelle <[Renelle.Doucette@dfo-mpo.gc.ca](mailto:Renelle.Doucette@dfo-mpo.gc.ca)>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Renelle,

No problem. As of right now, my Monday is open except between 10:30-11:30 AM. Is there a time that works best for you?

Thanks,  
Danielle

**From:** Doucette, Renelle <[Renelle.Doucette@dfo-mpo.gc.ca](mailto:Renelle.Doucette@dfo-mpo.gc.ca)>  
**Sent:** May 12, 2022 1:02 PM  
**To:** St.Louis, Danielle <[Danielle.StLouis@novascotia.ca](mailto:Danielle.StLouis@novascotia.ca)>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

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Hi Danielle,  
 You can give me a call anytime you can; I work from 8am to 4pm. My cell phone number is (506) 875-6434.

Thanks,  
 Renelle

**From:** St.Louis, Danielle <[Danielle.StLouis@novascotia.ca](mailto:Danielle.StLouis@novascotia.ca)>  
**Sent:** May 16, 2022 2:13 PM  
**To:** Doucette, Renelle <[Renelle.Doucette@dfo-mpo.gc.ca](mailto:Renelle.Doucette@dfo-mpo.gc.ca)>; Braid, Leanna <[Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca)>  
**Cc:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>; Watts, Melinda <[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Renelle and Leanna,

I just sent the baseline video footage to Renelle via our secure file transfer system. Please let me know how you make out downloading the videos individually.

Leanna – if Renelle is able to download all the videos, would it be possible for her to share them on a drive to anyone else at DFO who will need to review the footage?

All the best,  
 Danielle

**From:** Doucette, Renelle <[Renelle.Doucette@dfo-mpo.gc.ca](mailto:Renelle.Doucette@dfo-mpo.gc.ca)>  
**Sent:** May 16, 2022 3:54 PM  
**To:** St.Louis, Danielle <[Danielle.StLouis@novascotia.ca](mailto:Danielle.StLouis@novascotia.ca)>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

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Thank you for the videos! I was able to download all in half an hour, except the bigger one which should take couple hours and will do first thing tomorrow.

Just thought I'd let you know.  
 Renelle

**From:** Braid, Leanna <Leanna.Braid@dfo-mpo.gc.ca>  
**Sent:** May 18, 2022 10:40 AM  
**To:** St.Louis, Danielle <Danielle.StLouis@novascotia.ca>; Doucette, Renelle <Renelle.Doucette@dfo-mpo.gc.ca>  
**Cc:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>; Watts, Melinda <Melinda.Watts@novascotia.ca>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

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Hi Renelle,

Have you been able to view the videos?

Thanks

Leanna Braid

Resource Management Officer  
 Fisheries and Oceans Canada  
 Government of Canada  
 Gulf Nova Scotia  
 2920, Highway 104  
 Antigonish County, NS B2G 2K6  
[Leanna.braid@dfo-mpo.gc.ca](mailto:Leanna.braid@dfo-mpo.gc.ca)  
 902-735-7130

Agent de gestion des ressources  
 Pêches et Océans Canada  
 Gouvernement du Canada  
 Nouvelle Écosse – Golfe  
 2920 route 104  
 Comté d'Antigonish (N.-É) B2G 2K6  
[Leanna.braid@dfo-mpo.gc.ca](mailto:Leanna.braid@dfo-mpo.gc.ca)  
 902-735-7130

**From:** Doucette, Renelle <Renelle.Doucette@dfo-mpo.gc.ca>  
**Sent:** May 18, 2022 11:03 AM  
**To:** Braid, Leanna <Leanna.Braid@dfo-mpo.gc.ca>; St.Louis, Danielle <Danielle.StLouis@novascotia.ca>  
**Cc:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>; Watts, Melinda <Melinda.Watts@novascotia.ca>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

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Hi Leanna,

Yes, I was able to view all the videos except for the Transec (larger one). I tried three times to download, but no luck. However, with the Corner and Central videos, along with an aerial map provided by science, this will be sufficient material for us.

Thanks,  
Renelle

**From:** Doucette, Renelle <Renelle.Doucette@dfo-mpo.gc.ca>  
**Sent:** May 26, 2022 3:45 PM  
**To:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** New Marine Aquaculture Application AQ#1448 - Merigomish Harbour , Pictou County - Aquaculture Network Review

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Good afternoon Ms. Winfield,

The Fish and Fish Habitat Protection Program (FFHPP) of Fisheries and Oceans Canada (DFO) has reviewed the proposed new aquaculture site AQ#1448 and has no further comments.

Owners and Operators should, however, be aware of their obligations under the *Aquaculture Activities Regulations* (AAR).

The AAR Guidance Document [Aquaculture Activities Regulations guidance document \(dfo-mpo.gc.ca\)](https://dfo-mpo.gc.ca/aquaculture/aar-guidance-document) is intended to provide a clear interpretation of what the AAR mean, how they will be implemented, and what Owners and Operators need to do to comply with provisions of the *Fisheries Act* and AAR. Section 15 of the AAR Guidance Document “*Prescribed works, undertakings, activities and conditions*” provides reasonable measures (not an exhaustive list and not applicable to all types of operations) that should be undertaken by Owners and Operators of aquaculture facilities in order to mitigate the risk of causing the “*harmful alteration, disruption or destruction of fish habitat*” (*Fisheries Act* 2019), formerly ‘*serious harm to fish*’ (*Fisheries Act* 2012).

The Fisheries and Oceans Canada Gulf Region Aquaculture Management Office is the primary contact for Owner and Operator interaction with DFO:

DFO Gulf Region Aquaculture Management  
 343 Ave Université  
 Moncton, NB, E1C 9B6  
 Tel: (506) 626-0031  
 Email: [DFO.GLFAAR-RAAGLF.MPO@dfo-mpo.gc.ca](mailto:DFO.GLFAAR-RAAGLF.MPO@dfo-mpo.gc.ca)

Please Note that Section 14 of the AAR requires that “*The owner or operator of an aquaculture facility must submit an annual report to the Minister, and retain a copy of it, in accordance with section 16*”. Section 16 of the AAR Guidance Document provides an ‘AAR Reporting Template’ to assist owners/operators in completing this task. The AAR Reporting Template can be found in Annex 1, or on the DFO website. While use of the template is not mandatory, it is recommended as it provides a checklist for all of the information required for the annual report.

Regards,  
**Renelle Doucette**



A/ Senior Biologist | Biologiste senior p.i.  
 Fish and Fish Habitat Protection Program | Programme de la protection du poisson et de son habitat  
 Fisheries and Oceans Canada | Pêches et Océans Canada  
 343 ave. Université Avenue, Moncton NB E1C 5K4  
 Telephone | Téléphone 506. 851. 6914  
 Cell | 506. 875. 6434  
[renelle.doucette@dfo-mpo.gc.ca](mailto:renelle.doucette@dfo-mpo.gc.ca)

---

**From:** Braid, Leanna  
**Sent:** Friday, June 3, 2022 11:40 AM  
**To:** St.Louis, Danielle <[Danielle.StLouis@novascotia.ca](mailto:Danielle.StLouis@novascotia.ca)>; Sonier, Remi <[Remi.Sonier@dfo-mpo.gc.ca](mailto:Remi.Sonier@dfo-mpo.gc.ca)>;  
 Barrell, Jeffrey <[Jeffrey.Barrell@dfo-mpo.gc.ca](mailto:Jeffrey.Barrell@dfo-mpo.gc.ca)>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Hello,

Just a friendly reminder that feedback on the new aquaculture lease #1448 in Merigomish Harbour is due June 10<sup>th</sup>.

Thank you and have a great weekend!  
 Leanna  
 Leanna Braid

Resource Management Officer  
 Fisheries and Oceans Canada  
 Government of Canada  
 Gulf Nova Scotia  
 2920, Highway 104  
 Antigonish County, NS B2G 2K6  
[Leanna.braid@dfo-mpo.gc.ca](mailto:Leanna.braid@dfo-mpo.gc.ca)  
 902-735-7130

Agent de gestion des ressources  
 Pêches et Océans Canada  
 Gouvernement du Canada  
 Nouvelle Écosse – Golfe  
 2920 route 104  
 Comté d'Antigonish (N.-É) B2G 2K6  
[Leanna.braid@dfo-mpo.gc.ca](mailto:Leanna.braid@dfo-mpo.gc.ca)  
 902-735-7130

---

**From:** Braid, Leanna <[Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca)>  
**Sent:** Friday, June 3, 2022 1:41 PM  
**To:** St.Louis, Danielle <[Danielle.StLouis@novascotia.ca](mailto:Danielle.StLouis@novascotia.ca)>; Sonier, Remi <[Remi.Sonier@dfo-mpo.gc.ca](mailto:Remi.Sonier@dfo-mpo.gc.ca)>;  
 Barrell, Jeffrey <[Jeffrey.Barrell@dfo-mpo.gc.ca](mailto:Jeffrey.Barrell@dfo-mpo.gc.ca)>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Correction – AQ # 4015

**From:** Barrell, Jeffrey <[Jeffrey.Barrell@dfo-mpo.gc.ca](mailto:Jeffrey.Barrell@dfo-mpo.gc.ca)>

**Sent:** June 10, 2022 3:21 PM

**To:** Braid, Leanna <[Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca)>; St.Louis, Danielle <[Danielle.StLouis@novascotia.ca](mailto:Danielle.StLouis@novascotia.ca)>; Sonier, Remi <[Remi.Sonier@dfo-mpo.gc.ca](mailto:Remi.Sonier@dfo-mpo.gc.ca)>

**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

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Hi Leanna,

Apologies for the delay, I took this one to the last minute! See attached for our review, which is entirely contained in the "supplementary" file. Note that I referred to it throughout as lease #1448 since that's how it's identified in the application... if I understand correctly, I think #4015 referred to the previous option area? Anyway, please let me know if you have any questions. Have a great weekend,

Cheers,

Jeff

-----  
**Jeffrey Barrell, PhD**

Physical Scientist | Spécialiste des Sciences Physiques  
Science Branch, Gulf Region | Direction des Sciences, Région du Golfe  
Fisheries and Oceans Canada | Pêches et Océans Canada  
Tél: (506) 874-3593  
[Jeffrey.Barrell@dfo-mpo.gc.ca](mailto:Jeffrey.Barrell@dfo-mpo.gc.ca)

---

**From:** St.Louis, Danielle <[Danielle.StLouis@novascotia.ca](mailto:Danielle.StLouis@novascotia.ca)>

**Sent:** Monday, June 13, 2022 2:01 PM

**To:** Barrell, Jeffrey <[Jeffrey.Barrell@dfo-mpo.gc.ca](mailto:Jeffrey.Barrell@dfo-mpo.gc.ca)>; Braid, Leanna <[Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca)>; Sonier, Remi <[Remi.Sonier@dfo-mpo.gc.ca](mailto:Remi.Sonier@dfo-mpo.gc.ca)>

**Cc:** Watts, Melinda <[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>; Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>

**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Leanna,

I've been copied on this email. However, I just want to ensure that you will be submitting a final response from all DFO sections to NSDFA? As I saw that Renelle also submitted a response from Fish & Fish Habitat.

All the best,

Danielle

**Danielle St. Louis, MREM**

Aquaculture Biologist  
NS Department of Fisheries and Aquaculture  
1575 Lake Road  
Shelburne, NS  
B0T 1W0

P: (902) 875-7449

C: (902) 874-1726

F: (902) 875-7429

**From:** Braid, Leanna <Leanna.Braid@dfo-mpo.gc.ca>

**Sent:** June 13, 2022 2:02 PM

**To:** St.Louis, Danielle <Danielle.StLouis@novascotia.ca>; Barrell, Jeffrey <Jeffrey.Barrell@dfo-mpo.gc.ca>; Sonier, Remi <Remi.Sonier@dfo-mpo.gc.ca>

**Cc:** Watts, Melinda <Melinda.Watts@novascotia.ca>; Winfield, Lynn <Lynn.Winfield@novascotia.ca>

**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

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Yes, I submit on behalf of all of DFO. The Sectors are supposed to send feedback only to me, the email to NSDFA from Renelle was in error and I have clarified the process.

Full DFO network agency form will be coming to you today or tomorrow.

Thank you

Leanna

**From:** Braid, Leanna <Leanna.Braid@dfo-mpo.gc.ca>

**Sent:** June 23, 2022 10:48 AM

**To:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>

**Subject:** DFO Network Agency Review Submission RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

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Hello,

Please find attached the DFO network agency review for aquaculture application 1448, along with an accompanying science document.

Thank you,  
Leanna Braid

Resource Management Officer  
Fisheries and Oceans Canada  
Government of Canada  
Gulf Nova Scotia  
2920, Highway 104  
Antigonish County, NS B2G 2K6  
[Leanna.braid@dfo-mpo.gc.ca](mailto:Leanna.braid@dfo-mpo.gc.ca)

902-735-7130

Agent de gestion des ressources  
Pêches et Océans Canada  
Gouvernement du Canada  
Nouvelle Écosse – Golfe  
2920 route 104  
Comté d'Antigonish (N.-É) B2G 2K6  
[Leanna.braid@dfo-mpo.gc.ca](mailto:Leanna.braid@dfo-mpo.gc.ca)  
902-735-7130



SCIENCE Network  
Agency Review.pdf



DFO Network  
Agency Review 1448

**Network Review – Proposed NS lease AQ#1448 – DFO Science, Gulf Region**  
**10 June 2022**

Note that this does not constitute official science advice, but rather observations and comments from relevant subject matter experts within the Science Branch of DFO Gulf Region. Science has no formal regulatory or operational role in license and leasing decisions.

The proposed lease covers an area not previously used for aquaculture, and as such merits a more detailed review than past applications that focused on amendments to existing leases. As noted above, DFO Science does not have a formal role in decision-making for aquaculture leasing, however we do have extensive knowledge of aquaculture-environment interactions that may be relevant to decision-makers, which will be summarized below. As this format only allows for superficial comments, we would also like to indicate our willingness for a more detailed discussion around these issues – i.e., don't hesitate to get in touch if you would like further clarification.

Many of these comments will focus on interactions with eelgrass habitat, which is an area of expertise at DFO Science in Gulf Region. Some supplementary information drawn from ongoing satellite mapping of eelgrass habitat will be included. This includes high-resolution satellite imagery tasked by DFO in July 2021 representing the state of eelgrass habitat in the Harbour. Please address any questions about this supplementary information, or eelgrass-aquaculture interactions generally, to subject matter expert Jeff Barrell ([Jeffrey.Barrell@dfo-mpo.gc.ca](mailto:Jeffrey.Barrell@dfo-mpo.gc.ca)). As the mapping work is ongoing, this information should be treated as expert opinion rather than peer-reviewed science. While we were not able to access video clips from the baseline survey, we discussed them with our colleagues in FFHPP, and determined that the survey supports observations from the satellite imagery.

While on the topic of data sources, it is worth mentioning that the referenced studies involving lidar data collection (pg.13) were commissioned by our group at DFO, and from an eelgrass perspective constituted R&D as lidar is not a well-established method for mapping submerged vegetation. While eelgrass coverage may have changed over the intervening time period (i.e., since lidar data collection in 2016), analysis conducted for this review indicates that eelgrass still covers a majority of the proposed site. In **Figure 1**, eelgrass occurs as darker submerged areas contrasted against lighter background sediments. Approximately 14.5 ha of eelgrass habitat occurs within the 24.5 ha proposed site, representing 59% of the lease. Dense eelgrass appears throughout the lease with the exception of unsuitable intertidal areas and a central unvegetated portion. This is consistent with the bathymetric profile of the site; as stated in the application, the deepest lease corners are within the range of 2.39 – 2.59 meters of depth, which is well within the range of suitable conditions for eelgrass.

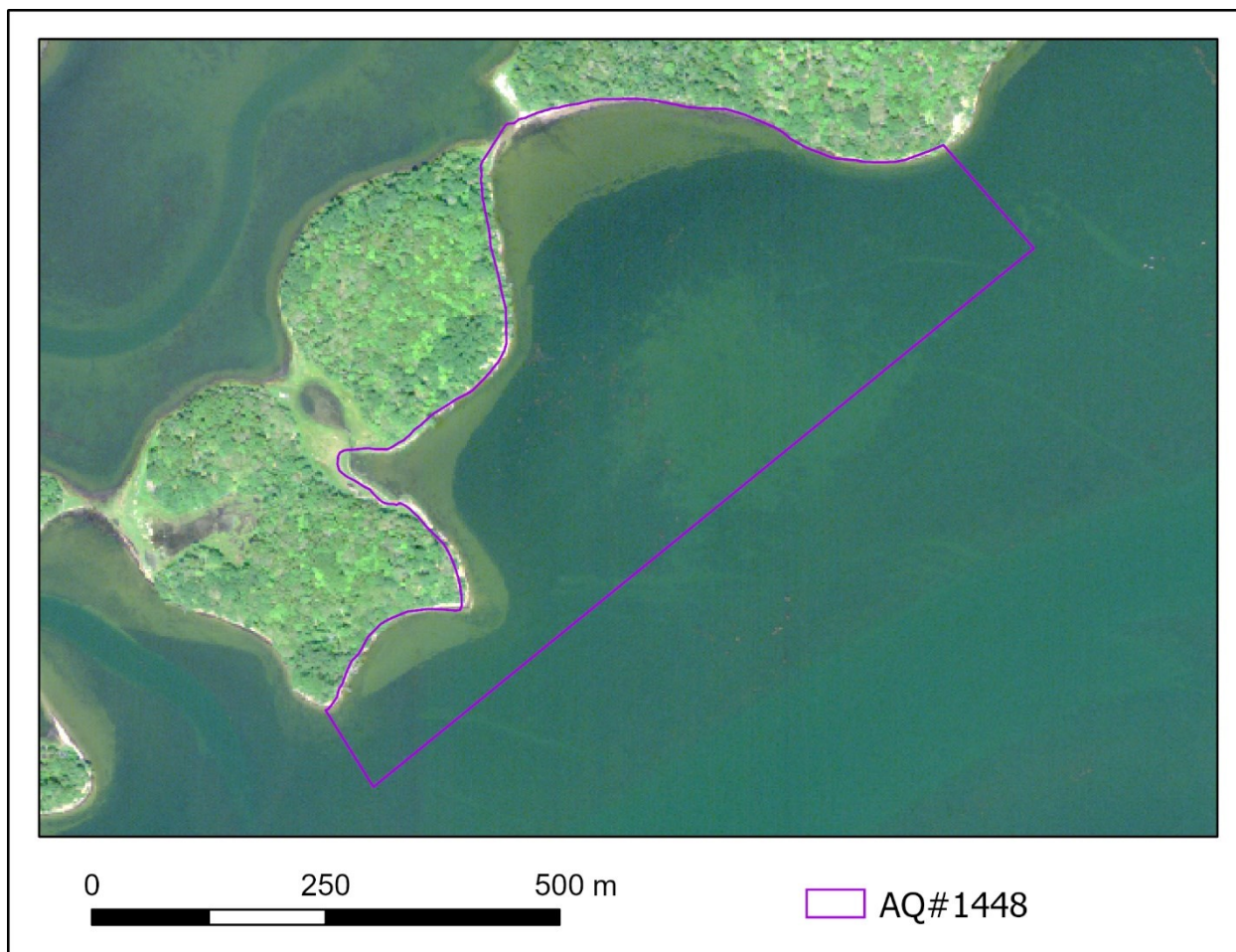


Figure 1. Proposed lease AQ#1448 showing eelgrass coverage (darker submerged areas) contrasted with lighter background sediments. Eelgrass covers approximately 59% of the proposed lease area. Source: Worldview-2, collected 25 July 2021

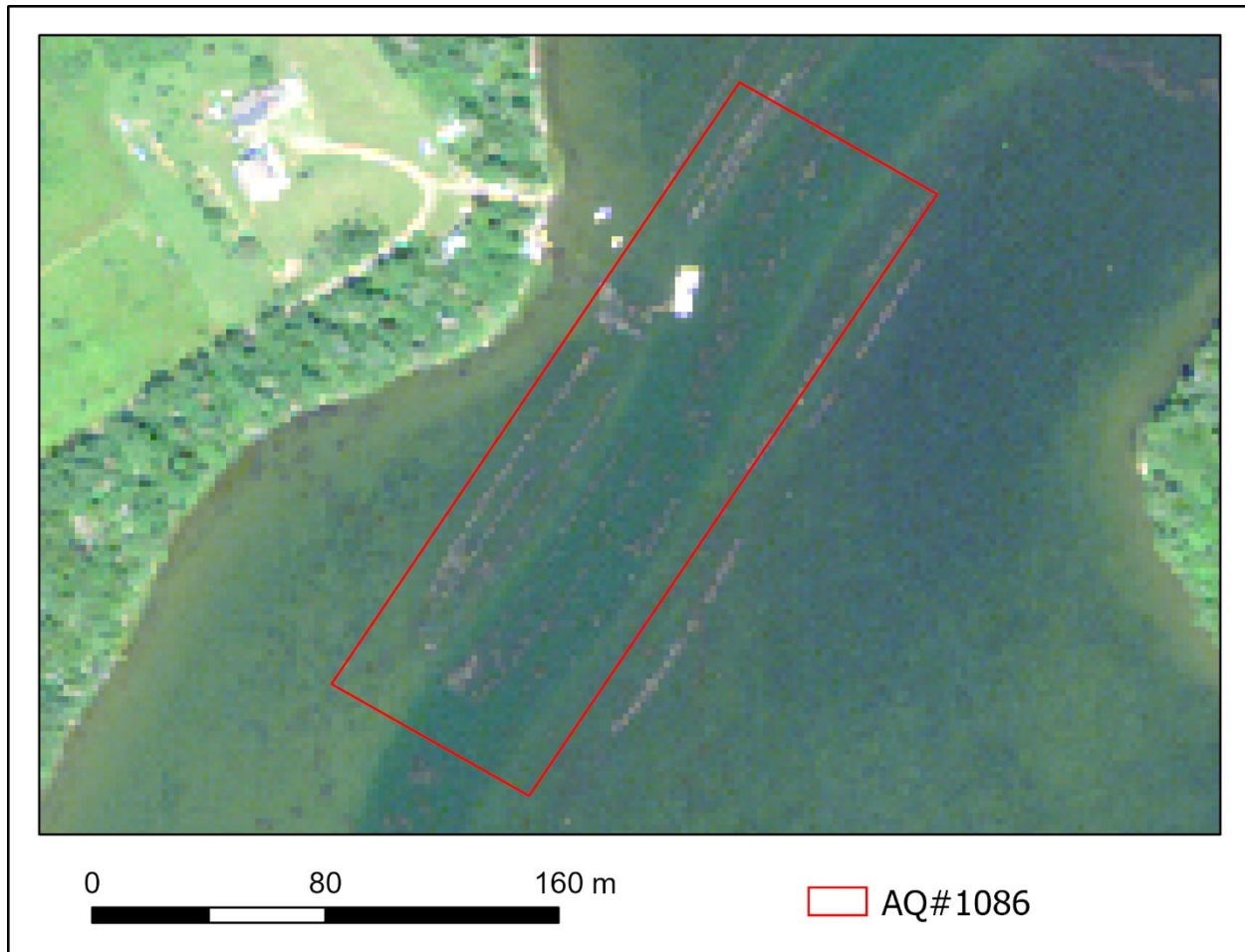
At this range of depths, it is likely that shading of existing eelgrass habitat would occur, potentially resulting in a loss of eelgrass habitat. Shading would be most prominent with suspended culture methods, for which the applicant proposes several gear types; we have conducted research on shading from OysterGro cages, though the results are not yet published. Shading effects are most prominent in shallow water where there is insufficient space for lateral diffusion of light to the eelgrass canopy. The use of novel methods such as the BOBR units mentioned in the application may reduce shading effects, though as yet no research has been produced demonstrating this. Shading effects could be expected to be particularly dramatic for other proposed gear types, namely the “floats” (8’ x 4’ surface area), which would seemingly allow no light penetration over much a larger area than e.g. OysterGro cages (though, notably, only a small number of these are proposed). Off-bottom culture using “racks” would also likely lead to loss of eelgrass habitat, as these cover a large footprint (3’ x 10’) and would be positioned 2’ from the seafloor, creating a permanent physical barrier to eelgrass growth as well as an impediment to light penetration. Two of the areas targeted for trays on the bottom (Zones B and D) and the location intended for floats (Zone D) appear to contain areas of dense eelgrass.

The area targeted for suspended culture, Zone A, is described on pg. 5 as intended for “year round” use. Presumably, given the presence of winter ice, these units would be sunk to the seafloor for overwintering. The overwintering of aquaculture gear in dense eelgrass habitat would most likely cause direct physical damage to subterranean eelgrass structures (i.e. roots and rhizomes), leading to a loss of eelgrass habitat. It is stated on pg. 13 that gear can be suspended to remain off bottom over winter, “allowing for minimal seafloor contact”. This seems very unlikely; the vertical dimensions of suspended gear are not presented, but presumed to be at least 0.5 m. Given that the maximum depth at the site is roughly 2.5 m, with a tidal range of up to 1.8 m, movement of winter ice would most likely result in contact with gear and resultant scouring of the seafloor, which can very easily destroy submerged vegetation. OysterGro documentation states a minimum of 18” of water between submerged gear and the bottom of sea ice; given the bathymetric depth profile of the proposed site, it seems unlikely that overwintering would not result in damage to eelgrass habitat. Not enough information is presented for a full evaluation of risks from overwintering. The best approach would be to avoid eelgrass habitat while overwintering under ice; it is unclear from the information provided if this could be accomplished with minimal damage to existing eelgrass (though the unvegetated area in the center of the lease appears to be suitable for these purposes, it may not be large enough for the quantity of gear that is proposed).

The large variety of culture techniques proposed would seemingly result in all strata of the area being occupied by gear (i.e. bottom, off-bottom, and suspended/surface culture), with much of the area occupied throughout the year (including over winter). This is uncommon in other leases of this size, and would likely contribute to the displacement of eelgrass. This represents a large quantity of 3D structure that could have other unpredictable effects on local ecology.

The application references work done by David Garbary on the nearby site AQ#1086 with the assertion that direct contact with eelgrass beds “evidently did not destroy that ecosystem” (pg. 13). This statement is insufficiently supported or referenced, and lease 1086 is not a suitable comparison. AQ#1086 is much smaller (1.9 ha, or 7.7% the size of the proposed lease) and occurs in an entirely different environmental context (**Figure 2**). It is located on the opposite side of an island and prominently features a deep channel covering roughly 50% of its area and comparatively much less eelgrass. Any effects on eelgrass at this site cannot be simply extrapolated to the proposed lease.





*Figure 2. Lease #1086, located on the opposite side of an island from the proposed lease, and featuring a channel covering approximately 50% of the lease area that is unsuitable for eelgrass. Source: Worldview-2, collected 25 July 2021*

The application also identifies lease AQ#1369 as evidence that the proposed area is suitable (pg. 14); it is worth noting that while the size of this lease is comparable, #1369 lacks eelgrass over the vast majority of its area (**Figure 3**). This large difference in eelgrass coverage is indicative of different environmental conditions and thus not a good indicator of suitability at lease #1448.



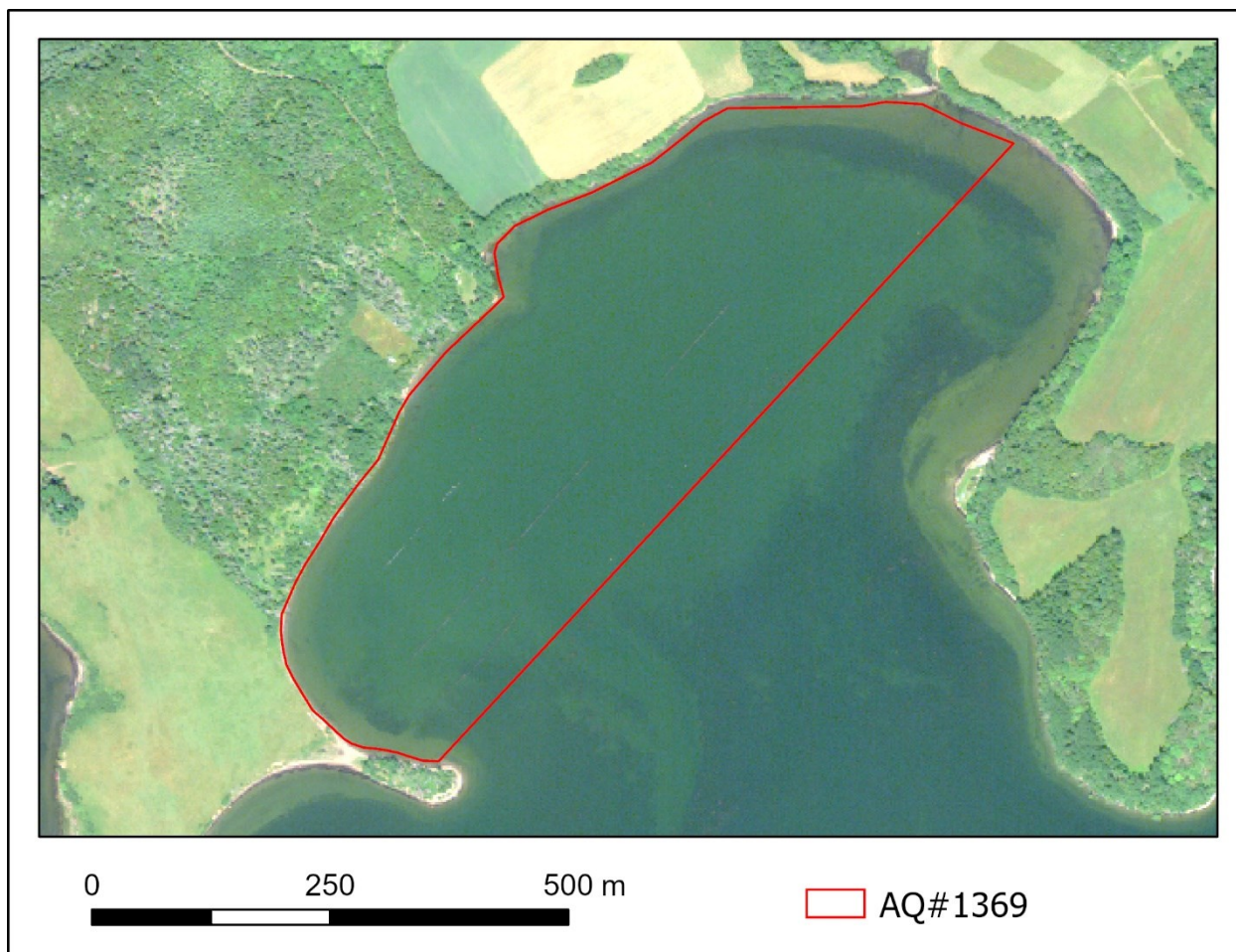


Figure 3. Lease AQ#1369, which notably occurs very little eelgrass compared with the proposed site. From the perspective of eelgrass, this is an ideal location to minimize habitat disturbance. Source: Worldview-2, collected 25 July 2021

Although the approval of the proposed lease could potentially result in damage to eelgrass habitat, the intention of this review was merely to provide this information to decision-makers, as determination of the acceptability of any potential impacts should be evaluated by those tasked with this responsibility.

With respect to eelgrass in particular, it is our view that potential impacts should always be considered in the context of the local environment, i.e. “bay-scale”, to the extent this is possible. Though this cannot be independently verified until our satellite classification work is completed, the statement on pg. 13 that the proposed site covers “approximately 2% of the harbour’s eelgrass” is reasonable, and expert review of available satellite imagery shows what appears to be a large quantity of dense and healthy eelgrass throughout the Harbour. While local impacts should not be discounted, given the available information it is unlikely that approval of this application would result in severe impacts on eelgrass habitat in Merigomish Harbour.

## Network Agency Review of an Aquaculture Application

Agency	Fisheries and Oceans (DFO)
Division (if applicable)	Resource Management, Science, FHFPP
Date	June 22 2022
File No.	AQ#1448 – C&G Aquaculture
Type of application	Marine Shellfish
Information Provided	Accompanying document from DFO Science

Please provide comments, concerns, recommendations, or requirements on the above stated application for a marine aquaculture licence. Please include the criterion /criteria within your jurisdiction or mandate that your feedback is based upon. Similarly, if additional information is required to make a determination, please include the criterion /criteria within your jurisdiction or mandate that your request is based upon.

