
Public Services and Procurement Canada
Basin Dredging
Bailey's Brook Harbour DFO-SCH Facility
Lismore, Pictou County, NS
Project No. R.117892.001

Appendix 'A'

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Fish Habitat Protection Program - Letter of Advice



Fisheries and Oceans
Canada

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Canada

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December 7th, 2021

Our file Notre référence
21-HMAR-00589

Fisheries and Oceans Canada – Small Craft Harbours
Attention: Justin Benoit
Senior Project Engineer, DFO-SCH
Civic 2920 Highway 104
Antigonish, Nova Scotia
B2G 2K6

**Subject: Dredging, Bailey's Brook, Northumberland Strait (DFO-SCH 1012),
Pictou County, Nova Scotia. Implementation of Measures to Avoid and
Mitigate the Potential for Prohibited Effects to Fish and Fish Habitat**

Dear Justin Benoit:

The Fish and Fish Habitat Protection Program (the Program) of Fisheries and Oceans Canada (DFO) received your Request for Review (RfR) form on October 7th 2021 to dredge the basin at Bailey's Brook, Northumberland Strait (DFO-SCH 1012), Pictou County, Nova Scotia. We understand the following work is proposed:

- Dredge 5, 917 m² of the basin at the Small Craft Harbour site located at Bailey's Brook, Pictou County, Nova Scotia.
- The last time the area was dredged was in 2002.
- The basin will be dredged to 2.0 meters below chart datum.
- The dredged slide slope will be cut at a ratio of 1:2.
- Dredge material will be disposed of in an on-site dredge containment cell.
- The adjacent channel leading to the ocean is dredged regulatory (i.e. maintenance dredge).
- The method of dredging will be determined by the successful contractor and could include using an excavator working off a floating barge. It could also be done using an excavator from the shoreline/marginal service area or a temporary rock access road.
- The temporary rock access road would be located in the dredge footprint and removed at the end of the project.
- The project is estimated to take 4-6 weeks to conduct and is planned to take place between February 2022 and March 2024.

Our review of the project considered the following information:

- DFO's RfR form completed by Scott Burley of Public Service and Procurement Canada. Signed October 7th 2021.

- Figures provided with the RfR including: *Underwater Benthic Habitat Survey. Baileys Brook Small Craft Harbour (DFRP # 03280), Pictou County, NS. Transect Location Plan. Englobe. September 2021.* (see Attachment A).
- Various emails between Scott Burley and the Program in October and November 2021.
- DFO databases, scientific papers, interactive mapping, historical files etc.

Your proposal has been reviewed to determine whether it is likely to result in:

- the death of fish by means other than fishing and the harmful alteration, disruption or destruction of fish habitat which are prohibited under subsections 34.4(1) and 35(1) of the *Fisheries Act*;
- effects to listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the *Species at Risk Act*; and/or
- the introduction of aquatic species into regions or bodies of water frequented by fish where they are not indigenous, which is prohibited under section 10 of the Aquatic Invasive Species Regulations.

The aforementioned outcomes are prohibited unless authorized under their respective legislation and regulations.

To avoid and mitigate the potential for prohibited effects to fish and fish habitat (as listed above), we recommend implementing the applicable mitigation measures noted in the RfR form, as well as, the measures noted below:

Death of fish

- Avoid killing fish by means other than fishing.
 - Avoid using explosives in or near water.
- Plan in-water works, undertakings and activities to respect timing windows to protect fish, and fish habitat.
 - Limit the duration of in-water works, undertakings and activities so that it does not diminish the ability of fish to carry out one or more of their life processes (spawning, rearing, feeding, migrating).
- Capture and relocate any fish trapped within an isolated/enclosed work area and safely relocate them to an appropriate location in the same waterbody.

Change or loss of fish passage

- Maintain fish passage during all phases of works, undertakings and activities.
 - Avoid obstructing and interfering with the movement and migration of fish
 - Avoid changing flow or water level

Change to Riparian vegetation

- Limit impacts on riparian vegetation to those approved for the works, undertakings and activities.
 - Limit access to shorelines and banks or areas adjacent to waterbodies.

- Construct roads, access points and approaches perpendicular to the watercourse or waterbody.
- Restore stream banks and riparian vegetation affected by the works undertakings and activities to their natural state (profile, vegetation, etc.).

Change or loss of aquatic habitat and vegetation

- Limit impacts on fish habitat components to those approved for the works, undertakings and activities.
 - Ensure there is no temporary or permanent increase in existing footprint below the ordinary high water mark.
 - Operate machinery in a manner that minimizes disturbance to the watercourse bed and banks.
 - Replace/restore any other disturbed habitat features and remediate any areas impacted by the works, undertakings or activity.
 - Conduct in-water undertakings and activities during periods of low flow, or at low tide.

