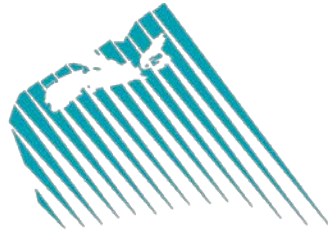


**CNSOPB**



**CANADA-NOVA SCOTIA  
OFFSHORE PETROLEUM BOARD**

# Strategic Environmental Assessment Western Scotian Shelf and Slope

## **Scoping Document January 2020**

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## Strategic Environmental Assessment Scoping Document for Western Scotian Shelf and Slope

### 1.0 Introduction

This document defines and describes the nature and scope of a Strategic Environmental Assessment (SEA) that is being completed by the Canada-Nova Scotia Offshore Petroleum Board (CNSOPB) in relation to potential offshore petroleum exploration licensing decisions and activities in the Western Scotian Shelf and Slope of the Canada-Nova Scotia Offshore Area (Figure 1).

The CNSOPB is an independent joint agency of the Governments of Canada and Nova Scotia that is responsible for the regulation of petroleum activities in the Canada-Nova Scotia Offshore Area, pursuant to the *Canada-Nova Scotia Offshore Petroleum Accord Implementation Act* and the *Canada-Nova Scotia Offshore Accord Implementation (Nova Scotia) Act* (the Accord Acts).

The CNSOPB has responsibility pursuant to the Accord Acts to ensure that offshore petroleum exploration and development activities are conducted in a safe and environmentally responsible manner. In doing so, the CNSOPB conducts SEAs in portions of the Canada-Nova Scotia Offshore Area that may have potential for offshore oil and gas activities. More specifically, the information and findings of SEAs help inform the CNSOPB's associated planning and decision-making processes regarding the potential issuance of future exploration rights within the applicable portions of the Canada-Nova Scotia Offshore Area.

As an initial step in the planning and conduct of the SEA for the Western Scotian Shelf and Slope, this Scoping Document provides background information related to the assessment as well as the purpose and objectives of the SEA. The Scoping Document also outlines the various Valued Components (VCs) to be considered in the SEA, the scope of these VCs, and provides other relevant information and guidelines for the preparation of the SEA Report. This document also provides an opportunity for the CNSOPB to inform Indigenous groups, the public, and other interested parties of its intent to conduct the SEA and to gather preliminary feedback.

### 2.0 Background

SEAs are a relatively broad-based and regional approach to Environmental Assessment (EA) that are typically undertaken early in the planning and decision-making process. SEAs are not intended as a replacement for project-specific EA review processes, but rather to provide preliminary information to aid decision-making at the very earliest stages of the planning process. This SEA is intended to assist the CNSOPB and potential Operators with future applications and environmental management planning within the SEA Project Area.