- ☐ No concerns regarding the proposed development
- ☒ Concerns with development are expressed below
- ☐ Request modifications to the proposed development (described below)
- ☐ Required or recommended conditions (described below)
- ☐ Request additional information (described below)
- ☐ Request meeting with applicant and NSDFA (described below)
- ☐ No comments on the application

Comments, concerns, recommendations, and/or required conditions including the criterion /criteria within your jurisdiction or mandate that your feedback is based upon. (Attach comments if preferred, or add additional pages, as required.):

### SEE ACCOMPANYING PDF DOCUMENT FROM DFO SCIENCE

The Fish and Fish Habitat Protection Program (FFHPP) of Fisheries and Oceans Canada (DFO) has reviewed the proposed new aquaculture site AQ#1448 and has no further comments.

Owners and Operators should, however, be aware of their obligations under the *Aquaculture Activities Regulations* (AAR).

The AAR Guidance Document [Aquaculture Activities Regulations guidance document \(dfo-mpo.gc.ca\)](https://www.dfo-mpo.gc.ca/aquaculture/aar-guidance-document) is intended to provide a clear interpretation of what the AAR mean, how they will be implemented, and what Owners and Operators need to do to comply with provisions of the *Fisheries Act* and AAR. Section 15 of the AAR Guidance Document “*Prescribed works, undertakings, activities and conditions*” provides reasonable measures (not an exhaustive list and not applicable to all types of operations) that should be undertaken by Owners and Operators of aquaculture facilities in order to mitigate the risk of causing the “*harmful alteration, disruption or destruction of fish habitat*” (*Fisheries Act* 2019), formerly ‘*serious harm to fish*’ (*Fisheries Act* 2012).

The Fisheries and Oceans Canada Gulf Region Aquaculture Management Office is the primary contact for Owner and Operator interaction with DFO:

DFO Gulf Region Aquaculture Management

343 Ave Université

Moncton, NB, E1C 9B6

Tel: (506) 626-0031

Email: [DFO.GLFAAR-RAAGLF.MPO@dfo-mpo.gc.ca](mailto:DFO.GLFAAR-RAAGLF.MPO@dfo-mpo.gc.ca)

Please Note that Section 14 of the AAR requires that “ *The owner or operator of an aquaculture facility must submit an annual report to the Minister, and retain a copy of it, in accordance with section 16* “. Section 16 of the AAR Guidance Document provides an ‘AAR Reporting Template’ to assist owners/operators in completing this task. The AAR Reporting Template can be found in Annex 1, or on the DFO website. While use of the template is not mandatory, it is recommended as it provides a checklist for all of the information required for the annual report.

## Public Notice and Disclosure

As part of the process for deciding on an application, it may be necessary for the Nova Scotia Department of Fisheries and Aquaculture (“Fisheries and Aquaculture”) to disclose the collected network review information to the applicant and other government bodies, including, if applicable, the Nova Scotia Aquaculture Review Board for use at an adjudicative hearing relating to the application in question.

In accordance with departmental policy, which seeks to promote public involvement in the process for deciding on aquaculture applications, Fisheries and Aquaculture will disclose aquaculture application information, including network review information, on the departmental website.

## Privacy Statement

***The network review information collected as part of an aquaculture application will only be used or disclosed by Fisheries and Aquaculture for the purpose of deciding on the application.***

All application information collected is subject to the Freedom of Information and Protection of Privacy Act (“FOIPOP”) and will only be used or disclosed in accordance with FOIPOP.

## APPENDIX C – CANADIAN FOOD INSPECTION AGENCY

**From:** Winfield, Lynn  
**Sent:** April 25, 2022 8:53 AM  
**To:** Comeau, Sandra J <[Sandra.Comeau@dfo-mpo.gc.ca](mailto:Sandra.Comeau@dfo-mpo.gc.ca)>; [Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca); [joe.boutilier@inspection.gc.ca](mailto:joe.boutilier@inspection.gc.ca); [NPPATL-PPNATL@tc.gc.ca](mailto:NPPATL-PPNATL@tc.gc.ca); [david.macarthur@ec.gc.ca](mailto:david.macarthur@ec.gc.ca); [monique.breau@canada.ca](mailto:monique.breau@canada.ca); Kittilsen, Michael A <[Michael.Kittilsen@novascotia.ca](mailto:Michael.Kittilsen@novascotia.ca)>; Cottreau-Robins, Catherine M <[Catherine.Cottreau-Robins@novascotia.ca](mailto:Catherine.Cottreau-Robins@novascotia.ca)>; Boudreau, Louise O <[Louise.Boudreau@novascotia.ca](mailto:Louise.Boudreau@novascotia.ca)>; Birch, Angela <[Angela.Birch@novascotia.ca](mailto:Angela.Birch@novascotia.ca)>  
**Cc:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>; Feindel, Nathaniel J <[Nathaniel.Feindel@novascotia.ca](mailto:Nathaniel.Feindel@novascotia.ca)>; King, Matthew S <[Matthew.King@novascotia.ca](mailto:Matthew.King@novascotia.ca)>; Watts, Melinda <[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>; Buchan, Carla M <[Carla.Buchan@novascotia.ca](mailto:Carla.Buchan@novascotia.ca)>; Cusack, Roland R <[Roland.Cusack@novascotia.ca](mailto:Roland.Cusack@novascotia.ca)>; Swim, Amanda K <[Amanda.Swim@novascotia.ca](mailto:Amanda.Swim@novascotia.ca)>  
**Subject:** AQ#1448 - C&G Aquaculture - New Shellfish Application

Attention: Network Review Agencies

Please see the attached memo for a new Aquaculture Application No. 1448 in Merigomish Harbour (Pig Island), Pictou County.

Please respond with your feedback by **June 25, 2022.**

The attached zipped shapefile requires specific geospatial software to open and is intended for convenient use by GIS professionals only.

Thanks,

*Lynn*

*E. Lynn Winfield*

**Licensing Coordinator,  
 Nova Scotia Department of Fisheries and Aquaculture**



1575A Lake Road  
 Sandy Point, NS B0T 1W0  
 Phone: 902-875-7440  
 Fax: 902-875-7429  
 Email: [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)

[NS Department of Fisheries & Aquaculture Website](#)

**\*Please refer to Application Package AQ#1448, Section 2.0 - Applicant's Aquaculture Development Plan, for documents sent to and reviewed by Canadian Food Inspection Agency (CFIA).**

**From:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>  
**Sent:** 2022-06-14 10:16 AM  
**To:** Comeau, Sandra J <[Sandra.Comeau@dfo-mpo.gc.ca](mailto:Sandra.Comeau@dfo-mpo.gc.ca)>; Leanna.Braid@dfo-mpo.gc.ca; Boutilier, Joe (CFIA/ACIA) <[Joe.Boutilier@inspection.gc.ca](mailto:Joe.Boutilier@inspection.gc.ca)>; NPPATL-PPNATL@tc.gc.ca; [david.macarthur@ec.gc.ca](mailto:david.macarthur@ec.gc.ca); [monique.breau@canada.ca](mailto:monique.breau@canada.ca); Cottreau-Robins, Catherine M <[Catherine.Cottreau-Robins@novascotia.ca](mailto:Catherine.Cottreau-Robins@novascotia.ca)>; Boudreau, Louise O <[Louise.Boudreau@novascotia.ca](mailto:Louise.Boudreau@novascotia.ca)>; Birch, Angela <[Angela.Birch@novascotia.ca](mailto:Angela.Birch@novascotia.ca)>  
**Cc:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>; Watts, Melinda <[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

EXTERNAL EMAIL – USE CAUTION / COURRIEL EXTERNE – FAITES PREUVE DE PRUDENCE

Good Morning,

Please be reminded that on April 25, 2022, our department sent you a request for the network review of the new shellfish aquaculture application No. 1448, with a response requested by **June 25, 2022**. As of today, our office has not received comments from your department.

If you have any questions please do not hesitate to contact me.

Thanks,

*Lynn*

*E. Lynn Winfield*

**Licensing Coordinator,  
 Nova Scotia Department of Fisheries and Aquaculture**

**From:** Boutilier, Joe (CFIA/ACIA) <[Joe.Boutilier@inspection.gc.ca](mailto:Joe.Boutilier@inspection.gc.ca)>  
**Sent:** June 23, 2022 3:50 PM  
**To:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

**\*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\***

Exercise caution when opening attachments or clicking on links / Faites preuve de prudence si vous ouvrez une pièce jointe ou cliquez sur un lien

Hi Lynn,

Please see attached CFIA's comments regarding AQ#1448.

Let me know if you have any questions,

Joe Boutilier

Regional Program Officer - Shellfish, Nova Scotia  
 Canadian Food Inspection Agency / Government of Canada  
[Joe.Boutilier@inspection.gc.ca](mailto:Joe.Boutilier@inspection.gc.ca) / Tel: (902) 403-4386

Agent de programme régional - Mollusques et crustacés, Nouvelle-Écosse  
Agence canadienne d'inspection des aliments / Gouvernement du Canada  
[Joe.Boutilier@inspection.gc.ca](mailto:Joe.Boutilier@inspection.gc.ca) / Tél. : (902) 403-4386



Network Agency  
Review CFIA June 23

## Network Agency Review of an Aquaculture Application

Agency	<b>Canadian Food Inspection Agency</b>
Division (if applicable)	
Date	<b>June 23, 2022</b>
File No.	<b>AQ#1448 – C&amp;G Aquaculture</b>
Type of application	<b>Marine Shellfish</b>
Information Provided	

Please provide comments, concerns, recommendations, or requirements on the above stated application for a marine aquaculture licence. Please include the criterion /criteria within your jurisdiction or mandate that your feedback is based upon. Similarly, if additional information is required to make a determination, please include the criterion /criteria within your jurisdiction or mandate that your request is based upon.

- ☒ No concerns regarding the proposed development
- ☐ Concerns with development are expressed below
- ☐ Request modifications to the proposed development (described below)
- ☐ Required or recommended conditions (described below)
- ☐ Request additional information (described below)
- ☐ Request meeting with applicant and NSDFA (described below)
- ☐ No comments on the application

Comments, concerns, recommendations, and/or required conditions including the criterion /criteria within your jurisdiction or mandate that your feedback is based upon. (Attach comments if preferred, or add additional pages, as required.):

The proposed lease is currently in a open and approved area and the proponent intends to process harvested product through a federally licences facility.

If the proponent plans to use floating bag technology, a approved harvest plan with appropriate control measure will need to be submitted to the regional shellfish control authority (section 9.1.3 of the CSSP).

CFIA has no concerns for the proposed development at this time.



## **Public Notice and Disclosure**

As part of the process for deciding on an application, it may be necessary for the Nova Scotia Department of Fisheries and Aquaculture (“Fisheries and Aquaculture”) to disclose the collected network review information to the applicant and other government bodies, including, if applicable, the Nova Scotia Aquaculture Review Board for use at an adjudicative hearing relating to the application in question.

In accordance with departmental policy, which seeks to promote public involvement in the process for deciding on aquaculture applications, Fisheries and Aquaculture will disclose aquaculture application information, including network review information, on the departmental website.

## **Privacy Statement**

***The network review information collected as part of an aquaculture application will only be used or disclosed by Fisheries and Aquaculture for the purpose of deciding on the application.***

All application information collected is subject to the Freedom of Information and Protection of Privacy Act (“FOIPOP”) and will only be used or disclosed in accordance with FOIPOP.

## APPENDIX D – TRANSPORT CANADA

**From:** Ceschiutti, Robert <Robert.Ceschiutti@novascotia.ca>  
**Sent:** April 4, 2022 1:10 PM  
**To:** Carbonell, Marina <Marina.Carbonell@tc.gc.ca>  
**Cc:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>; LeBlanc, Mélanie <melanie.leblanc@tc.gc.ca>  
**Subject:** Aquaculture - New Application being prepared for public notice AQ#1448

Hi Marina, our department is preparing to post a new aquaculture licence/lease application for public notice, AQ#1448. I've attached the draft cover page of the notice for your reference (ignore the posting date – it is automatically generated). There is a related Transport Canada application under reference # 2021-204968.

If this notice was posted on Thursday April 14, 2022 would that be enough time for your team to prepare its own website to coincide with this one?

Regards,  
Robert Ceschiutti  
Manager, Licensing and Leasing  
NS Department of Fisheries and Aquaculture  
1575 Lake Road  
Shelburne, Nova Scotia  
B0T 1W0  
Phone: 902-875-7430  
[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)



Fisheries and Aquaculture  
1575 Lake Road  
Shelburne, Nova Scotia  
BOT 1W0

[www.novascotia.ca](http://www.novascotia.ca)

### NOTICE OF APPLICATION POSTED

These initial documents have been submitted with respect to a New Marine Aquaculture Licence/Lease application. The information in these documents is provided as part of the routine disclosure of information by the Department of Fisheries and Aquaculture. Some information may be redacted as business confidential information or personal information.

This application is in the preliminary stages of review by the Department. Please note, the review process may require the applicant to submit additional information to the Department which will be posted to the Department's website.

These documents were provided to the Department by the applicant. The Department is not responsible for the content of these documents, including, but not limited to, the accuracy, reliability, or currency of the information contained within.

New Marine Shellfish Application	
<b>Posting Date:</b> May 16, 2024	
<b>Applicant:</b> C&G Aquaculture	<b>Species:</b> American oyster, Bay quahog, Bay scallop, Razor clam
<b>Location:</b> AQ#1448: Merigomish Harbour (Pig Island), Pictou County	<b>Method of Cultivation:</b> Suspended shellfish, Bottom cultivation with gear and Bottom cultivation without gear

To learn more about the marine aquaculture lease and license application process, please visit <https://novascotia.ca/fish/aquaculture/licensing-leasing/Aqua-Licensing-and-Leasing-Overview.pdf>

For information on the Nova Scotia Aquaculture Review Board, please visit <https://arb.novascotia.ca/>

Please note that this application is being reviewed pursuant to the *Canadian Navigable Waters Act* by Transport Canada. Written comments regarding the effect of this work on marine navigation may be submitted to Transport Canada as follows, for a period of 30 days following the posting date of this notice.

1. On line at : <http://cps.canada.ca/> under the Registry/NPP#2021-204968
2. By Mail at: Manager  
Transport Canada - Navigation Protection Program  
P.O. Box 42, Moncton, NB E1C 8K6

**From:** Carbonell, Marina <[Marina.Carbonell@tc.gc.ca](mailto:Marina.Carbonell@tc.gc.ca)>  
**Sent:** April 4, 2022 1:34 PM  
**To:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>  
**Subject:** RE: Aquaculture - New Application being prepared for public notice AQ#1448

**\*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\***

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UNCLASSIFIED / NON CLASSIFIÉ

Hi Robert,  
 April 14 2022 is perfect. I will set the date on our side for then.  
 The registry number for this one is 4116.  
 Thanks,

*Marina*

Marina Carbonell  
 (she/her/elle)

Navigable Waters Protection Program Officer / Agent de protection des eaux navigables  
 Transport Canada, Government of Canada / Transports Canada, Gouvernement du Canada

Telephone / Téléphone: (709) 691-3794  
 Facsimile / télécopieur: (709) 772-0210  
 E-mail/courrier électronique: [marina.carbonell@tc.gc.ca](mailto:marina.carbonell@tc.gc.ca)  
 John Cabot Building, 10 Barter's Hill, 6<sup>th</sup> Floor / 10, Barter's Hill, Immeuble John Cabot, 6<sup>e</sup> étage  
 St. John's, NL A1C 6H8 / Saint Jean, Terre-Neuve A1C 6H8




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**From:** Babineau-LeBlanc, Linda <[linda.babineau-leblanc@tc.gc.ca](mailto:linda.babineau-leblanc@tc.gc.ca)>  
**Sent:** April 7, 2022 12:08 PM  
**To:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>  
**Subject:** Aquaculture Lease# 1448 (Alexander Bouchie), Merigomish Harbour, NS

**\*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\***

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UNCLASSIFIED / NON CLASSIFIÉ

Good morning Robert,

I hope you're doing well. Transport Canada has received an application for the above aquaculture lease. Has NSDFA received an application for this proposed site? If so, have you determined yet if it triggers the duty to consult? I wanted to continue the discussion, following our last meeting, regarding

your new process and how TC can continue collaborating with the Nova Scotia Department of Fisheries and Aquaculture, possibly through co-signing of letters.

Also, I will be taking over all NS Aquaculture files, in order to be the primary contact and to maintain consistency in the process. I would be happy to set up a call to further discuss, if required.

Regards,

**Linda Babineau-LeBlanc**  
(She/Her/Elle)

Consultation Officer, Environmental Programs and Indigenous Relations, Atlantic Region  
Transport Canada / Government of Canada  
[linda.babineau-leblanc@tc.gc.ca](mailto:linda.babineau-leblanc@tc.gc.ca) / Tel. : 506-850-3319/ Fax: 506-851-7542 / TTY: 1-888-675-6863

Agente en consultation, Programmes environnementaux et Relations Autochtones, région de l'Atlantique  
Transports Canada / Gouvernement du Canada  
[linda.babineau-leblanc@tc.gc.ca](mailto:linda.babineau-leblanc@tc.gc.ca) / Tél. : 506-850-3319/ Téléc. : 506-851-7542 / ATS : 1-888-675-6863

**From:** Ceschiutti, Robert <Robert.Ceschiutti@novascotia.ca>  
**Sent:** April 7, 2022 3:51 PM  
**To:** Babineau-LeBlanc, Linda <linda.babineau-leblanc@tc.gc.ca>  
**Cc:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** RE: Aquaculture Lease# 1448 (Alexander Bouchie), Merigomish Harbour, NS

Hi Linda, we have the application for a new licence/lease for AQ#1448, which has finished the initial review by our department and will soon be sent to our network partners for advice (I'm guessing within the next 2-3 weeks). We have not sent the application to the NS-OLA for screening yet so I'm not sure if it triggers the duty to consult. Once I have an answer from OLA I'll ask them what the plan will be in terms of collaborating with your department (and DFO) and pass that info onto you.

Regards,  
Robert Ceschiutti  
Manager, Licensing and Leasing  
NS Department of Fisheries and Aquaculture  
1575 Lake Road  
Shelburne, Nova Scotia  
B0T 1W0  
Phone: 902-875-7430  
[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)

**From:** EmailSupport-SoutienCourriel <EmailSupport-SoutienCourriel@tc.gc.ca>  
**Sent:** April 25, 2022 8:53 AM  
**To:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** Message Blocked/Refusé:

**\*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\***

Exercise caution when opening attachments or clicking on links / Faites preuve de prudence si vous ouvrez une pièce jointe ou cliquez sur un lien

Transport Canada's email system has intercepted an email message from [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca) with the following subject "AQ#1448 - C&G Aquaculture - New Shellfish Application" and contains a zip (compressed file) attachment. For security reasons, the message has been blocked from entering the Transport Canada email system.

In order to arrange for the transfer of your file, please return this message to the recipient, who will then forward it to their information technology support unit.

-----  
 Le système de messagerie électronique de Transports Canada a intercepté un message courriel de [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca) avec le sujet suivant "AQ#1448 - C&G Aquaculture - New Shellfish Application" et contenant une pièce jointe en format zip. Pour des raisons de sécurité, on a empêché le message d'entrer dans le système de messagerie de Transports Canada.

Afin de prendre les mesures voulues pour le transfert de votre dossier, veuillez retourner ce message au destinataire, qui, par la suite, le retransmettra à son équipe de soutien des technologies de l'information.

---

**From:** NPP ATL / PPN ATL <NPPATL-PPNATL@tc.gc.ca>  
**Sent:** April 25, 2022 9:07 AM  
**To:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

**\*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\***

Exercise caution when opening attachments or clicking on links / Faites preuve de prudence si vous ouvrez une pièce jointe ou cliquez sur un lien

*You have reached Transport Canada - Navigation Protection Program - Atlantic Region. Your request has been received and is being processed.*

*If you are applying to Transport Canada for an approval under the Canadian Navigable Waters Act (CNWA), or seeking authorization through the public resolution process, you may do so through the NPP External submission site:*

<https://www.tc.gc.ca/eng/programs-623.html>

*Further information about the Navigation Protection Program can be found on our website:*

<http://www.tc.gc.ca/eng/programs-621.html>

---

*Vous avez joint le Programme de Protection de la navigation de Transports Canada de la Région de l'Atlantique. Votre demande a été reçue et est en cours de traitement.*

*Si vous présentez une demande d'approbation à Transports Canada en vertu de la Loi sur les eaux navigables canadiennes (LENC), ou voulez obtenir une autorisation au moyen du processus de règlement public, vous pourriez le faire sur le site de soumission externe du PPN :*

*<https://www.tc.gc.ca/fra/programmes-623.html>*

*Des renseignements supplémentaires se trouvent sur notre site Web :*

*<http://www.tc.gc.ca/fra/programmes-621.html>*

*Thanks*

*Merci*

### **Navigation Protection Program | Programme de protection de la navigation**

Transport Canada - Atlantic Region / Heritage Court, P.O. Box 42, 95 Foundry Street, Moncton, N.B. E1C 8K6 |

Transports Canada - Région de l'Atlantique / Place Héritage, C.P. 42, 95 rue Foundry, Moncton, N.-B. E1C 8K6

Tel | Tél. : 506-851-3113 / Fax | Téléc. : 506-851-7542

**Email / Courriel :** [NPPATL-PPNATL@tc.gc.ca](mailto:NPPATL-PPNATL@tc.gc.ca)



Transport  
Canada

Transports  
Canada

Canada



**From:** Winfield, Lynn  
**Sent:** April 25, 2022 8:53 AM  
**To:** Comeau, Sandra J <[Sandra.Comeau@dfo-mpo.gc.ca](mailto:Sandra.Comeau@dfo-mpo.gc.ca)>; [Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca); [joe.boutilier@inspection.gc.ca](mailto:joe.boutilier@inspection.gc.ca); [NPPATL-PPNATL@tc.gc.ca](mailto:NPPATL-PPNATL@tc.gc.ca); [david.macarthur@ec.gc.ca](mailto:david.macarthur@ec.gc.ca); [monique.breau@canada.ca](mailto:monique.breau@canada.ca); Kittilsen, Michael A <[Michael.Kittilsen@novascotia.ca](mailto:Michael.Kittilsen@novascotia.ca)>; Cottreau-Robins, Catherine M <[Catherine.Cottreau-Robins@novascotia.ca](mailto:Catherine.Cottreau-Robins@novascotia.ca)>; Boudreau, Louise O <[Louise.Boudreau@novascotia.ca](mailto:Louise.Boudreau@novascotia.ca)>; Birch, Angela <[Angela.Birch@novascotia.ca](mailto:Angela.Birch@novascotia.ca)>  
**Cc:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>; Feindel, Nathaniel J <[Nathaniel.Feindel@novascotia.ca](mailto:Nathaniel.Feindel@novascotia.ca)>; King, Matthew S <[Matthew.King@novascotia.ca](mailto:Matthew.King@novascotia.ca)>; Watts, Melinda <[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>; Buchan, Carla M <[Carla.Buchan@novascotia.ca](mailto:Carla.Buchan@novascotia.ca)>; Cusack, Roland R <[Roland.Cusack@novascotia.ca](mailto:Roland.Cusack@novascotia.ca)>; Swim, Amanda K <[Amanda.Swim@novascotia.ca](mailto:Amanda.Swim@novascotia.ca)>  
**Subject:** AQ#1448 - C&G Aquaculture - New Shellfish Application

Attention: Network Review Agencies

Please see the attached memo for a new Aquaculture Application No. 1448 in Merigomish Harbour (Pig Island), Pictou County.

Please respond with your feedback by **June 25, 2022.**

The attached zipped shapefile requires specific geospatial software to open and is intended for convenient use by GIS professionals only.

Thanks,

*Lynn*

*E. Lynn Winfield*

**Licensing Coordinator,  
 Nova Scotia Department of Fisheries and Aquaculture**



1575A Lake Road  
 Sandy Point, NS B0T 1W0  
 Phone: 902-875-7440  
 Fax: 902-875-7429  
 Email: [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)

[NS Department of Fisheries & Aquaculture Website](#)

**\*Please refer to Application Package AQ#1448, Section 2.0 - Applicant's Aquaculture Development Plan, for documents sent to and reviewed by Transport Canada (TC).**

**From:** Winfield, Lynn  
**Sent:** April 25, 2022 8:37 PM  
**To:** NPPATL-PPNATL@tc.gc.ca  
**Subject:** FW: AQ#1448 - C&G Aquaculture - New Shellfish Application

Good Afternoon,

I received the below email response to my previous email (below):

*“Transport Canada's email system has intercepted an email message from [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca) with the following subject "AQ#1448 - C&G Aquaculture - New Shellfish Application" and contains a zip (compressed file) attachment. For security reasons, the message has been blocked from entering the Transport Canada email system. “*

I have removed the zipped shapefile, please contact me if you require the shapefiles for your review.

Thanks,

*Lynn*

*E. Lynn Winfield*

**Licensing Coordinator,  
Nova Scotia Department of Fisheries and Aquaculture**

**From:** Winfield, Lynn  
**Sent:** June 28, 2022 9:46 AM  
**To:** LeBlanc, Mélanie <melanie.leblanc@tc.gc.ca>  
**Subject:** FW: AQ#1448 - C&G Aquaculture - New Shellfish Application

Good Morning Melanie,

Just doing a follow-up on this new site application, the proponent made application (TC reference number 2021-204968), could you please provide me with an update on the status of this application?

Thanks,

*Lynn*

*E. Lynn Winfield*  
**Licensing Coordinator,**  
**Nova Scotia Department of Fisheries and Aquaculture**

---

**From:** Winfield, Lynn  
**Sent:** October 4, 2022 3:05 PM  
**To:** LeBlanc, Mélanie <melanie.leblanc@tc.gc.ca>  
**Cc:** Watts, Melinda <Melinda.Watts@novascotia.ca>  
**Subject:** FW: AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Melanie,

Do you have an update on this one?

Thanks,

*Lynn*

*E. Lynn Winfield*  
**Licensing Coordinator,**  
**Nova Scotia Department of Fisheries and Aquaculture**

---

**From:** LeBlanc, Mélanie (TC/TC) <melanie.leblanc@tc.gc.ca>  
**Sent:** October 5, 2022 8:47 AM  
**To:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Cc:** Watts, Melinda <Melinda.Watts@novascotia.ca>; Carbonell, Marina <Marina.Carbonell@tc.gc.ca>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

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Hi Lynn,

We have it waiting for IR response. Other than that we are pretty ready.

I will follow up with IR and see where they are at. Do you know if IR is complete on your side?

Melanie

**From:** Ceschiutti, Robert <Robert.Ceschiutti@novascotia.ca>

**Sent:** October 6, 2022 2:26 PM

**To:** LeBlanc, Mélanie <melanie.leblanc@tc.gc.ca>

**Cc:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>

**Subject:** FW: AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Melanie, Aboriginal consultation has concluded for the application file AQ#1448 and our Department is working on preparing the application package for submission to the Aquaculture Review Board. That being said, consultation was not in collaboration with any federal agents such as DFO and TC.

Regards,  
Robert Ceschiutti  
Manager, Licensing and Leasing  
NS Department of Fisheries and Aquaculture  
1575A Lake Road  
Sandy Point, Nova Scotia  
B0T 1W0  
Phone: 902-875-7430  
[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)

**From:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>

**Sent:** Wednesday, January 11, 2023 8:42 AM

**To:** LeBlanc, Mélanie (TC/TC) <[melanie.leblanc@tc.gc.ca](mailto:melanie.leblanc@tc.gc.ca)>

**Cc:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>; Watts, Melinda <[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>

**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Good morning Melanie, I would just like to request confirmation that Transport Canada did not have any issues or concerns with aquaculture application file AQ#1448 (C&G Aquaculture).

Regards,  
Robert Ceschiutti  
Manager, Licensing and Leasing  
NS Department of Fisheries and Aquaculture  
1575A Lake Road

Sandy Point, Nova Scotia  
 BOT 1W0  
 Phone: 902-875-7430  
[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)

---

**From:** LeBlanc, Mélanie (TC/TC) <melanie.leblanc@tc.gc.ca>  
**Sent:** January 11, 2023 9:11 AM  
**To:** Ceschiutti, Robert <Robert.Ceschiutti@novascotia.ca>; Carbonell, Marina <Marina.Carbonell@tc.gc.ca>  
**Cc:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>; Watts, Melinda <Melinda.Watts@novascotia.ca>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

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Hi Robert,

This one is Marina's.

NPP File [2011-200180](#).

She will be in a better position to answer.

Melanie

---

**From:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>  
**Sent:** Monday, January 23, 2023 9:59 AM  
**To:** Carbonell, Marina <[Marina.Carbonell@tc.gc.ca](mailto:Marina.Carbonell@tc.gc.ca)>  
**Cc:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>; Watts, Melinda <[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>  
**Subject:** FW: AQ#1448 - C&G Aquaculture - New Shellfish Application

Good morning Marina, I'm just following up on a request to confirm that you had no issues with Aquaculture application AQ#1448 (C&G Aquaculture). We're looking to get this application ready to send to the Minister of Fisheries and Aquaculture, for subsequent submission to the Aquaculture Review Board for a hearing.

Regards,  
 Robert Ceschiutti  
 Manager, Licensing and Leasing  
 NS Department of Fisheries and Aquaculture  
 1575A Lake Road  
 Sandy Point, Nova Scotia  
 BOT 1W0  
 Phone: 902-875-7430  
[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)

**From:** Carbonell, Marina <Marina.Carbonell@tc.gc.ca>  
**Sent:** January 23, 2023 10:26 AM  
**To:** Ceschiutti, Robert <Robert.Ceschiutti@novascotia.ca>  
**Cc:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>; Watts, Melinda <Melinda.Watts@novascotia.ca>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

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Hi Robert,  
No anticipated issues on our side. My apologies, I thought I responded to Mel's email – I may have done reply instead of reply all!  
Have a great week,

*Marina*

Marina Carbonell  
(she/her/elle)

Officer, Navigation Protection Program, Transport Canada  
Telephone: (709) 691-3794 / Fax (709) 772-0210 / email: [Marina.Carbonell@tc.gc.ca](mailto:Marina.Carbonell@tc.gc.ca)  
John Cabot Building, 10 Barter's Hill, 6<sup>th</sup> Floor, St. John's, NL A1C 6H8

Agent, Programme de protection de la navigation, Transports Canada  
Téléphone: (709) 691-3794 / télécopieur: (709) 772-0210 / courriel: [Marina.Carbonell@tc.gc.ca](mailto:Marina.Carbonell@tc.gc.ca)  
10, Barter's Hill, Immeuble John Cabot, 6<sup>e</sup> étage, Saint Jean, Terre-Neuve A1C 6H8

## APPENDIX E – ENVIRONMENT AND CLIMATE CHANGE CANADA (SHELLFISH WATER CLASSIFICATION PROGRAM)

**From:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>  
**Sent:** April 25, 2022 8:53 AM  
**To:** Comeau, Sandra J <[Sandra.Comeau@dfo-mpo.gc.ca](mailto:Sandra.Comeau@dfo-mpo.gc.ca)>; [Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca); [joe.boutilier@inspection.gc.ca](mailto:joe.boutilier@inspection.gc.ca); [NPPATL-PPNATL@tc.gc.ca](mailto:NPPATL-PPNATL@tc.gc.ca); MacArthur, David (ECCC) <[David.MacArthur@ec.gc.ca](mailto:David.MacArthur@ec.gc.ca)>; [monique.breau@canada.ca](mailto:monique.breau@canada.ca); Kittilsen, Michael A <[Michael.Kittilsen@novascotia.ca](mailto:Michael.Kittilsen@novascotia.ca)>; Cottreau-Robins, Catherine M <[Catherine.Cottreau-Robins@novascotia.ca](mailto:Catherine.Cottreau-Robins@novascotia.ca)>; Boudreau, Louise O <[Louise.Boudreau@novascotia.ca](mailto:Louise.Boudreau@novascotia.ca)>; Birch, Angela <[Angela.Birch@novascotia.ca](mailto:Angela.Birch@novascotia.ca)>  
**Cc:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>; Feindel, Nathaniel J <[Nathaniel.Feindel@novascotia.ca](mailto:Nathaniel.Feindel@novascotia.ca)>; King, Matthew S <[Matthew.King@novascotia.ca](mailto:Matthew.King@novascotia.ca)>; Watts, Melinda <[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>; Buchan, Carla M <[Carla.Buchan@novascotia.ca](mailto:Carla.Buchan@novascotia.ca)>; Cusack, Roland R <[Roland.Cusack@novascotia.ca](mailto:Roland.Cusack@novascotia.ca)>; Swim, Amanda K <[Amanda.Swim@novascotia.ca](mailto:Amanda.Swim@novascotia.ca)>  
**Subject:** AQ#1448 - C&G Aquaculture - New Shellfish Application

You don't often get email from [lynn.winfield@novascotia.ca](mailto:lynn.winfield@novascotia.ca). [Learn why this is important](#)

Attention: Network Review Agencies

Please see the attached memo for a new Aquaculture Application No. 1448 in Merigomish Harbour (Pig Island), Pictou County.

