Strategic Environmental Assessment Update
Labrador Shelf Offshore Area

Final Scoping Document

Prepared by:
Canada-Newfoundland and Labrador Offshore Petroleum Board
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1.0 Introduction

The Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) has the responsibility pursuant to the Canada-Newfoundland and Labrador Atlantic Accord Implementation Act and the Canada-Newfoundland and Labrador Atlantic Accord Implementation Newfoundland and Labrador Act (Accord Acts) to ensure that offshore oil and gas activities proceed in an environmentally responsible manner. The C-NLOPB decided in 2002 to conduct Strategic Environmental Assessments (SEAs) of portions of the Canada-Newfoundland and Labrador Offshore Area (the Offshore Area¹) that may have the potential for offshore oil and gas exploration activity but that were not subject to recent SEA nor to recent and substantial site-specific assessments. The C-NLOPB has committed to reviewing its SEAs within five to seven years from the date of publication to confirm accuracy and validity of the conclusions.

In August 2008, the C-NLOPB published an SEA for a portion of the Labrador Shelf Offshore Area: the Strategic Environmental Assessment Labrador Shelf Offshore Area (Sikumiut Environmental Management Ltd. 2008) (the 2008 SEA Report). The 2008 SEA Report was conducted with the assistance of a multi-stakeholder working group that was co-chaired by a representative of the C-NLOPB and a representative of the Nunatsiavut Government. The C-NLOPB has decided to update the 2008 SEA Report in consideration of the elapsed time since it was originally published and its commitment in that document to review it to determine if an update is required.

This scoping document describes the scope for the update of the 2008 SEA Report. The scope outlines the factors to be considered in the Strategic Environmental Assessment Update Labrador Shelf Offshore Area Report (the SEA Update Report), the scope of those factors, and guidelines for preparing the SEA Update Report.

2.0 Background

A strategic environmental assessment is defined as “the systematic and comprehensive process of evaluating the environmental effects of a policy plan or program, and its alternatives” (Government of Canada Cabinet Directive, 2010). SEAs incorporate a broad-based approach to environmental assessment (EA) that examines the environmental effects which may be associated with a plan, program or policy proposal and that allows for the incorporation of environmental considerations at the earliest stages of program planning. The Cabinet Directive was updated in 2004 to strengthen the

¹ The term ‘offshore area’ refers to the jurisdictional area of the C-NLOPB, as defined in the Canada-Newfoundland and Labrador Atlantic Accord Implementation Act to mean “those submarine areas lying seaward of the low water mark of the Province and extending, at any location, as far as (a) any prescribed line, or (b) where no line is prescribed at that location, the outer edge of the continental margin or a distance of two hundred nautical miles from the baselines from which the breadth of the territorial sea of Canada is measures, whichever is greater.”
role of SEA at a strategic decision-making level, by clarifying obligations of various departments and agencies and linking environmental assessment to the Implementation of Sustainable Development Strategies.

SEA typically involves a broader-scale EA that considers the larger ecological setting, rather than a project-specific EA that focuses on site-specific issues with defined boundaries. Additional information regarding SEA may be found on the Canadian Environmental Assessment Agency web site at http://www.ceaa-acee.gc.ca.

In this particular case, information from the SEA Update Report will assist the Board in determining whether exploration rights should be offered in whole or in part within the Labrador Shelf Offshore Area and may identify general restrictive or mitigative measures that should be considered for application to exploration activities. The results of the SEA Update Report will be used by the Board in potential future issuance of one or more exploration licences pursuant to the Accord Acts, in the Labrador Shelf Offshore Area, and consequent petroleum-related activities that may occur offshore.

An exploration licence confers:

1. The right to explore for, and the exclusive right to drill and test for, petroleum;
2. The exclusive right to develop those portions of the Offshore Area in order to produce petroleum; and
3. The exclusive right, subject to compliance with the other provisions of the Accord Acts, to apply for a production licence.

