



ENVIRONMENTAL IMPACT STATEMENT GUIDELINES

Indian Head Hatchery Expansion Project

March 7, 2024

Table of Contents

SECTION 1 – BACKGROUND	5
Purpose of the EIS	5
Purpose of the Guidelines	5
Project Description	5
SECTION 2 – PREPARATION AND PRESENTATION OF THE EIS	6
SECTION 3 - OUTLINE OF THE EIS	7
EXECUTIVE SUMMARY	7
EIS PROJECT INFORMATION	7
1.0 INTRODUCTION	7
1.1 Name of the Undertaking	7
1.2 The Proponent	7
1.3 Overview of the Undertaking	8
2.0 THE PROPOSED UNDERTAKING	8
2.1 Study Areas	8
2.2 Rationale for the Undertaking	9
2.3 Project Description	10
2.3.1 General Layout.....	10
2.3.2 Construction	11
2.3.3 Operation and Maintenance	11
2.3.4 Decommissioning and Rehabilitation	12
2.3.5 Regulatory Framework and Government Oversight	13
3.0 ALTERNATIVES	13
3.1 Alternatives to the Undertaking	13
3.2 Alternative Methods of Carrying Out the Undertaking	14
4.0 ENVIRONMENT	14
4.1 Key Issues	14
4.2 Existing Environment	15
4.2.1 Atmospheric Environment	16
4.2.2 Marine Aquatic Environment.....	16

4.2.3	Terrestrial Environment	16
4.2.4	Land and Resource Use.....	17
4.2.5	Economy, Employment and Business	17
4.3	Baseline Studies	18
4.3.1	Wild Atlantic Salmon.....	18
4.3.2	Sea Farm Sites (Bay Management Areas).....	19
4.3.3	Fish and Fish Habitat	20
5.0	DATA GAPS.....	20
6.0	ENVIRONMENTAL EFFECTS	20
6.1	Predicted Future Condition of the Environment if the Undertaking Does Not Proceed	20
6.2	Predicted Environmental Effects of the Undertaking.....	21
6.3	Accidents and Malfunctions	22
6.4	Cumulative Environmental Effects	23
6.5	Effects of the Environment on the Project.....	23
7.0	Environmental Protection – Mitigations and Plans	23
7.1	Mitigations	23
7.2	Plans	25
7.2.1	Emergency Response/Contingency Plan.....	25
7.2.2	Waste Management Plan.....	26
7.2.3	Environmental Effects Monitoring Programs (EEMPs).....	26
7.2.3.1	Genetic and Ecological Interactions of Escaped Farmed Salmon on Wild Atlantic Salmon	27
7.2.3.2	Groundwater Monitoring Program.....	27
7.2.3.3	Benthic Monitoring Program	27
7.2.3.4	Aquatic Invasive Species Management and Monitoring Program	27
7.2.3.5	Climate and Meteorological Data Monitoring Program.....	28
7.2.3.6	Marine Wildlife Monitoring Program	28
8.0	RESIDUAL EFFECTS AND DETERMINATION OF SIGNIFICANCE	28
9.0	ASSESSMENT SUMMARY AND CONCLUSIONS	28
10.0	PUBLIC CONSULTATION.....	28
11.0	ENVIRONMENTAL PROTECTION PLAN (EPP).....	29
12.0	REFERENCES.....	30
13.0	PERSONNEL	30

14.0 **COMMITMENTS MADE IN THE EIS.....30**

15.0 **COPIES OF REPORTS30**

APPENDIX A31

APPENDIX B32

SECTION 1 – BACKGROUND

Purpose of the EIS

The purpose of the EIS is to identify the potential positive and negative environmental effects associated with the Project, to identify measures to mitigate against negative effects, to determine the significance of residual environmental effects, and to consult with the public and respond to public concerns. The environmental effects and mitigations associated with the Project may be subject to a comprehensive evaluation through the licensing and permitting processes and regulatory oversight of federal and provincial government agencies. The EIS is a statement of the Proponent’s environmental conclusions and commitments related to the Project, and must be explicitly endorsed by the Proponent.

Purpose of the Guidelines

On October 25, 2023, the Minister of Environment and Climate Change (ECC) informed Northern Harvest Smolt Inc. (the Proponent) that an environmental impact statement (EIS) is required for the proposed Indian Head Hatchery Expansion Project (the Project). The purpose of this document is to identify for the Proponent the nature, scope and extent of the information and analysis required in the preparation of the EIS. The Proponent will prepare and submit an EIS that examines the potential environmental effects of the construction, operation, maintenance, decommissioning, reclamation, and abandonment of the Project; identifies mitigation measures; and evaluates the significance of residual effects. Section 3 of these guidelines outlines in detail the content of the EIS to be prepared.

Project Description

The Proponent is proposing to expand the Indian Head Hatchery in Stephenville to provide an additional 2.2 million salmon smolt to stock currently licensed sea cages. The expansion is intended to both increase production capacity and improve smolt quality. The Project would involve upgrades to improve efficiency of the existing hatchery facility, expansion of the hatchery to increase production, and installation of supporting infrastructure such as freshwater and saltwater supply and effluent treatment and discharge. The Project’s scope also includes the transport, transfer, rearing and harvesting of additional smolt in the sea farms. The EIS shall describe all components and sea farm sites that are needed to make the Project operational and viable.

SECTION 2 – PREPARATION AND PRESENTATION OF THE EIS

The EIS shall be written in terms understandable to the general public, however, where the complexity of the issues addressed requires the use of technical language, a glossary defining technical words and acronyms shall be included.

Where external sources of information or data are used, they shall be referenced within the body of the EIS and listed as References at the end. Where conclusions that are critical to the assessment of environmental effects are cited from other reports, the EIS shall provide sufficient detail of the original data and analysis to enable a critical review of that material and submit reference material as an appendix to the EIS. All conclusions regarding the receiving environment and predictions of the environmental effects shall be substantiated. The EIS shall reference, rather than repeat, information previously presented in other sections of the document. For clarity and ease of reference, the EIS shall include a Table of Concordance that cross- references the EIS guidelines so that points raised in the guidelines are easily located in the EIS. A Table of Contents, providing location of information in the final document by volume (if applicable), section, sub-section and page number, is required.

The EIS shall provide charts, diagrams, and maps wherever useful to clarify the text, including a depiction of how the developed Project sites will appear from both an aerial and terrestrial perspective. Where possible, maps shall use common scales to allow for comparison and overlay of mapped features and shall indicate common and accepted local place names. Geographic information shall be provided in standard Geographic Information System (GIS) mapping (digital) format, where feasible. The EIS and all associated reports and studies shall use System International (SI) units of measure and terminology.

The EIS shall be a stand-alone document upon which a critical review can be undertaken. The Proponent shall explain and justify all methods used in the preparation of the EIS, including the use of scientific, engineering, Indigenous, local, and other knowledge. All hypotheses and assumptions shall be clearly identified and justified. All data collection methods, models, and studies shall be documented so that the analyses are transparent and reproducible. The degree of uncertainty, reliability, and sensitivity of models used to reach conclusions shall be indicated.