Please respond with your feedback by **June 25, 2022.**

The attached zipped shapefile requires specific geospatial software to open and is intended for convenient use by GIS professionals only.

Thanks,

*Lynn*

*E. Lynn Winfield*

Licensing Coordinator,  
 Nova Scotia Department of Fisheries and Aquaculture



1575A Lake Road  
 Sandy Point, NS B0T 1W0  
 Phone: 902-875-7440  
 Fax: 902-875-7429  
 Email: [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)

[NS Department of Fisheries & Aquaculture Website](#)

**\*Please refer to Application Package AQ#1448, Section 2.0 - Applicant's Aquaculture Development Plan, for documents sent to and reviewed by Environment and Climate Change Canada (SWCP).**



**From:** MacArthur,David (ECCC) <David.MacArthur@ec.gc.ca>  
**Sent:** June 20, 2022 12:40 PM  
**To:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

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Lynn,

Comments in the attached form.

Thanks,

Dave



Application 1448 -  
DMacArthur ECCC.d

## Network Agency Review of an Aquaculture Application

Agency	<b>ECCC</b>
Division (if applicable)	<b>SWCP</b>
Date	<b>June 20, 2022</b>
File No.	<b>AQ#1448 – C&amp;G Aquaculture</b>
Type of application	<b>Marine Shellfish</b>
Information Provided	

Please provide comments, concerns, recommendations, or requirements on the above stated application for a marine aquaculture licence. Please include the criterion /criteria within your jurisdiction or mandate that your feedback is based upon. Similarly, if additional information is required to make a determination, please include the criterion /criteria within your jurisdiction or mandate that your request is based upon.

- ☒ No concerns regarding the proposed development
- ☐ Concerns with development are expressed below
- ☐ Request modifications to the proposed development (described below)
- ☐ Required or recommended conditions (described below)
- ☐ Request additional information (described below)
- ☐ Request meeting with applicant and NSDFA (described below)
- ☐ No comments on the application

Comments, concerns, recommendations, and/or required conditions including the criterion /criteria within your jurisdiction or mandate that your feedback is based upon. (Attach comments if preferred, or add additional pages, as required.):

The area is classified as approved.

## **Public Notice and Disclosure**

As part of the process for deciding on an application, it may be necessary for the Nova Scotia Department of Fisheries and Aquaculture (“Fisheries and Aquaculture”) to disclose the collected network review information to the applicant and other government bodies, including, if applicable, the Nova Scotia Aquaculture Review Board for use at an adjudicative hearing relating to the application in question.

In accordance with departmental policy, which seeks to promote public involvement in the process for deciding on aquaculture applications, Fisheries and Aquaculture will disclose aquaculture application information, including network review information, on the departmental website.

## **Privacy Statement**

***The network review information collected as part of an aquaculture application will only be used or disclosed by Fisheries and Aquaculture for the purpose of deciding on the application.***

All application information collected is subject to the Freedom of Information and Protection of Privacy Act (“FOIPOP”) and will only be used or disclosed in accordance with FOIPOP.

## APPENDIX F – ENVIRONMENT AND CLIMATE CHANGE CANADA (CANADIAN WILDLIFE SERVICES)

**From:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>  
**Sent:** April 25, 2022 8:53 AM  
**To:** Comeau, Sandra J <[Sandra.Comeau@dfo-mpo.gc.ca](mailto:Sandra.Comeau@dfo-mpo.gc.ca)>; [Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca); [joe.boutilier@inspection.gc.ca](mailto:joe.boutilier@inspection.gc.ca); [NPPATL-PPNATL@tc.gc.ca](mailto:NPPATL-PPNATL@tc.gc.ca); MacArthur, David (ECCC) <[David.MacArthur@ec.gc.ca](mailto:David.MacArthur@ec.gc.ca)>; [monique.breau@canada.ca](mailto:monique.breau@canada.ca); Kittilsen, Michael A <[Michael.Kittilsen@novascotia.ca](mailto:Michael.Kittilsen@novascotia.ca)>; Cottreau-Robins, Catherine M <[Catherine.Cottreau-Robins@novascotia.ca](mailto:Catherine.Cottreau-Robins@novascotia.ca)>; Boudreau, Louise O <[Louise.Boudreau@novascotia.ca](mailto:Louise.Boudreau@novascotia.ca)>; Birch, Angela <[Angela.Birch@novascotia.ca](mailto:Angela.Birch@novascotia.ca)>  
**Cc:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>; Feindel, Nathaniel J <[Nathaniel.Feindel@novascotia.ca](mailto:Nathaniel.Feindel@novascotia.ca)>; King, Matthew S <[Matthew.King@novascotia.ca](mailto:Matthew.King@novascotia.ca)>; Watts, Melinda <[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>; Buchan, Carla M <[Carla.Buchan@novascotia.ca](mailto:Carla.Buchan@novascotia.ca)>; Cusack, Roland R <[Roland.Cusack@novascotia.ca](mailto:Roland.Cusack@novascotia.ca)>; Swim, Amanda K <[Amanda.Swim@novascotia.ca](mailto:Amanda.Swim@novascotia.ca)>  
**Subject:** AQ#1448 - C&G Aquaculture - New Shellfish Application

Attention: Network Review Agencies

Please see the attached memo for a new Aquaculture Application No. 1448 in Merigomish Harbour (Pig Island), Pictou County.

Please respond with your feedback by **June 25, 2022.**

The attached zipped shapefile requires specific geospatial software to open and is intended for convenient use by GIS professionals only.

Thanks,

*Lynn*

*E. Lynn Winfield*

**Licensing Coordinator,  
 Nova Scotia Department of Fisheries and Aquaculture**



1575A Lake Road  
 Sandy Point, NS B0T 1W0  
 Phone: 902-875-7440  
 Fax: 902-875-7429  
 Email: [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)

[NS Department of Fisheries & Aquaculture Website](#)

**\*Please refer to Application Package AQ#1448, Section 2.0 - Applicant's Aquaculture Development Plan, for documents sent to and reviewed by Environment and Climate Change Canada (CWS).**

**From:** Breau, Monique (ECCC) <Monique.Breau@ec.gc.ca>  
**Sent:** June 28, 2022 3:32 PM  
**To:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** ECCC-CWS Comments RE: AQ#1448 - C&G Aquaculture - New Shellfish Application, Pig Islands, Merigomish Harbour, Pictou Co. Nova Scotia

**\*\* EXTERNAL EMAIL / COURRIEL EXTERNE \*\***

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Dear Lynn,

Thank you for the opportunity to review AQ#1448 proposed shellfish aquaculture site application near Pig Islands, Merigomish Harbour, Pictou County, Nova Scotia. Environment & Climate Change Canada - Canadian Wildlife Service (ECCC-CWS) has reviewed the information provided in the application, and we have the following comments for your consideration:

#### Project Location

The area is known to be important to migratory birds. Siting an aquaculture lease in an area important to birds increases the likelihood of project - wildlife interactions and potential negative effects to migratory birds protected under the *Migratory Birds Convention Act*. ECCC-CWS recommends that the feasibility of implementing effective mitigation measures to avoid negative effects on migratory birds be considered during the application review process.

If the proponent is permitted to proceed with an aquaculture lease in an area of high bird use, then he should be advised that he is responsible to ensure that activities comply with the *Migratory Birds Convention Act* (MBCA) and regulations.

#### Project - Wildlife Interactions

Project – wildlife interaction and potential negative effects to migratory birds from aquaculture operations could include habitat lost from the physical footprint of the lease and increased human disturbance (e.g. human presence, noise, increased vessel traffic) to migratory birds in adjacent habitats during sensitive periods (e.g. nesting, chick-rearing, molting, migration and overwintering). Suspended equipment and human activity could attract predatory species (e.g. gulls, crows) which may result in indirect effects such as increased predation of chicks and young of nesting migratory birds. There is also the potential for entanglement issues on site and with lost gear.

Birds have also been observed perching on floating equipment and may be attracted to fouling organisms as a potential food source. Contamination of stock due to bird feces have been known to occur at aquaculture sites using floating equipment (e.g. cages, bags).

#### Shorebirds

Many species of shorebirds are known to use coastal habitats and intertidal areas around the Pig Islands for nesting, foraging, and staging habitat during migration. Marine invertebrates found in the intertidal areas provide foraging habitat during migration. Referencing the Atlantic Canada Shorebird Survey (ACSS) and Motus tower data, many coves and bays in Merigomish Harbour host shorebirds during fall migration. ACSS data from Savage Point and Big Island show that the area hosts good numbers of all common species, as well as, rarer species including Red Knot *rufa*, Piping Plover (Endangered on Schedule 1 of SARA), Hudsonian

Godwit (COSEWIC – Threatened), and Lesser Yellowlegs (COSEWIC-Threatened). Data also shows that Willets are common, with a maximum daily count of 24 and observations in May, June and July, suggesting that they breed in the area. Willet breed almost exclusively in coastal marshes and on barrier islands and beaches.

Distance-to-flush differs between shorebird species, and by shorebird activity and disturbance type. Roosting shorebirds are more sensitive to disturbance than foraging shorebirds and may require larger setbacks. Staging/migrating birds must accumulate energy reserves to prepare for their migration, or to survive the Canadian winter.

The Recovery Strategy and Management Plan for Red Knot (*Calidris canutus*) in Canada (2017) is available at: [https://species-registry.canada.ca/index-en.html#/species/980-649#recovery\\_strategies](https://species-registry.canada.ca/index-en.html#/species/980-649#recovery_strategies)

The Recovery Strategy (Amended) and Action Plan for the Piping Plover melodus subspecies (*Charadrius melodus melodus*) in Canada [Proposed] (2021) is available at: [https://species-registry.canada.ca/index-en.html#/species/687-275#recovery\\_strategies](https://species-registry.canada.ca/index-en.html#/species/687-275#recovery_strategies)

### **Waterfowl & Seaduck**

The fall is a period of high use of coastal waterbodies by large numbers of migrating and wintering ducks. Large numbers (1000s) of Canada Geese are found around these islands, and sheltered coves provide staging habitat for hundreds of ducks (e.g. common eider, mallards, black ducks, common and hooded mergansers, and green-winged teals). It is possible for Barrow's Goldeneye (Special Concern, Schedule 1 of SARA) to also be found in the area.

Eelgrass beds contribute large amounts of nutrients to coastal and marine habitats and is an important food source for migrating geese. Increased sedimentation or changes in the availability of light could result in indirect effects to migratory birds.

Eiders tend to nest in large colonies on islands and form large aggregations ('rafts') in coastal areas during the nonbreeding season when the amount of open water decreases. Common Eider chicks are very susceptible to depredation by gulls. Activities such as boat traffic which could separate family groups may affect fledging success of these birds and should be avoided. There was a large flock of Common Eiders observed in the area (128 individuals) (eBird, November 28, 2021).

### **Colonial Nesters**

Colonial nesters are very sensitive to human disturbance during the breeding season (e.g. March to September) and the degree of disturbance varies depending on their life-cycle. Species such as terns are very sensitive to disturbance and may behave aggressively (e.g. dive-bomb intruders) to defend their territory, and may even abandon a colony completely in response to human activity (ECCC, Waterbird Technical Committee, 2011).

Some species such as Great Blue Heron are very sensitive and tend to desert nest and entire colonies if disturbed during the period of pair formation (late March), nest constructions (early April) or early egg laying (mid to late April). Herons continue to be sensitive to disturbance after hatching (June) and up until the young fledge (early August) (NSDNR, 2012). When disturbed, adults may fly away if humans approach their colonies, resulting in nests, eggs, and chicks being left unattended and vulnerable to predators and the elements. Older chicks may fall out of nests while trying to fledge prematurely. Rookeries can be re-used every year after year, therefore heron nests are protected year-round.

ECCC-CWS currently does not have colony data indicating that seabird or waterbird colonies are occurring on the Pig Islands. If a colony establishes itself in the future, ECCC-CWS recommends a minimum 300m buffer around active bird colonies to avoid disturbance during sensitive periods (e.g. courtship, nesting, and chick-rearing seasons (spring and summer)).

### **Applicable Legislation**

The *Migratory Birds Convention Act* (MBCA) protects most bird species in Canada however, some families of birds are excluded (birds protected under the MBCA: <https://www.canada.ca/en/environment-climate-change/services/migratory-birds-legal-protection/list.html>). Information regarding regional nesting periods can be found at: <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods.html>. Some species protected under the MBCA may nest outside these timeframes.

Section 5.1 of the MBCA describes prohibitions related to deposit of substances harmful to migratory birds: “5.1 (1) No person or vessel shall deposit a substance that is harmful to migratory birds, or permit such a substance to be deposited, in waters or an area frequented by migratory birds or in a place from which the substance may enter such waters or such an area.

(2) No person or vessel shall deposit a substance or permit a substance to be deposited in any place if the substance, in combination with one or more substances, results in a substance — in waters or an area frequented by migratory birds or in a place from which it may enter such waters or such an area — that is harmful to migratory birds.”

Under Section 6 of the *Migratory Birds Regulations* (MBR), no person shall disturb, destroy or take a nest or egg of a migratory bird; or to be in possession of a live migratory bird, or its carcass, skin, nest or egg, except under authority of a permit. Under the *Migratory Birds Regulations*, “hunt” means “chase, pursue, worry, follow after or on the trail of, lie in wait for, or attempt in any manner to capture, kill, injure or harass a migratory bird, whether or not the migratory bird is captured, killed or injured”. **Note:** ECCC-CWS would neither permit nor tolerate the scaring of sensitive migratory birds, including, but not limited to, species at risk, colonial waterbirds, Common Eider family groups or flightless (molting) birds.

It is the responsibility of the proponent to ensure that activities comply with the MBCA and regulations. Further information can be found at: <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/reduce-risk-migratory-birds.html>

The proponent should also be reminded that the prohibitions under the *Species at Risk Act* (SARA) are now in force. The complete text of SARA, including prohibitions, is available at [www.sararegistry.gc.ca](http://www.sararegistry.gc.ca)

### **Beneficial Management Practices**

Should the project be approved, ECCC-CWS recommends the following beneficial management practices:

- Beaches and saltmarshes are sensitive habitats which should not be utilized for equipment storage, staging, construction, operational or decommissioning activities.
- There should be no access to salt marshes with breeding shorebirds (e.g. Willets) during sensitive periods (e.g. courtship, nesting, and chick-rearing seasons (spring and summer)).
- Vessels and equipment should be well muffled to reduce noise disturbance and staff should maintain a constant engine noise level. Staff should avoid any sharp or loud noises (e.g. horns or whistles);



- Aquaculture operators/staff and boats should not approach concentrations of seabirds, waterfowl, or shorebirds. It is extremely important to avoid disturbing female eiders with broods of chicks, groups of moulting eiders, or flocks of staging or wintering birds. Reducing vessel speed when in the vicinity of flocks of birds and colonies, is important to avoid disturbance to migratory birds;
- Both adult birds and flightless chicks can become entangled in debris left on beaches, including gear used in the fishing and aquaculture industries. To retrieve lost gear, ECCC-CWS recommends planning of beach clean-up activities outside of sensitive breeding period for migratory birds;
- No litter (including food scraps) should be left in waters or coastal areas as these can artificially enhance the populations of avian (e.g. gulls) and mammalian predators (e.g. fox, coyote) of eggs and chicks colonial nesters and other sensitive birds;
- Staff, boats and equipment should maintain a minimum of 300 m buffer from bird colonies during the courtship, nesting, and chick-rearing seasons (spring and summer). Careful planning of travel routes and site access to avoid colonies is important. Staff are encouraged to maintain steady boat speeds while moving in parallel to the shore when travelling to and from their lease site, and use existing infrastructure, public access points and navigation routes.
- Since even small spills of oil can have very serious effects on migratory birds, every effort should be taken to ensure that no oil spills occur and precautions to prevent fuel leaks from equipment. A contingency plan in case of oil spills should be prepared, including wildlife emergency response measures. ECCC-CWS recommends referring to ECCC's *Guidelines for Wildlife Response Plans* (2021) in the development of an emergency response plan (attached).
- ECCC-CWS should be contacted for further advice if there is an increase in bird activity in vicinity of the project.

ECCC-CWS also recommends consulting provincial regional biologists who may have site-specific knowledge and expertise (contact: Donna Hurlburt [Donna.Hurlburt@novascotia.ca](mailto:Donna.Hurlburt@novascotia.ca)).

Please don't hesitate to contact me should you have questions,

Sincerely,  
Monique



GuidelinesforWRP\_2021\_ENG.pdf



GuidelinesforWRP\_2021\_Template\_App



# 2021

## GUIDELINES FOR WILDLIFE RESPONSE PLANS

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## EXECUTIVE SUMMARY

Environment and Climate Change Canada's Canadian Wildlife Service (ECCC-CWS) is responsible for the management and conservation of Wildlife under its jurisdiction. The *Guidelines for Wildlife Response Plans* outline the rationale, objectives, and process for developing, implementing and evaluating the efficacy of Wildlife response planning for Pollution and Non-Pollution Incidents. This document supports the standardization of the planning process according to ECCC-CWS's recommendations. The purpose of this document is to guide governments, Indigenous organizations, industry, Response Organizations, and other stakeholders in developing Wildlife Response Plans that consider all aspects of planning throughout the full life cycle of an incident with regards to Wildlife specific to ECCC-CWS's mandate.

# TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	iii
TABLE OF CONTENTS .....	iv
LIST OF ACRONYMS.....	1
DEFINITIONS .....	2
1.0 INTRODUCTION .....	5
1.1. Scope .....	5
2.0 REGULATORY REQUIREMENTS .....	7
2.1 Applicable Legislation .....	7
2.2 Permits and Authorizations .....	8
3.0 ELEMENTS OF WILDLIFE RESPONSE PLANNING .....	11
3.1 Wildlife Response within the Incident Command System .....	11
3.2 Types of Wildlife Response Plans .....	12
3.2.1 Strategic Response Plans.....	12
3.2.2 Incident-specific Response Plans.....	13
3.2.3 Plan Development .....	14
3.3 Habitat Considerations for Response Planning .....	14
3.3.1 Marine and Open Fresh Water .....	14
3.3.2 Aquatic Habitats .....	15
3.3.3 Terrestrial Habitats .....	15
3.4 Detecting Signs of impacted Avian Species .....	16
4.0 COMPONENTS OF A WILDLIFE RESPONSE PLAN .....	17
4.1 Introduction .....	17
4.2 Notification Procedures .....	18
4.3 Regulatory Requirements .....	18
4.3.1 Permits and Authorizations .....	18
4.4 Resources-at-Risk .....	18
4.5 Wildlife Management and Response .....	19
4.5.1 Operational Objectives .....	19
4.5.2 Initial Wildlife Impact Assessment (0 to 24 Hours).....	19
4.5.3 Reconnaissance Surveys (24 to 48 Hours) .....	20
4.5.4 Surveillance (Monitoring) Surveys (48 to 72 Hours and Onwards) .....	21
4.5.5 Deterrence and Dispersal.....	21
4.5.6 Exclusion, Pre-emptive Capture, and Relocation .....	22
4.5.7 Wildlife Capture, Transport, Rehabilitation, Release, and/or Euthanasia .....	23
4.5.8 Wildlife Carcass Collection Procedures.....	24
4.5.9 Waste Management.....	24
4.5.10 Demobilization.....	25

4.6 Information Management and Reporting	25
4.6.1 Wildlife Reporting From the Public (Wildlife Hotline) .....	25
4.6.2 Media Relations.....	25
4.6.3 Permits Reporting .....	26
4.7 Health and Safety	26
4.7.1 Personal Protective Equipment.....	26
4.7.2 Zoonoses.....	27
4.7.3 Biosecurity.....	27
4.8 Personnel Requirements	27
4.9 Facility and Equipment Requirements	27
5 EVALUATING WILDLIFE RESPONSE .....	28
5.1 Evaluation and Review	28
5.2 Emergency Exercises	28
6 CUSTODIAN.....	28
7 ACKNOWLEDGEMENTS.....	29
8 LITERATURE CITED .....	29
APPENDIX A: EXAMPLE TEMPLATE OF A WILDLIFE RESPONSE PLAN.....	31
APPENDIX B: EXAMPLE CHECKLIST OF WILDLIFE EMERGENCY ACTIVITIES .....	32

## LIST OF ACRONYMS

<b>CWA</b>	<i>Canada Wildlife Act, 1985</i>
<b>CWS</b>	Canadian Wildlife Service
<b>ECCC</b>	Environment and Climate Change Canada
<b>ECCC-CWS</b>	Environment and Climate Change Canada's Canadian Wildlife Service
<b>ICP</b>	Incident Command Post
<b>ICS</b>	Incident Command System
<b>IPIECA</b>	International Petroleum Industry Environmental Conservation Association
<b>MBCA</b>	<i>Migratory Birds Convention Act, 1994</i>
<b>MBR</b>	<i>Migratory Birds Regulations</i>
<b>MBSR</b>	<i>Migratory Bird Sanctuary Regulations</i>
<b>NWA</b>	National Wildlife Area
<b>RP</b>	Responsible Party
<b>SARA</b>	<i>Species at Risk Act, 2002</i>
<b>WRP</b>	Wildlife Response Plan
<b>WRO</b>	Wildlife Response Organization

## DEFINITIONS

**Chain of Custody:** A written record for a legal sample documenting the continuity by tracing the possession of the sample from the point of collection through introduction into evidence.

**CWS Co-ordinator:** A person who leads and implements regional Wildlife Emergency preparedness and response on behalf of ECCC-CWS and represents ECCC-CWS's policies and interests when liaising and integrating with other federal and provincial/territorial government departments, Indigenous governments and organizations, and stakeholders involved in the response during Wildlife Emergencies. CWS Co-ordinators may also fulfill some of the on-site roles of responder.

**CWS Responder:** Emergency response personnel that provide on-site support on behalf of ECCC-CWS, as directed by the CWS Co-ordinator, during Wildlife Emergencies.

**Environmental Emergency:** Any uncontrolled or unexpected incident involving the release (or the likelihood thereof) of a polluting substance into the environment that results or may result in an immediate or long-term harmful effect on the environment, or constitutes or may constitute a danger to human life or health. It may be caused by an industrial activity, natural emergency or by a wilful act.

**Field Stabilization Site:** Facility that provides initial triage, care and/or euthanasia as well as short-term holding (sometimes overnight) for Wildlife prior to transport to an Oiled Wildlife Rehabilitation Centre. It is not meant for washing oiled Wildlife and not designed for long-term care.

**Incident Command:** Responsible for overall management of the incident and consists of the Incident Commander, either single or unified command, and any assigned supporting staff.

**Incident Commander:** The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and release of resources. The Incident Commander has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site.

**Lead Agency:** The governmental authority that regulates or has legislative authority over the responsible parties' response and is responsible for overseeing the appropriateness of the response.

**Migratory Bird:** As defined in the [Migratory Birds Convention Act, 1994](#), a Migratory Bird referred to in the Convention, and includes the sperm, eggs, embryos, tissue cultures and parts of the bird of species listed under Article 1 of the Convention (Government of Canada 2017).

**National Environmental Emergencies Centre (NEEC):** Environment and Climate Change Canada's 24/7 focal point for pollution-related emergencies, providing technical/scientific advice, assistance and coordination to the Lead Agency, as well as management of an incident when required.



**National Wildlife Area:** A protected area created under the *Canada Wildlife Act* that contains nationally significant habitats for plants and animals and that is managed for the purposes of wildlife conservation, research and interpretation.

**Non-Pollution Incident:** An uncontrolled or unexpected Wildlife injury or mortality event other than a Pollution Incident.

**Oiled Wildlife Rehabilitation Centre:** Facility used for the triage, stabilization, cleaning, pre-release conditioning and/or euthanasia of oiled Wildlife. The centre may be a permanent purpose-built facility, an existing Wildlife rehabilitation centre, a mobile facility, or a temporary facility established during an incident.

**Pollution Incident:** The release or deposit of a substance that is harmful to Wildlife into an area or waters that are frequented by Wildlife or into a place from which the harmful substance may enter an area or waters frequented by Wildlife.

**Resource Agency:** Any department or agency, other than the Lead Agency, that has jurisdiction or interest in the response, which provides support to the Lead Agency.

**Response Organization:** Any qualified person or organization that has been certified and designated by the Minister of Transport to carry out emergency response activities (as per the revised *Canada Shipping Act* (2001)). In Canada, there are four Response Organizations as follows: Atlantic Emergency Response Team, Eastern Canada Response Corporation Ltd., Western Canada Marine Response Corporation, and Point Tupper Marine Services Ltd.

**Responsible Party:** Any person or organization who might be responsible for the source or cause of an environmental emergency and/or a Wildlife Emergency.

**SARA-listed Species:** A species listed on the [List of Wildlife Species at Risk set out in Schedule 1](#) of the *Species at Risk Act* (SARA).

**Species at Risk:** As defined in the [Species at Risk Act \(S.C. 2002, c.29\)](#), means an Extirpated, Endangered or Threatened species, or a species of Special Concern.

**Unified Command:** An application of the Incident Command System, used when there is more than one agency with incident jurisdiction or when incidents cross political jurisdictions. Agencies work together through the designated members of the Unified Command to establish a common set of objectives and strategies and a single Incident Action Plan.

**Wildlife:** In this document, "Wildlife" is used to refer to the terms Migratory Birds as defined under the *Migratory Birds Convention Act*, and listed Species at Risk as those terms are defined under the *Species at Risk Act* for species falling within the jurisdiction of the Minister of Environment and Climate Change (with the exception of individuals of SARA-listed Species that are located on lands administered by Parks Canada). This term also refers

to all wild species occurring in the National Wildlife Areas set out on Schedule I of the [Wildlife Area Regulations \(C.R.C., c. 1609\)](#).

**Wildlife Emergency:** A Pollution or Non-Pollution Incident that results or may result in an immediate and/or long-term harmful effect on the life or health of Wildlife and/or their habitat.

**Wildlife Response Organization:** Organizations that provide expertise, capabilities and trained personnel to undertake one or several aspects of response, including planning, implementation and reporting of activities related to Wildlife Emergencies. Wildlife Response Organizations (or representatives thereof) are authorized under applicable federal, provincial, and/or territorial legislation to capture, transport, clean, rehabilitate, euthanize, and release Wildlife.

**Wildlife Response Plan:** A document that outlines the initial and ongoing Wildlife-related strategies that are needed to support any Wildlife response objectives that may occur at the onset of a Pollution or Non-Pollution Incident.

## 1.0 INTRODUCTION

Environmental protection legislation in Canada at the federal, provincial or territorial level contains provisions to have approved contingency plans in the event of an environmental emergency for construction, operation or decommissioning activities that may impact the environment. Projects undergoing an environmental assessment may include additional conditions upon approval to develop and implement an environmental protection plan. All contingency plans/environmental protection plans for which a threat to Wildlife is identified may have specific sections dedicated to Wildlife response in order to be in compliance with applicable federal, provincial, or territorial legislation.

Environment and Climate Change Canada's Canadian Wildlife Service (ECCC-CWS) oversees and/or leads Wildlife Emergency response activities in association with Environment and Climate Change Canada (ECCC)'s responsibilities under the *Migratory Birds Convention Act, 1994* (MBCA) and its regulations (*Migratory Birds Regulations* (MBR) and *Migratory Bird Sanctuary Regulations* (MBSR)), the *Species at Risk Act, 2002* (SARA), the *Canada Wildlife Act, 1985* (CWA), and *Wildlife Area Regulations*. Through these pieces of legislation, ECCC-CWS is responsible for the management and conservation of all Migratory Birds and Species at Risk under its jurisdiction (hereafter "Wildlife") and how they are managed during a Pollution or Non-Pollution Incident. In the case of Migratory Birds, including SARA-listed Migratory Bird species, this document applies to wherever they are found in Canada. For other SARA-listed Species, this document applies to individuals that are located on federal lands in the provinces, on lands under the authority of the Minister of Environment and Climate Change in the territories, or in the exclusive economic zone or on the continental shelf of Canada (with the exception of individuals of SARA-listed Species under the jurisdiction of Parks Canada or Fisheries and Oceans Canada) (see also Section 2.2 for additional details). For greater clarity, this document does not apply to any wildlife species, including aquatic species (which include fish, marine mammals, marine turtles, and marine plants, as defined in Sections 2 and 47 of the [Fisheries Act](#)), located on any lands or in any waters administered by Parks Canada or under the jurisdiction of Fisheries and Oceans Canada. The CWA and *Wildlife Area Regulations* broaden the responsibility of ECCC-CWS to include habitats and all wild species within designated National Wildlife Areas (NWAs).

### 1.1. SCOPE

Wildlife Emergencies, in the context of this document, include Pollution or Non-Pollution Incidents that result or may result in an immediate and/or long-term harmful effect on the life or health of Wildlife and/or their habitat. Pollution Incidents with potential harm to Wildlife are prohibited under the MBCA and SARA. Non-Pollution Incidents are uncontrolled or unexpected Wildlife injury or mortality events other than a Pollution Incident, which may include things such as disease outbreaks, mass strandings, or other unexplained Wildlife deaths. The degree to which any Pollution or Non-Pollution Incident may be deemed a Wildlife Emergency is dependent on a number of factors such as the scope and severity of the incident (e.g. numbers of animals or area of habitat impacted), the likelihood of an incident expanding, potential for impacts to Species at Risk, and potential link

to human health, among other factors. The appropriate level of response expected to incidents should be reasonable and commensurate with the risks. ECCC-CWS is responsible for informing various aspects of response to Wildlife Emergencies, including the development and implementation of Wildlife response strategies and activities, as outlined in the *National Policy on Wildlife Emergency Response* (ECCC-CWS 2021).

During an incident, Responsible Parties (RPs) must demonstrate their ability to safely, efficiently, and effectively respond in a manner that incorporates measures designed to avoid or minimize harm to Wildlife, while managing the public's understanding of response decisions and activities. In the absence of an RP during an incident (e.g. mystery spill), or for planned operations with a potential to impact Wildlife (e.g., oil removal from wreckages), the Lead Agency is deemed responsible for implementing Wildlife response appropriate to that incident.

Wildlife Response Plans (WRPs) are documents that formalize the guidance and strategy for responding to incidents with potential to impact Wildlife. A WRP should include the following elements:

- The objectives of implementing a WRP with respect to managing or preventing harm to Wildlife and its habitat during a Pollution or Non-Pollution Incident
- A description of the incident management structure for Wildlife response and how it is integrated into an incident-specific response command system (e.g., an Incident Command Post (ICP))
- Background information on responsibilities of the RP as well as regulatory requirements, permits, and authorizations to engage in Wildlife response activities
- Information on Wildlife and its habitat known or potentially impacted by an incident
- A description of Wildlife response procedures to be implemented immediately following an incident (e.g., deterrence and dispersal, surveillance)
- A description of the operational structure and implementation of ongoing Wildlife response efforts throughout all phases of an incident
- Procedures for information management and communication, including to key stakeholders (e.g., local communities, hunters)
- Health and safety, security, and training requirements for personnel, equipment, and facilities required to support Wildlife response activities

The purpose of this document is to guide federal, provincial/territorial and Indigenous governments, Indigenous organizations, industry, Response Organizations, and other stakeholders in developing a WRP that considers all aspects of planning throughout the full lifecycle of an incident. This document outlines the attributes that are necessary for effective implementation of Wildlife Emergency response. Proponents should keep in mind that the guidance provided within this document is developed by ECCC-CWS for species' protection within their mandate. As such, proponents developing comprehensive WRPs should also consult with other federal and provincial/territorial agencies which are responsible for other wildlife (e.g., mammals, reptiles, amphibians, fish and some bird species not under the jurisdiction of the MBCA).