Activities associated with exploration licences may include: conduct of seismic surveys, other geophysical surveys, geotechnical surveys; drilling of wells (either exploration or delineation); well testing; and well abandonment. If one or more exploratory drilling programs successfully identify petroleum deposits with commercial potential, production activities may follow. Production activities may involve: drilling of wells (e.g. delineation, development/production, and injection wells, well testing activities such as flaring); installation and operation of subsea equipment; installation and operation of production facilities; and production abandonment activities. However, the nature and scale of potential production activities is usually very difficult to predict in the early stages of exploration in an area, in any but the most general of terms.

Each of these activities requires the specific approval of the C-NLOPB, including a project-specific EA of its associated environmental effects, either in accordance with the Canadian Environmental Assessment Act 2012 (CEA Act 2012), or the Accord Acts. The SEA Update Report will not replace this requirement for a project-specific EA. However, it will provide an overview of the existing environment; discuss in broader terms the potential environmental effects associated with offshore oil
and gas activities in the Labrador Shelf Offshore Area; include Traditional Knowledge and describe current and historical occupational uses of Labrador indigenous groups in the geographic focus for the SEA Update depicted in Figure 1 (the SEA Update Area); identify knowledge and data gaps; highlight issues of concern; and make recommendations for mitigation and planning.

3.0 Area of Focus
The SEA Update Area includes all marine waters east of the low water mark, including the Zone, out to the seaward limit of the Offshore Area. For clarity, the area commonly referred to as the “Lake Melville Area” will only include that portion of the Zone extending from the mouth of Lake Melville seaward into the Offshore Area. The eastern limits of the original SEA Area have been extended in the southern portion to the full extent of Canada’s continental shelf claim beyond 200 nautical miles from the territorial sea baselines, outside the limit of the 2008 SEA but now included in the SEA Update. Areas defined in the SEA Update Area beyond the 200 nautical mile limit are part of Canada’s 2013 partial submission to the Commission for the Limits of the Continental shelf (CLCS). The Extended Continental Shelf area delineated in Canada’s submission should be considered preliminary and is subject to change pending recommendations from the CLCS and the resolution of overlapping delineations with neighbouring nations.

Within the Labrador Shelf Offshore Area, the Nunatsiavut Government has certain duties and powers, as defined by the Labrador Inuit Land Claims Agreement (the Agreement), in the Zone and in the Area Adjacent to the Zone. It is also noted that although land claims agreements are not presently settled with the Innu Nation and the NunatuKavut Community Councils, their people are very much connected to the land and waters offshore of their traditional territories. These territories fall within the Labrador SEA Update Report boundaries and it is anticipated that both Indigenous groups will have resolved agreements within the foreseeable future.

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2 The Zone and Area Adjacent to the Zone are defined in the Agreement.
4.0 Working Group

This scoping document was drafted by C-NLOPB staff with the assistance of a Working Group. The Working Group is co-chaired by the C-NLOPB and the Nunatsiavut Government and consists of members of the Nunatsiavut Government, federal and provincial government agencies, fishing interest groups, Indigenous organizations, academia, industry, and non-governmental organizations. The purpose of the Working Group is to assist the C-NLOPB in: the development of the SEA Update Report through the provision of technical advice regarding the scope and content; the collection and analysis of Traditional Knowledge; and public consultations.
5.0 Objectives

Within the SEA Update Area, the SEA Update Report will:

- Provide an overview of the scientific information on the existing and predicted ecosystems;
- Identify timing of occurrence for all life stages of ecologically, commercially, and societally important species;
- Describe Traditional Knowledge;
- Collect, describe, and incorporate Traditional Knowledge into assessment of Valued Ecosystem Components (VECs);
- Describe typical and current offshore oil and gas exploration activities;
- Describe typical offshore oil and gas production activities;
- Describe potential accidents and malfunctions associated with the activities, and their potential effects;
- Describe and evaluate potential environmental effects associated with potential offshore oil and gas exploration and production activities;
- Conduct ecological and socio-economic risk assessment on sensitive species to better understand impacts between and throughout different types of offshore exploration and production activities, however, detailed ‘effects assessment analyses’, including determination of significance pursuant to the CEA Act 2012, will not be undertaken in the SEA Update;
- Describe current best practices for mitigation for offshore oil and gas exploration and production activities that have evolved since the 2008 SEA, including a review of best practices employed in the Canadian jurisdiction with respect to each of the outlined activities;
- Update the status of knowledge and data gaps identified in the 2008 SEA and identify any new knowledge and data gaps;
- Highlight issues that may be of concern;
- Highlight issues that were identified in the original SEA that are still applicable;
- Identify areas of ecological interest or Environmentally Sensitive Areas, including any new areas that have been designated since the 2008 SEA;
- Make recommendations for mitigative measures that should be employed during offshore petroleum activities, while considering the Precautionary Approach;
- Identify, where appropriate, areas requiring enhanced levels of mitigation and, if feasible, the level of enhanced mitigation required;
- Identify restrictive or monitoring measures, as appropriate, that may be required for future offshore petroleum activities; and
- Assist the C-NLOPB in determining whether exploration rights should be issued in whole or in part in the SEA Update Area.
The content of the SEA Update Report (outlined above) must be based on new and relevant information that has become available since the publication of the 2008 SEA Report. The SEA Update Report document will be an addendum to the 2008 SEA Report.

6.0 Past and Present Oil and Gas Activities

Past exploration activities in the SEA Update Area have included the collection of approximately 210,820 line km of 2D seismic data from 1968 to 2015. The most recent seismic program operated in 2015 acquired approximately 9,354 km of 2D seismic and gravity data. Since the early 2000’s there has been modern 2D seismic data acquisition offshore Labrador, with a change of exploration focus since 2011 moving seismic exploration predominantly into the deepwater (>500m).

Exploration drilling commenced in the 1970’s and between 1971 and 1985, 26 exploration wells and 2 delineation wells were drilled in shallow water on the Labrador Shelf. With the discovery of natural gas at a number of these exploration wells, five significant discovery licences (SDLs) were granted. In total, the five SDLs represent 4.244 trillion cubic feet (TCF) of natural gas reserves.

On May 18, 2007, the C-NLOPB announced a Call for Bids for the Labrador Offshore Region. This was the first Call for Bids in the Labrador Shelf Offshore Area in the history of the C-NLOPB Call for Bids. Four exploration licences (ELs) were awarded, however, there was no new drilling and the ELs were subsequently relinquished in November 2014. There are currently no active ELs or production licences (PLs) within the SEA Update Area (see Figure 1).

In December of 2013 the C-NLOPB announced the implementation of the new Scheduled Land Tenure System, which included the introduction of the Labrador South region in the first Call for Nominations (Area of Interest). In the Scheduled Land Tenure System, offshore Labrador was sub-divided into two regions, Labrador North and Labrador South, for the purposes of licencing. These two regions were further classified as low activity, based on the level of oil and gas exploration and development activities, and assigned a 4-year land tenure cycle.

The Labrador South Sector NL01-LS was announced in May 2014. The subsequent Call for Nominations (parcels) period was introduced in January of 2016 and closed in March 2016. The Call for Bids for NL01-LS opened in 2016 and will close a minimum of 120 days after completion of the SEA Update Report, pending approval from the Board and subsequent approval of Provincial and Federal Ministers of Natural Resources.

Offshore Labrador, the scheduled land tenure process has continued including the announcement of the second Call for Nominations (Area of Interest) and the introduction of the second sector in the Labrador South region in June 2015. This second sector (NL02-LS) will progress through the land tenure process, with a planned bid round close in November of 2019 pending associated approvals. Currently,
a total of approximately 4,288,030 hectares are active in the land tenure process for Labrador South region, all within the 200 Nautical Mile (NM) limit.