Sedimentation of fish habitat

- Use only clean materials (e.g., rock, coarse gravel, wood, steel, snow) for works, undertakings and activities.
- Develop and implement a Sediment Control Plan to minimize sedimentation of the waterbody during all phases of the works, undertakings and activities.
 - Conduct all in-water works, undertakings and activities in isolation of open or flowing water to reduce the introduction of sediment into the watercourse.
 - Install turbidity curtain during work, undertaking or activity.
 - Schedule work to avoid wet, windy and rainy periods (and heed weather advisories).
 - Regularly inspect and maintain the erosion and sediment control measures and structures during all phases of the works, undertakings and activities.
 - Use biodegradable sediment control materials whenever possible.
 - Keep the erosion and sediment control measures in place until all disturbed ground has been permanently stabilized.
 - Remove all sediment control materials once the site has been stabilized.
 - Operate machinery on land, from barges or on ice.
 - Monitor the watercourse to observe signs of sedimentation during all phases of the work, undertaking or activity and take corrective action.
 - Dispose and stabilize all excavated material above the ordinary high water mark of nearby waterbodies to prevent entry in the water.

Deposit of deleterious substances (including suspended sediment)

- Develop and immediately implement a response plan to avoid a deleterious substances from entering a waterbody.
 - Stop works, undertakings and activities in the event of a spill of a deleterious substance.
 - Immediately report any spills (e.g., sewage, oil, fuel or other deleterious material), whether near or directly into a water body.

- Keep an emergency spill kit on site during all phases of the works, undertakings and activities.
- Contain water with deleterious substances.
- Ensure clean-up measures are suitably applied so as not to result in further alteration of the bed and/or banks of the watercourse.
- Clean-up and appropriately dispose of water contaminated with deleterious substances.
- Maintain all machinery on site in a clean condition and free of fluid leaks.
- Wash, refuel and service machinery and store fuel and other materials for the machinery in such a way as to prevent any deleterious substances from entering the water.
- Dispose of all waste material (e.g., construction, demolition, commercial logging) above the high water mark of nearby waterbodies to prevent entry into the watercourse.
- Ensure that building material used in a watercourse has been handled and treated in a manner to prevent the release or leaching of substances into the water that may be deleterious to fish.
- Plan activities near water such that materials such as paint, primers, blasting abrasives, rust solvents, degreasers, grout, poured concrete or other chemicals do not enter the watercourse.

Dredging should take place between early March to the end of May **or** early September to early December to avoid sensitive time periods, as noted below:

- Striped Bass may transect the dredge area. Considering they spawn in early June in estuaries and freshwater rivers and fry move downstream in July and August to estuaries, these months should be avoided (June to August).
- Atlantic Tomcod spawn December to end of February and this time frame should be avoided.

Site isolation (such as a sediment curtain) will be used during all in-water activities to minimize sedimentation in any migration routes.

The awarded contractor will determine if the temporary access road will be necessary. If required, clean material will be used with coarse material on the outer edges to prevent fines from entering the waterbody. The road will be removed upon completion of the project and the materials will be disposed of or stored above the ordinary high water mark.

Aquatic Invasive Species (AIS) are fish, invertebrate or plant species that have been introduced into an aquatic environment outside of their natural range and can result in harm to the indigenous species and subject to the Aquatic Invasive Species Regulations. The Program cannot confirm what, if any, AIS may exist at your project site at this time, however, green crab have been reported in the area. It is important to ensure that you are taking any necessary measures to prevent the spread of AIS. Additional information on AIS can be found at this following link:

<http://www.dfo-mpo.gc.ca/species-especes/ais-eae/about-sur/index-eng.html>

An AIS identification booklet can be found at this link:
<https://waves-vagues.dfo-mpo.gc.ca/Library/40961242.pdf>

Provided that you incorporate these measures into your plans, the Program is of the view that your proposed project is not likely to result in the contravention of the above-mentioned prohibitions and requirements.

Should your plans change or if you have omitted some information in your proposal, further review by the Program may be required. Consult our website (<http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>) or contact the Program determine if further review may be necessary. It remains your responsibility to remain in compliance with the *Fisheries Act*, the *Species at Risk Act* and the *Aquatic Invasive Species Regulations*.

It is also your *Duty to Notify* DFO if you have caused, or are about to cause, the death of fish by means other than fishing and/or the harmful alteration, disruption or destruction of fish habitat. Such notifications should be directed to (<http://www.dfo-mpo.gc.ca/pnw-ppe/contact-eng.html>).

We recommend that you notify this office at least 10 days before starting your project and that a copy of this letter be kept on site while the work is in progress. It remains your responsibility to meet all other federal, territorial, provincial and municipal requirements that apply to your proposal.

Please note that the advice provided in this letter will remain valid for a period of 2 years from the date of issuance. If you plan to execute your proposal after the expiry of this letter, we recommend that you contact the Program to ensure that the advice remains up-to-date and accurate. Furthermore, the validity of the advice is also subject to there being no change in the relevant aquatic environment, including any legal protection orders or designations, during the 2 year period.

If you have any questions with the content of this letter, please contact Lisa MacIsaac at our Dartmouth office at 902-943-6401 or by email at lisa.macisaac@dfo-mpo.gc.ca. Please refer to the file number referenced above when corresponding with the Program.

Yours sincerely,

Lisa MacIsaac
A/ Senior Biologist
Coastal Development
Ecosystems Management

cc:
Scott Burley, Environmental Services, Public Services and Procurement Canada
DFO Conservation and Protection Program

Attachment A