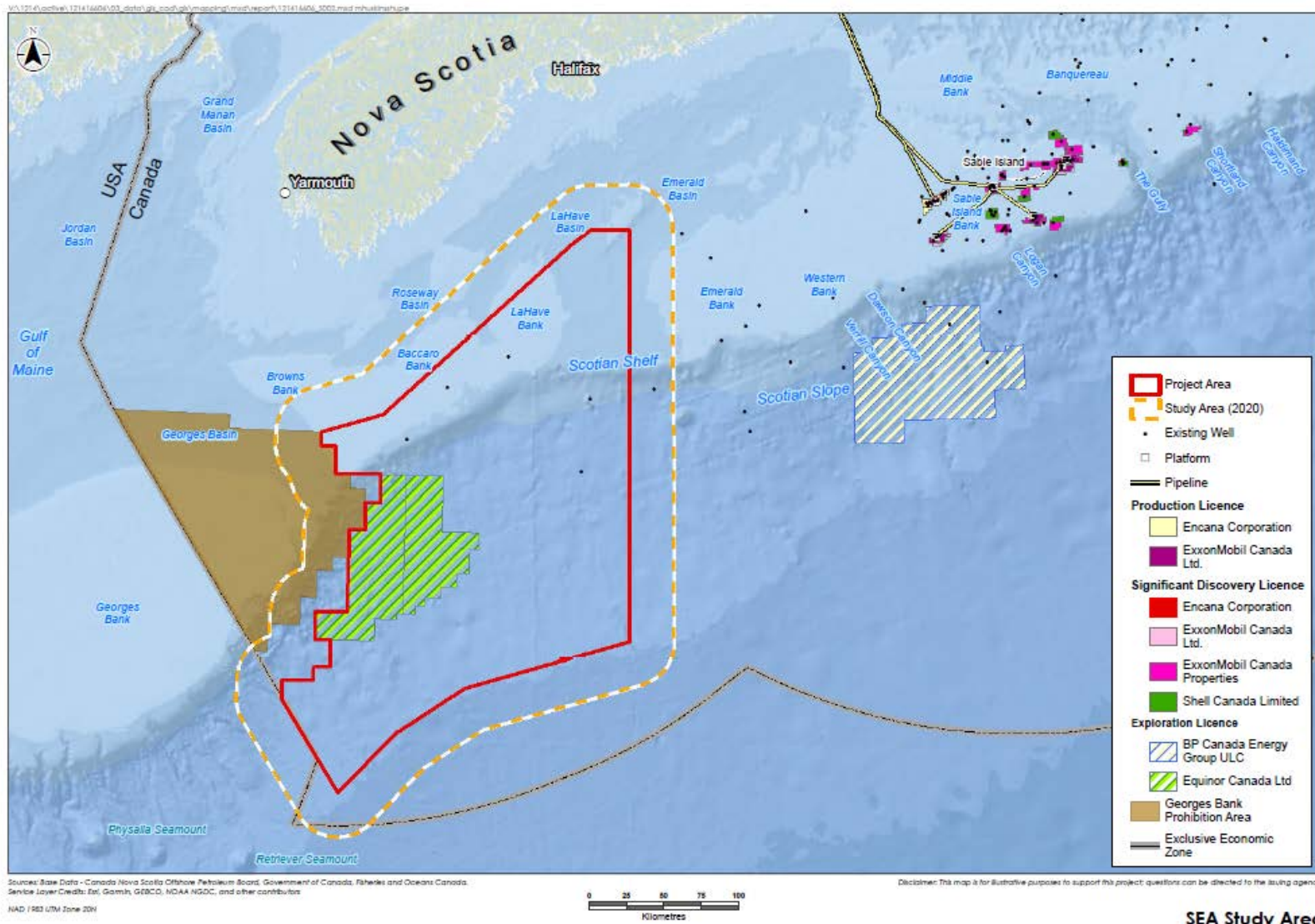
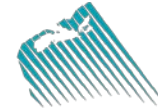


Figure 1: SEA Study Area

SEAs typically focus on providing a general description of the existing physical, biological, and socio-economic setting and potential issues associated with petroleum exploration. The SEA will also identify any general restrictive or other mitigative measures that may be considered for application to any such licencing decisions and/or resulting exploration activities in the SEA Project Area.

The CNSOPB's regulatory responsibilities under the Accord Acts include the issuance and administration of petroleum exploration and development rights in the Canada-Nova Scotia Offshore Area through a structured and transparent [rights issuance process](#). As part of that process, an Exploration Licence (EL) may be issued for Crown Lands through an established Call for Bids process. An EL has a maximum term of nine years and provides EL owner(s) with the right to explore and the exclusive right to drill. Activities associated with such ELs may include the conduct of seismic or other geophysical surveys, geotechnical surveys, and drilling of exploration or delineation wells.

The issuance of an EL does not itself confer authorization for physical exploration activities within the licence area. All physical activities related to the exploration for petroleum in the Canada-Nova Scotia Offshore Area require specific authorization from the CNSOPB. Before carrying out any activity in the offshore, an Operator must obtain an Operating Licence, an authorization from the CNSOPB and must demonstrate to the satisfaction of the CNSOPB that such activities can be conducted in a safe and environmentally responsible manner. Special precautions, such as detailed, project-specific environmental assessments, more stringent mitigation measures and environmental effects monitoring may be required in some cases.

Specific offshore exploration activities or other petroleum-related projects in the Canada-Nova Scotia Offshore Area may require review, approval and/or compliance with a range of other applicable environmental legislation and regulations, including the federal *Fisheries Act*, *Species at Risk Act*, *Canadian Environmental Protection Act*, *Oceans Act* and others, as well as being subject to individual, project-specific EA reviews in accordance with the federal *Impact Assessment Act* (2019) or the Accord Acts.

### 3.0 SEA Study Area

The Western Scotian Shelf and Slope SEA Project Area and Study Area include the offshore areas shown in Figure 1. The SEA Study Area includes a Project Area (approximately 49,633 km<sup>2</sup>) which includes lands within the Canada-Nova Scotia Offshore Area that could be included in any potential future Calls for Bids and resulting Exploration Licences in this area.

The spatial and temporal scope of the SEA is defined and described in further detail in Section 6.2.1.

### 4.0 Purpose and Objectives

The purpose of the SEA to inform potential future offshore petroleum licensing and petroleum-related exploration activities in the Western Scotian Shelf and Slope region of the Canada-Nova Scotia Offshore Area (Figure 1).

