

GUIDELINES

for

Environmental Preview Report

for the

Marystown Marbase Cleanerfish Hatchery

Honourable Derrick Bragg

Minister

Department of Municipal Affairs and Environment

June 2020

ENVIRONMENTAL PREVIEW REPORT GUIDELINES

The following guidelines are intended to assist the proponent, Marbase Cleanerfish Limited, with the preparation of the Environmental Preview Report (EPR) for the proposed Marystown Marbase Cleanerfish Hatchery. The EPR is a report that presents the results of an investigation based on readily available information that supplements the information already provided by the proponent upon registration of the undertaking. The purpose of the information in the EPR is to assist the Minister of Municipal Affairs and Environment in making a determination as to whether an Environmental Impact Statement (EIS) will be required for the proposed undertaking. The EPR is expected to be as concise as possible while presenting the comprehensive information necessary to make an informed decision.

The EPR shall include and update the information provided in the original registration and focus on the information gaps identified during the government and public review of the registration. The EPR shall address the information gaps in sufficient detail to enable the Minister of Municipal Affairs and Environment to make an informed decision as to the potential for significant environmental effect from the undertaking.

For clarity and ease of reference, the EPR shall include a Table of Concordance that cross references the EPR guidelines so that points raised in the guidelines are easily located in the EPR.

The contents of the EPR shall be organized according to the following format:

1. NAME OF UNDERTAKING:

The undertaking has been assigned the Name “Marystown Marbase Cleanerfish Hatchery.”

2. PROPONENT:

Name the proponent and the corporate body, if any, and state the mailing and e-mail address.

Name the chief executive officer if a corporate body, and telephone number, fax number and e-mail address.

Name the principal contact person for purposes of environmental assessment and state the official title, telephone number, fax number and e-mail address.

3. THE UNDERTAKING:

State the nature of the project.

State the purpose/rationale/need for the project. If the proposal is in response to an established need, this should be clearly stated. Identify needs that are immediate as well as potential future needs.

The purpose/rationale/need for the project shall include, but not be limited to:

- an overview of using lumpfish as cleaner fish. This will include descriptions of the growth/emergence of this practice and its role in integrated pest management plans for the successful biological control of sea lice in salmonids in the province. The overview shall be supported by current scientific and governance literature including industry standards, as well as research and development information from Memorial University's Ocean Sciences Centre.

4. DESCRIPTION OF THE UNDERTAKING:

Provide complete information concerning the preferred choice of location, design, construction standards, maintenance standards, etc.

4.1 Geographical Location/Physical Components/Existing Environment:

Provide an accurate description of the proposed site, access road, facilities, infrastructure and equipment, including GPS location coordinates. Attach an original base map (1:25,000 scale) and/or recent air photos. This description shall include, but not be limited to:

- a) The routing and depth of the intake lines from the point of intake to the hatchery.
- b) The routing and depth of the effluent discharge line from the hatchery to the point of discharge into the marine environment.
- c) A description of known flora and fauna in Mortier Bay, as described in the literature, including aquatic invasive species and species at risk.

Provide information regarding ownership and/or zoning of the land upon which the project is to be located and any restrictions imposed by that ownership or zoning, including municipal ownership/zoning, Crown, and private land.

4.2 Construction:

State the time period in which proposed construction will proceed (if staged, list each stage and its approximate duration) and proposed date of first physical construction-related activity.

The details, materials, methods, schedule, and location of all planned construction activities shall be presented.

The EPR shall include a description of:

- a) construction, modification or maintenance of any wharves, boathouses, slipways or breakwaters, with diagrams, imagery or illustrations
- b) planned repairs to the surface water collection system.
- c) any infilling or dredging associated with any wharves, boathouses, slipways or breakwaters.
- d) any infilling within 15m of a body of water.