## 2.0 REGULATORY REQUIREMENTS

### 2.1 APPLICABLE LEGISLATION

ECCC-CWS is responsible for ensuring that all Wildlife response activities are coordinated, enacted, and carried out in compliance with applicable federal law. Federal legislation applicable to Wildlife response includes:

- **Migratory Birds Convention Act (MBCA):** Section 5 of the MBCA prohibits the deposit of harmful substances into waters or areas frequented by Migratory Birds, unless authorized under the *Canada Shipping Act*, or the substance is of a type and quantity, and the deposit is made under conditions, authorized under an Act of Parliament other than the [Canada Shipping Act, 2001](#) or authorized for scientific purposes by the Minister of Environment and Climate Change. Section 6 of the *Migratory Birds Regulations* (MBR) made under the MBCA prohibits the disturbance, destruction, taking of a nest, egg, nest shelter, eider duck shelter or duck box of a Migratory Bird, or anyone from having in his possession a live Migratory Bird, or a carcass, skin, nest or egg of a Migratory Bird. The MBR regulate the hunting of Migratory Birds and other circumstances under which the killing, capturing of and harming of Migratory Birds may be authorized. The *Migratory Bird Sanctuary Regulations* (MBSR) further regulate activities related to Migratory Birds and their habitats within designated Migratory Bird Sanctuaries. Permits may be issued to authorize the permit holder to undertake activities that are otherwise prohibited (Government of Canada 2017).
- **Species at Risk Act (SARA):** SARA permits are required for activities affecting a SARA-listed Species, any part of its critical habitat or the residences of its individuals. For the purpose of SARA, an “activity affecting” means any activity prohibited under the Act or its regulations. Section 73 of SARA authorizes the issuance of permits for activities affecting a SARA-listed Species, any part of its critical habitat or the residences of its individuals, and sets out conditions that must be met before a competent minister can issue a permit. SARA prohibitions apply to any species listed on Schedule 1 as Threatened, Endangered or Extirpated, but do not apply to species listed as Special Concern.
- **Canada Wildlife Act (CWA):** The CWA allows for the establishment of National Wildlife Areas (NWAs), which protect wildlife habitat in Canada. The *Wildlife Area Regulations* identify all NWAs and prohibit certain activities from occurring within NWAs, but Section 3.4 of the *Wildlife Area Regulations* provides exemptions for the prohibited activities within the NWAs in the event of an emergency response effort (e.g., ensuring public safety and national security). The Scott Islands marine NWA has its own regulations, *Scott Islands Protected Marine Area Regulations*, which also provide exemptions for the prohibited activities in the event of an emergency response effort.

Further to these Wildlife specific pieces of legislation, other environmental protection legislation in Canada at the federal, provincial or territorial level contain additional provisions which require approved contingency plans in the event of an environmental emergency for construction, operation or decommissioning activities that may impact the environment. Projects undergoing an environmental assessment may require the development and implementation of an environmental protection plan, conditional upon approval.

Where contingency plans/environmental protection plans identify a threat to Wildlife, ECCC-CWS considers a WRP to fulfill some of these requirements if contingency and emergency response planning efforts adequately address the identified Wildlife issues.

ECCC-CWS recommends that strategic WRPs be developed prior to incidents for activities or areas where the potential for, or associated risk of a Wildlife Emergency is high (see Section 3.2 for more details). These strategic plans may be standalone plans or components (or annex) to overarching response plans (e.g., operators’

facilities response plans). Incident-specific WRPs are routinely developed as part of the ICP to standardize and document Wildlife response activities during an incident (Section 3.2). Both approaches are in keeping with international standards for Wildlife response planning (International Petroleum Industry Environmental Conservation Association (IPIECA) 2014).

## 2.2 PERMITS AND AUTHORIZATIONS

As part of Wildlife Emergency response, Wildlife Response Organizations (WROs) are often responsible for undertaking response activities involving direct interaction with Wildlife including the capture, collection, transport, and care/rehabilitation, release, and/or euthanasia of impacted Wildlife. Some WROs operating in Canada may retain annual permits that allow certain levels of immediate response, assuming permits are renewed and standards are maintained. Qualifications of these organizations to perform certain activities are assessed during the permit application process. Otherwise, a WRO will work with ECCC-CWS to obtain incident-specific permits for aspects of Wildlife Emergency response requiring authorizations. Other qualified individuals, working for or contracted by WROs, Response Organizations, the RP, or government agencies, may also apply for permits, as required. Permit and authorization requirements are summarized in Table 1.

ECCC-CWS recognizes deterrence and dispersal as a beneficial practice during Wildlife Emergencies. If proponents plan to use deterrence and dispersal tactics during a Wildlife Emergency, this should be described in a WRP (Section 4.5.5), and ECCC-CWS should be consulted to provide guidance on effective tactics for species, seasons, and habitats.

For most of the activities listed in Table 1, activities affecting SARA-listed Migratory Birds may be permitted through the issuance of SARA compliant MBCA-permit (Scientific Permit or Banding Permit). It is important to note that a SARA permit cannot be issued for an activity that would have a prohibited effect on a listed Migratory Bird for which a permit is not available under the MBCA and its regulations. For activities affecting SARA-listed Species, other than a Migratory Bird, permits may be issued under Section 73 of SARA. Specifically, ECCC-CWS SARA permits are required for SARA-listed Species that, a) are located on federal lands in the provinces; b) are located on lands administered by the Minister of Environment and Climate Change in the territories; c) are located in the exclusive economic zone or on the continental shelf of Canada; or d) are the subject of an order of the Governor in Council under SARA, including an order pertaining to the species' critical habitat or habitat that is necessary for the survival or recovery of the species (except for species under the jurisdiction of Parks Canada or Fisheries and Oceans Canada). Table 1 outlines examples of activities that require permits for SARA-listed Species. For additional clarification on the permitting provisions and how to apply for a SARA permit, please consult the *Species at Risk Public Registry Policies and Guidelines* (Government of Canada 2020). For emergency response activities occurring on Migratory Bird Sanctuaries, permits are required on a site-specific basis (Table 1). Some types of activities that require authorization on Migratory Bird Sanctuaries include carrying firearms and other weapons, and possession/handling of any animal, carcass, skin, nest, egg or part of

those things. These activities may be authorized by permits issued under the MBSR.

With respect to NWAs, a permit is not required to carry out emergency relief activities, as per Section 3.4 of the *Wildlife Area Regulations*. With respect to the Scott Islands marine NWA, a permit is not required to carry out emergency relief activities, as per Section 3 of the *Scott Islands Protected Marine Area Regulations*.

**Table 1. Wildlife-related Permits and Authorization Requirements that may be issued by ECCC-CWS<sup>1</sup> during a Wildlife Emergency.**

Wildlife	Permit Type	Examples of Activities that Require Permits or Authorization	Permit Holders
Migratory Birds (including SARA-listed Species)	Scientific (for collection)	<ul style="list-style-type: none"> <li>• Possession</li> <li>• Transportation</li> <li>• Collection/capture</li> <li>• Treatment/rehabilitation/care</li> <li>• Euthanasia</li> </ul>	Individuals of WROs are generally permitted for most activities. Subcontractors or independent contractors may be permitted for specific activities through one or several permits.
	Scientific (for capture and banding)	<ul style="list-style-type: none"> <li>• Capturing</li> <li>• Banding</li> <li>• Using auxiliary markers (e.g., color bands and GPS transmitters)</li> <li>• Collection of biological samples</li> </ul>	
	SARA Section 73/74 permit	<ul style="list-style-type: none"> <li>• Destruction of protected critical habitat</li> <li>• Damage or destruction of any critical habitat that could result in harming individuals of a SARA-listed Migratory Bird</li> <li>• Damage or destruction of residences<sup>2</sup> of a SARA-listed Migratory Bird</li> </ul>	SARA permits are issued on site and situation-specific basis and must be discussed early in response activities, as appropriate.
Any SARA-listed Species other than Migratory Birds (on any federal land including NWAs, and any land affected by an order or regulation made under SARA)	SARA Section 73 permit	<ul style="list-style-type: none"> <li>• Collection, taking, possession</li> <li>• Transportation/relocation</li> <li>• capture/markings</li> <li>• Treatment/rehabilitation/care</li> <li>• Euthanasia</li> <li>• Harassing, including deterrence and dispersal</li> <li>• Exclusion barriers / trenches</li> <li>• Damage or destruction of critical habitat</li> <li>• Damage or destruction of residences<sup>2</sup></li> <li>• Any activity specifically prohibited by a Section 80 emergency order, or by a regulation made under SARA</li> </ul>	SARA permits are issued on a site and situation-specific basis and must be discussed early in response activities, as appropriate.
Migratory Bird Sanctuaries	Scientific (Collection)	<ul style="list-style-type: none"> <li>• Operations occurring on Migratory Bird Sanctuaries<sup>3</sup></li> </ul>	Migratory Bird Sanctuary <sup>3</sup> permits are issued on a site-specific basis and will be developed early in response activities.

**Note:**

<sup>1</sup> The permitting process and the types of activities requiring permits is subject to change periodically as regulations are updated. Individuals/organizations should seek up to date advice on permitting from ECCC-CWS permit officers.

<sup>2</sup> For the purpose of SARA, "residence" means a dwelling-place, such as a den, nest or other similar area or place, that is occupied or habitually occupied by one or more individuals during all or part of their life cycles, including breeding, rearing, staging, wintering, feeding or hibernating.

<sup>3</sup> Permits issued under the MBSR.



## 3.0 ELEMENTS OF WILDLIFE RESPONSE PLANNING

### 3.1 WILDLIFE RESPONSE WITHIN THE INCIDENT COMMAND SYSTEM

Any activities with potential to result in a Wildlife Emergency may warrant immediate implementation of response actions. Guidance on Wildlife response concerns and actions may be provided through the Environmental Emergencies Science Table, which is chaired by ECCC's National Environmental Emergencies Centre (NEEC). Increasingly, within industries or the Government of Canada, emergency incidents are managed and structured using the Incident Command System (ICS) approach, including the establishment of an ICP for major incidents. It is therefore recommended to stakeholders to use ICS for emergency response. Wildlife experts, such as ECCC-CWS, may be situated in the Environmental Unit of the Planning Section within an ICP, a role which may be titled Wildlife Technical Specialist. The Environmental Unit would develop and refine response plans as well as incident-specific tactics. Depending on the scale of the incident and scope of potential or actual impacts to Wildlife, ECCC-CWS may assist in establishing a Wildlife Branch which is typically situated within the Operations Section of the ICP (IPIECA 2014; Figure 1). An Environmental Unit Liaison position may also be staffed in the Wildlife Branch (Figure 1) to facilitate the dissemination of planning and operational information between the Environmental Unit and the Wildlife Branch. WRPs may also be developed and used for Wildlife Emergencies that are not managed with an ICP or a Wildlife Branch.

The WRP should identify, schematically, the structure and function of the Wildlife Branch and its integration into the Operations Section of the ICP, as well as how it liaises with other ICP sections (e.g., Planning). The WRP should anticipate structuring and scaling the Wildlife Branch according to how the incident is expected to proceed.

It is essential to identify and implement Wildlife response activities within the first 24, 48, and 72 hours of an incident. These response activities are formalized within a WRP to structure and guide response activities. The RP is responsible for the development of WRPs, to address all of the procedures and strategies required to mount an effective Wildlife response. During an incident, ECCC-CWS will provide advice to support the Wildlife response consistent with the components outlined in Section 4. However, the RP typically leads the development of a WRP and may contract the WRO to develop it on their behalf to ensure the WRP is operationally feasible. While ECCC-CWS does not have the authority to assign, recognize, or approve specific WRPs, ECCC-CWS may provide advice to the Lead Agency, the RP, and WROs regarding the direction and content of a WRP, based on available science and expertise. A WRP does not necessarily equate with statutes and regulations; rather, developing a WRP identifies actions that support compliance with the MBCA, MBR, MBSR, SARA, and the CWA. A WRP receives formal approvals within an ICP through sign-off by the Incident Command and RP.

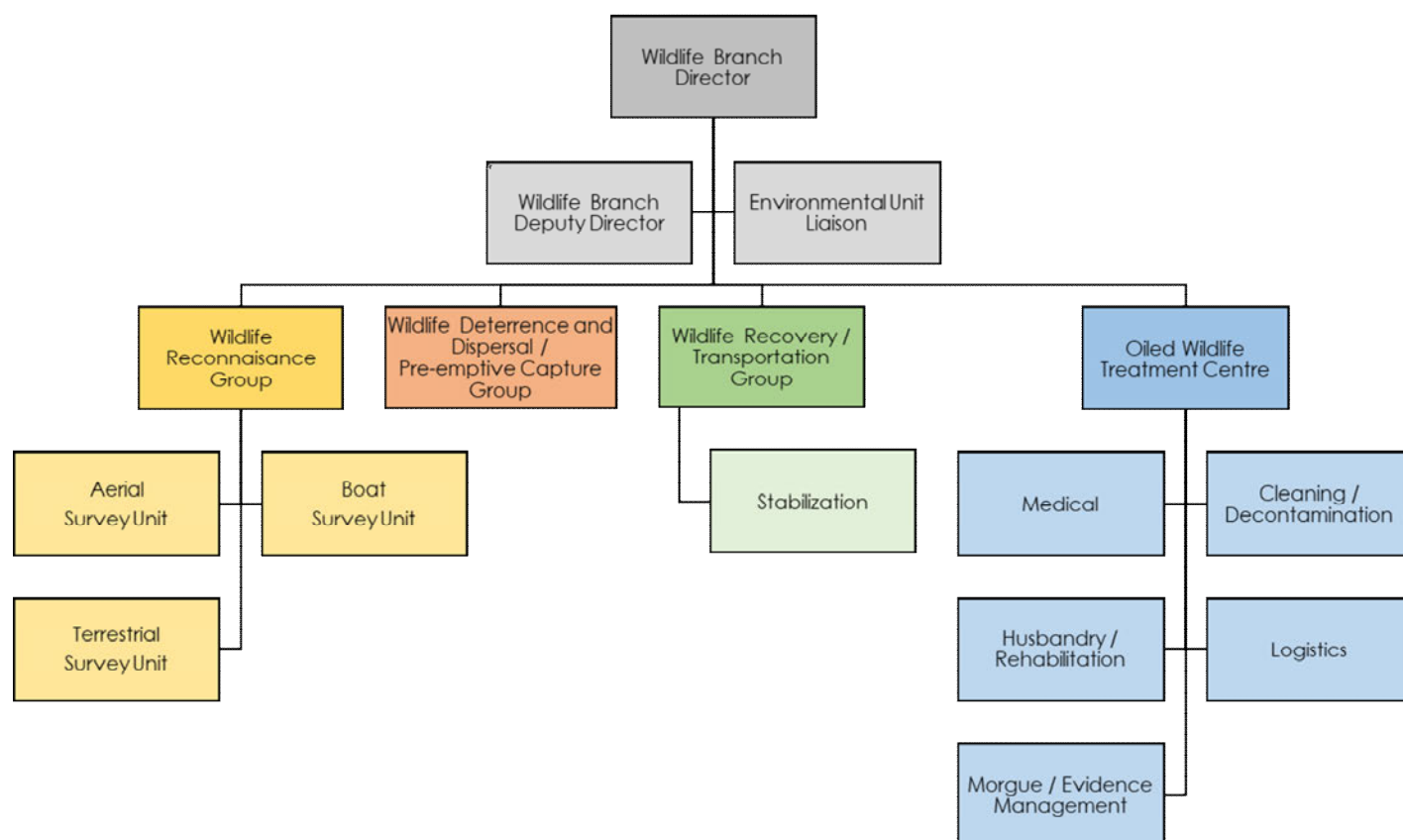


Figure 1. Example of a scalable Wildlife Branch within an ICS setting (adapted from IPIECA 2014).

## 3.2 TYPES OF WILDLIFE RESPONSE PLANS

There are two main types of WRPs, strategic response plans and incident-specific response plans (described below). ECCC-CWS may support the development of various WRPs, including providing technical expertise, permit support, and incident-specific guidance. However, WRP approvals are the responsibility of the RP and the Incident Command (or Unified Command).

### 3.2.1 Strategic Response Plans

Strategic response plans are often created for specific activities, where there is a recognized risk of a Wildlife Emergency, or for designated areas or specific locations which may warrant special planning considerations (e.g. protected areas, geographic response areas). Strategic WRPs describe the likely activities to be enacted during a response, but may lack incident-specific actions or tactical plans which may only be developed once the parameters of the incident are known or tested. Thus strategic WRPs are refined and adapted throughout the incident based on incident-specific considerations (Hebert and Schlieps 2018).

**Activity-specific Plans:** Accidents or malfunctions that may occur at certain types of facilities or infrastructure (e.g., oil-handling facilities, offshore petroleum platforms, liquid natural gas marine terminals), projects (e.g., exploratory drilling), or routine activities (e.g., transport of oil by rail or vessel) have an associated increased risk

for Wildlife Emergencies. However, given the static nature of these sites, the characteristics of a Pollution or Non-Pollution Incident and the procedures for mounting a response can be anticipated to a certain degree. Industries or other stakeholders determine whether it is appropriate to develop strategic WRPs to structure a response that aligns with internal policies and procedures (e.g., industry best practices, contract with WROs), and incorporates site-specific considerations for implementing effective response actions (e.g., pre-determined Wildlife rehabilitation areas, standardized methods for Wildlife surveillance). As with other types of plans, activity-specific WRPs need to be adaptable and scalable, depending on the nature of the incident. Activity-specific WRPs should be reviewed and revised on a regular basis to accommodate changes to infrastructure, activities, and operational procedures, and to reflect current guidance on Wildlife response planning. In cases where activity-specific plans are identified for development, ECCC-CWS can review and provide recommendations on WRP components based on site-specific information.

An example of an activity-specific WRP is one that is developed as part of planned vessel salvage or oil recovery activities, where there is potential for impacts to Wildlife. In the case of a planned salvage, the initial draft of the WRP should be developed and approved in advance of initiating salvage activities. As with other incidents, the WRP will evolve over the course of the salvage to address specific response conditions.

**Area-specific Plans:** Wildlife Emergencies can also occur in land tenures or aquatic areas of significant biological importance, with specific management objectives, and/or where there is otherwise concerted interest in having a response plan in place (e.g., protected areas, geographic response areas). As with activity-specific plans, the procedures for mounting a response to a Pollution or Non-Pollution Incident may be anticipated and planned for to a certain degree. Managers of these areas may determine it is appropriate to develop strategic WRPs to structure a response that aligns with local or regional management objectives. Stakeholders' input that incorporates site-specific considerations for implementing effective response actions should be considered. Area-specific WRPs need to be adaptable and scalable, depending on the nature of the incident. Managers of these areas need to identify zones of higher sensitivity that are to be protected and those of lower sensitivity to allow an efficient response (access points for machinery, ICP, response personnel, etc.). WRPs should be reviewed and revised on a regular basis. In cases where area-specific plans are identified for development, ECCC-CWS can review and provide recommendations on WRP components based on site-specific information.

### 3.2.2 Incident-specific Response Plans

The most common type of WRP is typically one that is developed in the early phases of a Wildlife Emergency as part of the ICS and is specific to the incident (IPIECA 2014). Incident-specific WRP, sometimes referred to as Wildlife Management Plans, take into account the actual circumstances of a specific incident, particularly factors related to the scope of the incident (e.g., quantity, location and dispersion of pollution), environmental considerations (e.g., weather), and seasonal considerations (e.g., Wildlife abundance and distribution). A comprehensive strategic WRP may fulfil most of the information needs for an incident-specific plan, but might require further details on implementation given the available resources, weather, and time of year.

For incidents where an RP has been identified, the RP has the first responsibility for initiating effective countermeasures to a Wildlife Emergency and has financial responsibility for damage and cleanup costs incurred during an incident. Upon the establishment of an ICP, the RP and Incident Command will outline planned Wildlife response activities. ECCC-CWS will contribute to the development of an incident-specific WRP by participation in the Wildlife Branch (or Environmental Unit) of the ICP, or by reviewing plans and providing expert advice to individuals working within the ICP. Here, ECCC-CWS may provide guidance on the scope of a WRP and direct the RP, or its contracted response personnel, towards resources that support its development. In particular, ECCC-CWS will inform on any Wildlife response activities that require authorization (i.e., permits), or technical expertise. ECCC-CWS will review and make recommendations on a WRP and subsequent iterations, but the Incident Command ultimately approves the plan. For incidents where an RP has not been identified, ECCC-CWS may contribute to the development and implementation of a WRP.

### 3.2.3 Plan Development

It is important to recognize that Wildlife Emergency response and WRP development is an iterative process that will evolve as an incident unfolds. A WRP should be structured and implemented in a way that it is adaptable and scalable over the course of an incident, and may accommodate needs for post-incident monitoring.

The Wildlife Branch will determine the appropriate level of response based on specific needs of the incident. The need for greater or fewer resources, equipment, facilities, and response personnel will be based on incident-specific factors including:

- the present and future geographic extent of the incident
- the species, numbers of individuals, and types of habitats present in the geographic extent
- the known or potential risk for injury or mortality
- the timeframe for which incident response actions are implemented

Plans that are developed prior to an incident may also consider tiered response planning to appropriately manage various degrees or types of Wildlife Emergencies. *Wildlife Response Preparedness* (IPIECA 2014) describes tiered response planning in more detail.

## 3.3 HABITAT CONSIDERATIONS FOR RESPONSE PLANNING

The various habitats occupied by Wildlife require different considerations with regards to response planning. For emergency response involving pollutants such as oil, the key variable in a response plan is the presence of bodies of water that may act as a carrier for contaminants discharged into the environment, causing contaminants to spread over large areas where Wildlife may become affected. In Canada, habitats occupied by Wildlife requiring similar response approaches during an emergency response involving contaminants can be grouped into the following three main landscape categories: a) marine and open fresh water, b) aquatic, and c) terrestrial.

### 3.3.1 Marine and Open Fresh Water

Pollution Incidents that occur in the marine environment or large freshwater bodies of open water tend to affect Wildlife that spend a high proportion of their time on the water, such as alcids and waterfowl. The effect on Wildlife is influenced by the location of the incident, persistence and toxicity of the contaminants, and duration of the incident. In seasons and areas of high concentrations of vulnerable Wildlife, the number of impacted individuals may reach the thousands, even when a relatively low volume of contaminant is discharged. Affected Wildlife may eventually come ashore either alive or dead, requiring systematic search and collection effort on accessible shorelines. Contaminants discharged offshore may eventually travel inshore and reach the coastline, affecting other Wildlife communities associated with aquatic habitats (see Section 3.3.2). A Wildlife response in the marine and open fresh water landscape focuses on preventing Wildlife from utilizing the affected area, recovering affected individuals if they come to shore, and assessing the impact of the incident on Wildlife (Table 2).

### 3.3.2 Aquatic Habitats

For the purpose of this document, aquatic habitats consist of any land saturated with water long enough to take on the characteristic of an ecosystem and promote aquatic processes, such as salt marshes, wetlands, fens, lagoons, and bogs, but also include small ponds, creeks, rivers, tidal flats, marshes, and reed beds, or any combination of such categories. Unlike the other landscapes, aquatic habitats are vulnerable to activities that occur both on land and in the marine environment. During a response to a Pollution Incident, aquatic habitats are priority areas for protection as they can trap large quantities of contaminant, are difficult to clean, and can take years or decades to recover due to the retention of contaminants in these environments. Because of the large variety of aquatic habitats and biotypes that they accommodate, removing contaminants from the environment and operationalizing a Wildlife response may be complex. Rivers will carry and spread pollutants over potentially large distances, and shorelines may be inaccessible. Wildlife diversity may be high and include a mix of aquatic (waterfowl, shorebirds, inland waterbirds) and terrestrial (landbirds) Migratory Bird species and Species at Risk from a variety of groups, including mammals, birds, amphibians, reptiles, plants, and fish. Additional survey effort and resources may be required for reconnaissance and surveillance surveys as well as collecting affected individuals. Small lakes and ponds may be attractive for large concentrations of Migratory Birds during migration, molting, and staging periods and may require extended resources to exclude Wildlife from the area. In addition to deterrence activities, a Wildlife response in aquatic habitats may also focus on prioritizing protection and containment strategies to minimize the spread of contaminants to key habitats, denying Wildlife access to impacted habitats, pre-emptive capture to relocate unaffected individuals (e.g., Species at Risk), recovery of affected individuals, and assessing the effect of the incident on Wildlife (Table 2).

### 3.3.3 Terrestrial Habitats

Pollution discharged into a terrestrial landscape where a body of water is absent will be limited in spread and affect a small area in relation to the released volume. Pollution Incidents in a terrestrial landscape are usually limited to a point source (e.g., truck, rail, pipeline, oil storage facility), however, the species and types of incident interactions among terrestrial Wildlife may be diverse, as there is potential for impacts to birds,

mammals, reptiles, and amphibians. A Wildlife response strategy in a terrestrial landscape may focus on excluding Wildlife from the affected area, pre-emptive capture to relocate unaffected individuals (e.g., Species at Risk), recovering affected individuals, and assessing the impact of the incident on Wildlife.

**Table 2. Key activities/strategies for Wildlife response based on major landscape types.** This table is meant as a guide to highlight some potential key differences in approaches, but should not be considered as a checklist for all incidents. Refer to text for details.

Response Strategy/Activity	Landscape Categories		
	Marine/ Open fresh water	Aquatic	Terrestrial
Reconnaissance and surveillance surveys	X	X	X
Wildlife deterrence	X	X	X
Wildlife exclusion		X	X
Prioritize habitats for protection	X	X	X
Pre-emptive capture of Wildlife		X	X
Recovery of affected individuals	X	X	X
Assessing impacts to Wildlife	X	X	X

### 3.4 DETECTING SIGNS OF IMPACTED AVIAN SPECIES

In planning for Wildlife Emergency and preparation of a WRP, it can be important to consider target species and how detectable contaminated (or injured) Wildlife may be. The ability to detect contaminated Wildlife will help in planning several of the actions to be taken during a response, notably Initial Wildlife Impact Assessment (Section 4.5.2), reconnaissance and surveillance surveys (Sections 4.5.3 and 4.5.4), and Wildlife capture (Section 4.5.7). Detecting contaminated Wildlife is best done by experienced observers, such as WRO, but understanding of contaminated Wildlife detection can benefit all aspects of response planning and implementation. Here we provide guidance for detecting signs of oiling in avian species, though the principles outlined are generally applicable to birds affected by other contaminants.

Under normal conditions, typical bird behaviour will vary by the species, the habitats they occupy, as well as time of year and weather conditions. Generally, birds that spend a great deal of time on the surface of the water are typically seen resting on the water (e.g., loons, grebes, scoters, alcids, and cormorants). Piscivorous species (e.g., loons, grebes, alcids), will normally dive and surface repeatedly over time. Some species, like gulls, will move between resting on the water to being flight bound to using land to feed or rest. Species that are common in shore environments, like shorebirds, dabbling ducks, and cormorants are typically quite obvious on rocks or beaches, and would be expected to be quite mobile/active.

Birds that have come into contact with oil may have obvious oiling indications, including coating, discoloured feathers, or feathers having a wet or ragged appearance (i.e., disruption of feather structure). Heavily oiled birds or individuals oiled below the waterline may also appear as though they are sitting low on the water

(when compared with normal species posture), struggling to maintain buoyancy. Oiled birds have increased potential to lose buoyancy and thermoregulatory properties of their feathers. Accordingly, it is common to see oiled birds focused intently on preening themselves in order to maintain buoyancy and reduce heat loss; this may be most apparent while birds are on the water. Diving or dabbling species may appear to be foraging less than expected (although this should be assessed by experienced observers). Birds may also exhibit changes in flushing behaviour, being less inclined to fly when disturbed. Birds might also congregate near or on shore, or strand and rest on structures (e.g., vessels, buildings, platforms); this includes species that would not normally be expected to use these habitats or those that have contacted oil in the intertidal environment. In nearshore or shoreline environments, birds may also use shallow waters to reduce risk of drowning or take advantage of coastal vegetation to camouflage or reduce risk of predation while they try to preen or recover. Observations of behavioral changes in birds are sometimes the key indicators of oil impacts.

Detecting birds contaminated with oil is particularly difficult for aquatic birds with dark plumage that remain on the water and far from shore. Under these circumstances, it may be appropriate to determine a probable rate of contamination using appropriate indicator species. Ideally, indicator species are common throughout the incident area, share similar life history attributes, are sensitive to oiling, and signs of oiling are readily observable. The contamination percentage determined for indicator species only provides an estimation of the contamination percentage for the other species in the incident area. This type of assessment is likely to underestimate the actual contamination rate of the most vulnerable aquatic species, such as sea ducks and alcids, and overestimate the contamination of the more coastal species, such as geese and dabbling ducks (Lehoux and Bordage 1999). Additional details on how to assess rates of oiling for indicator species is provided in the *Guidance and Protocols for Wildlife Surveys for Emergency Response* (ECCC-CWS 2021a).

## 4.0 COMPONENTS OF A WILDLIFE RESPONSE PLAN

A WRP is a plan that describes the objectives and methods for undertaking Wildlife Emergency response, specific to an area and Pollution or Non-Pollution Incident(s). The aim of a WRP is to avoid or minimize injury or harm to Wildlife during Pollution and Non-Pollution Incidents.

The following section outlines attributes that should be considered within a WRP (IPIECA 2014; Hebert and Schlieps 2018). An annotated WRP template is provided as an example in Appendix A, to be adapted and scaled based on the nature of individual Wildlife Emergencies. A checklist of activities that should be completed within the first 24, 48, and 72 hours of an incident involving Wildlife is provided in Appendix B.

### 4.1 INTRODUCTION

The Introduction section of the WRP provides the basis and rationale for how a Wildlife response will be handled. The Introduction will provide a general description of the types of issues that will be addressed by the

WRP. Where appropriate, the Introduction will describe how this WRP interfaces with various aspects of an ICP, including other response plans that WRP activities may interact with.

## **4.2 NOTIFICATION PROCEDURES**

The Notification Procedures section outlines the agencies, organizations, and other technical specialists that will be notified during incidents involving Wildlife response. Where appropriate, this section will describe how notifications operate within the incident-specific ICS structure, as well as any intra- and interdepartmental communication requirements.

## **4.3 REGULATORY REQUIREMENTS**

The Regulatory Requirements section provides a brief description of the applicable Wildlife legislation, where it applies, and whether supporting permits or authorizations are required to support a Wildlife response. In most cases, incidents involving Wildlife will need to consider the MBCA, the SARA, and possibly the CWA (see Section 2), as well as other provincial or territorial legislation. Additional permits and authorizations may also be required outside the regulatory authority of ECCC-CWS.

### **4.3.1 Permits and Authorizations**

For any Wildlife Emergency involving the development of a WRP, the plan will identify any WROs or contracted subject-matter experts that will be engaged to support Wildlife response activities. Authorized organizations or individuals must have the training and resources necessary to meet Wildlife response requirements. Where permits or authorizations are identified, this section will highlight:

- a) what the authorization is for
- b) the issuing agency
- c) activities that are authorized
- d) who holds authorization to conduct those activities
- e) if a technical specialist or qualified professional is required to supervise or participate in the authorized activity (e.g., supervision or guidance of bird deterrence activities by ECCC-CWS or a WRO supervision of bird deterrence activities)
- f) reporting requirements, if any, for these authorizations

With respect to strategic WRPs prepared in advance for specific activities or areas, this section will also identify permits which are already in place and relevant information on renewal and reporting cycles.

## **4.4 RESOURCES-AT-RISK**

The WRP will outline potential Wildlife and habitat resources-at-risk from the incident's current and reasonably foreseeable impacts. The resources-at-risk section of the WRP will describe:

- the geographic extent for which resources are being identified



- Migratory Bird sensitivities
- Species at Risk sensitivities
- important habitats for consideration and protection:
  - critical habitat
  - protected areas
  - colonial nesting areas
  - general nesting areas
  - seasonal stopover, molting, or staging areas
  - key areas (e.g., Important Bird Areas, Ecologically and Biologically Significant Areas)
  - other important habitat features such as estuaries

In addition to these general factors, the characterization of resources-at-risk should consider area- and species-specific factors such as seasonal presence, abundance, life stage, and habitat associations. Where available, incident-specific observations should be referenced in the description of resources-at-risk to characterize current conditions. Resources-at-risk should also consider details on mitigations related to habitats including priority sites, protection measures, clean-up restrictions, and information relevant to Net Environmental Benefits Assessment (NEBA) or Spill Impact Mitigation Assessment (SIMA) (e.g., IPIECA 2016, 2018).

## **4.5 WILDLIFE MANAGEMENT AND RESPONSE**

This section will describe the nature of Wildlife management and response activities that are, or will be undertaken as part of the incident. The nature and scale of a WRP will depend on the incident, and the known or potential impacts to Wildlife.

For the early phases of an incident, the WRP should include, at minimum, a description of the initial approaches for Wildlife impact assessment (e.g., reconnaissance and monitoring activities). This section of the WRP will be revised as an incident evolves. Where appropriate, aspects of Wildlife management and response may warrant standalone plans that could be appended, and referenced in this section (e.g., detailed plans for Wildlife rehabilitation).

### **4.5.1 Operational Objectives**

This section briefly describes the primary objectives for the activities that will be implemented during the operational period(s) this plan is expected to apply to until its next iteration. Objectives will consider the ethical considerations in context with situational, technical, and financial feasibility of implementation (IPIECA 2014). Objectives will change based on Wildlife concerns as well as personnel and equipment resource availability. These objectives form the basis for the nature and scope of activities described in this section of the WRP.