The SEA will consider the existing environmental setting and certain socio-economic features of the Study Area and the potential environmental effects on select VCs that may be associated with

potential petroleum-related exploration activities that may occur if one or more Exploration Licences are issued. In doing so the assessment will:

- Provide an overview of the existing environment;
- Generally describe typical offshore oil and gas exploration activities;
- Describe and evaluate potential environmental and socio-economic effects associated with offshore oil and gas exploration;
- Identify knowledge and data gaps;
- Identify any species at risk and special areas that may interact with exploration activities;
- Make recommendations for general mitigative measures that may be employed during any potential offshore petroleum exploration activities in the region;
- Identify, where appropriate, activities / areas that may require additional or enhanced levels of mitigation, and identify, if feasible, the type and level of enhanced mitigation required;
- Identify follow-up (environmental effects monitoring) measures, as appropriate, that may be required to verify EA predictions and/or the effectiveness of mitigation related to future offshore petroleum exploration activities; and
- Assist the CNSOPB in its determination in respect to the potential issuance of future exploration rights within the SEA Study Area.

## 5.0 Past and Current Petroleum Activity

Within the SEA Project Area, there are currently two active Exploration Licences, both of which are held by Equinor Canada Ltd. To date, no activity has taken place in either EL area. Within the SEA Study Area, there are five (5) additional wells that have been drilled: two in the 1970's, two in the 1980's, and the most recent one, Monterey Jack, drilled by Shell Canada Ltd. in 2016.

Georges Bank, which straddles the Canada-United States maritime boundary, is one of the most biologically productive and diverse regions in the world's oceans and has been extensively fished for decades. To protect this highly valued resource, the federal government and the province of Nova Scotia declared a moratorium on drilling on the Canadian side in 1988, and subsequently, the US declared a similar moratorium on the American side. The Georges Bank Prohibition Area is located directly west of the Project Area. This prohibition is in effect until December 31, 2022, at which point it will be reassessed.

## 6.0 Scope of the SEA

### 6.1 Approach to the SEA

This SEA document will be an update to previous versions of SEA reports on the Scotian Shelf and Slope (e.g., Stantec 2012a, 2012b, 2014a, 2014b, 2017, 2019). In particular, the two SEA reports produced in 2014 will be incorporated, as they included the current study area (the Western Scotian Shelf is included in the 2014a report (Phase 3A), and the Western Scotian Slope is included in 2014b (Phase 3B)). Information from these documents will be updated with new data sources where applicable.

The most recent SEA document for the Canada-Nova Scotia Offshore Area was conducted in 2019 for the [Middle Scotian Shelf and Slope](#). That document also updated information provided in previous SEAs and will be used as a guide for preparation of this SEA, for both scope and content.



## 6.2 Scope of the Assessment

### 6.2.1 Spatial and Temporal Boundaries

The Project Area considered for the SEA includes the potential area within which exploration rights could be issued and petroleum-related activities could be authorized by the CNSOPB. A larger Study Area was established as a buffer around the Project Area to recognize a potential zone of influence of environmental and socio-economic effects from activities that could occur within the Project Area. The Study Area represents a 30 km buffer of the Project Area. The SEA Project Area and Study Area are shown in Figure 1. It is noted that the Study Area includes lands across the Canada-United States international boundary as well as within the Georges Bank Prohibition Area. Although the CNSOPB will not issue licences or authorize activities in these areas, they are included in the Study Area in consideration of potential effects that could extend into these areas as a result of future activities within the SEA Project Area.

The SEA will focus upon an overall time horizon of approximately 10 years, which would generally correspond to the temporal duration of any additional Exploration Licences that could be issued in the area upon completion of the SEA. As has been the CNSOPB's practice in completing SEAs, this assessment will be reviewed within a five-year period to determine whether an update is required.

### 6.2.2 Key Characteristics of the Environment

The SEA will provide an overview of key features of the existing environment in the Study Area that could potentially interact with or influence elements of a petroleum exploration program. Environmental components to be discussed include physical characteristics (e.g. oceanography, climatology), biological characteristics (e.g. plankton, corals, fish and invertebrates, marine mammals and sea turtles) and socio-economic characteristics (e.g. fisheries and other ocean users).

### 6.2.3 Valued Components

Based on description of the key characteristics of the environment, and the potential effects of exploration activities, environmental and socio-economic components will be summarized into three VCs for the purpose of the assessment. For each VC, the SEA will explore potential effects of exploration activities drawing on existing knowledge and current literature, provide recommends mitigation and planning considerations, and will discuss data gaps and uncertainties. The three VCs are summarized below.