7.0 Scope of SEA
The SEA Update Report will describe all foreseeable offshore oil and gas exploration activities in the SEA Update Area, with a focus on the 10-year period following the projected publication date. It will examine the project-environment interactions associated with these petroleum exploration activities. Exploration activities to be considered in the SEA Update Report include exploratory and delineation drilling, well testing, seismic survey activities (e.g. 2D, 3D and 4D, vertical seismic profiling, geohazard surveys), geotechnical surveys, and wellsites abandonment. The focus of the SEA Update Report will be on activity and interactions of the project-environment, as well as projecting and documenting environmental change more broadly within the region in the Labrador Offshore Area. However, where information exists, the coastal environment will be described and the project-environment interactions identified and discussed. Where information does not exist, the precautionary approach will be applied and a plan that identifies gaps and recommendations on how to fill the gaps will be developed.

The extent of exploration activity will be estimated based on historical activity in the area and the potential for future exploration activity to the greatest extent that can be expected, to the degree that this can be foreseen.

Generic types of production facilities that could be employed in the SEA Update Area will be identified and their potential project-environment interactions documented and discussed. Predictions concerning types and quantity of likely production facilities will be undertaken based on current and predicted activity levels. The discussion will focus on existing SDLs in the area, and known and feasible production scenarios.

7.1 Spatial and Temporal Boundaries
The spatial boundary for petroleum related activities to be considered in the SEA Update Report is shown in Figure 1. The SEA Update Area is bounded in the south by the Eastern Newfoundland SEA area. The eastern boundary extends past the 200 NM Exclusive Economic zone in the southern portion, to the limit of Canada’s claim pursuant to the United Nations (UN) Convention on the Law of the Sea (UNCLOS). The eastern boundary of the 2008 SEA terminated at the 200 NM or nautical mile boundary. The western boundary is at the coast of Labrador to the low water mark.

The temporal scope of the SEA Update will be approximately 10 years but will be reviewed within a five to seven year period to determine whether an update is required.
7.2 Factors and Issues to be Considered

The SEA Update Report must focus on the incorporation of scientific and collected Traditional Knowledge (TK) and will be based on a VEC approach which identifies components of the environment that are valued (e.g. socially, economically, culturally and/or scientifically) and/or of interest when considering the potential environmental effects. Each VEC (including components or subsets thereof) will be defined and the rationale for its selection provided. VECs will be determined based on consultations with interested stakeholders, the public, regulatory agencies, and published scientific literature. At a minimum, VECs will include: fish and fish habitat (including benthic habitat); commercial fisheries, traditional Indigenous fisheries, marine mammals and sea turtles; waterbirds (including seabirds, waterfowl, shorebirds); species at risk; and sensitive/special areas.

The SEA Update Report must include the following:

- Historical overview of offshore petroleum exploration activity in the SEA Update Area and a discussion of regional offshore oil and gas activities in the Offshore Area;
- Overview of offshore petroleum exploration activities (e.g. wellsie surveys, vertical seismic profiling (VSP), 2D/3D/4D seismic, geotechnical programs, exploration drilling (including onshore to offshore drilling), well testing, well abandonment) and methods to carry out these activities;
- Discussion of production alternatives that could be employed in the SEA Update Area;
- Description of the physical and biological environments in the SEA Update Area based on existing information and data that has become available since the 2008 SEA Report, including Traditional Knowledge collected at the first stage of the SEA Update process. The extension of the SEA Update Area seaward of the 200 mile EEZ in the southern portion will result in a new area of focus that was not included in the 2008 SEA Report. Other information sources for areas outside the 200 mile EEZ should be considered when describing the various marine resources. Where information does not exist, the precautionary approach will be applied and a plan that identifies data gaps, and recommendations on how to fill the gaps, will be developed. Factors to be included are outlined in Sections 7.2.1 through 7.2.3;
- Description of other marine activities in the SEA Update Area (e.g. fisheries, aquaculture, marine transportation);
- Project-environment interactions of the VECs in the SEA Update Area will be identified and qualitatively assessed using standard protocols, however, detailed 'effects assessment analyses', including determination of significance pursuant to the CEA Act 2012, will not be undertaken in the SEA Update;
- Cumulative effects of generic types of production facilities that could be employed in the SEA Update Area will be identified and their potential project-environment interactions assessed;
- Recommendations of the priority of data gaps;
• Identification of mitigative measures and monitoring measures that might be considered for offshore activities. Specific or ‘non-typical’ mitigations that may be required to address specific concerns will be highlighted;
• Identification of areas requiring enhanced, or ‘non-typical’ mitigation measures;
• Discussion of effects and mitigation of potential accidental events, as well as malfunctions associated with offshore oil and gas exploration activity;
• Discussion of potential cumulative effects associated with multiple offshore oil and gas activities in the SEA Update Area based on an estimate of potential exploration activity derived from historical offshore petroleum activities in the area, and in consideration of offshore oil and gas activities within the Offshore Area; and,
• For each factor identified below, discuss potential planning implications/considerations which may have to be considered in site-specific EAs (i.e., need for additional data, special mitigations).