The information included in this document is not intended to be exhaustive - additional detail, studies, and/or examination of components may be required. The content of the EIS should be organized according to the format described in Section 3.

SECTION 3 - OUTLINE OF THE EIS

EXECUTIVE SUMMARY

The executive summary shall contain the following information:

- identification of the Proponent;
- a brief Project description;
- predicted biophysical environmental effects (including cumulative effects associated with the Project, and other existing and reasonably expected future projects in the vicinity of the Project site);
- socio-economic factors;
- alternatives;
- mitigation measures;
- residual effects;
- follow up and monitoring programs;
- all studies and plans required by the EIS guidelines;
- a summary of the fundamental conclusions of the EIS; and
- a glossary of terms.

The Table of Concordance may be included in the executive summary.

EIS PROJECT INFORMATION

1.0 INTRODUCTION

1.1 Name of the Undertaking

1.2 The Proponent

This section shall introduce the Proponent by providing the following pertinent information:

- Corporate body name and contact information;
- Chief Executive Officer's name and contact information ;
- Name and contact information for the principle contact person for the purpose of environmental assessment;
- Names and contact information for key personnel, contractors, and/or sub-contractors responsible for

- preparing the EIS; and
- disclosure of any affiliation or partnership with governmental or non-governmental organizations.

This section shall include a description of the Proponent's history of salmon aquaculture and discuss the experiences that have led to the development of this undertaking.

1.3 Overview of the Undertaking

The intent of the overview is to identify the key Project components, rather than provide a detailed description of the Project, which will follow under section 2.0. The Proponent shall briefly summarize the Project by presenting the major Project components, associated activities, scheduling details, timing of each phase of the Project and other key features. If development of the Project will follow a phased approach, information about the incremental and phased development of the Project, including the timing of each phase of the Project, shall be described. The key components of the undertaking shall include but not be limited to:

- a) upgrades to improve efficiency within the existing hatchery;
- b) all components related to the expansion of the existing hatchery;
- c) transfer of fish from the hatchery to sea farms;
- d) siting and operation of sea farms; and
- e) harvesting of fish.

2.0 THE PROPOSED UNDERTAKING

2.1 Study Areas

The EIS shall contain a description of the geographical settings in which all components of the Project will take place. Maps, aerial images and a precise description of geographic boundaries of all proposed Project sites shall be provided, including but not limited to the following sites:

- hatchery facility and ancillary structures;
- fresh water and saltwater sources;
- effluent discharge locations;
- fish transfer system from the hatchery to transport vessel;
- transport vessel route and fish transfer to sea farms;
- sea farm/sea cage locations; and
- well boat landing sites.

A precise description of the geographic boundaries of the Project shall be presented in relation to the study area for each valued environmental component (VEC) (discussed in section 4.2). The boundary description shall be accompanied by recent maps/aerial imagery of appropriate scale (e.g. 1:30,000, 1:20,000, or other) showing the entire Project study areas, as well as illustrating the boundary of each study area with principle structures and ancillary works. The delineation of the study areas is crucial to scope the extent of the environmental assessment. The rationale used to delineate the boundaries of the study areas shall be provided. This description shall focus on those aspects of the Project and its settings that are important to understand the potential environmental effects of the Project, and shall provide the following information:

- a) GPS locations and proximity of Project components to existing environmental features, including but not limited to:
 - i. nearest temporary and permanent residential dwellings;
 - ii. commercial and industrial sites, including navigation routes;
 - iii. commercial and recreational fishing areas;
 - iv. other aquaculture sites;
 - v. navigation routes; and
 - vi. scheduled and non-scheduled salmon rivers.
- b) description of the environmental significance and value of the geographical setting in which the Project is proposed to take place, and the surrounding area, including but not limited to:
 - i. environmentally sensitive areas, such as national, provincial, and regional parks and reserves and proposed protected areas, such as the South Coast Fjords proposed national marine conservation area and the proposed Facheaux Bay Ecological Reserve and Transitional Reserve area;
 - ii. ecologically and biologically significant areas (EBSA);
 - iii. wetlands, estuaries, lakes and rivers; and
 - iv. habitats of federally or provincially listed species at risk, including critical habitat for the designated species and other sensitive areas.
- c) a description of local communities, including any sewage effluent and/or other water discharges that may adversely affect the Project;
- d) a description of the hatchery site and landing site for transferring smolt to the well boat;
- e) a description of sea farm/sea cage sites and navigation routes: from hatchery to sea cage sites; between sea cage sites; and from sea cage sites to fish processing facility; and
- f) a description of the bay management areas (BMAs) where all sea farm /sea cages associated with the Project are located, including a description of other marine use within the BMAs.

An overview map(s)/ image(s) shall be provided, noting the proximity of the study area to the above features.

2.2 Rationale for the Undertaking

The EIS shall describe the rationale for the Project in terms of its need and purpose, such as opportunities that the Project is intended to satisfy, as well as the current and future markets for salmon produced from the Project (e.g., domestic or export use; markets). If the objectives of the Project are related to broader private or public sector policies, plans or programs, this information shall also be included.

The need for the Project refers to a problem or opportunity that the proposed Project is intending to solve or satisfy, and establishes the fundamental justification or rationale for the Project. The purpose of the Project is defined as what is to be achieved by carrying out the Project. The need for and purpose of the Project should be established from the perspective of the Proponent and provide the context for the consideration of alternatives.

2.3 Project Description

The Proponent shall describe the scope of the Project for which the EIS is being conducted including: the construction, operation, maintenance, foreseeable modifications of all Project-related facilities, and the closure, decommissioning and rehabilitation of Project facilities and sites.

2.3.1 General Layout

The EIS shall provide a written and graphic description (e.g. maps, aerial imagery and drawings) of the following physical features of the undertaking:

- a) all existing, and proposed hatchery buildings and ancillary structures and proposed expansions to existing hatchery buildings and ancillary structures;
- b) all infrastructure for:
 - i. fresh and saltwater supply;
 - ii. energy supply;
 - iii. effluent treatment and discharge;
 - iv. waste management and sewage disposal; and
 - v. fish transport system to move fish from hatchery to transport vessel.
- c) construction sites, lay down sites or storage areas required for the hatchery expansion or sea farm sites;
- d) roads (existing or proposed) to access coastline for each sea farm site;
- e) wharfs or docking stations required to transport employees and supplies to sea cage sites;
- f) layout of each sea farm site depicting and describing infrastructure and equipment required, including sea cages, moorings, ropes, floating platforms, and transportation equipment; and
- g) discussion and illustration of the sea farms that have received smolt from the Indian Head Hatchery and sites that will receive smolts after the expansion.