#### 6.2.3.1 Species of Special Status

The Species of Special Status VC will include consideration of the following species and their critical habitat which may be present in the SEA Study Area and could be affected during exploration activities: species listed on Schedule 1 of *Species at Risk Act* (SARA); species assessed as endangered, threatened, or of special concern by Committee on the Status of Endangered Wildlife in Canada (COSEWIC); and/or migratory birds protected by the *Migratory Birds Convention Act* (MBCA). Species of special status include marine fish, marine mammals, sea turtles, and marine and migratory birds.

### 6.2.3.2 Special Areas

Designated areas of special interest due to their ecological and/or conservation sensitivities could be affected by exploration activities in the SEA Study Area. These special areas include Marine Protected Areas (MPAs) and Areas of Interest for consideration / designation as an MPA; other effective area-based conservation measures such as fisheries closure and fish conservation areas; coral and sponge conservation areas; critical habitat for species at risk designated under SARA; and ecologically and biologically significant areas (EBSAs). The scope of the VC will also include marine flora and fauna that inhabit special areas (seasonally or year-round) which may not be covered under the Species of Special Status VC as well as special or unique physical habitat features (e.g. canyons, tidal mixing).

### 6.2.3.3 Fisheries

Key fisheries (including relevant fish species) that could be affected by exploration activities in the SEA Study Area will be considered. The focus of the assessment of the Fisheries VC will be on potential disruptions to commercial fishing activities, including Indigenous fisheries interests as applicable, through environmental effects on fisheries resources, displacement from current or traditional fishing areas, or gear loss or damage resulting in a demonstrated financial loss to commercial fishing interests. This VC will also consider food, social and ceremonial species of importance to Indigenous groups (e.g., American eel, Atlantic salmon) and commercial fisheries.

### 6.2.4 Effects Assessment

For each of the identified VCs, a description of the key potential interactions between offshore petroleum exploration activities and the environment will be presented. The scope of exploration activities considered in the SEA includes routine activities associated with geophysical surveys (e.g., seismic programs), seabed surveys (e.g., geohazard surveys, geotechnical surveys), exploratory and delineation drilling (including well testing and well abandonment), as well as associated vessel and helicopter traffic. Accidental events that may result during exploration will also be considered.

Some examples of potential effects of the above listed marine exploration activities that will be considered may include:

- Potential injury or mortality of marine biota;
- Attraction of marine biota to rigs / vessels and their lighting / flares or other environmental discharges;
- Possible contamination of marine biota or other alteration of habitats; and
- Potential effects on fisheries (landings and values).

The SEA will also include an analysis of potential cumulative effects for each VC, based on consideration of potential future offshore oil and gas activities in the region. This will include possible cumulative effects resulting from such petroleum activities in combination with each other, as well as other (non-related) projects and activities in the region such as commercial fishing, general marine traffic, fisheries research surveys, and other relevant anthropogenic components and activities within and adjacent to the SEA Study Area.



## 7.0 Conclusions

The SEA will conclude with a summary of the key findings and outcomes of the assessment. This will include any eventual recommendations stemming from the SEA analysis, including mitigation measures that may be required or appropriate, as well as key planning considerations. This section of the SEA will also highlight key data gaps and information needs and make relevant recommendations regarding the possible focus of future, project-specific EA reviews.

## 8.0 Engagement

The CNSOPB's approach to planning and conducting its SEAs is an inherently open and consultative one, which includes various mechanisms and opportunities for relevant organizations and individuals to receive and review information, and as well as to provide information and perspectives that are relevant to the SEA and its scope. This includes opportunities to identify questions, concerns and issues which require consideration in the SEA and which may be relevant to associated licencing decisions by the Board.

A number of identified government departments and agencies (Environment and Climate Change Canada, Fisheries and Oceans Canada (DFO), Department of National Defence, and possibly others), Indigenous groups, and stakeholder groups, including the CNSOPB's Fisheries Advisory Committee (FAC) and the public will be invited to review this SEA Scoping Document. Comments received will be incorporated into the Draft SEA Report.

Once the Draft SEA Report is completed and available, it will be posted on the CNSOPB website, and made available for a public review. The CNSOPB will notify Indigenous groups, government departments and agencies, FAC, other interested stakeholders and the public of the comment period and will provide direction for submission of comments.

It is anticipated that the Draft SEA will be published for review and comment for a 30-day period, commencing around early to mid-April 2020. All comments received will be considered by the CNSOPB in revising and finalizing the SEA Report, with the final SEA documents anticipated to be published in June 2020.

## 9.0 References

- Stantec Consulting Ltd. 2012a. Strategic Environmental Assessment for Offshore Petroleum Exploration Activities. Eastern Scotian Shelf – Middle and Sable Island Banks (Phase 1A). Prepared for: Canada-Nova Scotia Offshore Petroleum Board.
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