Detailed ‘effects assessment analyses’, including determination of significance pursuant to the CEA Act 2012, will not be undertaken in the SEA Update. A determination of significance can only be undertaken at the project specific stage where detailed information respecting project activities and scheduling are known.

Mitigation measures currently in practice to reduce or eliminate potential effects will be described for activities that may affect the physical and biological environments and VECs. Specific or ‘non-typical’ mitigations that may be required to address specific concerns will be highlighted, in particular, specific mitigations proposed for any special/sensitive areas identified within the SEA Update Area. Residual effects remaining after the application of routine mitigations will also be described.

The SEA Update Report will consider the following environmental factors and issues, as a minimum, with emphasis upon factors within the SEA Update Area. Sufficient supporting information will be provided, or referenced and summarized if it already exists in publicly available publications. Substantive uncertainties or information gaps will be identified.

7.2.1 Traditional Knowledge
The gathering and documenting of TK of historical, current, and potential future use of the SEA Update Area will be an important component of the SEA Update. Traditional Knowledge will be collected from the region’s three Indigenous groups; the Inuit, Innu and NunatuKavut. The gathering and documenting of TK will be done at the earliest stages of the SEA Update process under guidance from the SEA Update Working Group. Information on species of importance, area use, and changes in environment (e.g., ecological, commercial, ceremonial, traditional) in the SEA Update Area will be included within each of the VEC description categories. TK will also be included
within the recommended mitigation measures to ensure impacts to VECs are minimized with regards to ecological, ceremonial and commercial use by Indigenous peoples.

7.2.2 Physical Environment
A description of physical environmental factors in the SEA Update Area will be presented, with emphasis upon the following:

- Meteorology and climatology (extreme events, means and seasonal variations) that also factor in predicted variances as a consequence of potential climate change, based on available information and existing gaps;
- Geology, including a discussion of the potential for seismicity/geohazard events and their impacts on slope stability;
- Oceanography (current regime, wind, waves, extreme events);
- Sea ice, including ice islands, and iceberg conditions (historical overview, seasonal variability and current trends); and
- An overview of the coastal/shoreline environment in the SEA Update Area with specific emphasis on special or unique habitats or places (e.g., Ecologically or Biologically Significant Marine Areas (EBSAs), parks, protected areas, fish spawning habitat, important bird areas, shoreline sensitivity information).

7.2.3 Biological Environment
An overview of the biological environment in the SEA Update Area will be presented, with emphasis upon identified VECs. For each of the following, the biological descriptions should be consistent with the level of detail presented for each species. Overviews of species (distributions, critical life stages, and important areas) should be presented in the context of their relevance to the SEA Update Area and of the potential for interaction with offshore oil and gas activities.