2.3.2 Construction

Details of materials, methods, schedule, and locations of all construction activities (including permanent and temporary infrastructure related to physical features) shall be described, including, but not limited to, the following:

- a) construction schedule, including time-frames for site preparation, construction of hatchery expansion components, and construction/assembly of sea cages/sea farms;
- b) details of access road upgrades and road construction if required ;
- c) details of sea cage construction/assembly, installation, placement of moorings, ropes and collars, installation equipment and vessels, and the presence of temporary and permanent structures;
- d) all liquid and solid waste expected to be generated by construction of the hatchery expansion, sea farms, and other project-related construction, and methods to reduce, reuse, recycle, recover, and/or manage residual wastes through disposal;
- e) measures that will be undertaken to rehabilitate and stabilize construction sites; and
- f) transport, storage, and use of all hazardous materials, fuels, and lubricants.

A Waste Management Plan that includes construction of the Project shall be included in the EIS and may be referenced here and included as an appendix (see section 7.2).

2.3.3 Operation and Maintenance

All aspects of the operation and maintenance procedures for the undertaking shall be described in this section of the EIS, including but not limited to the following:

- a) a description of equipment and procedures associated with fish-rearing operations including acquisition of eggs, all hatchery growth stages, transport and transfer of fish to sea cages, grow-out within sea cages; and final harvest and transfer to a processing facility;
- b) a description of biosecurity protocols associated with the hatchery/hatchery expansion and sea cage operations;
- c) a description of aquatic animal health veterinary services through all the stages identified in a) above;
- d) procedures for fish euthanasia (routine activities, and events involving large quantities of fish);
- e) proposed use, purpose and method of deployment of all antibiotics, anesthetics, vaccines, pesticides, disinfectants and other substances, agents or chemicals to be used during all Project stages. Provide estimates of typical quantities used during a production cycle. Include procedures and equipment for storage, handling and disposal of waste or unused products;
- f) a description of all freshwater and saltwater use in the hatchery/hatchery expansion, from source to

discharge;

- g) identification of the groundwater source and operational water withdrawal volumes required for the hatchery/hatchery expansion;
- h) identification of the minimum water quality parameters required to support all hatchery/hatchery expansion operations as well as the industry or regulatory standards they meet or exceed. Describe all treatment, testing and monitoring of intake water to ensure sufficient quality for fish life support, including processes and technology involved with screening and filtration, UV radiation, oxygenation, aeration, nitrogen removal, or any other proposed treatment;
- i) a description of all treatment, testing and monitoring of hatchery/hatchery expansion effluent, including cleaning, disinfecting, and maintaining treatment equipment. Identify industry/regulatory standards for the treatment of hatchery/hatchery expansion effluent and describe monitoring to ensure the effluent meets or exceeds standards prior to discharge;
- j) a description of products, procedures and scheduling for cleaning, disinfecting, and/or maintaining equipment and infrastructure associated with the hatchery/hatchery expansion, sea farms, marine vessels, and floating platforms;
- k) a description of the anticipated volume of liquid and solid waste to be generated and waste management methods during normal operations;
- l) planned stocking densities for the hatchery expansion and sea cages, including maximum densities at peak production;
- m) a description of how hatchery expansion smolt are allocated to sea farms;
- n) estimated mortalities at hatchery and sea farms per production cycle.
- o) measures that will be undertaken to monitor water conditions and quality in the hatchery/hatchery expansion and sea cages, including but not limited to, water temperature and dissolved oxygen;
- p) use of integrated pest management for sea lice (*Caligus elongatus* and *Lepeophtheirus salmonis*) control and monitoring, including provision of designated veterinary services;
- q) methods to ensure fish containment within sea cages and during any transfer periods;
- r) methods to recapture fish should escapes occur;
- s) a description of potential predators and predator controls; and
- t) a description of all government reporting, including incident management and public reporting requirements related to the hatchery and sea cage operations.

A Waste Management Plan that includes operation and maintenance of the Project shall be included in the EIS and may be referenced here and included as an appendix (see section 7.2).

2.3.4 Decommissioning and Rehabilitation

The EIS shall predict the lifespan of the undertaking and present an approach for decommissioning, which sets out a commitment from the Proponent to address:

- a) expected useful life of major Project infrastructure and life cycle management plans for such infrastructure;
- b) removal of fish and aquaculture gear used in the hatchery;
- c) identification of potential options for closure and/or reuse of the hatchery facility; and
- d) removal of fish and aquaculture gear used at the sea farms.

A Waste Management Plan that includes decommissioning and rehabilitation of the Project shall be included in the EIS and may be referenced here and included as an appendix (see section 7.2).

2.3.5 Regulatory Framework and Government Oversight

The EIS shall provide a comprehensive list of permits and regulatory approvals (municipal, provincial, and federal) required for the undertaking. The list shall include the following details:

- activity requiring regulatory approval;
- name of permit, license or regulatory approval;
- name of legislation applicable in each case; and
- regulatory agency responsible for each permit, license, and approval.

The EIS shall identify:

- a) government policies, resource management plans, and planning or study initiatives pertinent to the Project and/or the environmental assessment;
- b) any relevant land use plans, land zoning, or community plans; and
- c) regional, provincial, and/or national objectives, standards, codes and/or guidelines that have been used by the proponent to assist in the development of the EIS.

3.0 ALTERNATIVES

3.1 Alternatives to the Undertaking

The EIS shall include a detailed analysis of the advantages and disadvantages to the environment of the undertaking as proposed; an analysis of the alternatives to the undertaking; and a summary with clearly described methods and sufficient information to justify the selection of the preferred alternative, as well as an explanation for rejecting other alternatives. This section shall include a comparative analysis of the environmental effects

and technical and economic feasibility of alternatives that led to the selected Project alternative. The Proponent shall consider describing:

- a) functionally different methods of meeting the Project need and achieving the Project purpose; and
- b) market and regulatory circumstances that may have influenced the preferred alternative.

3.2 Alternative Methods of Carrying Out the Undertaking

The EIS shall identify and consider the environmental effects of alternative methods of carrying out the undertaking that satisfy the need for the undertaking. The preferred alternatives shall be identified, with the selection based on clearly described methods. An explanation shall be included of how environmental factors affect the design and consideration of alternatives.

The EIS shall provide the rationale for selecting Project components and shall discuss the state of the art of the various technologies being proposed. The EIS shall indicate known experience with and effectiveness and reliability of the equipment, techniques, procedures, and policies, for each alternative, particularly under climate conditions in Newfoundland and Labrador and elsewhere, and their relation to best practice in Newfoundland and Labrador.