### **4.5.2 Initial Wildlife Impact Assessment (0 to 24 Hours)**

In order to effectively plan for and direct Wildlife response efforts, an Initial Wildlife Impact Assessment needs to be conducted as early in the incident response as possible, to determine:

- existing information on Wildlife and habitats
- current/initial estimates of Wildlife impacts
- projection of potential impacts to Wildlife
- initial Wildlife response recommendations
- initial habitat protection recommendations
- initial resource, personnel, equipment, and facility requirements

As with all phases of a response, the Initial Wildlife Impact Assessment must be completed in consideration of the health and safety of response personnel and adhere to all incident-specific health and safety requirements (see Section 4.7).

### 4.5.3 Reconnaissance Surveys (24 to 48 Hours)

Reconnaissance surveys should be conducted in a timely manner on a large geographic scale to assess the outer limits of the incident. These surveys serve to obtain current information on impacted habitats, areas of special concern (e.g., colonial nesting areas) and the abundance and distribution of Wildlife within the general area of the incident, recognizing that Wildlife movements may extend beyond the geographic limits of the incident area. Initial reconnaissance surveys should take place as early in the response as possible to determine current conditions and inform potential response priorities and strategies. In all cases, reconnaissance should extend, at minimum, to the expected geographic limits of the incident area, recognizing those boundaries may change as the incident progresses. Reconnaissance surveys may be conducted on a recurring basis to inform response activities (e.g., deterrence and dispersal, Wildlife capture), or if the situation of the incident changes (e.g., following a storm). Reconnaissance surveys help identify the most suitable approaches for the surveillance or monitoring phase of the response. Reconnaissance may occur from land, boat, or air. Reconnaissance surveys are not systematic and the goal is not to precisely assess Wildlife densities but rather to conduct informal surveys to rapidly assess the distribution of impacted, or potentially impacted, Wildlife and habitats for a prompt response.

Primary objectives of reconnaissance surveys are to:

- determine the geographic scale of the incident
- identify Wildlife and habitats that have already been impacted
- estimate relative abundance and distribution of Wildlife with potential to be impacted
- evaluate key habitats of importance to Wildlife with potential to be impacted
- inform development of appropriate response strategies
- inform mitigation activities to minimize further damage to Wildlife
- inform suitability of various survey methods (e.g., shore, boat, or aerial surveys) for subsequent surveillance or monitoring for the duration of the incident
- inform Incident Command on the status of known or potential impact on Wildlife

If impacts to Wildlife or their habitats are known or anticipated, an approach for systematically surveying and monitoring Wildlife should be developed and articulated in the WRP (see Section 4.5.4). Standardized protocols

have been developed for conducting systematic Migratory Bird surveys during an emergency response in Canada and are summarized in the *Guidance and Protocols for Wildlife Surveys for Emergency Response* (ECCC-CWS 2021a). The following stages of a Wildlife response (Sections 4.5.5 to 4.5.10) should be developed and implemented by trained and qualified personnel under the supervision of the Wildlife Branch Director in the Wildlife Branch and/or Wildlife Technical Specialist(s) in the Environmental Unit, depending on the structure of the response (see also Section 3.1).

#### 4.5.4 Surveillance (Monitoring) Surveys (48 to 72 Hours and Onwards)

If impacts to Wildlife or their habitats are known or anticipated, Wildlife Branch will develop a systematic surveillance (monitoring) survey program with an appropriate temporal and geographic scope. If surveillance is required, the RP will secure qualified personnel to develop and execute the program and who will report to Wildlife Branch Director and/or Wildlife Technical Specialist(s). The methods and general approach(es) may be described in strategic WRPs and ECCC-CWS can advise on survey design and implementation for incident-specific WRPs, consistent with the *Guidance and Protocols for Wildlife Surveys for Emergency Response* (ECCC-CWS 2021a).

Primary objectives of surveillance surveys are to:

- monitor and refine the identification of Wildlife and habitats in the impacted area
- monitor and identify areas where Wildlife would be potentially at risk from further impacts
- monitor and refine estimates of abundance and distribution of Wildlife in the impacted area
- monitor and estimate Wildlife densities for damage assessment
- monitor and estimate number of dead and moribund Wildlife affected by incident
- identify areas where affected Wildlife can be collected
- inform other response activities such as habitat protection and Wildlife deterrence and dispersal
- inform Incident Command

Implemented throughout the response in accordance with the plan, data collected during surveillance provides critical response information and can also be used to document damage assessment following the incident.

#### 4.5.5 Deterrence and Dispersal

For some incidents, deterrence and dispersal can be an effective early means to deter Wildlife from moving into or near the incident area and coming into contact with contaminants. Use of these techniques can also be helpful in excluding Wildlife from impacted areas throughout the response phase. Deterrent devices used to disperse Wildlife include both visual and auditory techniques and range in their effectiveness depending on the species, number of individuals, time of year, and habitat where the incident occurs.

If deterrence or dispersal is required or recommended, the RP will retain a qualified and, if applicable, authorized WRO to develop and execute a Wildlife deterrence and dispersal program. In the absence of an RP, the Lead Agency may develop and execute a Wildlife deterrence and dispersal program. Guidance to

conduct activities related to deterrence and dispersal are outlined in Lehoux and Bordage (2000), with revisions and updates in development by ECCC-CWS. Other guidance to consider in the development of deterrence and dispersal tactics for WRP include Gorenzel and Salmon (2008) and IPIECA (2017). Deterrence will be conducted only by appropriately trained personnel, and under direct guidance and supervision (as required) from the Wildlife Branch Director and/or Wildlife Technical Specialist(s). A WRP may also outline protocols for Wildlife Technical Specialists in the field to monitor and document the use and effectiveness of deterrence and dispersal techniques so that updates may be made to subsequent WRPs. ECCC-CWS may provide guidance on deterrence and dispersal strategies and may also supervise deterrence and dispersal techniques for habitats or species that are particularly sensitive to these types of response measures (e.g., in proximity to breeding colonies). Strategic WRPs may outline a set of applicable techniques for a particular industry or facility, whereas an incident-specific WRP may then specify actions to be put in place given the species observed and environmental conditions at the time (e.g., weather).

Deterrence activities should be determined on a species-specific and location-specific basis that considers the following factors:

- What is the location and/or the extent of the spill
- Where are alternative species-appropriate habitats that birds can be dispersed to
- What species are present or likely to be at risk
- What is the life history status of the birds present (e.g., roosting, staging, breeding)
- What qualified personnel and equipment is available with experience and knowledge for deterrent use and Wildlife dispersal
- What are the environmental conditions
- Can the deterrence and dispersal plan be enacted in a safe manner for response personnel and Wildlife

#### 4.5.6 Exclusion, Pre-emptive Capture, and Relocation

WRPs often implement measures designed to pre-emptively limit the potential for Wildlife to become impacted during Pollution Incidents. Often, marine, aquatic and terrestrial Wildlife can be excluded from areas that are known or have potential to become impacted through a combination of mechanical and physical techniques designed to dissuade habitat use (e.g., visual or acoustical deterrents, fence or net installation, physical habitat modification). Pre-emptive Wildlife capture and relocation similarly seeks to collect Wildlife before they are impacted during a Wildlife Emergency. Planning for Wildlife collection requires considerations for capture, transport, holding, and release strategies. If pre-emptively captured Wildlife need to be contained for a period of time, a WRO authorized to carry out these activities must be identified to provide appropriate species-specific housing, nutritional support, and medical care (if necessary) for a potentially extended period. Guidance and protocols on pre-emptive capture and care for Wildlife during a Pollution Incident are described in the *Guidelines for the Capture, Transport, Cleaning, and Rehabilitation of Oiled Wildlife* (ECCC-CWS 2021b). Where appropriate, the WRP should describe plans for Wildlife collection and relocation activities.

### 4.5.7 Wildlife Capture, Transport, Rehabilitation, Release, and/or Euthanasia

This section of the WRP will be broken down into detailed phases, each of which are described briefly in Table 3. Planning for these activities may evolve over the course of the incident to include details on the number of monitoring and field staging facilities, capture procedures, rehabilitation facilities, as well as coordination of rehabilitation personnel.

The RP should retain a qualified and authorized WRO to develop and implement these phases of Wildlife response. These programs will adhere to the *Guidelines for the Capture, Transport, Cleaning, and Rehabilitation of Oiled Wildlife* (ECCC-CWS 2021b), *Guidelines for Establishing and Operating Treatment Facilities for Oiled Wildlife* (ECCC-CWS 2021c), as well as an area-specific or incident-specific Health and Safety Plan. Not all phases will be applicable or readily implemented during a response, but all may be considered as options when developing a strategic WRP, and later refined in an incident-specific WRP.

**Table 3. Phases of Wildlife Capture, Transport, Rehabilitation, Release, and/or Euthanasia**

Phase	Objectives
Pre-emptive Capture	<ul style="list-style-type: none"> <li>• The capture of Wildlife that is at risk of being impacted</li> <li>• Transport of Wildlife to a holding facility</li> </ul>
Capture	<ul style="list-style-type: none"> <li>• The capture of impacted Wildlife</li> <li>• Transport of Wildlife to Field Stabilization Site or Oiled Wildlife Rehabilitation Centre</li> </ul>
Field Stabilization	<ul style="list-style-type: none"> <li>• Physical evaluation</li> <li>• Removal of gross contaminants</li> <li>• Thermoregulatory support</li> <li>• Fluid therapy and nutritional support</li> <li>• Address life threatening conditions</li> <li>• Euthanasia evaluations based on established criteria and best practices</li> </ul>
Transportation	<ul style="list-style-type: none"> <li>• Transport of contaminated animals from field or Field Stabilization Site to an Oiled Wildlife Rehabilitation Centre</li> </ul>
Processing	<ul style="list-style-type: none"> <li>• Evidence collection</li> <li>• Birds given individual, temporary band</li> <li>• Feather/fur sample</li> <li>• Photograph</li> <li>• Individual medical record</li> </ul>
Intake	<ul style="list-style-type: none"> <li>• Medical examination, triage, and treatment plan development</li> <li>• Critical care concerns addressed</li> <li>• Euthanasia evaluations based on established criteria and best practices</li> </ul>
Triage	<ul style="list-style-type: none"> <li>• Ongoing euthanasia and treatment plan evaluation based on medical health status</li> </ul>
Euthanasia	<ul style="list-style-type: none"> <li>• Euthanize Wildlife that are assessed by the WRO as not being good candidates for rehabilitation or survival</li> </ul>
Stabilization	<ul style="list-style-type: none"> <li>• Fluid, nutritional and medical stabilization of impacted animals</li> <li>• 48–72 hours period</li> <li>• Prepare animals for cleaning process</li> </ul>
Cleaning	<ul style="list-style-type: none"> <li>• Removal of all contaminants from an impacted animal by washing</li> <li>• Removal of the cleaning agent by rinsing</li> <li>• Drying cleaned and rinsed animal</li> </ul>
Conditioning	<ul style="list-style-type: none"> <li>• Restoring waterproofing and physical condition</li> </ul>
Release	<ul style="list-style-type: none"> <li>• Federal banding of individual animals</li> <li>• Consider additional tracking devices on some birds to monitor post-release</li> <li>• Release of cleaned, waterproof animals into a clean environment</li> </ul>
Post-release	<ul style="list-style-type: none"> <li>• Determining the effectiveness of rehabilitation of Wildlife impacted during a</li> </ul>

Phase	Objectives
Monitoring	Pollution Incident <ul style="list-style-type: none"> <li>Monitoring the clean Wildlife's condition and activities</li> <li>Following short-term and long-term survival and breeding status following rehabilitation</li> </ul>

### 4.5.8 Wildlife Carcass Collection Procedures

Dead Wildlife should be removed from the environment to avoid attracting scavengers to the site and secondary contamination of Wildlife. The responsibility for the collection and documentation of dead Wildlife is primarily the responsibility of the Wildlife Branch and is completed under the supervision of authorized organizations (e.g., Wildlife Enforcement Directorate) and personnel with appropriate permits. Protocols for Wildlife collection, storage and documentation will be developed. Wildlife recovery personnel will retrieve dead Wildlife as part of daily activities. Dead Wildlife observed by the public can be reported to a 24-hour hotline (see Section 4.6.1). Members of the public must not pick up dead Wildlife but rather report them to the hotline. The Wildlife Branch will work with the Information Officer to develop appropriate messaging.

Carcass collection information will be used to:

- refine the geographic scale of the incident
- determine the cause of death if the source is unknown
- minimize damage and exposure to unaffected Wildlife by removing affected Wildlife from the environment
- minimize potential for harm or exposure by the public who participate in hunting activities or are supporting aspects of the response
- support appropriate response strategies for the treatment of affected Wildlife
- obtain a minimum number of casualties for damage assessment purposes
- obtain specimens/samples for legal enforcement activities or reporting requirements
- inform Incident Command

These procedures will also outline requirements necessary for proper chain of custody and storage of specimens. Chain of custody, and other record-keeping forms, will be attached as appendices to the WRP.

For additional guidance on collecting dead Wildlife during incidents, see the *Guidance and Protocols for Wildlife Surveys for Emergency Response* (ECCC-CWS 2021a).

### 4.5.9 Waste Management

Plans for decontamination and disposal of waste materials will be developed. Waste and secondary pollution should be minimized at each step of the Wildlife response. During the various phases of Wildlife cleaning (holding pen, carcass wrapping), waste will be created. Washing Wildlife will cause waste water (e.g., oil with detergent), which will need to be managed (through existing Waste Management Plans or by establishing additional plans as needed). Medical waste (e.g., syringes and gloves) should be considered. The response

plan will identify the legislation and the authorities responsible for waste management.

#### 4.5.10 Demobilization

Regardless of the scale of a Wildlife Emergency, the WRP will describe any processes or considerations for demobilizing Wildlife response activities. As appropriate, demobilization will be scaled in accordance with the size of Wildlife response (e.g., decreased intake of contaminated Wildlife) and must be approved by the Incident Command.

This section of the plan will discuss, as applicable:

- processes for demobilizing equipment, facilities, and personnel
- processes for ongoing involvement in the ICP or post-response impact assessment and monitoring
- processes for chain of custody of data to support enforcement decisions
- processes by which the RP can continue to receive advice and support from ECCC-CWS

### 4.6 INFORMATION MANAGEMENT AND REPORTING

This section of a WRP should describe how information collected throughout the operational periods of the WRP would be managed, organized, vetted, and reported on. It should include:

- the type of data being collected (e.g., inventory, photos, videos, GIS)
- the personnel that will collect, organize, and vet the data
- the process for maintaining data records during and after the incident
- the process for integrating Wildlife data and activities into an incident information system (often referred to as the Common Operating Picture) within an ICP
- who data will be reported to, including the type and frequency of reports (e.g., daily email tabular summaries to the Environmental Unit Leader)
- how information is disseminated to agencies responsible for overseeing response

#### 4.6.1 Wildlife Reporting From the Public (Wildlife Hotline)

Within the initial phases of an ICP being established where there are potential impacts to Wildlife, ECCC-CWS should ensure that reports of impacted Wildlife are directed to the Environmental Unit by way of a 24-hour hotline (or other reporting mechanism created for an incident). The contact information and instructions to the public for the 24-hour hotline should be outlined in the WRP. This may include the use of already existing environmental emergencies reporting systems, or the development of new hotlines as required for the scale of the incident. The Wildlife hotline may also serve as a platform to relay incident-specific safety information to the public (e.g., avoiding direct contact with contaminated Wildlife).

#### 4.6.2 Media Relations

Media statements help to inform the public and raise awareness regarding Wildlife concerns and treatment, as well as public safety. The WRP should identify how Wildlife response activities will be reported to the public

through media statements, and who within the Environmental Unit or Wildlife Branch are responsible for informing them. Generally, Wildlife Branch Response Director and the incident's Information Officer will jointly develop these statements, with relevant input from Wildlife Technical Specialist(s) and/or Environmental Unit Lead. Where appropriate, public statements involving Wildlife will also be vetted and approved by the ECCC-CWS technical specialists, Media Relations, and the Regional Director.

### 4.6.3 Permits Reporting

Certain permits which may be issued prior to or during an incident may also have reporting requirements. Most ECCC-CWS issued permits require reporting of activities within 30 days of the permit expiry.

## 4.7 HEALTH AND SAFETY

Responder safety is of paramount importance when initiating Wildlife response activities. Activities recommended and implemented as part of a WRP will adhere to the incident-specific health and safety plan and be identified in consultation with the Incident Safety Officer. A brief overview of health and safety considerations and requirements will be described in the WRP, with specific mention of Wildlife responder personal protective equipment, zoonoses, and site safety and security (including areas off limits to Wildlife responders). This section will evolve over the course of the incident.

### 4.7.1 Personal Protective Equipment

For Wildlife management and response activities proposed in a WRP, responders will have appropriate training and equipment for safely operating in shoreline, marine, or aerial environments (depending on incident location and response activities) and for contaminated Wildlife handling within a rehabilitation setting. Responders will have appropriate equipment and clothing to operate for extended periods and that protect against environmental exposure or incident-specific conditions. Basic personal protective equipment recommended for Wildlife management and monitoring activities includes:

- eye protection (e.g., sunglasses, goggles, safety glasses, or face shield)
- oil-resistant rain gear or oil protective clothing (e.g., coated Tyvek, Saranex, etc.)
- water and oil resistant hand protection (e.g., neoprene or nitrile rubber)
- waterproof and oil resistant non-skid boots; steel-toes may be required under the incident-specific health and safety plan
- hearing protection (muff or ear plug type)
- personal flotation device when working on, near, or over water
- air monitoring device when appropriate
- specific gear appropriate for work where personnel are or may be submersed in water (wet suits, dry suits, survival gear)
- species-specific capture and protective gear (welding gloves, steel toed boots etc.)

The above list should not be considered comprehensive or applicable to all incidents. Additional incident-



specific and specialized equipment may be required for other aspects of Wildlife response and will be developed in consultation with WROs and the Safety Officer.

### 4.7.2 Zoonoses

Zoonoses are infectious diseases that may be transmitted between animals and humans under natural conditions. Personnel handling or coming into contact with Wildlife are at risk of zoonotic disease exposure. Veterinarians, technicians, response personnel, Wildlife handlers, and other animal care personnel who come into direct or indirect contact with Wildlife or any body fluids are at risk of contact with disease agents that may have zoonotic potential. Organisms that may cause or transmit zoonotic diseases include many classifications from viruses, fungi, and bacteria to internal and external parasites. The WRP will describe biosecurity practices that will be employed in all aspects of Wildlife response to reduce risk of disease transmission.

### 4.7.3 Biosecurity

Biosecurity is a set of preventative measures that reduce the risk of transmission of infectious diseases, pests, and invasive species. Where there is potential for response measures (both overall incident response and Wildlife-specific response) to contribute to issues involving biosecurity, the WRP will outline a suite of measures to control for these risks.

## 4.8 PERSONNEL REQUIREMENTS

There are many personnel that could be involved in various aspects of WRP implementation. Certain roles, responsibilities, or authorized activities require various types of training or technical expertise.

Where applicable, the WRP will specify which activities individuals with specific training or expertise can complete. This may include outlining training standards and/or experience that may be required for specific industries, areas, or facilities. Industries and Response Organizations should consult with regional ECCC-CWS staff for guidance on relevant standards.

## 4.9 FACILITY AND EQUIPMENT REQUIREMENTS

As part of planning and implementing Wildlife response measures outlined in a WRP, specific equipment and facility requirements may need to be developed. The level of detail of these requirements will vary by the scale of the incident and may be more appropriately described in documents appended to the WRP. Components of equipment and facility considerations may include:

- the type and amount of equipment required
- means of transportation to support Wildlife response elements
- requirements for utilities, waste management, and security
- the nature of equipment or facility requirements (e.g., temporary, mobile, permanent)
- sources of supplies if known

Additional information to support equipment and facility planning is outlined in the *Guidelines for Establishing*

## 5 EVALUATING WILDLIFE RESPONSE

### 5.1 EVALUATION AND REVIEW

WRPs should be implemented and evaluated for their effectiveness within a context of adaptive management, where the results are used to refine future iterations (IPIECA 2014, Hebert and Schlieps 2018). Following a Wildlife Emergency, WRP developers and implementers should debrief on strengths and weaknesses of the plan, lessons learned, and gaps or areas for improvement (particularly for strategically developed activity- or area-based WRPs). Evaluation of the WRP should consider a) ease of implementation, b) efficiency of implementation, c) areas of practice that were or were not included, and d) whether the WRP supported the desired response outcome(s), business and legal requirements. ECCC-CWS may be consulted in this review and assist with recommendations for refinement.

### 5.2 EMERGENCY EXERCISES

Emergency exercises are important for testing the effectiveness of WRPs, identifying potential gaps, and ensuring activity-, area- or incident-specific considerations are planned for in advance of an actual incident occurring (IPIECA 2014). Exercises also allow for government and industry partners to work together and familiarize themselves with the personnel and resources available to support Wildlife response activities. Exercises can also be an excellent means to provide training, or to test certain response strategies in a controlled setting.

Emergency exercises can take place in several formats: notifications, tabletop, field drills, and participation in the Environmental Unit or Wildlife Branch of an ICP. Each exercise will be planned with specific Wildlife response focused objectives in mind, and may center on testing particular aspects of the WRP. WRPs should be updated and revised to incorporate identified gaps and lessons learned into the plans.

## 6 CUSTODIAN

The custodian for the *Guidelines for Wildlife Response Plans* and any amendments thereto is the:

Director General, Regional Operations Directorate

ECCC-CWS

ECCC

The approval of future updates is vested to the Director General, Regional Operations Directorate, ECCC-CWS.

## 7 ACKNOWLEDGEMENTS

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## APPENDIX A: EXAMPLE TEMPLATE OF A WILDLIFE RESPONSE PLAN

## APPENDIX B: EXAMPLE CHECKLIST OF WILDLIFE EMERGENCY ACTIVITIES

**Table B.1. Example Checklist of Activities to Undertake within the initial 24, 48, and 72 hours of a Wildlife Emergency (adapted from Hebert and Schlieps 2018)**

Timeline	Responsibility	Action
<b>0-24 Hours</b>	Incident Command/ Unified Command	<ul style="list-style-type: none"> <li>• Ensure appropriate notifications to relevant government departments and branches</li> <li>• Activate an authorized WRO</li> </ul>
	Environmental Unit	<ul style="list-style-type: none"> <li>• Compile existing information on Wildlife</li> <li>• Complete a Resources-at-risk form (i.e., ICS 232)</li> <li>• Initiate Initial Wildlife Impact Assessment</li> <li>• Initiate deterrence and dispersal strategy</li> </ul>
<b>24-48 Hours</b>	Incident Command/ Unified Command	<ul style="list-style-type: none"> <li>• Establish a Wildlife Branch under the Operations Section of the ICP</li> <li>• Designate a Wildlife Branch Director</li> </ul>
	Environmental Unit and/or Wildlife Branch	<ul style="list-style-type: none"> <li>• Mobilize the WRO</li> <li>• Continue Initial Wildlife Impact Assessment</li> <li>• Conduct Reconnaissance Survey</li> <li>• Refine deterrence and dispersal strategy</li> <li>• Develop Wildlife Branch organization chart</li> <li>• Establish a Wildlife hotline</li> <li>• Initiate incident-specific WRP</li> <li>• Initiate requests for resources (personnel, supplies, facilities, equipment)</li> <li>• Identify Wildlife response health and safety requirements</li> <li>• Ensure ongoing notifications and updates to relevant government department contacts</li> <li>• Identify subject matter experts that might support the ICP</li> </ul>
<b>48-72 Hours</b>	Wildlife Branch and/or WRO	<ul style="list-style-type: none"> <li>• Coordinate with the WRO to develop or modify an existing WRP, and a process for WRP implementation</li> <li>• Develop plan for ongoing monitoring</li> <li>• Conduct surveillance and monitoring surveys</li> <li>• Determine locations for field stabilization</li> <li>• Establish field staging areas</li> <li>• Refine incident-specific WRP</li> <li>• Develop internal and external communications with the Information Officer and departmental communications personnel</li> <li>• Ensure ongoing notifications and updates to departmental contacts</li> </ul>

# [TITLE OF INCIDENT – LOCATION]

WILDLIFE RESPONSE PLAN

DATE

VERSION XX | DATE



Cat. No.: xxx

ISBN: xxx

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# Instructions

Delete this page in the final report.

This document is formatted as a template for developing an incident-specific Wildlife Response Plan (WRP). The format of this document is intended to cover the primary essential considerations for the development and refinement of a plan throughout the course of mounting a response. This WRP planning template is limited to information necessary to meet Environment and Climate Change Canada's Canadian Wildlife Service (ECCC-CWS)'s planning requirements. Additional sections and information are required to address federal, provincial, territorial, municipal, or Indigenous requirements beyond the authority of ECCC-CWS. This WRP can be tailored to be specific to individual federal or provincial/territorial government jurisdiction or can be combined into a consolidated Wildlife plan depending on the needs of the incident.

Throughout this template, please note the following:

1. Regular text is 'boiler plate' language that can be retained for all Plans, no changes required
2. Text in grey highlighting provides some annotation for sections of text that should be added but need to be modified with details specific to the incident and scope of work
3. Red text must be replaced with incident-specific details embedded in a sentence
4. Blue text is a placeholder provided as an example and must be replaced based on the incident

# Abstract

Abstract

## Table of Contents

Instructions .....	iii
Abstract .....	iv
Version History .....	vii
Authorship .....	vii
List of Acronyms .....	viii
Definitions .....	ix
1.0 Introduction .....	1
2.0 Agency Notification Procedures .....	1
3.0 Regulatory Requirements .....	2
3.1 Permits and Authorizations .....	3
4.0 Resources at Risk .....	5
4.1 Geographic Extent .....	5
4.2 Migratory Bird Sensitivities .....	5
4.3 Species at Risk Sensitivities .....	6
4.3.1 Avian Species at Risk .....	6
4.3.2 Other Species at Risk .....	6
4.4 Habitat Sensitivities .....	6
4.5 Wildlife Observations .....	7
5.0 Wildlife Management and Response .....	10
5.1 Operational Objectives .....	10
5.2 Initial Wildlife Impact Assessment (0 to 24 hours) .....	11
5.3 Reconnaissance Surveys (24 to 48 hours) .....	11
5.3.1 Objectives .....	11
5.3.2 Survey Methods .....	11
5.3.3 Survey Results .....	13
5.4 Surveillance (Monitoring) Surveys (48 to 72 hours and onwards) .....	13
5.5 Deterrence and Dispersal .....	13
5.6 Exclusion, Pre-emptive Capture, and Relocation .....	14
5.7 Wildlife Capture, Transport, Rehabilitation, Release, and/or Euthanasia .....	14
5.8 Wildlife Carcass Collection Procedures .....	15
5.9 Waste Management .....	16
5.10 Demobilization .....	16
6.0 Information Management and Reporting .....	16

6.1 Wildlife Reporting from the Public (Wildlife Hotline) .....	17
6.2 Media Relations.....	17
6.3 Permits Reporting.....	17
7.0 Health and Safety .....	18
7.1 Personal Protective Equipment .....	18
7.2 Zoonoses .....	18
7.3 Biosecurity.....	19
8.0 Personnel Requirements.....	19
9.0 Facility and Equipment Requirements.....	19
10.0 Additional Information .....	20
11.0 Literature Cited .....	20
Appendix A: Wildlife Permits .....	21
Appendix B: Images of Common Species .....	22
Appendix C: Structure, Roles, and Responsibilities of the Wildlife Branch .....	23
Appendix D: Example Datasheet of Wildlife Sightings.....	24

# Version History

The version history of this document is as follows:

Version	Approval Date	Authorized Sign-Off

## Authorship

This Wildlife Response Plan was developed collaboratively by the following:

Name	Agency / Organization	Contact

# List of Acronyms

Acronym	Actual Name
Acronym	Actual Name
Acronym	Actual Name

# Definitions

**Chain of Custody:** A written record for a legal sample documenting the continuity by tracing the possession of the sample from the point of collection through introduction into evidence.

**Environmental Emergency:** Any uncontrolled or unexpected incident involving the release (or the likelihood thereof) of a polluting substance into the environment that results or may result in an immediate or long-term harmful effect on the environment, or constitutes or may constitute a danger to human life or health. It may be caused by an industrial activity, natural emergency or by a wilful act.

**Field Stabilization Site:** Facility that provides initial triage, care and/or euthanasia as well as short-term holding (sometimes overnight) for Wildlife prior to transport to an Oiled Wildlife Rehabilitation Centre. It is not meant for washing oiled Wildlife and not designed for long-term care.

**Incident Command:** Responsible for overall management of the incident and consists of the Incident Commander, either single or unified command, and any assigned supporting staff.

**Incident Commander:** The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and release of resources. The Incident Commander has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site.

**Lead Agency:** The governmental authority that regulates or has legislative authority over the responsible parties' response and is responsible for overseeing the appropriateness of the response.

**Migratory Bird:** As defined in the [Migratory Birds Convention Act, 1994](#), a Migratory Bird referred to in the Convention, and includes the sperm, eggs, embryos, tissue cultures and parts of the bird of species listed under Article 1 of the Convention (Government of Canada 2017).

**National Wildlife Area:** A protected area created under the [Canada Wildlife Act](#) that contains nationally significant habitats for plants and animals and that is managed for the purposes of wildlife conservation, research and interpretation.

**Non-Pollution Incident:** An uncontrolled or unexpected Wildlife injury or mortality event other than a Pollution Incident.

**Pollution Incident:** The release or deposit of a substance that is harmful to Wildlife into an area or waters that are frequented by Wildlife or into a place from which the harmful substance may enter an area or waters frequented by Wildlife.

**Response Organization:** Any qualified person or organization that has been certified and designated by the Minister of Transport to carry out emergency response activities (as per the revised [Canada Shipping Act \(2001\)](#)). In Canada, there are four Response Organizations as follows: Atlantic Emergency Response Team, Eastern Canada Response Corporation Ltd., Western Canada Marine Response Corporation, and Point Tupper Marine Services Ltd.

**Responsible Party:** Any person or organization who might be responsible for the source or cause of an environmental emergency and/or a Wildlife Emergency.

**SARA-listed Species:** A wildlife species listed on the [List of Wildlife Species at Risk set out in Schedule 1](#) of the [Species at Risk Act \(SARA\)](#).

**Species at Risk:** As defined in the *Species at Risk Act* (S.C. 2002, c.29), means an Extirpated, Endangered or Threatened species, or a species of Special Concern.

**Unified Command:** An application of the Incident Command System, used when there is more than one agency with incident jurisdiction or when incidents cross political jurisdictions. Agencies work together through the designated members of the Unified Command to establish a common set of objectives and strategies and a single Incident Action Plan.

**Wildlife:** In this document, “Wildlife” is used to refer to the terms Migratory Birds as defined under the *Migratory Birds Convention Act*, and listed Species at Risk as those terms are defined under the *Species at Risk Act* for species falling within the jurisdiction of the Minister of Environment and Climate Change (with the exception of individuals of SARA-listed Species that are located on lands administered by Parks Canada). This term also refers to all wild species occurring in the National Wildlife Areas set out on Schedule I of the [Wildlife Area Regulations \(C.R.C., c. 1609\)](#).

**Wildlife Emergency:** A Pollution or Non-Pollution Incident that results or may result in an immediate and/or long-term harmful effect on the life or health of Wildlife and/or their habitat.

**Wildlife Response Plan:** A document that outlines the initial and ongoing Wildlife-related strategies that are needed to support any Wildlife response objectives that may occur at the onset of a Pollution or Non-Pollution Incident.

**Wildlife Response Organization:** Organizations that provide expertise, capabilities and trained personnel to undertake one or several aspects of response, including planning, implementation and reporting of activities related to Wildlife Emergencies. Wildlife Response Organizations (or representatives thereof) are authorized under applicable federal, provincial, and/or territorial legislation to capture, transport, clean, rehabilitate, euthanize, and release Wildlife.

[Insert/remove definitions as needed]



# 1.0 Introduction

**Paragraph 1:** Provide a brief, 1-paragraph description of the incident, including the type of vehicle/vessel involved, type of release (product(s), estimated volume(s), general location and time of year of incident, general habitat characteristics.

*Example:*

On November 6, 2018, the Athena Contain Ship ran aground on Arachne Reef, south of Moresby Island. The grounding resulted in a puncture to the starboard side fuel tank, resulting in a release of approximately 300 tonnes of heavy fuel oil (HFO) per hour. As of the initiation of the Incident Command Post at 0730 h on November 7, 2020, 5,000 tonnes of HFO had been reportedly released.