The following provides a detailed listing of information that must be captured within the SEA Update Report:

- Plankton
- Benthic Invertebrates (including commercial shellfish species):
  - Overview of benthic invertebrates in the SEA Update Area, with focus on ecologically, commercially and societally important species as well as species showing the potential of supporting emerging fisheries. Information will include a summary of critical life stages and locations of habitat supporting these life stages, if applicable to the SEA Update Area
  - The identification of known spawning, feeding, migratory and essential habitats, including coastal areas (where information exists) within the SEA Update Area, for the species described above
• Fish and Fish Habitat:
  o Overview of finfish and marine invertebrates in the SEA Update Area, with focus on ecologically, commercially and societally important species as well as species showing the potential of supporting emerging fisheries. Information will include a summary of critical life stages and locations of habitat supporting these life stages, if applicable to the SEA Update Area
  o The identification of known spawning, feeding, migratory and essential habitats, including coastal areas (where information exists) within the SEA Update Area, for the species described above
  o Summaries of finfish and marine invertebrate habitat, particularly those supporting fisheries

• Commercial, Recreational and Indigenous Fisheries
  o Overview of Historical, present and potential future fisheries within the SEA Update Area, including species under moratoria
  o Description of commercial, recreational and indigenous fisheries in the SEA Update Area, including species, location, vessel size, gear type, and timing
  o Aquaculture activities, if present, should be described.

• Waterbirds
  o Overview of species present, including seabirds, waterfowl, and shorebirds, in the SEA Update Area and their distribution and abundance.
  o Description of critical life stages, life histories, and important areas within the SEA Update Area.

• Marine Mammals
  o Description of marine mammals (including Polar Bears) that may be present in the SEA Update Area
  o Distribution of species, including lifestyles, life histories and important areas within the SEA Update Area

• Sea Turtles
  o Description of sea turtles that may be present in the SEA Update Area
  o Distribution of species, including lifestyles, life histories and important areas within the SEA Update Area

• Summaries of benthic invertebrate habitat, particularly those supporting fisheries
• Species at Risk
  o Description of Species at Risk, and critical habitat, as described in the Species at Risk Act, Committee on the Status of Endangered Wildlife in Canada (COSEWIC), and by the Government of Newfoundland and Labrador that have been identified, or are believed likely to be present, in the SEA Update Area. The most recent and up-to-date information available for Species at Risk Act related species information (e.g. species status, species listings, species recovery planning, species critical habitat designations) is provided for within the Species at Risk registry at (www.sararegistry.gc.ca).
  o Monitoring and mitigation, consistent with recovery strategies/action plans (endangered/threatened) and management plans (special concern) for species or critical habitat identified in the SEA Update Area, as indicated above

• Sensitive/Special Areas
  o Description of sensitive or special areas in the SEA Update Area. These can include, but are not limited to:
    ▪ rare or unique habitats;
    ▪ important bird areas;
    ▪ Provincial ecological reserves;
    ▪ fish spawning habitat/migration routes;
    ▪ marine mammal migration routes;
    ▪ rare or unique plant species;
    ▪ areas of high productivity;
    ▪ Torngat Mountains National Park;
    ▪ National Parks;
    ▪ Marine Protected Area designations;
    ▪ Areas of interest under the National Marine Conservation Area (Nain Bight and Hamilton Inlet);
    ▪ Culturally and historically significant areas;
    ▪ Fishery Exclusion zones such as Hawke Channel no trawling and gillnet zone; and
    ▪ Areas of ecological interest or environmental sensitivity, including Ecologically and Biologically Significant Areas (EBSAs).

• Human Use
  o Description of traditional and cultural activities, including Indigenous activities. These include, but are not limited to, travel routes, hunting, gathering, and other domestic harvesting activities
  o Overview of marine recreational and tourism activities.
Overview of commercial traffic activity within and through the SEA Update Area

7.2.4 Project-Environment Interactions
For each of the identified VECs, a description of the potential interactions of typical petroleum exploration activity with the environment, based on new and relevant information that has become available since the publication of the 2008 SEA Report, will be presented. Typical activities include:

- Seismic data collection;
- Exploratory/delineation drilling (e.g., mobile offshore drilling unit (semi-submersible or jack-up rig), and ancillary activities;
- Production activities (based on information provided as per Section 7.2 above);
- Vessel traffic (e.g., supply vessels, seismic vessels, helicopters); and
- Well abandonment operations.