The EIS shall analyze and compare the design alternatives for the Project in relation to their environmental and social costs and benefits, including those alternatives which cost more to build and/or operate but which cause less harmful environmental effects. The range of alternatives considered for the annual production and scale of the operation shall be discussed, and the chosen alternative justified. In describing alternative means of carrying out the Project, the Proponent may consider, but not be limited to, a discussion of the following:

- a) site selection for hatchery expansion, including operational water source;
- b) site selection for grow-out operations;
- c) source and selection of eggs and broodstock;
- d) hatchery expansion operation (recirculation versus flow-through);
- e) land-based versus marine-based options for salmon grow-out; and
- f) marine based containment options (i.e., closed containment).

4.0 ENVIRONMENT

4.1 Key Issues

To better focus the EIS, the Proponent shall identify the key issues related to the Project. The issues can be revised and adjusted in relation to the information acquired in the field and during consultations held by the

Proponent in the preparation of the EIS.

The following factors shall be included in the selection of key issues:

- preserving the genetic integrity, biological fitness and population viability of wild Atlantic salmon;
- preserving the economic, cultural, and social significance of wild Atlantic salmon;
- mitigating the environmental effects of the Project on commercial and non-commercial species of fish (including wild Atlantic salmon), invertebrates, other marine organisms, and their respective habitats; and
- mitigating environmental effects on the health and welfare of farmed salmon, such as the transfer of parasites and disease from wild to farmed salmon.

The ensuing sections focus on the components relevant to the key issues and effects of the Project.

4.2 Existing Environment

The EIS shall describe relevant aspects of the existing environment, prior to implementation of the Project, which constitute the reference state of the environment. Using qualitative and quantitative surveys, this section shall include a description of the existing bio-physical and socio-economic environment that will be affected or might reasonably be expected to be affected, directly or indirectly, by the undertaking with emphasis on the valued environmental components (VECs). If the information available from government or other agencies is insufficient or no longer representative, the EIS shall complete the description of the environment by conducting original surveys and research according to generally accepted practices and local knowledge. The EIS shall provide the information required to understand or interpret collected data (methods, survey dates and times, weather conditions, location of sampling stations, etc.). The methods used should be sufficient for the purposes of identifying and assessing the environmental effects and meet or exceed all applicable regulatory standards.

A description of the existing environment shall be developed for the Project and each alternative, drawing specific reference to the VECs. Detailed descriptions shall be developed for the following environmental components:

- atmospheric environment;
- aquatic environment;
- terrestrial environment;
- land and resource use; and
- economy, employment and business.

VECs for each environmental component shall be described.

4.2.1 Atmospheric Environment

The EIS shall describe the relevant components of the atmospheric environment within the study area of the VECs, including, but not limited to, the following:

- a) climate information, including monthly and annual minimum, maximum and mean values for precipitation, temperature and wind speed, prevailing wind direction, and storm events;
- b) provincial climate change projections for Stephenville and other locations nearest each BMA; and
- c) ambient noise levels.

4.2.2 Marine Aquatic Environment

The EIS shall describe the relevant components of the aquatic environment within the study area of the VECs, including, but not limited to, the following:

- a) salt water industrial water supply and any testing for quality;
- b) ocean currents, wind and wave action, flood and tidal zones, ice dynamics, and storm patterns;
- c) bathymetry and substrate characterization as per the Aquaculture Activities Regulations;
- d) biological diversity, composition, abundance, distribution, population dynamics, and habitat utilization of fish, invertebrates, marine mammals, and avifauna;
- e) species of special interest or conservation concern and their habitat, with an emphasis on rare, vulnerable, or threatened species, including species listed in the **Endangered Species Act**, the **Species at Risk Act**, and species that have been assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), Atlantic Canada Conservation Data Centre and the Species Status Advisory Committee (SSAC) as endangered, threatened or special concern/vulnerable;
- f) presence and distribution of aquatic invasive species; and
- g) description of any Ecologically and Biologically Significant Areas (EBSA) or areas of conservation concern;

4.2.3 Terrestrial Environment

The EIS shall describe the relevant components of wetlands and the terrestrial environment within the study area of the VECs, including, but not limited to, the following:

- a) characterization of wetlands and the location and extent of wetlands likely to be affected by project activities according to their size and type (class and form), a description of their function, and species composition;
- b) location of rivers and river inputs into BMAs utilized by the Project;

- c) surface-water flow, groundwater movement, and aquifer recharge zones;
- d) hydrogeologic assessment of the water-supply wells for the hatchery/hatchery expansion, including all testing results for quantity and quality, and metals;
- e) operational water withdrawal volumes and groundwater monitoring plan to ensure the long-term security of the groundwater supply;
- f) species at risk and of conservation concern and their habitats, including designated critical habitat under the **Endangered Species Act, Species at Risk Act**, and areas of conservation concern (e.g., environmentally sensitive areas, such as national, provincial, and regional parks and reserves, ecologically and biologically significant areas (EBSA); protected areas, conservation agreement lands and habitat enhancement projects).

4.2.4 Land and Resource Use

The EIS shall describe relevant land and resource use within the study area of the VECs, including, but not limited to, the following:

- a) commercial, recreational, and Indigenous fisheries;
- b) other marine aquaculture operations;
- c) tourism operators, outfitter operators, cabins, and recreational activities;
- d) marine navigation (e.g., commercial and recreational boat traffic);
- e) land tenure, including but not limited to, Crown lands, private land and municipalities with municipal plan and development regulations; and
- f) infrastructure or services to be used by the Project and the capacity of the infrastructure and services to support the Project (e.g., municipal infrastructure, Small Craft Harbours marine infrastructure).

4.2.5 Economy, Employment and Business

The EIS shall describe relevant economy, employment and business elements in the study area of the VECs, including the following:

- a) economy of the regions in the Project area;
- b) value of existing industries, including tourism, cultural and recreational; commercial, recreational, and Indigenous fisheries, marine aquaculture operation; and other major employers;
- c) employment in the region;
- d) availability of skilled and unskilled labour in the region and in the province;
- e) business capacity relative to goods and services; and
- f) employment equity and diversity including under-represented groups.

4.3 Baseline Studies

Baseline studies shall provide a description of existing conditions in biophysical and socio-economic environments that could be affected by the Project, both in the immediate vicinity and beyond. This shall include the components of the existing environment and environmental processes, their interrelations and interactions, as well as their variability over time scales appropriate to the effects analysis. The level of detail shall be sufficient to:

- identify and assess any adverse environmental effects that may be caused by the Project;
- identify and characterize the beneficial effects of the Project; and
- provide the data necessary to enable effective follow-up.

The boundaries of the study area shall be defined for each baseline study and the rationale for the boundaries shall be provided. Methodology for each baseline study shall be proposed by the proponent, in consultation with resource agencies, as appropriate, and shall be summarized in the EIS.

Where appropriate and possible to do so, the EIS shall present a time series of data and sufficient information to establish the averages, trends, and extremes of the data that are necessary for the evaluation of potential environmental effects. For key environmental and social components, the Proponent should consider how far back in time and how far into the future the study should be conducted. Rationale for the temporal boundaries chosen should be provided.