**Paragraph 2:** Describe the potential impacts, potentially affected species and corresponding federal or provincial legislation and departmental authorities based on the nature of the incident. This could include Migratory Birds (e.g., Migratory Birds Convention Act), Species at Risk (e.g., SARA), Canada Wildlife Act (CWA), provincial species. Consider if separate definitions for Wildlife and habitat need to be provided based on anticipated impacts to marine, aquatic, or terrestrial plants, etc.

*Example:*

Potential impacts to Migratory Birds and species designated on Schedule 1 under the Species at Risk Act (SARA) under Environment and Climate Change Canada (ECCC)'s jurisdiction (hereto collectively referred to as Wildlife), and their habitats, have been identified as a potential concern.

The purpose of this Wildlife Response Plan (the WRP) is to summarize primary resources at risk and strategies to assess, monitor, control, and recover Wildlife that are known, or have potential to be impacted by a Pollution of a Non-Pollution Incident. The Plan is also intended to prevent unaffected Wildlife from coming into contact with impacted habitats or individuals. Guidance provided within is consistent with the *National Policy on Wildlife Emergency Response* (ECCC-CWS 2021) and supporting guidance documents.

This Plan reflects current knowledge of environmental and incident conditions. The Plan will be amended, as necessary, to reflect changing conditions and input from applicable agencies, stakeholders, and the [insert name of the Responsible Party (RP)]. As part of the Incident Command System (ICS), activities within this Plan should be implemented under direction of the Wildlife Branch Director and/or appropriate Wildlife technical specialist(s) of The Environmental Unit, and be undertaken or supervised by qualified personnel, as indicated herein.

## 2.0 Agency Notification Procedures

*This section describes the government agencies, organizations and/or individuals that should be contacted during incidents involving Wildlife, and the level of potential risk that warrants immediate concerns and notification requirements to each.*

Wildlife concerns will be communicated to the Environmental Unit Lead(s) and directed to the appropriate technical specialist(s) ([Table 1](#)).

Table 1. Wildlife Agency Contacts

Role	Agency	Contact(s)	Phone	Email
Environmental Unit Lead				
Wildlife Branch Director				
Migratory Bird and Species at Risk Technical Specialist				
Wildlife Response Organization*				

\* Should be contacted at the recommendation of the Incident Command, Environmental Unit and request of the RP

The Lead Agency and/or Environmental Unit Lead should ensure ECCC-CWS is alerted as early as feasible in an incident, if certain criteria are met. Examples of these include:

- If large groups (100+ individuals) of dead birds on shore or on the water are observed
- If there is any sign of Migratory Birds demonstrating signs of oiling
- If there is any sign of species at risk located on any federal land demonstrating signs of oiling
- If any sign of oil reaching a National Wildlife Area (NWA)

## 3.0 Regulatory Requirements

*This section provides a brief description of the applicable Wildlife legislation, where it applies, and whether supporting authorizations are required to support a response. Where authorizations are identified, the table in this section will highlight a) what it is for, b) the issuing agency, c) activities that are authorized, d) who holds authorization to conduct those activities, e) if a technical specialist or qualified professional is required to supervise or participate in the authorized activity (e.g., ECCC-CWS or a Wildlife Response Organization (WRO) will supervise Migratory Bird deterrent and dispersal activities), and f) reporting requirements, if any, for these authorizations.*

Federal regulations applicable to the incident are:

- **Migratory Birds Convention Act (MBCA) and the Migratory Birds Regulations (MBR):**  
Section 5 of the MBCA prohibits the deposit of harmful substances into waters or areas frequented by Migratory Birds, unless authorized under the *Canada Shipping Act*, or the substance is of a type and quantity, and the deposit is made under conditions, authorized under an Act of Parliament other than the *Canada Shipping Act*, 2001 or authorized for scientific purposes by the Minister of Environment and Climate Change. Section 6 of the MBR made under the MBCA prohibits the disturbance, destruction, taking of a nest, egg, nest shelter, Eider Duck shelter or duck box of a Migratory Bird, or anyone from having in his possession a live Migratory Bird, or a carcass, skin, nest or egg of a Migratory Bird. The MBR regulate the hunting of Migratory Birds and other circumstances under which the killing, capturing of and harming of



Migratory Birds may be authorized. The *Migratory Bird Sanctuary Regulations* (MBSR) further regulate activities related to Migratory Birds and their habitats within designated Migratory Bird Sanctuaries. Permits may be issued to authorize the permit holder to undertake activities that are otherwise prohibited (Government of Canada 2017).

- **Species at Risk Act (SARA):** SARA permits are required for activities affecting a SARA-listed Species, any part of its critical habitat or the residences of its individuals. For the purpose of SARA, an “activity affecting” means any activity prohibited under the Act or its regulations. Section 73 of SARA authorizes the issuance of permits for activities affecting a SARA-listed Species, any part of its critical habitat or the residences of its individuals, and sets out conditions that must be met before a competent minister can issue a permit. SARA prohibitions apply to any species listed on Schedule 1 as Threatened, Endangered or Extirpated, but do not apply to species listed as Special Concern.
- **Canada Wildlife Act (CWA):** The CWA allows for the establishment of National Wildlife Areas (NWAs), which protect wildlife habitat in Canada. The *Wildlife Area Regulations* identify all NWAs and prohibit certain activities from occurring within NWAs, but Section 3.4 of the *Wildlife Area Regulations* provides exemptions for the prohibited activities within the NWAs in the event of an emergency response effort (e.g., ensuring public safety and national security). The Scott Islands marine NWA has its own regulations, *Scott Islands Protected Marine Area Regulations*, which also provide exemptions for the prohibited activities in the event of an emergency response effort.

### 3.1 Permits and Authorizations

The use of deterrence for dispersal, capture, collection, and treatment of impacted Wildlife will require permits and/or authorizations from the agencies responsible for Wildlife. These permits and/or authorizations are summarized in [Table 2](#); [copies of issued permits are provided in Appendix A](#).

**Table 2. Wildlife Permit and Authorization Requirements**

Wildlife	Permit Type	Activities that Require Permits or Authorization	Permit Holders
Migratory Birds (including SARA-listed Species)	Scientific (for collection)	<ul style="list-style-type: none"> <li>• possession</li> <li>• transportation</li> <li>• collection/capture</li> <li>• treatment/rehabilitation/care</li> <li>• euthanasia</li> </ul>	Individuals of WROs are generally permitted for most activities. Subcontractors or independent contractors may be permitted for specific activities through one or several permits.
	Scientific (for capture and banding)	<ul style="list-style-type: none"> <li>• capturing</li> <li>• banding</li> <li>• using auxiliary markers (e.g., color bands and GPS transmitters)</li> <li>• collection of biological samples</li> </ul>	
	SARA Section 73/74 permit	<ul style="list-style-type: none"> <li>• destruction of protected critical habitat</li> </ul>	SARA permits are issued on site and situation-specific basis and must be discussed

Wildlife	Permit Type	Activities that Require Permits or Authorization	Permit Holders
		<ul style="list-style-type: none"> <li>• damage or destruction of any critical habitat that could result in harming individuals of a SARA-listed Migratory Bird</li> <li>• damage or destruction of residences of a SARA-listed Migratory Bird</li> </ul>	early in response activities, as appropriate.
Any SARA-listed Species other than Migratory Birds (on any federal land including NWAs, and any land affected by an order or regulation made under SARA)	SARA Section 73 permit	<ul style="list-style-type: none"> <li>• collection, taking, possession</li> <li>• transportation/relocation</li> <li>• capture/markings</li> <li>• treatment/rehabilitation/care</li> <li>• euthanasia</li> <li>• harassing, including deterrence and dispersal</li> <li>• exclusion barriers / trenches</li> <li>• damage or destruction of critical habitat</li> <li>• damage or destruction of residences</li> <li>• Any activity specifically prohibited by a Section 80 emergency order, or by a regulation made under SARA</li> </ul>	SARA permits are issued on site- and situation-specific basis and must be discussed early in response activities, as appropriate.
Migratory Bird Sanctuaries	Scientific (Collection)	<ul style="list-style-type: none"> <li>• operations occurring on Migratory Bird Sanctuaries</li> </ul>	Migratory Bird Sanctuary permits are issued on a site-specific basis and will be developed early in response activities.
Raptors and non-Migratory Birds (bald eagles, cormorants, ravens, crows etc.), terrestrial Wildlife	Provincial or territorial authority	<ul style="list-style-type: none"> <li>• collection</li> <li>• transportation</li> <li>• holding</li> <li>• treating</li> <li>• deterrence and dispersal</li> </ul>	Contact provincial or territorial authority representative through the Environmental Unit for authorization or permit.

**Note:** The permitting process and the types of activities requiring permits is subject to change periodically as regulations are updated. Individuals/organizations should seek up to date advice on permitting from ECCC-CWS permit officers.



## 4.0 Resources at Risk

*This section will be a brief, high-level summary of the key species and species groups, habitats, and supporting on-site evidence of Wildlife resources at risk. It may draw from information gathered in development of an ICS 232 form.*

The identification of resources at risk is an ongoing priority of the Environmental Unit. Wildlife have differing likelihoods of being affected based on patterns in habitat use, seasonal occurrence, and behaviours relative to the area of release.

### 4.1 Geographic Extent

The current scope of review of resources at risk focuses on the incident area [\[insert a description of the incident area\]](#) (see [Figure X](#)).

### 4.2 Migratory Bird Sensitivities

[Table 3](#) provides a list of the species that potentially occur in the incident area during the time of the incident. Images of common species are provided in [Appendix B](#).

**Table 3. Migratory Bird Species Expected to be Present in [\[insert incident location\]](#) in [\[insert season\]](#)**

Bird Guild	Species
Pelagic Seabirds	<ul style="list-style-type: none"> <li>Common Murre and Rhinoceros Auklet common in nearshore areas</li> </ul>
Gulls, Terns, Allies	<ul style="list-style-type: none"> <li>Glaucous-winged Gull and Mew Gull may be widespread throughout this area (hundreds of individuals)</li> <li>Increasing numbers of other species, including California Gulls are observed in the fall</li> <li>Total gull numbers fluctuate but may exceed several thousands</li> </ul>
Loons, Grebes, Cormorants, Pelicans	<ul style="list-style-type: none"> <li>Pelagic Cormorant and Pacific Loon occur in low numbers in fall</li> <li>Red-necked Grebe occurs in the low hundreds (~350 birds)</li> <li>Western Grebe (SARA Special Concern) can occur in the hundreds to thousands (<math>\leq 1,500</math> birds) in the fall</li> <li>Collectively, numbers of Red-necked, Western, and Horned Grebes may exceed 5,000 birds in the fall, particularly in Bearskin Bay</li> </ul>
Geese, Swans, Dabbling Ducks	<ul style="list-style-type: none"> <li>Brant, Canada Goose, and Greater White-fronted Goose may occur in large aggregations during migratory movements. Upwards of several hundred geese may occur at one time</li> <li>Habitats near Lina and Robertson Island may be staging areas for geese</li> </ul>
Hérons, Cranes, Allies	<ul style="list-style-type: none"> <li>Hérons occur at low densities in the fall</li> </ul>
Shorebirds	<ul style="list-style-type: none"> <li>Large numbers of Black Turnstone (~230 birds) and Black Oystercatcher (~200 birds) may occur in the fall; areas towards</li> </ul>

Bird Guild	Species
	<p>Skidegate Landing, Transit Island, Lina Island, Charlotte Island, and islets in Bearskin Bay support fall aggregations of Black Oystercatcher and Black Turnstone</p> <ul style="list-style-type: none"> <li>Additional species include Spotted Sandpiper, Wandering Tattler, and phalarope species</li> </ul>
Sea Ducks and Diving Ducks	<ul style="list-style-type: none"> <li>May occur in low numbers in early fall, increasing as birds return from breeding grounds; upwards of 5,000 White-winged Scoter, Surf Scoter, Harlequin Duck, and Bufflehead may occur</li> <li>The area between Lina Island and Robertson Island, including the immediate area in the vicinity of the incident is recognized as a molting location for several thousand scoters between August and September</li> </ul>

## 4.3 Species at Risk Sensitivities

### 4.3.1 Avian Species at Risk

[Insert number of species] SARA-listed Species have potential to occur in this region:

- Great Blue Heron, fannini subspecies, year-round (SARA Special Concern, Schedule 1)
- Marbled Murrelet, year-round (SARA Threatened, Schedule 1)

### 4.3.2 Other Species at Risk

[Insert number of species] SARA-listed Species have potential to occur in this region:

- Western Toad, year-round (SARA Special Concern, Schedule 1)

## 4.4 Habitat Sensitivities

All Wildlife habitats have ecological values for Wildlife whether actively occupied or not. *Provide a description of where Wildlife are expected to be present based on time of year (e.g., in fall, colonial seabirds will have dispersed from breeding colonies). Also consider details on mitigations related to habitats including priority sites, protection measures, clean-up restrictions, and information relevant to Net Environmental Benefits Assessment (NEBA) or Spill Impact Mitigation Assessment (SIMA).*

Primary habitats of importance in the area are summarized in [Table 4](#).

**Table 4. Wildlife Habitats in the [insert area of the incident]**

Habitat Type	Location	Description
Important Bird Area		
Seabird Colony		
Critical Habitat		
Estuary		

Habitat Type	Location	Description
Other important areas (e.g., nesting areas, seasonal stopover, molting, or staging areas, <a href="#">Ecologically and Biologically Significant Areas</a> , <a href="#">Ramsar Sites</a> , <a href="#">Western Hemisphere Shorebird Reserve Network</a> , <a href="#">Sea Duck Key Habitat Sites Atlas</a> , etc.)		

## 4.5 Wildlife Observations

Onsite personnel have indicated the following Wildlife were observed within the area of the incident during the Initial Wildlife Impact Assessment (see [Table 5](#)).





*[insert figure of resource sensitivities]*

**Figure X. Migratory Bird, Species at Risk, and Habitat Sensitivities in the [insert name of incident area]**

## 5.0 Wildlife Management and Response

*This section will describe the nature of Wildlife management and response activities that are or will be undertaken as part of the incident. This section will be revised as an incident evolves. Where appropriate, aspects of Wildlife management and response may warrant standalone plans that could be appended and referenced in this section. At minimum, it will describe initial approaches for Wildlife impact assessment (e.g., reconnaissance and monitoring activities), but potentially include:*

- Operational objectives
- Initial Wildlife Impact Assessment (0 to 24 hours)
- Reconnaissance surveys (aerial, vessel, shore) (0 to 48 hours)
- Surveillance and monitoring surveys (aerial, vessel, shore) (48 hours onwards)
- Deterrence and dispersal
- Wildlife capture, transport, rehabilitation, release, and/or euthanasia
- Wildlife exclusion, pre-emptive capture and relocation
- Wildlife carcass collection
- Demobilization

### 5.1 Operational Objectives

*This section will briefly describe the primary objectives for the activities that will be implemented during the operational period(s) this plan is expected to apply to until its next revision. Objectives will change based on Wildlife concerns as well as personnel and equipment resource availability. These objectives form the basis for subsequent activities described in this section.*

This version of the WRP is intended to support the following operational objectives. A revised WRP will be developed as changes to the operational objectives are identified and need to be addressed in this plan.

- Remove dead, oiled Wildlife from the environment to reduce interaction and contamination of non-polluted Wildlife and habitats
- Identify the numbers and species present in areas at risk of contamination during the next three operational periods
- Identify area- or species-based strategies to limit interaction between live, uncontaminated Wildlife and potential contaminants
- Capture and stabilize up to 10 individual impacted Migratory Birds while rehabilitation facilities are established
- Track reports of oiled and distressed Wildlife as reported through the Wildlife hotline

These operational objectives will be implemented as specified below, according to the structure and function of the Wildlife Branch for this operation period ([see Appendix C](#)).

## 5.2 Initial Wildlife Impact Assessment (0 to 24 hours)

*In order to effectively direct Wildlife response efforts, an Initial Wildlife Impact Assessment needs to be conducted to determine:*

- *Existing information on Wildlife, including initial site observations from response partners*
- *Current/initial estimates of Wildlife impacts*
- *Projection of potential impacts to Wildlife*
- *Initial Wildlife response recommendations*
- *Initial habitat protection recommendations*
- *Initial resource, personnel, equipment, and facility requirements*

## 5.3 Reconnaissance Surveys (24 to 48 hours)

*Reconnaissance surveys will be conducted in a timely manner on a large geographic scale to assess the outer limits of the incident. Reconnaissance surveys serve to obtain current information on impacted habitats, areas of special concern (e.g. colonial nesting areas) and the abundance and distribution of Wildlife within the general area to obtain an accurate account of Wildlife in the area of the incident. Standardized protocols have been developed for conducting Migratory Bird surveys during an emergency response in Canada. The following direction is summarized from the Guidance and Protocols for Wildlife Surveys for Emergency Response (ECCC-CWS 2022a). Please refer to the report for full details.*

### 5.3.1 Objectives

*Initial reconnaissance surveys will take place as early in the response as possible to determine current conditions and inform potential response priorities and strategies. Reconnaissance may occur from land, boat, or air. In all cases, reconnaissance will extend, at minimum, to the expected geographic limits of the incident area, recognizing those boundaries may change as the incident progresses. These reconnaissance surveys help identify the most suitable approaches for the surveillance or monitoring phase of the response.*

*Primary objectives of reconnaissance surveys are to:*

- *Determine the geographic scale of the incident*
- *Identify Wildlife and habitats that have already been impacted*
- *Estimate relative abundance and distribution of Wildlife with potential to be impacted*
- *Evaluate key habitats of importance to Wildlife with potential to be impacted*
- *Inform development of appropriate response strategies*
- *Inform mitigation activities to minimize further damage to Wildlife*
- *Inform suitability of various survey methods (i.e., shore, boat, or aerial surveys) for subsequent surveillance or monitoring for the duration of the incident*
- *Inform Incident Command on the status of known or potential impact on Wildlife*

### 5.3.2 Survey Methods

[Table 6](#) provides detailed information to record for reconnaissance surveys. An example datasheet is provided in [Appendix D](#).

**Table 6. Recording Survey and Wildlife Information for Reconnaissance Surveys**

<b>Organization</b>	Record the company, agency, or organization that requested the surveys.
<b>Platform name and type</b>	Record the name and type of platform used to complete the survey (i.e., shore, boat and boat type, plane, helicopter).
<b>Observer(s)</b>	Indicate the first and last name of the primary observer.
<b>Observer(s)' affiliation</b>	Indicate the affiliation of the primary observer.
<b>Date</b>	Date that the observation period occurred. Use format DD-MMM-YYYY (e.g., 12-Apr-2021) to avoid ambiguity.
<b>Start and End Time</b>	Record the time (using 24-hour notation) at the start and end of the observation period. Stationary surveys are considered an instantaneous scan of the area and therefore only the start time is required.
<b>Location(s)</b>	Indicate position of platform in either decimal degrees (e.g., 47.5185) or degree decimal minutes (e.g., 47° 31.11') depending on which format is available to you. Record observation location continuously if completing a moving survey.
<b>Scan</b>	Indicate scan type and direction, speed (if moving platform) and altitude (if aerial survey).
<b>Weather Conditions</b>	Record the general weather conditions at the time of the survey. Include notes on visibility (km), weather condition code, glare, sea state, wave height, true wind speed and direction, ice type and concentration code, precipitation.
<b>Species</b>	Where possible, record the exact species using photos if necessary to provide for reference later. If species is unknown, try to narrow down the species group as much as possible (e.g., gull, loon, shorebird). For mixed flocks, try to separate out species or groups as possible. Record the size, colouring, and behaviour to assist with post-survey species identification.
<b>Number of Individuals</b>	Record the number of individuals to the greatest level of accuracy possible.
<b>Distance</b>	Record the distance of the individual or groups from the observer.
<b>Behaviour</b>	At minimum, record whether individuals are in the air, on the water, or on the shore. If possible, record if individuals are resting or feeding. For birds, record fly direction.
<b>Age</b>	Where possible, record age of individual (juvenile, immature, or adult).
<b>Plumage (for birds)</b>	Where possible, record plumage (breeding, non-breeding, or moult).
<b>Sex</b>	Where possible, record sex of individual.
<b>Degree of contamination</b>	Where possible, record the degree of contamination and the number of individuals for each category.
<b>Comments</b>	Provide other relevant comments that would be useful to report back to the Wildlife Branch Director or Technical Specialist(s). For example, associations with incident site or response activities.

### 5.3.3 Survey Results

*Include a summary of the highlights of reconnaissance survey results.*

## 5.4 Surveillance (Monitoring) Surveys (48 to 72 hours and onwards)

*If impacts to Wildlife or their habitats are known or anticipated, Wildlife Branch will develop a systematic surveillance (monitoring) survey program with an appropriate temporal and geographic scope. If surveillance is required, the RP will secure qualified personnel to develop and execute the program and who will report to Wildlife Branch Director and/or Wildlife Technical Specialist(s). The methods and general approach(es) may be described in strategic WRPs and ECCC-CWS can advise on survey design and implementation for incident-specific WRPs, consistent with the Guidance and Protocols for Wildlife Surveys for Emergency Response (ECCC-CWS 2022a).*

*Primary objectives of surveillance surveys are to:*

- *Monitor and refine the identification of Wildlife and habitats in the impacted area*
- *Monitor and identify areas where Wildlife would be potentially at risk from further impacts*
- *Monitor and refine estimates of abundance and distribution of Wildlife in the impacted area*
- *Monitor and estimate Wildlife densities for damage assessment*
- *Monitor and estimate number of dead and moribund Wildlife affected by incident*
- *Identify areas where affected Wildlife can be collected*
- *Inform other response activities such as habitat protection and Wildlife deterrence and dispersal*
- *Inform Incident Command*

## 5.5 Deterrence and Dispersal

*The Wildlife Branch will continually assess options for moving Wildlife beyond the area of impact. If avian deterrence or dispersal is determined to be appropriate, the RP will retain a qualified and authorized WRO to develop and execute an avian deterrence and dispersal program and plan. In the absence of an RP, the Lead Agency may develop and execute a Wildlife deterrence and dispersal program. The program will follow available guidance and consult with ECCC-CWS.*

*If Migratory Birds are observed or are likely to be near an incident, the Wildlife Branch Director will consult with the Wildlife Technical Specialist(s) whether to develop a deterrence and dispersal plan for those species. Deterrence activities will be determined on a species-specific and location-specific basis that considers the following factors:*

- *What is the location and/or the extent of the spill*
- *Where are alternative species-appropriate habitats that birds can be dispersed to*
- *What species are present or likely to be at risk*
- *What is the life history status of the birds present (e.g., roosting, staging, breeding)*
- *What qualified personnel and equipment is available with experience and knowledge for deterrent use and Wildlife dispersal*
- *What are the environmental conditions*



- Can the deterrence and dispersal plan be enacted in a safe manner for response personnel and Wildlife

When appropriate, deterrence and dispersal of Wildlife can be an effective means to deter Wildlife from moving into or near the incident area and coming into contact with contaminants. Deterrence and dispersal will be conducted only by appropriately trained personnel with applicable authorizations, and under direct guidance and supervision (as required) from the Wildlife Branch Director and/or Wildlife Technical Specialist(s).

## 5.6 Exclusion, Pre-emptive Capture, and Relocation

*Exclusion, pre-emptive Wildlife capture, and relocation seeks to dissuade Wildlife from impacted areas before they are affected during a Wildlife Emergency. Planning for Wildlife exclusion or capture requires considerations for equipment, personnel as well as capture, transport, holding, and release strategies. If pre-emptively captured Wildlife need to be contained for a period of time, a WRO authorized to carry out these activities must be identified to provide appropriate species-specific housing, nutritional support, and medical care (if necessary) for a potentially extended period. Guidance and protocols on pre-emptive capture and care for Wildlife during a Pollution Incident are described in the Guidelines for the Capture, Transport, Cleaning, and Rehabilitation of Oiled Wildlife (ECCC-CWS 2022b). Where appropriate, the WRP will describe plans for Wildlife capture and relocation activities.*

## 5.7 Wildlife Capture, Transport, Rehabilitation, Release, and/or Euthanasia

*This section will describe, as applicable, tactical plans associated with all phases of Wildlife treatment from capture through to release or euthanasia. This section may evolve over the course of the incident to include details on the number of monitoring and field staging facilities, capture procedures, rehabilitation facilities, as well as coordination of rehabilitation personnel. [Table 7](#) provides an overview of relevant phases, which will be expanded upon in a full WRP as those activities are required.*

Where Wildlife capture, transport, rehabilitation, release, and/or euthanasia are considered appropriate, the [insert name of the RP] will retain a qualified and authorized WRO to develop and execute these phases of response. These programs must adhere to the Guidelines for the Capture, Transport, Cleaning, and Rehabilitation of Oiled Wildlife (ECCC-CWS 2022b), and Guidelines for Establishing and Operating Treatment Facilities for Oiled Wildlife (ECCC-CWS 2022c).

[Table 7](#) summarizes the phases of Wildlife capture, containment, and response.

**Table 7. Phases of Wildlife Capture, Transport, Rehabilitation, Release, and/or Euthanasia**

Phase	Objectives
Pre-emptive Capture	<ul style="list-style-type: none"> <li>• The capture of Wildlife that is at risk of being impacted</li> <li>• Transport of Wildlife to a holding facility</li> </ul>
Capture	<ul style="list-style-type: none"> <li>• The capture of impacted Wildlife</li> <li>• Transport of Wildlife to Field Stabilization Site or Oiled Wildlife Rehabilitation Centre</li> </ul>

Phase	Objectives
Field Stabilization	<ul style="list-style-type: none"> <li>Physical evaluation</li> <li>Removal of gross contaminants</li> <li>Thermoregulatory support</li> <li>Fluid therapy and nutritional support</li> <li>Address life threatening conditions</li> <li>Euthanasia evaluations based on established criteria and best practices</li> </ul>
Transportation	<ul style="list-style-type: none"> <li>Transport of contaminated animals from field or Field Stabilization Site to an Oiled Wildlife Rehabilitation Centre</li> </ul>
Processing	<ul style="list-style-type: none"> <li>Evidence collection</li> <li>Birds given individual, temporary band</li> <li>Feather/fur sample</li> <li>Photograph</li> <li>Individual medical record</li> </ul>
Intake	<ul style="list-style-type: none"> <li>Medical examination, triage, and treatment plan development</li> <li>Critical care concerns addressed</li> <li>Euthanasia evaluations based on established criteria and best practices</li> </ul>
Triage	<ul style="list-style-type: none"> <li>Ongoing euthanasia and treatment plan evaluation based on medical health status</li> </ul>
Euthanasia	<ul style="list-style-type: none"> <li>Euthanize Wildlife that are assessed by the WRO as not being good candidates for rehabilitation or survival</li> </ul>
Stabilization	<ul style="list-style-type: none"> <li>Fluid, nutritional and medical stabilization of impacted animals</li> <li>48–72 hours period</li> <li>Prepare animals for cleaning process</li> </ul>
Cleaning	<ul style="list-style-type: none"> <li>Removal of all contaminants from an impacted animal by washing</li> <li>Removal of the cleaning agent by rinsing</li> <li>Drying cleaned and rinsed animal</li> </ul>
Conditioning	<ul style="list-style-type: none"> <li>Restoring waterproofing and physical condition</li> </ul>
Release	<ul style="list-style-type: none"> <li>Federal banding of individual animals</li> <li>Consider additional tracking devices on some birds to track post-release</li> <li>Release of cleaned, waterproof animals into a clean environment</li> </ul>
Post-release Monitoring	<ul style="list-style-type: none"> <li>Determining the effectiveness of rehabilitation of Wildlife impacted during a Pollution Incident</li> <li>Monitoring the clean Wildlife's condition and activities</li> <li>Following short-term and long-term survival and breeding status following rehabilitation</li> </ul>

## 5.8 Wildlife Carcass Collection Procedures

Dead Wildlife will be removed from the environment to avoid attracting scavengers to the site and secondary contamination of Wildlife. The responsibility for the collection and documentation of dead



Wildlife is primarily the responsibility of the Wildlife Branch and is completed under the supervision of authorized organizations and personnel. Wildlife recovery personnel will retrieve dead Wildlife as part of daily activities. Dead Wildlife observed by other response personnel will be reported to the Wildlife hotline. Members of the public must not pick up dead Wildlife but rather report dead Wildlife to the Hotline. The Wildlife Branch will work with the Information Officer to develop appropriate messaging. For guidance on collecting dead Wildlife during incidents, see the *Guidance and Protocols for Wildlife Surveys for Emergency Response* (ECCC-CWS 2022a).

## 5.9 Waste Management

Plans for decontamination and disposal of waste materials will be developed. Waste and secondary pollution should be minimized at each step of the Wildlife response. During the various phases of Wildlife cleaning (holding pen, carcass wrapping), waste will be created. Washing Wildlife will cause waste water (e.g., oil with detergent), which will need to be managed. Medical waste (e.g., syringes and gloves) should be considered.

*Include reference(s) to relevant waste management plan(s). These plans should identify the legislation and the authorities responsible for waste management.*

## 5.10 Demobilization

*This section of the WRP will discuss, as applicable:*

- *processes for demobilizing equipment, facilities, and personnel*
- *processes for ongoing involvement in the Incident Command Post or post-response impact assessment and monitoring*
- *processes for chain of custody of data to support enforcement decisions*
- *processes by which the RP can continue to receive advice and support from ECCC-CWS*

# 6.0 Information Management and Reporting

*This section will describe how information will be managed, organized, vetted, and reported on. It will include for each Wildlife group, a) the type of data being collected (e.g., inventory, photos, GIS), b) the personnel that will collect, organize, and vet the data for each agency, c) the process for maintaining data records during and after the incident, d) the process for integrating Wildlife data and activities into an incident information system (often referred to as the Common Operating Picture) within an Incident Command Post, e) who data is reported to, including the type and frequency of reports (e.g., daily email tabular summaries to the Environmental Unit Lead), and f) how information is disseminated to agencies responsible for overseeing response.*

All Wildlife information and observations will be reported to the Wildlife Branch Director and/or Wildlife Technical Specialist(s) and include the following:

- [Daily record of all Wildlife observations, including habitats of potential importance or use by Wildlife](#)



- Submission of written notes, completed data sheets, photographs, maps, and/or GPS location information
- Oiled bird sightings, including locations and maps for all reports of oiled birds
- Field Retrieval Report, including records for all birds collected from the field
- Live Bird Intake / Admissions Log
- Dead Bird Intake / Admissions Log
- Oiled Bird Examination Report, including an individual record summary of retrieval, medical exam, diagnostic results, samples collected (chemical, blood, and tissue), cleaning, treatment, evaluation, chain-of-custody, federal bird bands, and final disposition
- Report of anticipated management and response activities for the following operational period
- Daily Summary of Actions: This report is produced daily and provides an overall status of live and dead Wildlife admissions, euthanasia, releases, and treatment status of live Wildlife patients.

Additional information will need to be reported if there is any deterrence and dispersal, collection, and rehabilitation anticipated. All Wildlife information and data will be retained by the Wildlife Branch and transferred to appropriate regulatory agencies at end of incident.

## 6.1 Wildlife Reporting from the Public (Wildlife Hotline)

All concerns regarding impacted Wildlife will be routed through the Environmental Unit. Observations of impacted Wildlife will be directed to the Environmental Unit through a 24-hour hotline [insert hotline number here]. The public and Wildlife responders are requested to stay away from impacted Wildlife to minimize stress to impacted animals. Under no circumstances will the public or Wildlife responders attempt to capture any impacted Wildlife, as such efforts must only be conducted by permitted and trained personnel. Unauthorized capture could endanger the safety of both individuals and the animals.

## 6.2 Media Relations

When the Wildlife Branch is activated, media statements regarding ongoing Wildlife response activities will be provided in order to inform the public and raise awareness regarding Wildlife concerns and treatment as well as public safety. The Wildlife Branch Director and the incident's Information Officer will jointly develop these statements, with relevant input from Wildlife Technical Specialist(s) and/or Environmental Unit Lead. Every effort must be made to assure that information release by the Information Officer and the Wildlife Branch is fully coordinated to provide a consistent message on Wildlife response efforts and Wildlife impacts. Where appropriate, public statements involving Migratory Birds must be vetted and approved by the ECCC-CWS technical specialists, Media Relations and the Regional Director.

## 6.3 Permits Reporting

Certain permits which may be issued prior to or during an incident may also have reporting requirements.