4.3 Operation and Maintenance:

All aspects of the operation and maintenance of the proposed development shall be presented in detail, including illustrations where applicable, and shall include but not be limited to the following:

- a) A flow through description of hatchery operations from receipt of broodstock/fish from source, through growth stages, to removal of fish for sale. The following features shall be included in this description:
 - i. the sources and quantities of fertile lumpfish females and eggs to be acquired.
 - ii. the hatchery process of egg fertilization, the required quantity of male lumpfish, and information on whether wild male lumpfish will require harvesting/collection and/or holding.
 - iii. methods for developing the domesticated broodstock that will form the hatchery's egg supply.
- b) Provide the quantity of water required for operations on a per annum basis.
- c) Describe the water quality at intake sites, accounting for any potential seasonal variation in tested parameters.
- d) Describe the process for temperature control of hatchery water using the blending of the two intake lines located at different depths. Describe how the process accounts for any seasonal variations in ambient temperatures.
- e) State the minimum water quality parameters required to support all hatchery operations as well as the industry or regulatory standards they meet or exceed. (information provided in Appendix B of the registration document shall be brought forward and added to the applicable Operations sections of the EPR). Describe all treatment, testing and monitoring of intake water to ensure sufficient quality to support hatchery fish health, including processes and technology involved with screening and filtration, UV radiation, oxygenation, aeration, and nitrogen removal, or any other proposed treatment.
- f) Provide the rationale for proposing a 50-micron drum filter and how it works in combination with secondary treatment.

- g) Describe industry/regulatory standards for the treatment of hatchery water and whether the proposed hatchery treatment meets or exceeds industry/regulatory standards.
- h) Identify the known and potential lumpfish pathogens in natural seawater and in lumpfish hatcheries.
- i) Demonstrate whether the proposed treatment of hatchery water will be sufficient to inactivate lumpfish pathogens in the water.
- j) Describe whether chemotherapeutants may be used to treat lumpfish, under what circumstances, and whether the chemotherapeutants may persist in hatchery water.
- k) Identify measures to ensure that hatchery produced eggs and fish are pathogen and parasite free.
- l) Describe a contingency plan in the event of a disease outbreak or mass mortality event at the hatchery, including management of diseased fish and fish mortalities, and management of hatchery water and solid waste in contact with diseased fish and fish mortalities.
- m) Clarify the ensilage process and equipment, particularly with respect to managing and disposal of regular mortalities and mortalities due to reportable disease. Describe procedures when both types of mortalities occur simultaneously.
- n) Describe reporting procedures to be followed in the event of a disease outbreak or a mass mortality event at the hatchery.
- o) Describe proposed treatment of hatchery effluent immediately prior to discharge. Identify industry/regulatory standards for the treatment of hatchery effluent prior to discharge.
- p) Describe sludge handling and dewatering process and technology, and characteristics of end product.
- q) Indicate whether proposed effluent treatment will be sufficient to inactivate pathogens associated with wild/hatchery lumpfish.
- r) Describe effluent testing that will be conducted, including parameters to be analyzed, procedures, frequency of testing, record-keeping and reporting procedures.
- s) Describe the transfer and transport of market ready hatchery fish to clients.
- t) Describe the potential of hatchery fish to escape during transfer to well boat, mitigations for prevention, and a contingency plan in the event of a mass escape.
- u) Include the following plans in the body of the EPR or as Appendices:

- i. Fish Health Management Plan
 - ii. Biosecurity Plan
 - iii. Waste Management Plan – The plan must include but shall not be limited to a statement of the maximum volume of waste that may be generated by a disease outbreak, mass mortality or depopulation event; a description of agreements in principle or Memoranda of Understanding with candidate service providers to dispose of hatchery wastes; and confirmation that the candidate service providers have the capacity to handle the maximum volume of waste that may be generated by a disease outbreak, mass mortality or depopulation event.
 - iv. Environmental Protection Plan (outline to be provided in EPR)
- v) The environmental assessment Registration document indicates a production level of 3 million fish once the hatchery is at full operation. “Attachment 1: Project Summary Description” states that there is the potential for hatchery production to expand to 5 million lumpfish. The EPR shall clearly state the intended production volume based on the infrastructure, operational processes and environmental mitigations presented, and a commitment to describe any future expansion to this production volume to the minister.