Baseline Studies shall be prepared for at least the following components:

- Wild Atlantic Salmon
- Sea Farm Sites
- Fish and Fish Habitat

4.3.1 Wild Atlantic Salmon

The baseline study shall provide a detailed description of the status of wild Atlantic salmon in the vicinity of Project components (the hatchery and Bay Management Areas for sea farms). The baseline study shall consider the most recent information from COSEWIC and DFO regarding the at-risk status and stock assessment of wild Atlantic salmon.

The baseline study shall include, but not be limited to, a discussion of the following features:

- a) a characterization of the current distribution, abundance, genetic population structure, morphology, health and fitness, and migratory patterns of wild Atlantic salmon along the south coast of the island and

within the vicinity of all Project components;

- b) proximity of the sea cages to scheduled and non-scheduled salmon rivers
- c) a literature review of the effects of disease and parasites that are prevalent in Newfoundland and affect Atlantic salmon on farms and in the wild, including a review of the transmission of those diseases and parasites;
- d) water-quality data at the sea cage sites including water temperature, salinity and dissolved oxygen;
- e) genetic and ecological interactions of farmed salmon escapees on wild Atlantic salmon along the south coast of the island;
- f) description of the strain of Atlantic salmon to be produced and a breakdown of the ancestries that make up the broodstock;
- g) oceanographic and meteorological data at the sea cage sites including water currents, wind and wave action, flood and tidal zones, ice dynamics, and storm patterns;
- h) conformity of sea cage design, construction and installation and mooring to meet or exceed standards in the Code of Containment and ability to withstand oceanographic and meteorological conditions identified in g);
- i) discuss existing river monitoring and model the potential for farmed salmon escapees in other salmon rivers identified in b).

4.3.2 Sea Farm Sites (Bay Management Areas)

The baseline study shall provide a detailed description of the physical and biological data required to assess the suitability of each farm site for finfish aquaculture.

The baseline study shall include, but not be limited to, a discussion of the following information obtained prior to the introduction of additional fish to the site:

- a) within each BMA used by the Project, a site map that shows the exact location of sea farm sites and details of sea cage layouts;
- b) benthic surveys which include substrate type, and characterization of flora and fauna;
- c) water quality data including water temperature, salinity and dissolved oxygen;
- d) oceanographic and meteorological data including bathymetry, water currents, wind and wave action, flood and tidal zones, ice dynamics, and storm patterns;
- e) exposure zone modelling for the use of approved fish health treatment products including pesticides, therapeutants, and disinfectants; and

For sites that are undergoing or have completed a production cycle, a discussion of the following information shall be included:

- f) identification of past or present fallow periods;
- g) benthic monitoring, management of BOD matter and performance; and
- h) a discussion of historical information of farm performance that is publicly reported and is also applicable to the expansion, such as fish mortality, deposits of drug or pesticides, disease, escapes, and sea lice.

4.3.3 Fish and Fish Habitat

The baseline study shall characterize fish and fish habitat in the study area, mitigative measures that will be undertaken to protect and conserve these components from the potential effects of the Project, and follow-up monitoring that will be conducted to determine the effectiveness of mitigative measures and residual effects. The baseline study shall include, but not be limited to, a discussion of the following features:

- a) identify fish and fish habitat using benthic surveys, including identification of significant habitat, which may include invertebrates, crustaceans, corals and sponges, and eelgrass;
- b) identify fish and fish habitat, including species at risk, invasive species (both within and in close proximity to the study area), marine mammals, and those species that directly or indirectly support a fishery, such as: cod, lobster, sea-run trout, herring, sharks, scallops, crab, seals, mussels, and lumpfish;
- c) water quality and benthic characteristics consistent with the baseline monitoring requirements of the provincial aquaculture licensing process;
- d) aquatic dispersion modelling for the deposition and accumulation of biochemical oxygen demanding (BOD) matter; and
- e) identify any Ecologically and Biologically Significant Areas (EBSA) within or adjacent to the BMAs associated with the Project.

5.0 DATA GAPS

The EIS shall explain any extrapolation, interpolation or other manipulation applied to the baseline data used to describe environmental conditions in the study area. Any information gaps from a lack of previous research or practice shall be described indicating information that is not available or existing data that cannot accurately represent environmental conditions in the study area over four seasons. If data gaps remain, the EIS shall describe its efforts to resolve the data gaps, including any direct consultation with governments, non-government organizations, the public and others.

6.0 ENVIRONMENTAL EFFECTS

6.1 Predicted Future Condition of the Environment if the Undertaking Does Not Proceed

The EIS shall describe the predicted future condition of the environment within the expected life span of the Project, if the Project were not to proceed. The predicted future condition of the environment shall help to distinguish Project related effects from environmental change due to natural processes and shall include a discussion of Atlantic salmon populations and climate change.

6.2 Predicted Environmental Effects of the Undertaking

The EIS shall contain a comprehensive analysis of the predicted environmental effects of each Project alternative for the VECs. If the effects are attributable to a particular phase of the Project (construction, operation, maintenance, modification, decommissioning, rehabilitation), or to a particular component, or to accidents or malfunctions, then they should be designated as such. Predicted environmental effects (positive and negative, direct and indirect, and short and long-term) shall be defined quantitatively and qualitatively for each Project alternative and for each VEC. Environmental-effects predictions shall be explicitly stated and the theory or rationale upon which they are based shall be presented in terms of the following parameters:

- nature;
- magnitude (qualitative and quantitative);
- geographic (spatial) extent;
- timing, duration and frequency;
- degree to which effects are reversible or can be mitigated;
- ecological context;
- level of knowledge;
- the capacity of renewable resources that are likely to be significantly affected by the Project, to meet the needs of present and future generations;
- the extent to which biological diversity is affected by the Project; and
- the extent of application of the precautionary principle to Project mitigation measures.

Predicted environmental effects of the Project shall include, but not be limited to a comprehensive analysis of the following:

- a) changes in nearby surface and groundwater quality and quantity resulting from water withdrawals from the Project, including potential effects on industrial and other users of nearby surface water and groundwater aquifers;
- b) effects of wastewater/effluent discharge from the hatchery to the receiving environment;
- c) direct and indirect genetic and ecological interactions between escaped farmed salmon and wild Atlantic salmon, including potential health and fitness effects;
- d) effects of transfer of disease and parasites between farmed salmon and wild Atlantic salmon, and

- between farmed salmon and other fish;
- e) effect of feed, feces, sea cage deposits (i.e. pesticides, chemotherapeutants, and disinfectants), disease and parasites on the adjacent aquatic environment (i.e. lease area), including possible effects on wild Atlantic salmon and other non-target organisms such as wild crustaceans;
 - f) effects of the Project on marine water quality and benthic characteristics;
 - g) effects of the Project on fish and fish habitat, including significant habitat, which may include invertebrates, crustaceans, corals and sponges, and eelgrass;
 - h) effects on Species at Risk within the study area;
 - i) the potential for proliferation of aquatic invasive species;
 - j) effects of the Project on commercial, recreational and Indigenous fisheries;
 - k) effects of the Project on tourism and recreational activities;
 - l) effects associated with the handling of mortalities from operations; and
 - m) effects of increasing salmon hatchery capacity in the province.