*The WRP should specify those reporting requirements and timelines, if known at the time of plan creation.*

## 7.0 Health and Safety

*This section will provide a brief overview of safety considerations and requirements, with specific mention of personal protective equipment relevant to current activities that Wildlife responders are expected to be engaged in. This section will evolve over the course of the incident.*

Responder safety is of paramount importance when initiating Wildlife response activities. Activities recommended and implemented as part of this WRP will adhere to the incident-specific site safety plan [\[insert reference here\]](#) and be identified in consultation with the Incident Safety Officer. Responders will have appropriate training for response activities and will wear personal protective equipment that meets minimum requirements for personal safety and contaminant or disease transmission, based on the activities they are engaged in. Detailed safety training and equipment considerations will be required if incident activities include Wildlife deterrence and dispersal, handling, collection, rehabilitation, and/or disposal.

### 7.1 Personal Protective Equipment

For Wildlife management and response activities proposed in this WRP, responders will have appropriate training and equipment for operating in shoreline, marine, or aerial environments (depending on incident location and response activities) and for contaminated Wildlife handling within a rehabilitation setting. Responders will have appropriate equipment and clothing to operate for extended periods and that protect against environmental exposure or incident-specific conditions. Basic personal protective equipment recommended for Wildlife management and monitoring activities include the following:

- Eye protection (e.g., sunglasses, goggles, safety glasses, or face shield)
- Oil resistant rain gear or oil protective clothing (e.g., coated Tyvek, Saranex, etc.)
- Water and oil resistant hand protection (e.g., neoprene or nitrile rubber)
- Waterproof and oil resistant non-skid boots; steel-toes may be required under the incident-specific safety plan
- Hearing protection (muff or ear plug type)
- Personal flotation device when working on, near, or over water
- Air monitoring device when appropriate
- Specific gear appropriate for work where personnel are submersed in water (wet suits, dry suits, survival gear)
- Species-specific capture and protective gear (welding gloves, steel toed boots etc.)
- [\[Update this list of personal protective equipment requirements according to planned response activities\]](#)

### 7.2 Zoonoses

Zoonoses are infectious diseases that may be transmitted between animals and humans under natural conditions. Personnel handling or coming into contact with Wildlife are at risk of zoonotic disease exposure. Veterinarians, technicians, response personnel, Wildlife handlers, and other animal care personnel who come into direct or indirect contact with Wildlife and any body fluids are at risk of contact with disease agents that may have zoonotic potential. Organisms that may cause or transmit zoonotic

diseases include many classifications from viruses, fungi, and bacteria to internal and external parasites.

Anyone whose immune system is compromised is highly susceptible to opportunistic and secondary infections with zoonotic disease agents and should not be on site of an incident. Standard biosecurity practices will be employed in all aspects of Wildlife operations to reduce risk of disease exposure.

*The WRP will describe biosecurity practices that will be employed.*

## 7.3 Biosecurity

Biosecurity is a set of preventative measures that reduce the risk of transmission of infectious diseases, pests, and invasive species.

*Where there is potential for response measures (both overall incident response and Wildlife-specific response) to contribute to issues involving biosecurity, the WRP will outline a suite of measures to control for these risks.*

# 8.0 Personnel Requirements

There are many personnel that could be involved in various aspects of WRP implementation. Certain roles, responsibilities, or authorized activities require various types of training or technical expertise.

*Where applicable, the WRP will specify which activities individuals with specific training or expertise can complete.*

# 9.0 Facility and Equipment Requirements

*As part of planning and implementing Wildlife response measures outlined in a WRP, specific equipment and facility requirements may need to be developed. The level of detail of these requirements will vary by the scale of the incident and may be more appropriately described in documents appended to the WRP. Components of equipment and facility considerations may include the following:*

- *The type and amount of equipment required*
- *Means of transportation to support Wildlife response elements*
- *Requirements for utilities, waste management, and security*
- *The nature of equipment or facility requirements (e.g., temporary, mobile, permanent)*
- *Sources of supplies, if known*

Additional information to support equipment and facility planning is outlined in the Guidelines for Establishing and Operating Treatment Facilities for Oiled Wildlife (ECCC-CWS 2022c).

## 10.0 Additional Information

## 11.0 Literature Cited

ECCC-CWS. 2021. National Policy on Wildlife Emergency Response. Canada. vii + 9 pages.

ECCC-CWS. 2022a. Guidance and Protocols for Wildlife Surveys for Emergency Response. Canada. x + 97 pages.

ECCC-CWS. 2022b. Guidelines for the Capture, Transport, Cleaning, and Rehabilitation of Oiled Wildlife. Canada. ix + 45 pages.

ECCC-CWS. 2022c. Guidelines for Establishing and Operating Treatment Facilities for Oiled Wildlife. Canada. viii + 32 pages.

# **Appendix A: Wildlife Permits**

## **Appendix B: Images of Common Species**

## **Appendix C: Structure, Roles, and Responsibilities of the Wildlife Branch**

## Appendix D: Example Datasheet of Wildlife Sightings

Example Record Sheet for Aerial Surveys			
Company/agency		Visibility (km)	
Aircraft type		Weather conditions code	
Observer(s)		Glare conditions code	
Observer(s) name(s)		Sea state code (m)	
Date (dd/mm/yyyy)		Cloud cover (%)	
Time (UTC)		Precipitation	
Latitude		Wave height (m)	
Longitude		True wind speed (knots) <b>OR</b> Beaufort code	
Altitude		True wind direction	
Speed		Ice type code	
Recorder type		Ice concentration code	
Scan type			
Scan direction			
Camera model			
Notes:			





## APPENDIX G – NOVA SCOTIA DEPARTMENT OF ENVIRONMENT AND CLIMATE CHANGE

**From:** Winfield, Lynn  
**Sent:** April 25, 2022 8:53 AM  
**To:** Comeau, Sandra J <[Sandra.Comeau@dfo-mpo.gc.ca](mailto:Sandra.Comeau@dfo-mpo.gc.ca)>; [Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca); [joe.boutilier@inspection.gc.ca](mailto:joe.boutilier@inspection.gc.ca); [NPPATL-PPNATL@tc.gc.ca](mailto:NPPATL-PPNATL@tc.gc.ca); [david.macarthur@ec.gc.ca](mailto:david.macarthur@ec.gc.ca); [monique.breau@canada.ca](mailto:monique.breau@canada.ca); Kittilsen, Michael A <[Michael.Kittilsen@novascotia.ca](mailto:Michael.Kittilsen@novascotia.ca)>; Cottreau-Robins, Catherine M <[Catherine.Cottreau-Robins@novascotia.ca](mailto:Catherine.Cottreau-Robins@novascotia.ca)>; Boudreau, Louise O <[Louise.Boudreau@novascotia.ca](mailto:Louise.Boudreau@novascotia.ca)>; Birch, Angela <[Angela.Birch@novascotia.ca](mailto:Angela.Birch@novascotia.ca)>  
**Cc:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>; Feindel, Nathaniel J <[Nathaniel.Feindel@novascotia.ca](mailto:Nathaniel.Feindel@novascotia.ca)>; King, Matthew S <[Matthew.King@novascotia.ca](mailto:Matthew.King@novascotia.ca)>; Watts, Melinda <[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>; Buchan, Carla M <[Carla.Buchan@novascotia.ca](mailto:Carla.Buchan@novascotia.ca)>; Cusack, Roland R <[Roland.Cusack@novascotia.ca](mailto:Roland.Cusack@novascotia.ca)>; Swim, Amanda K <[Amanda.Swim@novascotia.ca](mailto:Amanda.Swim@novascotia.ca)>  
**Subject:** AQ#1448 - C&G Aquaculture - New Shellfish Application

Attention: Network Review Agencies

Please see the attached memo for a new Aquaculture Application No. 1448 in Merigomish Harbour (Pig Island), Pictou County.

Please respond with your feedback by **June 25, 2022.**

The attached zipped shapefile requires specific geospatial software to open and is intended for convenient use by GIS professionals only.

Thanks,

*Lynn*

*E. Lynn Winfield*

**Licensing Coordinator,  
 Nova Scotia Department of Fisheries and Aquaculture**



1575A Lake Road  
 Sandy Point, NS B0T 1W0  
 Phone: 902-875-7440  
 Fax: 902-875-7429  
 Email: [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)

[NS Department of Fisheries & Aquaculture Website](#)

**\*Please refer to Application Package AQ#1448, Section 2.0 - Applicant's Aquaculture Development Plan, for documents sent to and reviewed by Nova Scotia Department of Environment and Climate Change (NSECC).**

**From:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>  
**Sent:** April 25, 2022 9:04 AM  
**To:** Comeau, Sandra J <[Sandra.Comeau@dfo-mpo.gc.ca](mailto:Sandra.Comeau@dfo-mpo.gc.ca)>; [Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca);  
[joe.boutilier@inspection.gc.ca](mailto:joe.boutilier@inspection.gc.ca); [NPPATL-PPNATL@tc.gc.ca](mailto:NPPATL-PPNATL@tc.gc.ca); [david.macarthur@ec.gc.ca](mailto:david.macarthur@ec.gc.ca);  
[monique.breau@canada.ca](mailto:monique.breau@canada.ca); Kittilsen, Michael A <[Michael.Kittilsen@novascotia.ca](mailto:Michael.Kittilsen@novascotia.ca)>; Cottreau-Robins,  
Catherine M <[Catherine.Cottreau-Robins@novascotia.ca](mailto:Catherine.Cottreau-Robins@novascotia.ca)>; Boudreau, Louise O  
<[Louise.Boudreau@novascotia.ca](mailto:Louise.Boudreau@novascotia.ca)>; Birch, Angela <[Angela.Birch@novascotia.ca](mailto:Angela.Birch@novascotia.ca)>  
**Cc:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>; Feindel, Nathaniel J  
<[Nathaniel.Feindel@novascotia.ca](mailto:Nathaniel.Feindel@novascotia.ca)>; King, Matthew S <[Matthew.King@novascotia.ca](mailto:Matthew.King@novascotia.ca)>; Watts, Melinda  
<[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>; Buchan, Carla M <[Carla.Buchan@novascotia.ca](mailto:Carla.Buchan@novascotia.ca)>; Cusack, Roland R  
<[Roland.Cusack@novascotia.ca](mailto:Roland.Cusack@novascotia.ca)>; Swim, Amanda K <[Amanda.Swim@novascotia.ca](mailto:Amanda.Swim@novascotia.ca)>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Good Afternoon,

Please see the attached Network Agency Review from that was omitted from my previous email.

Thanks,

*Lynn*

*E. Lynn Winfield*

**Licensing Coordinator,  
Nova Scotia Department of Fisheries and Aquaculture**

**From:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>  
**Sent:** June 14, 2022 10:16 AM  
**To:** Comeau, Sandra J <[Sandra.Comeau@dfo-mpo.gc.ca](mailto:Sandra.Comeau@dfo-mpo.gc.ca)>; [Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca);  
[joe.boutilier@inspection.gc.ca](mailto:joe.boutilier@inspection.gc.ca); [NPPATL-PPNATL@tc.gc.ca](mailto:NPPATL-PPNATL@tc.gc.ca); [david.macarthur@ec.gc.ca](mailto:david.macarthur@ec.gc.ca);  
[monique.breau@canada.ca](mailto:monique.breau@canada.ca); Cottreau-Robins, Catherine M <[Catherine.Cottreau-Robins@novascotia.ca](mailto:Catherine.Cottreau-Robins@novascotia.ca)>;  
Boudreau, Louise O <[Louise.Boudreau@novascotia.ca](mailto:Louise.Boudreau@novascotia.ca)>; Birch, Angela <[Angela.Birch@novascotia.ca](mailto:Angela.Birch@novascotia.ca)>  
**Cc:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>; Watts, Melinda  
<[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Good Morning,

Please be reminded that on April 25, 2022, our department sent you a request for the network review of the new shellfish aquaculture application No. 1448, with a response requested by **June 25, 2022**. As of today, our office has not received comments from your department.

If you have any questions please do not hesitate to contact me.

Thanks,

*Lynn*

*E. Lynn Winfield*

**Licensing Coordinator,  
Nova Scotia Department of Fisheries and Aquaculture**

---

**From:** Birch, Angela <Angela.Birch@novascotia.ca>  
**Sent:** June 14, 2022 11:29 AM  
**To:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Lynn,  
There will be no comments from ECC.

Angela

## APPENDIX H – NOVA SCOTIA DEPARTMENT OF AGRICULTURE

**From:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>  
**Sent:** April 25, 2022 8:53 AM  
**To:** Comeau, Sandra J <[Sandra.Comeau@dfo-mpo.gc.ca](mailto:Sandra.Comeau@dfo-mpo.gc.ca)>; [Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca);  
[joe.boutilier@inspection.gc.ca](mailto:joe.boutilier@inspection.gc.ca); [NPPATL-PPNATL@tc.gc.ca](mailto:NPPATL-PPNATL@tc.gc.ca); [david.macarthur@ec.gc.ca](mailto:david.macarthur@ec.gc.ca);  
[monique.breau@canada.ca](mailto:monique.breau@canada.ca); Kittilsen, Michael A <[Michael.Kittilsen@novascotia.ca](mailto:Michael.Kittilsen@novascotia.ca)>; Cottreau-Robins,  
Catherine M <[Catherine.Cottreau-Robins@novascotia.ca](mailto:Catherine.Cottreau-Robins@novascotia.ca)>; Boudreau, Louise O  
<[Louise.Boudreau@novascotia.ca](mailto:Louise.Boudreau@novascotia.ca)>; Birch, Angela <[Angela.Birch@novascotia.ca](mailto:Angela.Birch@novascotia.ca)>  
**Cc:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>; Feindel, Nathaniel J  
<[Nathaniel.Feindel@novascotia.ca](mailto:Nathaniel.Feindel@novascotia.ca)>; King, Matthew S <[Matthew.King@novascotia.ca](mailto:Matthew.King@novascotia.ca)>; Watts, Melinda  
<[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>; Buchan, Carla M <[Carla.Buchan@novascotia.ca](mailto:Carla.Buchan@novascotia.ca)>; Cusack, Roland R  
<[Roland.Cusack@novascotia.ca](mailto:Roland.Cusack@novascotia.ca)>; Swim, Amanda K <[Amanda.Swim@novascotia.ca](mailto:Amanda.Swim@novascotia.ca)>  
**Subject:** AQ#1448 - C&G Aquaculture - New Shellfish Application

Attention: Network Review Agencies

Please see the attached memo for a new Aquaculture Application No. 1448 in Merigomish Harbour (Pig Island), Pictou County.

Please respond with your feedback by **June 25, 2022.**

The attached zipped shapefile requires specific geospatial software to open and is intended for convenient use by GIS professionals only.

Thanks,

*Lynn*

*E. Lynn Winfield*

**Licensing Coordinator,  
Nova Scotia Department of Fisheries and Aquaculture**



1575A Lake Road  
Sandy Point, NS B0T 1W0  
Phone: 902-875-7440  
Fax: 902-875-7429  
Email: [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)

[NS Department of Fisheries & Aquaculture Website](#)

**\*Please refer to Application Package AQ#1448, Section 2.0 - Applicant's Aquaculture Development Plan, for documents sent to and reviewed by Nova Scotia Department of Agriculture.**

**From:** Kittilsen, Michael A <Michael.Kittilsen@novascotia.ca>  
**Sent:** May 27, 2022 10:27 AM  
**To:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Lynn,

Please see attached comments from Agriculture.

Best,

Michael



Network Agency  
Review.docx



## Network Agency Review of an Aquaculture Application

Agency	<b>Agriculture</b>
Division (if applicable)	<b>Animal and Crop Services</b>
Date	<b>May 27, 2022</b>
File No.	<b>AQ#1448 – C&amp;G Aquaculture</b>
Type of application	<b>Marine Shellfish</b>
Information Provided	

Please provide comments, concerns, recommendations, or requirements on the above stated application for a marine aquaculture licence. Please include the criterion /criteria within your jurisdiction or mandate that your feedback is based upon. Similarly, if additional information is required to make a determination, please include the criterion /criteria within your jurisdiction or mandate that your request is based upon.

- ☐ No concerns regarding the proposed development
- ☒ Concerns with development are expressed below
- ☐ Request modifications to the proposed development (described below)
- ☐ Required or recommended conditions (described below)
- ☐ Request additional information (described below)
- ☐ Request meeting with applicant and NSDFA (described below)
- ☐ No comments on the application

Comments, concerns, recommendations, and/or required conditions including the criterion /criteria within your jurisdiction or mandate that your feedback is based upon. (Attach comments if preferred, or add additional pages, as required.):

The applicant should be made aware there is a significant amount of agriculture in close proximity to the proposed site and most of it is livestock related. There are several pastures and many fields that slope directly into the inlet on the peninsula side as well as the land side. There are few established buffer zones at the bottom of these fields and most are grass buffers. Further inland of this watershed, there are many small brooks, streams and tributaries feeding into the inlet and many of these have agricultural production alongside with minimal buffer zones as well.

There could be a significant risk of impact from agricultural activities in this area to aquaculture. In other aquaculture leases next to agriculture in the province there have been significant issues and closures of oyster harvest due to bacterial load build up, this happening shortly after heavy rainfall events causing a "slug" of land-based runoff. Agriculture is not looked at as being the only or prime source of contamination, wildlife, birds, residential, boating being other sources, but they are undoubtedly a contributor.

## **Public Notice and Disclosure**

As part of the process for deciding on an application, it may be necessary for the Nova Scotia Department of Fisheries and Aquaculture (“Fisheries and Aquaculture”) to disclose the collected network review information to the applicant and other government bodies, including, if applicable, the Nova Scotia Aquaculture Review Board for use at an adjudicative hearing relating to the application in question.

In accordance with departmental policy, which seeks to promote public involvement in the process for deciding on aquaculture applications, Fisheries and Aquaculture will disclose aquaculture application information, including network review information, on the departmental website.

## **Privacy Statement**

***The network review information collected as part of an aquaculture application will only be used or disclosed by Fisheries and Aquaculture for the purpose of deciding on the application.***

All application information collected is subject to the Freedom of Information and Protection of Privacy Act (“FOIPOP”) and will only be used or disclosed in accordance with FOIPOP.

## APPENDIX I – NOVA SCOTIA DEPARTMENT OF MUNICIPAL AFFAIRS AND HOUSING

**From:** Winfield, Lynn  
**Sent:** April 25, 2022 9:00 AM  
**To:** brian.cullen@munpict.ca  
**Cc:** Gordon.smith@novascotia.ca; Ceschiutti, Robert <Robert.Ceschiutti@novascotia.ca>; Watts, Melinda <Melinda.Watts@novascotia.ca>  
**Subject:** AQ#1448 - C&G Aquaculture - New Shellfish Application

Good morning;

On behalf of Robert Ceschiutti, please see the attached letter.

Thanks,

*Lynn*

*E. Lynn Winfield*

**Licensing Coordinator,  
Nova Scotia Department of Fisheries and Aquaculture**



1575A Lake Road  
Sandy Point, NS B0T 1W0  
Phone: 902-875-7440  
Fax: 902-875-7429  
Email: [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)

[NS Department of Fisheries & Aquaculture Website](#)



2022.04.25  
Municipal Notificati

**\*Please refer to Application Package AQ#1448, Section 2.0 - Applicant's Aquaculture Development Plan, for document sent to the Nova Scotia Department of Municipal Affairs and Housing.**

**AQ#1448**  
**Aquaculture Application**

April 25, 2022

Via: [brian.cullen@munpict.ca](mailto:brian.cullen@munpict.ca)

Mr. Brian Cullen, Chief Administrative Officers  
Municipality of Pictou County  
PO Box 910  
Pictou, NS  
B0K 1H0

Dear Mr. Cullen:

**Re: Notification of Proposed Aquaculture Application  
C&G Aquaculture, Marine Shellfish, Located in Merigomish Harbour (Pig Island),  
Pictou County**

In an effort to keep communities better informed about aquaculture activities in their area, the Province of Nova Scotia is continuing to contact municipalities directly to inform them of proposed applications for new aquaculture sites.

The purpose of this letter is to notify the Municipality of Pictou County of a proposed aquaculture site in Merigomish Harbour (Pig Island), Pictou County. Please see enclosed information and maps regarding this application.

We do not require your feedback; however, you are more than welcome to contact our department directly if you have any questions. You can reach me by phone at 902-875-7440 or by email [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca).

Sincerely,

*Lynn*

Lynn Winfield,  
Licensing Coordinator  
Nova Scotia Department of Fisheries and Aquaculture

Enclosures

c. Robert Ceschiutti, Manager, Licensing & Leasing  
Gordon Smith, Department of Municipal Affairs & Housing

APPENDIX J - NOVA SCOTIA DEPARTMENT OF COMMUNITIES, CULTURE,  
TOURISM AND HERITAGE

**From:** Winfield, Lynn  
**Sent:** April 25, 2022 8:53 AM  
**To:** Comeau, Sandra J <[Sandra.Comeau@dfo-mpo.gc.ca](mailto:Sandra.Comeau@dfo-mpo.gc.ca)>; [Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca); [joe.boutilier@inspection.gc.ca](mailto:joe.boutilier@inspection.gc.ca); [NPPATL-PPNATL@tc.gc.ca](mailto:NPPATL-PPNATL@tc.gc.ca); [david.macarthur@ec.gc.ca](mailto:david.macarthur@ec.gc.ca); [monique.breau@canada.ca](mailto:monique.breau@canada.ca); Kittilsen, Michael A <[Michael.Kittilsen@novascotia.ca](mailto:Michael.Kittilsen@novascotia.ca)>; Cottreau-Robins, Catherine M <[Catherine.Cottreau-Robins@novascotia.ca](mailto:Catherine.Cottreau-Robins@novascotia.ca)>; Boudreau, Louise O <[Louise.Boudreau@novascotia.ca](mailto:Louise.Boudreau@novascotia.ca)>; Birch, Angela <[Angela.Birch@novascotia.ca](mailto:Angela.Birch@novascotia.ca)>  
**Cc:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>; Feindel, Nathaniel J <[Nathaniel.Feindel@novascotia.ca](mailto:Nathaniel.Feindel@novascotia.ca)>; King, Matthew S <[Matthew.King@novascotia.ca](mailto:Matthew.King@novascotia.ca)>; Watts, Melinda <[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>; Buchan, Carla M <[Carla.Buchan@novascotia.ca](mailto:Carla.Buchan@novascotia.ca)>; Cusack, Roland R <[Roland.Cusack@novascotia.ca](mailto:Roland.Cusack@novascotia.ca)>; Swim, Amanda K <[Amanda.Swim@novascotia.ca](mailto:Amanda.Swim@novascotia.ca)>  
**Subject:** AQ#1448 - C&G Aquaculture - New Shellfish Application

Attention: Network Review Agencies

Please see the attached memo for a new Aquaculture Application No. 1448 in Merigomish Harbour (Pig Island), Pictou County.

Please respond with your feedback by **June 25, 2022.**

The attached zipped shapefile requires specific geospatial software to open and is intended for convenient use by GIS professionals only.

Thanks,

*Lynn*

*E. Lynn Winfield*

**Licensing Coordinator,  
 Nova Scotia Department of Fisheries and Aquaculture**



1575A Lake Road  
 Sandy Point, NS B0T 1W0  
 Phone: 902-875-7440  
 Fax: 902-875-7429  
 Email: [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)

[NS Department of Fisheries & Aquaculture Website](#)

**\*Please refer to Application Package AQ#1448, Section 2.0 - Applicant's Aquaculture Development Plan, for documents sent to and reviewed by Communities, Culture, Tourism and Heritage (CCTH).**

**From:** Cottreau-Robins, Catherine M <Catherine.Cottreau-Robins@novascotia.ca>  
**Sent:** June 24, 2022 10:10 AM  
**To:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Cc:** Cross, Anna <Anna.Cross@novascotia.ca>; Cormier, John Kenneth <John.Cormier@novascotia.ca>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Lynn,

See review attached. katie



Network Agency  
Review 1448 June 20

**NOTE: THE ATTACHED FORM WAS DATED JUNE 25, 2022 (SENT JUNE 24, 2022).**



## Network Agency Review of an Aquaculture Application

Agency	<b>CCTH</b>
Division (if applicable)	<b>Archives, Museums &amp; Libraries</b>
Date	<b>June 25, 2022</b>
File No.	<b>AQ#1448 – C&amp;G Aquaculture</b>
Type of application	<b>Marine Shellfish</b>
Information Provided	<b>Archaeology</b>

Please provide comments, concerns, recommendations, or requirements on the above stated application for a marine aquaculture licence. Please include the criterion /criteria within your jurisdiction or mandate that your feedback is based upon. Similarly, if additional information is required to make a determination, please include the criterion /criteria within your jurisdiction or mandate that your request is based upon.

- ☐ No concerns regarding the proposed development
- ☒ Concerns with development are expressed below
- ☐ Request modifications to the proposed development (described below)
- ☐ Required or recommended conditions (described below)
- ☐ Request additional information (described below)
- ☐ Request meeting with applicant and NSDFA (described below)
- ☐ No comments on the application

Comments, concerns, recommendations, and/or required conditions including the criterion /criteria within your jurisdiction or mandate that your feedback is based upon. (Attach comments if preferred, or add additional pages, as required.):

There are 12 pre-contact archaeological sites recorded in the vicinity of this proposed development. Two of the sites intersect with the proposed development area. An archaeological assessment is recommended prior to operation. The assessment may include underwater investigations.

## **Public Notice and Disclosure**

As part of the process for deciding on an application, it may be necessary for the Nova Scotia Department of Fisheries and Aquaculture (“Fisheries and Aquaculture”) to disclose the collected network review information to the applicant and other government bodies, including, if applicable, the Nova Scotia Aquaculture Review Board for use at an adjudicative hearing relating to the application in question.

In accordance with departmental policy, which seeks to promote public involvement in the process for deciding on aquaculture applications, Fisheries and Aquaculture will disclose aquaculture application information, including network review information, on the departmental website.

## **Privacy Statement**

***The network review information collected as part of an aquaculture application will only be used or disclosed by Fisheries and Aquaculture for the purpose of deciding on the application.***

All application information collected is subject to the Freedom of Information and Protection of Privacy Act (“FOIPOP”) and will only be used or disclosed in accordance with FOIPOP.

8/4/2023 9:29:06 AM

From: Winfield, Lynn

To: Cottreau-Robins, Catherine, Weseloh McKeane, Sean W

Cc: Ceschiutti, Robert J, Watts, Melinda C

Expires: in 30 days

Good morning Katie and Sean,

Attached for your information you will find the Sonar Data for [REDACTED] and also AQ#1448 C & G Aquaculture.

Can you please confirm which file format you are able to work with so that in future we can send you only the format that you need.

Thanks,

**Lynn**

E. Lynn Winfield

**Licensing Coordinator,**

**Nova Scotia Department of Fisheries and Aquaculture**

1575A Lake Road

Sandy Point, NS B0T 1W0

Phone: 902-875-7440

Fax: 902-875-7429

Email: Lynn.Winfield@novascotia.ca

>**File attachments (2)Total size: 43 MB**

Download All

AQ1448\_SonarData.zip34.4 MB

AQ1360\_SonarData.zip8.6 MB

>----- Original Package ----->Subject: FW: Sonar Data [REDACTED] and AQ#1448 C & G Aquaculture>Date: 8/22/2023 12:11:02 PM>From: Winfield, Lynn (winfiell)>

>Good Afternoon John,

>

Please see the attached which was sent to Katie and Sean on August 4, forwarding to you as we have been requested to include you on emails to Katie.

>

Thanks, Lynn

<https://sfts1.gov.ns.ca/human.aspx?r=1967272087&orgid=3408&rd=13/4>

RE: FW: Sonar Data [REDACTED] and AQ#1448C & G Aquaculture

8/22/2023 2:36:44 PM

From: Cormier, John K

To: Winfield, Lynn

Expires: in 30 days

Received. And thank you.

Cheers,

John

**From:** Cottreau-Robins, Catherine M <Catherine.Cottreau-Robins@novascotia.ca>  
**Sent:** Friday, September 15, 2023 7:18 AM  
**To:** Holland, Susanne Cecelia <Susanne.Holland@novascotia.ca>; Ceschiutti, Robert <Robert.Ceschiutti@novascotia.ca>; Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Cc:** Meuse-Dallien, Matt <Matt.Meuse-Dallien@novascotia.ca>  
**Subject:** Sonar Data review

Morning Folks,

I hope you are spared any damage with the approaching hurricane.

Matt sent me visuals of the sonar data yesterday and I have had a look. I could not open [REDACTED] It keeps crashing so I've asked him to look at it again. He did not have the data for [REDACTED] so I forwarded that FTP package to him. It may have expired by now. I've looked at the series #1448 to [REDACTED] Some look clear to me and no concerns from an archaeological standpoint. Others, I need to review again.

2 questions if I may, should I add my statement to the existing review forms I have already sent your way or would you prefer a separate email?

Do you have any seabed sonar images of fishing gear on the ocean floor? One AQ operation area has what I think is a lot of gear rather than cultural features but looking for some visuals. Please share examples if you can.

Much appreciated. Matt is joining me on my field project in Port La Tour on Monday-Tuesday. I hope to send everything to you by then.

Yours, Katie

**From:** Cottreau-Robins, Catherine M <[Catherine.Cottreau-Robins@novascotia.ca](mailto:Catherine.Cottreau-Robins@novascotia.ca)>  
**Sent:** Sunday, September 24, 2023 8:59 PM  
**To:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>; Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>  
**Cc:** Cormier, John Kenneth <[John.Cormier@novascotia.ca](mailto:John.Cormier@novascotia.ca)>; Cosgrove, Mary <[Mary.Cosgrove@novascotia.ca](mailto:Mary.Cosgrove@novascotia.ca)>  
**Subject:** Sonar Review Forms

Hi Robert and Lynn,

Please see attached two review forms regarding the sonar data. Matt is working on [REDACTED] and [REDACTED]. I hope to get these to you this week.

Yours, Katie



2023.09.24

Response from CCTI

## Network Agency Review of an Aquaculture Application

Agency	<b>CCTH</b>
Division (if applicable)	<b>Archives, Museums &amp; Libraries</b>
Date	<b>Set. 24, 2023</b>
File No.	<b>AQ#1448</b>
Type of application	<b>shellfish</b>
Information Provided	<b>Sonar data review</b>

Please provide comments, concerns, recommendations, or requirements on the above stated application for a marine aquaculture licence. Please include the criterion /criteria within your jurisdiction or mandate that your feedback is based upon. Similarly, if additional information is required to make a determination, please include the criterion /criteria within your jurisdiction or mandate that your request is based upon.

- ☒ No concerns regarding the proposed development
- ☐ Concerns with development are expressed below
- ☐ Request modifications to the proposed development (described below)
- ☐ Required or recommended conditions (described below)
- ☒ Request additional information (described below)
- ☐ Request meeting with applicant and NSDFA (described below)
- ☐ No comments on the application

Comments, concerns, recommendations, and/or required conditions including the criterion /criteria within your jurisdiction or mandate that your feedback is based upon. (Attach comments if preferred, or add additional pages, as required.):

I have reviewed the sonar data provided by the Department of Fisheries & Aquaculture on the proposed shellfish operation area. Please keep in mind that I am not an expert in sonar data collection, processing or interpretation and my comments are based on archaeological knowledge and a general sonar data review experience.

Upon review, I do not have any archaeology concerns for area 1448. I do not observe any particular anomalies.

It is recommended that a marine archaeologist with demonstrated expertise in the review of sonar data, look at the images provided and confirm what is suggested above.

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In accordance with departmental policy, which seeks to promote public involvement in the process for deciding on aquaculture applications, Fisheries and Aquaculture will disclose aquaculture application information, including network review information, on the departmental website.

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All application information collected is subject to the Freedom of Information and Protection of Privacy Act (“FOIPOP”) and will only be used or disclosed in accordance with FOIPOP.

**From:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Sent:** Friday, April 12, 2024 12:15 PM  
**To:** Cottreau-Robins, Catherine M <Catherine.Cottreau-Robins@novascotia.ca>  
**Cc:** Feindel, Nathaniel J <Nathaniel.Feindel@novascotia.ca>; Feindel, Jessica A <Jessica.Feindel@novascotia.ca>; Watts, Melinda <Melinda.Watts@novascotia.ca>; Ceschiutti, Robert <Robert.Ceschiutti@novascotia.ca>  
**Subject:** AQ#1448 - C & G Aquaculture

Good Afternoon Katie,

Please see the attached.