5. ALTERNATIVES

Alternative means of carrying out the project to meet the stated purpose and rationale must be provided.

The EPR must identify, describe and evaluate alternative means and locations of carrying out the project, including those alternatives which cost more to build and/or operate but which cause less harmful environmental effects.

The following steps for addressing alternative means and locations are recommended:

- Identify any alternative means and locations to carry out the Project;
- Identify the environmental effects of each alternative means and location;
- Identify the **preferred** means and location;
- Provide reasons for the rejection of alternative means and sites.

Include information from previous project related studies describing alternate locations that were considered, including the expansion of existing sites, reasons for rejection, and reasons supporting the proposed site as the preferred location.

Alternative locations shall be clearly outlined on maps of a suitable scale (i.e. 1:50,000, 1:25,000).

A discussion of alternatives shall include:

- a) a rationale on the use of a flow-through seawater system as opposed to a recirculating seawater system and freshwater aquifer based recirculating system.

- b) the use of other species as cleanerfish and the rationale for the preferred selection.
- c) alternative methods of hatchery water treatment and disinfection and the rationale for the preferred method.

6. POTENTIAL ENVIRONMENTAL EFFECTS and MITIGATION:

Provide detailed information regarding the potential effects of the project on the environment and the proposed mitigation to be used to avoid adverse environmental effects.

Potential environmental effects associated with the construction and operation of a lumpfish hatchery facility may include, but are not limited to, the following:

- a) Impact on the health of potentially sensitive human receptors immediately adjacent to and near the project boundary. The registration document states that the proposed location was a previous industrial site and that environmental investigations and site remediation have been completed. The EPR shall describe mitigations for potential air quality concerns arising from aerosolization and potential off-site migration of contaminants during site preparation and building refurbishment.
- b) Impacts to wild lumpfish populations. The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) has designated lumpfish as “threatened”. The EPR shall clearly indicate how the hatchery project will consider this species’ status and potential impacts to wild lumpfish populations through the harvesting and acquisition of fertile females, eggs and broodstock. The sustainability of this hatchery project, with respect to wild lumpfish populations, shall be clearly described.
- c) The Registration document states that 4 million eggs will be required to produce 3 million lumpfish. Identify the expected quantities and sources of lumpfish mortality during all stages of hatchery operations.
- d) Impact of hatchery effluent on the marine environment including potential impacts on wild lumpfish and salmon populations. The EPR shall address any potential for hatchery operations to transmit pathogens to wild populations.
- e) Impact to Species at Risk. Identify any Species at Risk in the area that may be impacted by hatchery operations and provide mitigations for protection.
- f) Potential for proliferation of aquatic invasive species in the area of effluent discharge and measures that will be undertaken to mitigate potential effects.

- g) Impacts to fish and fish habitat in the area of water intake and effluent discharge pipes and measures that will be undertaken to mitigate the effects
- h) Impacts of the environment on the project including the potential effects of ice, water currents and storm surge on intake and outflow lines and measures that will be undertaken to mitigate potential effects. Consideration of local climate change projections shall be included.
- i) Impact of chemical waste. Identify the use and disposal of all chemicals associated with hatchery operations which may include therapeutants and anaesthetics.
- j) Describe measures that will be undertaken to ensure that hatchery effluent is free of chemotherapeutants prior to discharge, and solid waste is free of chemotherapeutants prior to removal from hatchery.