6.3 Accidents and Malfunctions

The EIS will identify and describe the potential accidents and malfunctions related to the Project, including an explanation of how those events were identified, potential consequences (including the potential environmental effects), the worst case scenarios as well as emergency scenarios that can reasonably be expected to occur, and the effects of these scenarios. The EIS will explain the potential quantity, mechanism, rate, form, and characteristics of the materials likely to be released into the environment during the malfunction and accident events. Potential accidents and malfunctions may include, but not be limited to the following occurrences:

- a) escapes of farmed salmon into the surrounding environment;
- b) mass mortality at hatchery and/or sea cages, and associated effluent and solid waste management;
- c) accidental spills and/or releases of feed, pesticides, chemotherapeutants, chemicals, fuels, and hazardous materials on land and/or in water;
- d) failure of water supply and/or power supply at the hatchery/hatchery expansion;
- e) contamination of water supply for the hatchery operations/expansion;
- f) lost/estranged gear and equipment; and
- g) other project components or systems that have the potential, through accident or malfunction, to adversely affect the natural environment.

The EIS shall assess the likelihood of occurrence and consequence severity of the accidents and malfunctions.

6.4 Cumulative Environmental Effects

The EIS shall identify and assess the Project's cumulative environmental effects. Cumulative effects are defined as changes to the environment and resident species in the area due to the Project and combined with the effects of past, present, and planned projects and/or activities. The EIS shall consider the cumulative environmental effects for the life of the Project where those overlap with those of other projects and activities within or near the study area. Boundaries for assessing the cumulative effects of the Project in combination with other projects and activities that have been or will be carried out will generally be different from (larger than) the boundaries for assessing the effects of the Project, and shall:

- a) identify and justify the environmental components that will constitute the focus of the cumulative effects assessment, including but not limited to, other aquaculture projects, sewage outfalls, industrial operations, marine navigation, fish harvesters, marinas, cottages, and proposed developments. The Proponent's assessment should emphasize the cumulative effects on the main VECs that could potentially be most affected by the Project;
- b) present a justification for the geographic and temporal boundaries of the cumulative effects assessment;
- c) describe and justify the choice of projects and selected activities for the cumulative effects assessment; and
- d) describe the mitigation measures and determine the significance of the residual cumulative effects.

Rationale shall be provided for the boundaries for assessing the cumulative effects.

6.5 Effects of the Environment on the Project

Environmental changes and hazards that may occur and may affect the Project shall be described (e.g. wind, ocean currents, waves, storm surges, algal blooms, severe precipitation events, flooding, ice, temperature events, etc.). The EIS shall take into account the potential influence of climate change scenarios (e.g. sea level rise, increased severity and frequency of storms and flooding, changes to precipitation quantity and recharge rates), as well as local knowledge. The influence that these environmental changes and hazards may have on the Project, shall be predicted and described. The environmental effects that may occur as a result of the environment acting on the Project shall be assessed.

7.0 Environmental Protection – Mitigations and Plans

7.1 Mitigations

The EIS shall identify and discuss proposed measures that will be implemented to mitigate the significant adverse

effects and enhance beneficial effects of the Project. The rationale for and effectiveness of the proposed mitigation and enhancement measures should be discussed and evaluated. The EIS, where possible, should refer to similar situations where the proposed mitigation has proven to be successful. Mitigation failure should be discussed with respect to risk and severity of consequence.

The EIS shall identify who is responsible for implementing the mitigation measures and the system of accountability, including the obligations of contractors and subcontractors.

Mitigation measures shall be described for the effects identified in section 6.2 of the EIS during construction, operation, maintenance, modification, and decommissioning activities and shall include, but not be limited to, procedures that will be undertaken to:

- a) monitor sea cages for structural integrity on a routine basis during operations, including frequency of monitoring as per the requirements of the Code of Containment;
- b) ensure containment of farmed salmon in sea cages;
- c) prevent escapes of farmed salmon through all stages of production, particularly during fish handling activities such as site transfer, treatment and harvest;
- d) enumerate fish during transfer processes to detect and quantify escape events;
- e) recapture farmed salmon escapees;
- f) enumerate, document, and report on escapes of farmed salmon;
- g) support chain of custody and traceability of escapees;
- h) identify potential predators, protect caged salmon and damage to sea cages from predators, such as fish, marine mammals and seabirds;
- i) minimize the risk of attraction, capture and/or harm to fish, marine mammals and seabirds by the sea cages and Project equipment;
- j) minimize the genetic consequences of wild/farmed salmon interactions;
- k) regularly evaluate fish health (farmed salmon) through all life stages, particularly prior to authorization of entry to sea cages;
- l) mitigate disease and parasites within a sea cage and/or sea farm, and to the surrounding aquatic environment (including wild Atlantic Salmon);
- m) mitigate disease and parasites from wild Atlantic salmon to farmed salmon;
- n) protect fish and fish habitat beneath and surrounding the sea farms from the effects of deposits (e.g. excess food, fecal matter, therapeutants, pesticides, and disinfectants), including, but not limited to: a description of the monthly minimum water depth below the bottom of net cages at low tide, and a description of planned fallow periods for the sea farms;
- o) prevent or minimize deposits in water frequented by fish, marine mammals, and/or seabirds;
- p) avoid and protect environmentally sensitive habitat and areas, such as EBSAs and migration routes for

wild Atlantic salmon;

- q) site security and biosecurity at the hatchery and sea farms;
- r) mitigate any changes in nearby surface and groundwater quality and quantity resulting from water withdrawals from the Project, including potential effects on industrial and other users of nearby surface water and groundwater aquifers;
- s) prevent/minimize sedimentation and erosion during construction and operation of facilities and any access roads; and
- t) avoid, minimize, or as a last resort, compensate for any potential loss of wetlands or wetland functions.

Other mitigation measures that were considered may be identified, and the rationale for rejecting these measures explained. The implementation of best available technology and best management practices shall be described. Avoidance of environmental effects through implementation of scheduling and siting constraints and pollution prevention opportunities shall be considered. Trade-offs between costs and predicted effectiveness of the mitigation measures shall be justified.