Thanks,

*Lynn*

*E. Lynn Winfield (She/Her)*

**Licensing Coordinator,  
 Nova Scotia Department of Fisheries and Aquaculture**



1575A Lake Road  
 Sandy Point, NS B0T 1W0  
 Phone: 902-875-7440  
 Fax: 902-875-7429  
 Email: [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)

**Website:** <https://novascotia.ca/fish/aquaculture/>



2024.04.10



2022.06.25 Network



2023.09.24

AQ#1448-Memo from Agency Review 1448Response from CCTI

**NOTE: REFER TO AGENCY REVIEW DOCUMENTS PROVIDED BY CCTH DATED JUNE 25, 2022, AND SEPTEMBER 24, 2023, INCLUDED ABOVE (RE-SENT WITH THIS EMAIL)**

# Network Review Memorandum

**To:** Nova Scotia Department of Communities, Culture, Tourism and Heritage (CCTH)

**From:** Robert Ceschiutti, Manager, Licensing and Leasing  
Nova Scotia Department of Fisheries and Aquaculture

**CC:** Nathaniel Feindel, Manager, Aquaculture Development  
Jessica Feindel, Manager, Aquaculture Operations  
Melinda Watts, Aquaculture Advisor  
Lynn Winfield, Licensing Coordinator

**Date:** April 10, 2024

**RE: Application for New Shellfish Licence and Lease – AQ#1448 – Merigomish Harbour, Pictou County**

The Nova Scotia Department of Fisheries and Aquaculture (the “Department”) is preparing to submit an application to the Nova Scotia Aquaculture Review Board (NSARB) for a new shellfish licence and lease no. 1448 (AQ#1448). Below you will find information related to the application:

Application No	AQ#1448
Proponent	C&G Aquaculture (Alex Bouchie)
Application Type	New marine shellfish
Method(s) of Cultivation	Suspended, bottom culture with gear, and bottom culture without gear
Species	American oyster ( <i>Crassostrea virginica</i> ), Bay scallop ( <i>Argopecten irradians</i> ), Quahog ( <i>Mercenaria mercenaria</i> ), and Razor clam ( <i>Ensis directus</i> )
Location	Merigomish Harbour
County	Pictou County

Below is a summary of events having occurred between the Department and CCTH during the Network Review of this application:

- This application was originally sent to CCTH for advice on April 25, 2022.
- CCTH provided advice to the Department on June 24, 2022 (form dated June 25, 2022) (enclosed).



- SONAR data was provided to CCTH for their information on August 4, 2023.
- On September 15, 2023, CCTH confirmed receipt of the files sent August 4, 2023.
- CCTH provided revised advice to the Department regarding the SONAR data on September 24, 2023 (enclosed).

The Department has the following information to share regarding the current advice received from CCTH:

**Regarding the recommendation for a Phase 1 Archaeological Resource Impact Assessment (ARIA) and review of SONAR data from a marine archaeologist:**

Thank you for your recommendations. CCTH identified 12 pre-contact archaeological sites in the vicinity, including two (2) sites that intersect with the boundaries of proposed site AQ#1448. However, the Department has not been made aware that any portion of proposed site AQ#1448 is within a designated protected site, nor is it within a designated ecological site, under Sections 7 and 14 of the Nova Scotia *Special Places Protection Act*, respectively. Furthermore, following the review of SONAR data by CCTH, no archaeological anomalies were identified.

It is therefore not warranted that the applicant or the Department undertake a formal ARIA to prove an absence of archaeological resources within the boundaries of proposed site AQ#1448 prior to the submission of the application to the NSARB. In addition, the completion of an ARIA in the context of submerged project areas presents unique fiscal and human resource and timing challenges that warrant careful consideration about their utilization as informed by advice received. The Department will share the advice received from CCTH with the NSARB, who as an independent decision-making body will consider the application and Network reviewer's recommendations, and if approved, be implemented by the Minister of Fisheries and Aquaculture.

Since mid-2021, the Department and staff from Kwilmu'kw Maw-klusuaqn (KMK); CCTH; Office of L'nu Affairs (OLA); and the Centre for Marine Applied Research (CMAR) have met to discuss, develop, and finalize an archaeological procedure for aquaculture licence holders. The intent is for the procedure to be included in a licence holder's Farm Management Plan (FMP) to proactively provide guidance should they encounter archaeological materials during the operation of their site(s). The Department has received a copy of the archaeology educational materials compiled by CCTH ("Aquaculture and Underwater Heritage Preservation") which the Department intends to provide to all marine aquaculture licence holders to ensure a consistent knowledge base in the industry.

If you have any questions, you may contact me by email at [Robert.ceschiutti@novascotia.ca](mailto:Robert.ceschiutti@novascotia.ca) or by phone at 902-874-0996.

Regards,

[REDACTED]

Robert Ceschiutti

Manager, Licensing & Leasing

Encl.

Original advice from CCTH of June 24, 2022 (form dated June 25, 2022) (electronic PDF)

Advice from CCTH regarding SONAR data of September 24, 2023 (electronic PDF)

**From:** Watts, Melinda  
**Sent:** Tuesday, May 14, 2024 11:18 AM  
**To:** Cottreau-Robins, Catherine M <Catherine.Cottreau-Robins@novascotia.ca>  
**Cc:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>  
**Subject:** Proposed Aquaculture Site AQ#1448 (C&G Aquaculture) - Additional Review of Side Scan Data

Good morning Katie,

As per your attached recommendation received on September 24, 2023, Dr. Aaron Taylor and Dr. Ian Spooner reviewed the side scan sonar data that was collected by our Department at proposed shellfish site AQ#1448 (Merigomish Harbour).

The report with their findings is included for your records.

Thank you,  
 Melinda



**Melinda Watts**  
 Aquaculture Development Advisor  
 Department of Fisheries and Aquaculture  
 1800 Argyle St. 6<sup>th</sup> Floor (Suite 603)  
 Halifax, NS B3J 3N8  
 C: (902) 483-7668  
 E: [Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)

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2023.09.24 Network



Comment on  
 Agency Review For proposed Oyster Cu

## Comment on proposed Oyster Culture site at Merigomish Harbour, Pictou Co., Nova Scotia

Aaron Taylor (Archaeologist), Ph.D.

Ian Spooner (Environmental Geoscientist), Ph.D., P.Geo (0077)

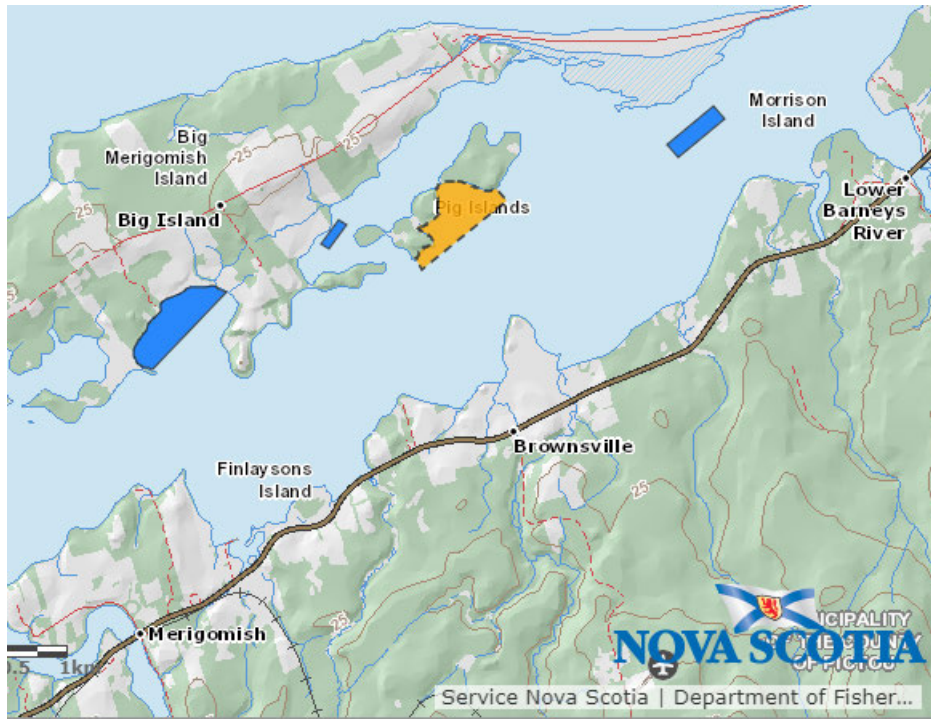


Figure 1. Location of proposed oyster culture site in Merigomish Harbour, Pictou Co., NS.

**Introduction:** Dr. Taylor was requested to comment on whether an oyster culture site in Merigomish Harbour would provide a tangible risk to cultural heritage and/or would additional data be required to make that assessment (Figure 1). Dr. Taylor engaged Dr. Spooner to provide some perspective on the role of sea level rise as well as landscape change to inform his assessment. The proposed site is located on the south shore of the Pig Islands in Merigomish Harbour in approximately 2m of water (Figure 2). The site is macro- to meso-tidal, and the bathymetry reveals a generally flat seabed with a submerged tidal creek to the north of the Pig Islands. The islands themselves have a moderately erosional shoreline with longshore transported sediment forming spits that connect the islands. To the immediate north of the Pig Islands a large transgressive barrier beach forms the northern extent of Merigomish Harbour. Sonar surveys of the seabed indicate that there is light to moderate soft sediment accumulation and that eelgrass beds occupy the site (Figure 3). Wider area bathymetry is detailed in figure 4.



Figure 2. Image from 2015 presumably taken at low tide showing near-shore sediment accumulation (yellow arrow). Note the paleo river/tidal channel (red arrow) on the north side of the island (the Pig Islands). It is along channels like this that during lower sea level conditions that there is an increased potential for cultural heritage sites.

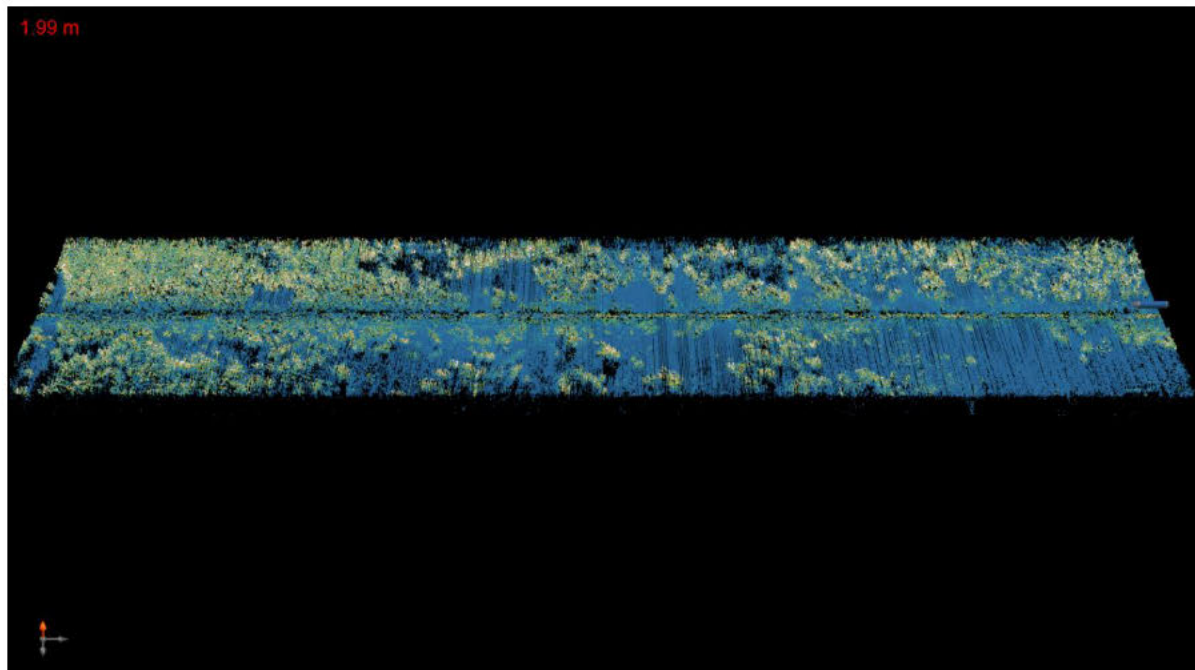




Figure 3. Sonar image of a portion of the seabed underlying the proposed oyster culture site. The green raised areas indicate eelgrass which thrives under soft seabed conditions.



Figure 4. The bathymetry of Merigomish Bay, depth is in meters. Red star is the approximate location of the proposed oyster culture site. Note that there is a deeper portion of the bay to the south of the proposed aquaculture site (red arrow) however, it is unlikely that this is a significant paleo channel that would have been a source of fresh water at lower sea levels as this site is open to the north where a barrier beach complex is presently transgressing inland (Big Island; see 2024 Google Earth image).

**Comment on risk and on requirement for additional data:** Given the bathymetric data and the assessment of geomorphological conditions at and near the proposed oyster culture site it is likely that the location of the proposed oyster bed can be considered as having very low potential for this activity impacting a pre-contact settlement. This assessment is primarily based on the unlikelihood that there was a nearby and accessible fresh water source at the site in the past. There is a tidal channel located to the north of the Pig Islands but it is unlikely that this channel harboured as significant fresh water source in the past. The open water to the south of Pig Islands was also unlikely to be underlain by a prior fresh water source as the gradient of the surface does not suggest a significant river channel. The abundant eelgrass at the site and the presence of intertidal sediment (Figure 2) indicates that the proposed oyster culture site has become an area of net sediment accumulation since marine inundation. The amount of marine sediment accumulation is speculative but is morphologically like nearby Chance Harbour Estuary where sediment gravity cores recorded more than 60 cm of marine sediment in 2 m water depths (Davidson, 2018). This accumulating sediment provides a natural protective cap over any precontact material culture were it to have been deposited at the site.

The north shore of the Pig Islands is erosive indicating that portions of the proposed oyster culture site may have previously been land. Under these conditions and with much evidence of extensive longshore erosion it is likely that any artifacts, were they to exist would have been displaced. Local sea level change in the region is not well studied however, recent work in the Magdalen Islands has been completed by Remillard et al., 2017 in their paper *“Relative sea-level changes and glacio-isostatic adjustment on the Magdalen Islands archipelago (Atlantic Canada) from MIS 5 to the late Holocene.”*

They state that *“According to Juneau (2012) and Barnett et al. (2017), the RSL increased by 3 m from 2 ka BP to present day submersion rates between 1.3 and 2.0 mm/yr. with a deceleration between 1 and 0.5 ka BP. More precisely, the RSL increased with a submersion rate of 20.7 cm/century between 1 and 0.8 ka BP (2.1 mm/yr.), 17.9 cm/century between 0.8 and 0.6 ka BP (1.8 mm/yr.), and 15.8 cm/century between 0.6 and 0.2 ka BP (1.6 mm/yr.). For comparison, New Brunswick coastlines have been affected by a RSL rise of 10 cm/century since 3 ka BP (Scott et al., 1995; Gehrels et al., 2004). On PEI, the suggested RSL for the last three millennia on the entire island increases from west to east (Krank, 1972; Scott et al., 1981)”*

Remillard et al. (2017) indicate that relative sea level (RSL) rise likely resulted in marine inundation of the proposed oyster culture site within the last 3000 years. There are no geomorphic features that indicate that before flooding it was likely a significant occupation site. Under the sea level conditions that appear to be relevant for the Merigomish site and the bathymetry of the site is likely that the proposed site was land in the past however, it is unlikely that any source of fresh water that would have been conducive to habitation was located near to the site. We conclude that the tangible risk to cultural heritage at the site would be very low and that no additional data is required to make that assessment.

#### References:

Davidson, K. 2018. Spatiotemporal assessment of metal concentrations of pre-effluent estuarine sediments in a freshwater Kraft Pulp Mill tailings pond using paleolimnological methods, A'se'k, Pictou, Nova Scotia [Honours thesis]. Acadia University.

Remillard, A.M., St-Onge, G., Bernatchez, P., Hetu, B., Buylaert, J-P., Murray, A.S., Lajeunesse, P. 2017. Relative sea-level changes and glacio-isostatic adjustment on the Magdalen Islands archipelago (Atlantic Canada) from MIS 5 to the late Holocene. *Quaternary Science Reviews* 171: 216-233

Aaron Taylor



Archaeologist  
Adjunct Professor, Department of Earth & Environmental Sciences  
Sessional lecturer, Department of History and Classics, Acadia University,  
12 University Ave. Wolfville, NS, Canada B4P 2R6 (902) 670-2585

Ian Spooner



Environmental Geoscientist & Professional Geoscientist  
Director of Research, K.C. Irving Environmental Science Centre  
King Chair in Geoscience, Professor, Dept of Earth and Environmental Science  
Acadia University, 12 University Av, Wolfville, NS. Canada B4P-2R6 902-692-8004



## APPENDIX K – NOVA SCOTIA DEPARTMENT OF NATURAL RESOURCES AND RENEWABLES

**From:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>  
**Sent:** April 25, 2022 8:53 AM  
**To:** Comeau, Sandra J <[Sandra.Comeau@dfo-mpo.gc.ca](mailto:Sandra.Comeau@dfo-mpo.gc.ca)>; [Leanna.Braid@dfo-mpo.gc.ca](mailto:Leanna.Braid@dfo-mpo.gc.ca);  
[joe.boutilier@inspection.gc.ca](mailto:joe.boutilier@inspection.gc.ca); [NPPATL-PPNATL@tc.gc.ca](mailto:NPPATL-PPNATL@tc.gc.ca); [david.macarthur@ec.gc.ca](mailto:david.macarthur@ec.gc.ca);  
[monique.breau@canada.ca](mailto:monique.breau@canada.ca); Kittilsen, Michael A <[Michael.Kittilsen@novascotia.ca](mailto:Michael.Kittilsen@novascotia.ca)>; Cottreau-Robins,  
Catherine M <[Catherine.Cottreau-Robins@novascotia.ca](mailto:Catherine.Cottreau-Robins@novascotia.ca)>; Boudreau, Louise O  
<[Louise.Boudreau@novascotia.ca](mailto:Louise.Boudreau@novascotia.ca)>; Birch, Angela <[Angela.Birch@novascotia.ca](mailto:Angela.Birch@novascotia.ca)>  
**Cc:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>; Feindel, Nathaniel J  
<[Nathaniel.Feindel@novascotia.ca](mailto:Nathaniel.Feindel@novascotia.ca)>; King, Matthew S <[Matthew.King@novascotia.ca](mailto:Matthew.King@novascotia.ca)>; Watts, Melinda  
<[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>; Buchan, Carla M <[Carla.Buchan@novascotia.ca](mailto:Carla.Buchan@novascotia.ca)>; Cusack, Roland R  
<[Roland.Cusack@novascotia.ca](mailto:Roland.Cusack@novascotia.ca)>; Swim, Amanda K <[Amanda.Swim@novascotia.ca](mailto:Amanda.Swim@novascotia.ca)>  
**Subject:** AQ#1448 - C&G Aquaculture - New Shellfish Application

Attention: Network Review Agencies

Please see the attached memo for a new Aquaculture Application No. 1448 in Merigomish Harbour (Pig Island), Pictou County.

Please respond with your feedback by **June 25, 2022.**

The attached zipped shapefile requires specific geospatial software to open and is intended for convenient use by GIS professionals only.

Thanks,

*Lynn*

*E. Lynn Winfield*

Licensing Coordinator,  
Nova Scotia Department of Fisheries and Aquaculture



1575A Lake Road  
Sandy Point, NS B0T 1W0  
Phone: 902-875-7440  
Fax: 902-875-7429  
Email: [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)

[NS Department of Fisheries & Aquaculture Website](#)

**\*Please refer to Application Package AQ#1448, Section 2.0 - Applicant's Aquaculture Development Plan, for documents sent to and reviewed by Nova Scotia Department of Natural Resources and Renewables (NRR).**

**From:** Boudreau, Louise O <[Louise.Boudreau@novascotia.ca](mailto:Louise.Boudreau@novascotia.ca)>  
**Sent:** April 25, 2022 11:18 AM  
**To:** Parker, Matt S <[Matt.Parker@novascotia.ca](mailto:Matt.Parker@novascotia.ca)>; Logue, Melanie <[Melanie.Logue@novascotia.ca](mailto:Melanie.Logue@novascotia.ca)>; Wadden, Jeffrey A <[Jeffrey.Wadden@novascotia.ca](mailto:Jeffrey.Wadden@novascotia.ca)>; Sanford, Steve L <[Steve.Sanford@novascotia.ca](mailto:Steve.Sanford@novascotia.ca)>; TeKamp, Mark C <[Mark.TeKamp@novascotia.ca](mailto:Mark.TeKamp@novascotia.ca)>; Nicholson, Danielle J <[Danielle.Nicholson@novascotia.ca](mailto:Danielle.Nicholson@novascotia.ca)>  
**Cc:** Power, Terrance <[Terrance.Power@novascotia.ca](mailto:Terrance.Power@novascotia.ca)>; Mahoney, Meagan <[Meagan.Mahoney@novascotia.ca](mailto:Meagan.Mahoney@novascotia.ca)>  
**Subject:** Request for comments AQ#1448 - C&G Aquaculture - New Shellfish Application

Hello Everyone,

We have received a request from NSDFA for our comments on AQ#1448. Please send me your comments by **Friday June 17, 2022** so that we can provide comments to Aquaculture by June 25, 2022.

**Application Description:**

Application No	AQ#1448
Proponent	C&G Aquaculture
Application Type	New Marine Licence and Lease
Method(s) of Cultivation	Suspended Shellfish Bottom Shellfish Cultivation With Gear Bottom Shellfish Cultivation Without Gear
Species	American oyster, Quahog, Bay scallop, Razor clam
Location	Merigomish Harbour (Pig Island)
County	Pictou

Warm Regards,

Louise  
 Louise Boudreau (she/her)  
 Policy Analyst  
 Strategic Policy and Planning Division  
 Department of Natural Resources and Renewables  
 Founders Square | 1701 Hollis Street, 3<sup>rd</sup> Floor | Halifax, NS B3J 2T9 |  
 424-3530

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**From:** Wadden, Jeffrey A <[Jeffrey.Wadden@novascotia.ca](mailto:Jeffrey.Wadden@novascotia.ca)>  
**Sent:** April 25, 2022 1:03 PM  
**To:** Walsh, Elizabeth <[Elizabeth.Walsh@novascotia.ca](mailto:Elizabeth.Walsh@novascotia.ca)>; MacEwan, Scott <[Scott.MacEwan@novascotia.ca](mailto:Scott.MacEwan@novascotia.ca)>  
**Cc:** Reid, Matthew <[Matthew.Reid@novascotia.ca](mailto:Matthew.Reid@novascotia.ca)>; Boudreau, Louise O <[Louise.Boudreau@novascotia.ca](mailto:Louise.Boudreau@novascotia.ca)>; Power, Terrance <[Terrance.Power@novascotia.ca](mailto:Terrance.Power@novascotia.ca)>; Adshead, Suzanne J <[Suzanne.Adshead@novascotia.ca](mailto:Suzanne.Adshead@novascotia.ca)>  
**Subject:** FW: Request for comments AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Elizabeth and Scott,

Find attached proposed lease area shapefile for Aquaculture License 1448 located in Merigomish Harbour of Pictou County. The proposed shellfish cultivation with and without gear has been circulated for comments under NRR's mandate. Please review and offer respective comments as per email below with a requested date for review as outlined below.

Louise – FYI – the Development Plan is title AQ 4015.

Thanks.

**JEFF WADDEN**

Eastern Regional Forester  
Department of Natural Resources and Renewables  
190 Beech Hill Road, RR 6 Antigonish, Nova Scotia  
B2G 0B4  
**Office** (902) 863 - 4513  
**Fax** (902) 863 - 7342  
[Jeffrey.Wadden@novascotia.ca](mailto:Jeffrey.Wadden@novascotia.ca)

**From:** Boudreau, Louise O <[Louise.Boudreau@novascotia.ca](mailto:Louise.Boudreau@novascotia.ca)>  
**Sent:** April 25, 2022 2:55 PM  
**To:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>  
**Cc:** Wadden, Jeffrey A <[Jeffrey.Wadden@novascotia.ca](mailto:Jeffrey.Wadden@novascotia.ca)>  
**Subject:** Question re. AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Lynn,

Thanks for your request. We noticed that the Development plan is for AQ 4015. Does this apply to AQ #1448?

Warm Regards,

Louise

Louise Boudreau (she/her)  
Policy Analyst  
Strategic Policy and Planning Division  
Department of Natural Resources and Renewables  
Founders Square | 1701 Hollis Street, 3<sup>rd</sup> Floor | Halifax, NS B3J 2T9 |  
424-3530

**From:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>  
**Sent:** April 25, 2022 4:03 PM  
**To:** Boudreau, Louise O <[Louise.Boudreau@novascotia.ca](mailto:Louise.Boudreau@novascotia.ca)>  
**Subject:** RE: Question re. AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Louise,

Yes, AQ4015 was the option number and this number changed once we received the application to AQ#1448. These numbers are our tracking number.

Sorry for the confusion.

Any further questions please let me know.

Thanks,

*Lynn*

*E. Lynn Winfield*

**Licensing Coordinator,  
Nova Scotia Department of Fisheries and Aquaculture**

**From:** Boudreau, Louise O <Louise.Boudreau@novascotia.ca>

**Sent:** April 25, 2022 4:10 PM

**To:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>

**Subject:** RE: Question re. AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Lynn,

Thanks so much for solving the mystery. I'll let our reviewers know.

Have a great evening,

Louise

Louise Boudreau (she/her)

Policy Analyst

Strategic Policy and Planning Division

Department of Natural Resources and Renewables

Founders Square | 1701 Hollis Street, 3<sup>rd</sup> Floor | Halifax, NS B3J 2T9 |  
424-3530

**From:** Blackburn, Lori M <Lori.Blackburn@novascotia.ca>

**Sent:** June 24, 2022 4:31 PM

**To:** Winfield, Lynn <Lynn.Winfield@novascotia.ca>

**Subject:** Re: AQ#1448

Hi Lynn:

Please accept the attached on behalf of NNR on the above aquaculture licence application.

Thanks

L

Lori Blackburn  
Senior Corporate Strategist  
Department of Natural Resources and Renewables  
1701 Hollis Street  
3<sup>rd</sup> Floor  
PO Box 698  
Halifax, NS  
B3J 2T9

Cell: (902) 430-0896



NRR - 1448  
Response.docx

## Network Agency Review of an Aquaculture Application

Agency	Department of Natural Resources and Renewables
Division (if applicable)	
Date	June 24, 2022
File No.	<b>AQ#1448 – C&amp;G Aquaculture</b>
Type of application	<b>Marine Shellfish</b>
Information Provided	

Please provide comments, concerns, recommendations, or requirements on the above stated application for a marine aquaculture licence. Please include the criterion /criteria within your jurisdiction or mandate that your feedback is based upon. Similarly, if additional information is required to make a determination, please include the criterion /criteria within your jurisdiction or mandate that your request is based upon.

- ☒ No concerns regarding the proposed development
- ☐ Concerns with development are expressed below
- ☐ Request modifications to the proposed development (described below)
- ☐ Required or recommended conditions (described below)
- ☐ Request additional information (described below)
- ☐ Request meeting with applicant and NSDFA (described below)
- ☐ No comments on the application

Comments, concerns, recommendations, and/or required conditions including the criterion /criteria within your jurisdiction or mandate that your feedback is based upon. (Attach comments if preferred, or add additional pages, as required.):

**Lands Services Branch:**

According to the records on file at the Crown Land Information Management Centre, any land lying below the original ordinary high-water mark is considered ungranted Crown land with no encumbrances.

**Geoscience and Mines Branch:**

As of June 15, 2022, there are currently no Exploration Licences, or Petroleum Agreements within a two-mile radius of this site (1448). This does not mean that Licence or Agreement status will not change in the future.

## **Public Notice and Disclosure**

As part of the process for deciding on an application, it may be necessary for the Nova Scotia Department of Fisheries and Aquaculture (“Fisheries and Aquaculture”) to disclose the collected network review information to the applicant and other government bodies, including, if applicable, the Nova Scotia Aquaculture Review Board for use at an adjudicative hearing relating to the application in question.

In accordance with departmental policy, which seeks to promote public involvement in the process for deciding on aquaculture applications, Fisheries and Aquaculture will disclose aquaculture application information, including network review information, on the departmental website.

## **Privacy Statement**

***The network review information collected as part of an aquaculture application will only be used or disclosed by Fisheries and Aquaculture for the purpose of deciding on the application.***

All application information collected is subject to the Freedom of Information and Protection of Privacy Act (“FOIPOP”) and will only be used or disclosed in accordance with FOIPOP.



## APPENDIX L – NOVA SCOTIA OFFICE OF L'NU AFFAIRS

**From:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>  
**Sent:** April 25, 2022 8:52 AM  
**To:** Rillie, Claire Z <[Claire.Rillie@novascotia.ca](mailto:Claire.Rillie@novascotia.ca)>  
**Cc:** Ceschiutti, Robert <[Robert.Ceschiutti@novascotia.ca](mailto:Robert.Ceschiutti@novascotia.ca)>; Feindel, Nathaniel J <[Nathaniel.Feindel@novascotia.ca](mailto:Nathaniel.Feindel@novascotia.ca)>; Watts, Melinda <[Melinda.Watts@novascotia.ca](mailto:Melinda.Watts@novascotia.ca)>; King, Matthew S <[Matthew.King@novascotia.ca](mailto:Matthew.King@novascotia.ca)>; Buchan, Carla M <[Carla.Buchan@novascotia.ca](mailto:Carla.Buchan@novascotia.ca)>; Cusack, Roland R <[Roland.Cusack@novascotia.ca](mailto:Roland.Cusack@novascotia.ca)>; Swim, Amanda K <[Amanda.Swim@novascotia.ca](mailto:Amanda.Swim@novascotia.ca)>  
**Subject:** AQ#1448 - C&G Aquaculture - New Shellfish Application

Attention: Office of L'nu Affairs

Please see the attached memo for a new Aquaculture Application No. 1448 in Merigomish Harbour (Pig Island), Pictou County.

Please respond with your feedback by **May 25, 2022.**

The attached zipped shapefile requires specific geospatial software to open and is intended for convenient use by GIS professionals only.

Thanks,

*Lynn*

*E. Lynn Winfield*

**Licensing Coordinator,  
 Nova Scotia Department of Fisheries and Aquaculture**



1575A Lake Road  
 Sandy Point, NS B0T 1W0  
 Phone: 902-875-7440  
 Fax: 902-875-7429  
 Email: [Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)

[NS Department of Fisheries & Aquaculture Website](#)

**\*Please refer to Application Package AQ#1448, Section 2.0 - Applicant's Aquaculture Development Plan, for documents sent to and reviewed by Nova Scotia Office of L'nu Affairs (OLA).**

**From:** Rillie, Claire Z <[Claire.Rillie@novascotia.ca](mailto:Claire.Rillie@novascotia.ca)>  
**Sent:** May 16, 2022 11:44 AM  
**To:** Winfield, Lynn <[Lynn.Winfield@novascotia.ca](mailto:Lynn.Winfield@novascotia.ca)>  
**Subject:** RE: AQ#1448 - C&G Aquaculture - New Shellfish Application

Hi Lynn,

I have screened AQ#1448 for Aboriginal consultation purposes and based on the information provided I recommend consultation at the minimal level with Pictou Landing First Nation. My rationale follows:

- Applicant proposes to use a combination of methods to culture oysters in the vicinity of Pig Islands, Merigomish Harbour, including: traditional suspension, BOBR units, bottom culture, in addition to bags and trays on bottom of lease area for storage.
- 11 aquaculture operations already exist in the vicinity of Merigomish Harbour.
- Applicant anticipates also adding quahog, bay scallop and razor clam to the proposed site.
- Applicant proposes to use a combination of screw anchors and concrete moorings to place gear on site.
- Applicant does not anticipate impacts to other users of the water in vicinity of the sites including recreational boaters, commercial and recreational fishers, etc. Quahog harvest in the area will remain unaffected.
- Applicant anticipates minimal impacts to eelgrass, migratory birds and other wildlife.
- Applicant does not anticipate impacts to nearby migrating Atlantic Salmon at Barney's and French River.
- Proposed site is immediately proximal to an archaeological site of known Mi'kmaw origin in the vicinity of Pig Islands, Merigomish Harbour. Site is also less than 1 km from three additional sites.
- Proposed site is immediately proximal to Merigomish/Big Island C4 lands.
- Merigomish Harbour is known as a site of traditional use by Mi'kmaw of Nova Scotia.
- Proposed site is located approximately 7 km from Merigomish Harbour IR 31 (Pictou Landing First Nation).

Please draft an offer to consult letter to Chief Andrea Paul and Council of Pictou Landing First Nation using the template attached. Once your sections are complete please send it back to me for population of the consultation screening section and final review. I'm attaching our correspondence protocol for your reference.

Happy to answer any questions you may have!

Thanks,  
 Claire