Identify how the project will avoid interference with the rights of other legitimate land owners/users, including but not limited to:

- k) Impacts to local noise levels due to 24/7 operation of the facility and how public concerns about noise will be addressed.
- l) Impacts of hatchery infrastructure and operations, including hatchery effluent on recreational fisheries/country food harvesting in Mortier Bay.
- m) Potential interferences to navigation in navigable waters due to the placement of intake and outfall lines/shipping interactions with scallop draggers and commercial and recreational fishers.

7. DECOMMISSIONING and REHABILITATION:

Describe all aspects of the decommissioning and rehabilitation plans for the project, assuming the eventual need to eliminate the entire project footprint from the landscape.

8. PROJECT- RELATED DOCUMENTS:

Provide a bibliography of all project-related documents already generated by or for the proponent (e.g., feasibility study, engineering reports, etc).

The EPR shall reference the engineering assessment confirming the structural integrity and weight bearing capacity of the proposed building.

9. PUBLIC INFORMATION MEETING:

A Public Information Session will be required in order to:

- provide information concerning the undertaking to the people or other stakeholders whose environment may be affected by the undertaking;
- record and respond to the concerns of the local community regarding the environmental effects of the undertaking;
- present the information gathered to fulfill the requirements of Section 5 of these guidelines.

The Public Information session must adhere to all restrictions to mitigate the impacts of COVID-19 that are in place at the time of the session. Information sessions may be conducted by virtual means through a live streaming, video conferencing or teleconferencing process, such as Facebook Live, Zoom, Microsoft Teams, Skype, Webex, Go To Meeting, and others.

You are required to notify the Minister and the public of the scheduled meeting **not fewer than 7 days** before that meeting. Public concerns shall be addressed in a separate section of the EPR.

Protocol for these public sessions will comply with Section 10 of the Environmental Assessment Regulations, 2003. Public notification specifications are outlined in Appendix A, and additional measures to notify the public of the information session shall be undertaken, such as the use of twitter and Facebook, notification on the proponent's web site and if permitted, on local community web sites and local community TV channels,

10. APPROVAL OF THE UNDERTAKING:

- a) List the main permits, licences, approvals, and other forms of authorization required for the undertaking, together with the names of the authorities responsible for issuing them (e.g., federal government department, provincial government department, municipal council, etc.).
- b) Include a description of any regulatory oversight that may be required by the Canadian Food Inspection Agency if any of the organic waste from the hatchery is intended to be used as/as a component of agricultural fertilizer.
- c) Provide verification of approvals from the Department of Service NL for the existing sewage treatment system and outfall.
- d) Provide verification of approval from the Department of Municipal Affairs and Environment for the existing on-site oily-water separator.

The required 10 copies of the EPR, and an electronic version for posting to the Environmental Assessment website, should be sent together with a covering letter to:

Minister
 Municipal Affairs and Environment
 P.O. Box 8700
 St. John's NL A1B 4J6

APPENDIX A

Public Notices

Under the provisions of the Environmental Assessment Regulations 2003, Section 10, and where the approved Guidelines require a public information session(s), the following specified public notification requirements must be met by the proponent prior to each meeting:

PUBLIC NOTICE

Public Information Session on the Proposed

Name of undertaking
Location of undertaking

shall be held at
Date and Time
Location

This session shall be conducted by the Proponent,
Proponent name and contact phone number,
as part of the environmental assessment for this Project.

The purpose of this session is to describe all aspects of the proposed Project, to describe the activities associated with it, and to provide an opportunity for all interested persons to request information or state their concerns.

ALL ARE WELCOME

MINIMUM INFORMATION CONTENT OF PUBLIC ADVERTISEMENT

- Minimum newspaper ad size: 2 column widths. Minimum posted ad size: 7" x 5"
- Minimum newspaper ad coverage: Weekend preceding meeting and 3 consecutive days prior to meeting date; to be run in newspaper locally distributed within meeting area or newspaper with closest local distribution area.
- Minimum posted ad coverage: Local Town or City Hall or Office, and local Post Office, within town or city where meeting is held, to be posted continually for 1 full week prior to meeting date.