7.2 Plans

The EIS shall include plans, either in section 7.2 or as appendices to the EIS that describe procedures, equipment and responsibilities that are in place to ensure an efficient and effective response to aspects of the Project that could adversely affect the receiving environment, including but not limited to the following plans:

- Emergency Response/Contingency Plan,
- Waste Management Plan, and
- Environmental Effects Monitoring Programs (EEMPs):
 - Genetic and Ecological Interactions of Escaped Farmed Salmon on Wild Atlantic Salmon
 - Groundwater Monitoring Program
 - Benthic Monitoring Program
 - Aquatic Invasive Species Management and Monitoring Program
 - Climate and Meteorological Data Monitoring Program
 - Marine Wildlife Monitoring Program

7.2.1 Emergency Response/Contingency Plan

The EIS shall include an Emergency Response/Contingency Plan outlining procedures to respond to accidents, malfunctions and emergencies, including but not limited to the following:

- a) accidental spills and/or releases of chemicals, gasoline and associated products, fish feed, chemotherapeutants, pesticides, or any potentially hazardous substance on land or in water;

- b) biosecurity breach at the hatchery and/or sea farms;
- c) mass mortality at the hatchery and/or sea farms;
- d) escape and/or accidental release of fish from hatchery or sea farms into the surrounding environment;
- e) identification of and response to unhealthy fish, parasites, and/or pathogens within the hatchery or sea cages; and
- f) environmental emergencies and extreme weather events.

7.2.2 Waste Management Plan

The EIS shall include a Waste Management that shall describe the handling, storage, transport, and final disposal of all liquid and solid waste expected to be generated during construction, operation and maintenance, decommissioning, and rehabilitation of the Project, and methods to reduce, reuse, recycle, recover, and/ or manage residual wastes through disposal. This will include but not be limited to:

- a) sanitary wastes;
- b) fish mortalities, including a description of procedures and mass mortality plans;
- c) chemical waste (e.g. petroleum products, paints, and cleaning products);
- d) operational debris and refuse (e.g. feed bags, pallets, rope, nets, buoys, cage materials, and litter);
- e) biofouling material (i.e. organisms and matter that accumulate on nets);
- f) nutrient loading (e.g. fish feed and fish feces); and
- g) water used in the transport of fish.

7.2.3 Environmental Effects Monitoring Programs (EEMPs)

The EIS shall describe the environmental and socio-economic monitoring and follow-up programs to be incorporated into construction, operation and maintenance, decommissioning and rehabilitation activities. The purpose of the follow-up and monitoring program is to verify the accuracy of the predictions made in the assessment of the effects as well as the effectiveness of the mitigation measures. The duration of the follow-up and monitoring shall be as long as is needed to evaluate the effectiveness of the mitigation measures. If the EEMP identifies unforeseen adverse environmental effects, the EIS shall commit to adjusting existing mitigation measures, or, if necessary, develop new mitigation measures. The proposed approach for follow up and monitoring shall be described and shall include:

- a) the objectives of the follow up and monitoring program and a schedule for collection of the data required to meet these objectives;
- b) the sampling design, methodology, selection of the subjects and indicators to be monitored, (e.g., climate, water quality, water quantity) and their selection criteria;
- c) the frequency, duration and geographic extent of monitoring, and justification for the extent;

- d) reporting and response mechanisms, including criteria for initiating a response and procedures;
- e) the approaches and methods for monitoring the cumulative effects of the Project with existing and future developments in the Project area;
- f) procedures to assess the effectiveness of follow-up and monitoring programs, mitigation measures and recovery programs for areas disturbed by the Project; and
- g) a communications plan to describe the results of follow up and monitoring to interested parties.

EEMPs shall be developed, at a minimum, for the following:

7.2.3.1 Genetic and Ecological Interactions of Escaped Farmed Salmon on Wild Atlantic Salmon

A Genetic and Ecological Interactions of Escaped Farmed Salmon on Wild Atlantic Salmon Plan must be developed that includes measures to verify and monitor broodstock ancestry, minimize the potential for escapees, identify methods for re-capture in the event of escapes, provide identification and traceability of farmed fish, and provide monitoring to ensure efficacy of escapee prevention strategies.

7.2.3.2 Groundwater Monitoring Program

A groundwater monitoring plan must be developed that includes measures to ensure the long-term security of the groundwater resources and must include a program to monitor water levels and water quality of the hatchery.

7.2.3.3 Benthic Monitoring Program

A benthic monitoring program for sea cages must be developed that describes the sampling parameters, locations, frequency of monitoring and regulatory thresholds for biochemical oxygen demand matter. A response plan must be developed to describe mitigations if regulatory thresholds are exceeded. The response plan is to be consistent with the baseline and operational monitoring requirements of the provincial aquaculture licensing process, as prescribed by the Aquaculture Activities Regulations and associated Aquaculture Monitoring Standard should be described. Additionally, the Benthic Monitoring Program must describe monitoring that will be undertaken to ensure compliance with all federal and provincial regulations related to the use and release of pesticides, therapeutants, and disinfectants in the marine environment.

7.2.3.4 Aquatic Invasive Species Management and Monitoring Program

A program must be developed that identifies the current distributions of Aquatic Invasive Species (AIS) in the Project area and, mitigations and monitoring employed to prevent their introduction, transport and spread. Management and monitoring activities should be tailored to each specific AIS.

7.2.3.5 Climate and Meteorological Data Monitoring Program

A program must be developed for the collection of climate and meteorological data in the BMAs which would include, but not be limited to, monthly and annual minimum, maximum and mean values for precipitation, temperature and wind speed, prevailing wind direction, ice dynamics and storm events.

7.2.3.6 Marine Wildlife Monitoring Program

A program must be developed for the collection of diversity, abundance, distribution, population dynamics, and habitat utilization data for fish, marine mammals and seabirds, including all species at risk within the Project area.

The EIS shall prepare and submit the EEMPs subsequent to the completion of the EIS, but before the initiation of Project construction.

8.0 RESIDUAL EFFECTS AND DETERMINATION OF SIGNIFICANCE

Residual effects are those adverse environmental effects which cannot be avoided or mitigated through, or that remain after, the application of environmental control technologies and best management practices. The EIS shall list and contain a detailed discussion and evaluation of residual effects, which shall be defined in terms of the parameters outlined in section 6.2.

The EIS shall contain a concise statement and rationale for the overall conclusion relating to the significance of the residual adverse environmental effects. The EIS will, for ease of review, include a matrix of the environmental effects, proposed mitigation, and residual adverse effects.

9.0 ASSESSMENT SUMMARY AND CONCLUSIONS

The EIS shall summarize the overall findings of the environmental assessment, with emphasis on the key environmental issues identified.

10.0 PUBLIC CONSULTATION

Under Section 58 of the **Environmental Protection Act**, during the preparation of the EIS, the Proponent shall provide an opportunity for interested members of the public to meet with the Proponent at a place/places adjacent to or in the geographical area of the undertaking, or as the minister may determine, in order to

- (a) provide information concerning the undertaking to the people whose environment may be affected by the undertaking; and
- (b) record and respond to the concerns of the local community regarding the environmental effects of the undertaking.

Prior to conducting public consultations, the Proponent shall submit the proposed plan to the Minister, through the environmental assessment committee chairperson, for review. The plan should address opportunities for residents across the island to participate in consultations.