Typical project-environment interactions associated with generic petroleum production activities will be discussed for completeness.

Potential project interactions include, but are not limited to, the following.

- Noise/disturbance (e.g., seismic survey activities, shipping activities, drilling installations) on marine mammals, sea turtles, seabirds/waterfowl, sensitive life stages of commercial fish/shellfish species, and commercial fishing activity;
- Benthic habitat disturbance;
- Coastal interactions, including fish/bird habitats and sensitive areas;
- Air quality issues that may include a discussion of typical greenhouse gas emissions associated with typical drilling and production operations;
- Operational discharges and the effects on water and sediment quality. Information and experience that has been gathered from ongoing Environmental Effects Monitoring (EEM) programs for existing Newfoundland and Labrador offshore oil and gas developments including Hibernia, Terra Nova and White Rose should be included;
- Operational discharges (e.g. sheens) and the effects on migratory birds;
- Accidental events and risk assessment of those events – including offshore and coastal interactions, sensitive/special places, mitigations and response plans;
- Conflict with commercial fisheries, Indigenous fisheries, commercial traffic (e.g. ferry service), and recreational/tourism use of area;
- Attraction of seabirds to lights/flares on structures or vessels; and
- Consideration of potential conflict with project activities (including light and noise generated) with tourism operations and the aesthetic and cultural landscape.
7.2.5  Cumulative Project-Environment Interactions
Cumulative effects will be examined in consideration of the estimate of potential exploration activity in the SEA Update Area, and mitigation measures identified. Planned and reasonably foreseeable exploration activities will be included in the cumulative effects and will also consider other non-petroleum activities ongoing in the SEA Update Area, such as commercial and Indigenous fishing and hunting, marine traffic, tourism operations, and fisheries research surveys. Consideration of marine activities, where applicable, in adjacent areas will be included.

7.2.6  Environment-Project Interactions
For exploration activities identified, the SEA Update Report must include a discussion of the effects of the environment on project activities within the SEA Update Area. These environmental factors will include:

- The occurrence of sea ice, including ice islands, and icebergs;
- Temperature, currents, storm events;
- Severe winds and waves (extreme events); and
- Expected climatic and environmental changes due to potential climate change, based on available information and existing gaps.

8.0  Summary and Conclusions
Information presented in the physical and biological environment overview, the description of project-environment interactions, and the application of mitigation measures will be summarized for use in the development of conclusions for the C-NLOPB to consider in the issuance of exploration licences in the SEA Update Area. Data gaps, with potential to affect the validity of these conclusions, will be highlighted and recommendations on how to establish a plan to fill the gaps will be developed. Sensitive areas or areas of concern identified during the SEA Update process will also be highlighted.

9.0  Traditional Knowledge
Labrador’s Indigenous peoples have thrived on their offshore marine environment. This deep historical connection continues today, with each of Labrador’s three Indigenous groups, Inuit, Innu and NunatuKavut, dependent on the Labrador marine environment for their social, cultural and economic wellbeing. As a result, Labrador’s Indigenous peoples hold a profound and important knowledge of the area and its complex environment. The inclusion of this knowledge is integral to the future management of the offshore environment and is an important component of the SEA Update process. Throughout the development of the SEA Update Report, the contractor, with assistance from the Working Group, will gather and document Traditional Knowledge relating to the SEA Update Area. The contractor will liaise closely with representatives of the Nunatsiavut Government, the Innu Nation and NunatuKavut in the planning and conduct of traditional knowledge collection from individuals and/or
groups. It is expected that community consultations and targeted stakeholder engagement sessions will be required across the three groups to ensure that the collection of traditional knowledge is comprehensive and balanced.

10. Consultations
Throughout the development of the SEA Update Report, the C-NLOPB and its contractors, with assistance by the Working Group, will consult with the Nunatsiavut, provincial and federal government departments, Indigenous Groups, Labrador communities, the fishing industry, and local non-governmental organizations. Information on the SEA Update process will be provided and people will be encouraged to discuss issues and concerns that are relevant to the SEA Update Area and objectives.