Under Section 10 of the Environmental Assessment Regulations, the Proponent shall notify the minister and the public of all meetings scheduled with the public under section 58 of the **Act** not fewer than 7 days before that scheduled meeting. However, a 15-day minimum notification period is recommended.

These concerns expressed during the public meeting(s) shall be presented and addressed in a separate chapter of the EIS document. Protocol for the public meeting(s) shall comply with the legislation and with divisional policy included in Appendix B.

11.0 ENVIRONMENTAL PROTECTION PLAN (EPP)

The Proponent shall prepare an EPP for construction and operations for approval by the Minister of Environment and Climate Change. The EPP shall be a stand-alone document that assigns responsibility to the site foreperson, the Proponent's occupational health and safety staff, the Proponent's environmental staff and any government environmental surveillance staff. The EPP shall address construction, operation and maintenance activities throughout the lifetime of the Project. A proposed Table of Contents and an annotated outline for the EPPs is to be presented in the EIS, which shall address the major construction, operational and maintenance activities, permit requirements, mitigation measures and contingency planning as follows:

- a) Proponent's environmental policies and provincial and federal environmental legislation and policies;
- b) environmental compliance monitoring;
- c) environmental protection measures;
- d) mitigation measures;
- e) permit application and approval planning;
- f) contingency planning for accidental and unplanned events;
- g) statutory requirements; and
- h) revision procedures and contact lists.

The Proponent shall prepare and submit the EPP subsequent to the completion of the EIS, and where applicable,

prior to the initiation of Project construction.

12.0 REFERENCES

The Proponent shall prepare a complete and detailed bibliography of studies used to prepare the EIS. Supporting documentation shall be referenced in the EIS and submitted in separate volumes or attached as an Appendix to the EIS.

13.0 PERSONNEL

The names and qualifications of key professionals responsible for preparing the EIS and supporting documentation shall be included. A description of the qualifications of scientists conducting surveys and scientific studies associated with the undertaking shall be provided.

14.0 COMMITMENTS MADE IN THE EIS

The EIS is a statement of the Proponent's environmental conclusions and commitments related to the Project and must be explicitly endorsed by the Proponent. **The EIS shall provide a list of all commitments made regarding environmental effects mitigation, monitoring and follow-up. Each commitment must be cross-referenced to the section of the EIS where it has been made.**

15.0 COPIES OF REPORTS

The EIS should be prepared according with these guidelines and, once completed, the Proponent shall submit printed and electronic copies of the EIS to the Department of Environment and Climate Change as specified below:

- 3 electronic copies (USB drives)
- 1 paper copies

The Minister reserves the right to request additional digital and paper copies, if required.

Stand-alone studies associated with the EIS, including baseline studies and all plans required in section 7 of the EIS guidelines shall be included in the body of the EIS or as appendices.

The Proponent shall make printed copies of the EIS available at public libraries or viewing centers in the Project vicinity, in consultation with the Department of Environment and Climate Change.

APPENDIX A

Environmental Protection Act, 2002

Section 57 - Environmental Impact Statement

57. An environmental impact statement shall be prepared in accordance with the guidelines, and shall include,
- a) a description of the undertaking;
 - b) the rationale for the undertaking;
 - c) the alternative methods of carrying out the undertaking and alternatives to the undertaking;
 - d) a description of the
 - i. present environment that will be affected or that might reasonably be expected to be affected, directly or indirectly, by the undertaking, and
 - ii. predicted future condition of the environment that might reasonably be expected to occur within the expected life span of the undertaking, if the undertaking was not approved;
 - e) a description of the
 - i. effects that would be caused, or that might reasonably be expected to be caused, to the environment by the undertaking with respect to the descriptions provided under paragraph (d), and
 - ii. actions necessary, or that may reasonably be expected to be necessary, to prevent, change, mitigate or remedy the effects upon or the effects that might reasonably be expected upon the environment by the undertaking;
 - f) an evaluation of the advantages and disadvantages to the environment of the undertaking, the alternative methods of carrying out the undertaking and the alternatives to the undertaking;
 - g) a proposed set of control or remedial measures designed to minimize any or all significant harmful effects identified under paragraph (e);
 - h) a proposed program of study designed to monitor all substances and harmful effects that would be produced by the undertaking; and
 - i) a proposed program of public information.

APPENDIX B

Department of Environment and Climate Change REQUIREMENTS FOR PUBLIC MEETINGS/INFORMATION SESSIONS

Purpose: To clarify for proponents and the public, the format, scheduling, number, notification requirements, etc. for public consultations in relation to undertakings required under the *Environmental Protection Act, SNL 2002 cE-14.2*, (Section 58) to prepare an Environmental Impact Statement (EIS).

1. The proponent is required to conduct public meeting(s) (information sessions) under an EIS process as specified in the legislation. This requirement shall be specified in the Project EIS guidelines.
2. A public meeting shall normally be held in the largest local population centre within the Project area. This shall be the minimum requirement. In addition, when demonstrated public interest or concern warrants, additional meetings may be required. This may take the form of additional meetings to be held in major regional or provincial population centres, or possibly additional meetings within the original community. Such requirements are at the discretion of the Minister based on consensus advice from the environmental assessment committee (EAC) chairperson and based upon public interest as evidenced by public submissions received.
3. The format of the public meeting may be flexible, and the proponent is free to propose a suitable format for approval by the EAC. The format may range from formal public meetings chaired by the Proponent or representative with presentations followed by questions and answers, to a less formal open house forum where the public may discuss the proposal with the proponent or representatives. Other formats may be considered by the EAC. The purpose of the public information session is to
 - 1) provide information concerning the proposed undertaking to those who may be affected, and 2) to record the concerns of the local community regarding the undertaking. Any format must meet these objectives.
4. The proponent must ensure that each public meeting is advertised in accordance with the following specified public notification requirements, which shall form part of the Project guidelines when appropriate (proponent to substitute appropriate information for italicized items):

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 newspaper ad size: 2 columns wide and minimum posted ad size: 10 cm x 12 cm.
- Minimum newspaper ad frequency (to be run in newspaper(s) locally distributed within each meeting area or newspaper(s) with the closest local distribution area):
 - for dailies, the weekend between 2 and 3 weeks prior to each session and the two consecutive days prior to each session, or
 - for weeklies, in each of the two weeks prior to the week in which the session is to be held.
- Minimum posted ad coverage: In the local Town or City Hall or office, and the local post office, within the Town or City where the meeting is to be held, to be posted continually for not less than 15 days prior to each session. The proponent is advised to request that the ad and/or notice of the meeting be placed on the community web site, for each community within/adjacent to the Project study area, to be posted continually for not less than 15 days prior to each session.
- Any deviation from these requirements for any reason must receive the prior written approval of the Minister. The proponent must provide the chairperson of the EAC with copies of advertisements and public notices.
- The Proponent is advised to propose other effective means of public notice, including social media announcements, for the Minister's consideration and approval.