

**Equinor Canada Ltd.
Newfoundland and Labrador Offshore Area
2020 Environmental Assessment Update –
Exploration Drilling Program**

Title: <p style="text-align: center;">Equinor Canada Ltd. Newfoundland and Labrador Offshore Area 2020 Environmental Assessment Update – Exploration Drilling Program</p>		
Document no.: EQ-CNO-0005-20200226	Contract no.: N/A	Project: 2020 Exploration Drilling Program

Classification: Open	Distribution: N/A
Expiry date: Dec 31, 2020	Status: Final

Distribution date:	Rev. no.:	Copy no.: 1
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Author(s)/Source(s):	
Subjects:	
Remarks:	
Valid from: Feb 26, 2020	Updated:
Responsible publisher:	Authority to approve deviations:

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1.0 INTRODUCTION

Environmental assessments (EAs) for offshore oil and gas exploration and production activities are scope for multiple activities that are typically carried out over multiple years. The Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB), in its EA decisions, requires that operators, when applying for various authorizations (e.g. Operations Authorization [OA], Geological / Geotechnical / Environmental Program Authorization, Geophysical Program Authorization, Vertical Seismic Profile [VSP] Authorization, etc.) submit information confirming that the proposed activities fall within the scope of a previously approved EA, indicate if the EA predictions remain valid, and provide an update on species at risk (SAR). The information in this document herein provides the information to support the above requirements and notes any changes that need to be addressed.

This EA Update is specific to the Equinor Canada Ltd. (Equinor) 2020 exploration drilling program (refer to Section 2.1.1). The scope of the exploration drilling activities planned in 2020 were assessed under the approved EA noted in Table 1.1.

Table 1.1 Approved EA

Document	Temporal Scope	Reference No.
Flemish Pass Exploration Drilling Program Environmental Impact Statement (EIS) (Statoil 2017)	Year-round, 2019 to 2027 inclusive	Canadian Impact Assessment Registry (CIAR) 80129 (IAAC 2019)
Responses to Information Requirements (IRs) (Statoil 2018, Statoil and ExxonMobil 2018, Equinor and ExxonMobil 2018a, 2018b)		
EA Decision Statement – Flemish Pass Exploration Drilling Project (ECCC 2019)		

This document provides the necessary update to the existing EA for the proposed 2020 exploration drilling activities by ensuring that the scope of the assessment and mitigations committed to in the EA remain valid.

The purpose of this 2020 EA Update is to:

- Provide an overview of proposed exploration drilling activities for the upcoming year;
- Update any applicable baseline information for key environmental components that has become available since the EA was produced;
- Described any engagement and consultation activities undertaken;
- Confirm that the nature and scope of the proposed activities are within the scope of the previously approved EA, including the appropriateness and adequacy of the associated environmental effects predictions and mitigation measures.

2.0 ENVIRONMENTAL ASSESSMENT UPDATE

2.1 Scope of Approved EA

Table 2.1 below outlines the activities included in approved EA including section references from the Flemish Pass Exploration Drilling Program EIS (Statoil 2017). Equinor did not drill any exploratory wells in 2019, and therefore no wells have been drilled in the Project Area under this approved EA.

Table 2.1 Scope of Approved EA

Activity	EIS Section Reference (Statoil 2017)
Mobilization of drilling installation(s)	Section 2.5.2.2 (Mobilization of the Drilling Installation)
Drilling and testing of up to 24 exploratory wells (including delineation and appraisal wells) using one or more drilling installation	Section 2.5.2.3 (Offshore Well Drilling)
Formation flow testing with flaring	Section 2.5.2.4 (Formation Flow Testing with Flaring)
Geophysical / geohazard / wellsite and seabed surveys	Section 2.5.2.1 (Wellsite Surveys – Drill Planning) and Section 2.5.2.5 (Geophysical, Environmental and Geotechnical Surveys)
VSP surveys	Section 2.5.2.5 (Geophysical, Environmental and Geotechnical Surveys)
Environmental surveys	Section 2.5.2.5 (Geophysical, Environmental and Geotechnical Surveys)
Geotechnical surveys	Section 2.5.2.5 (Geophysical, Environmental and Geotechnical Surveys)
Remotely operated vehicle (ROV) and autonomous underwater vehicle (AUV) surveys	Section 2.5.2.5 (Geophysical, Environmental and Geotechnical Surveys)
Supply and servicing	Section 2.5.2.6 (Supply and Servicing)
Well suspension, abandonment, decommissioning and demobilization	Section 2.5.2.7 (Well Suspension, Abandonment, Decommissioning and Demobilization)

Equinor had an Accord Acts EA filed with the C-NLOPB that covered a temporal scope of 2008 to 2019. The C-NLOPB indicated through letter correspondence in January 2019 (file #: 7705 N54-3/07) that the *Canadian Environmental Assessment Act, 2012* (CEAA 2012) Flemish Pass EA meets the Accord Acts EA requirements within the project area defined in the Flemish Pass EIS (figure 2-1 in Statoil 2017), provided conditions in the Decision Statement issued by the Minister of Environment and Climate Change Canada (ECCC 2019) are implemented.

2.2 Geographic Scope of Approved EA

The Project Area, as defined in the previously approved EA (Statoil 2017) is illustrated in Figure 2-1 and coordinates are provided in Tables 2.2 and 2.3 for the Northern and Southern Sections of the Project Area, respectively.

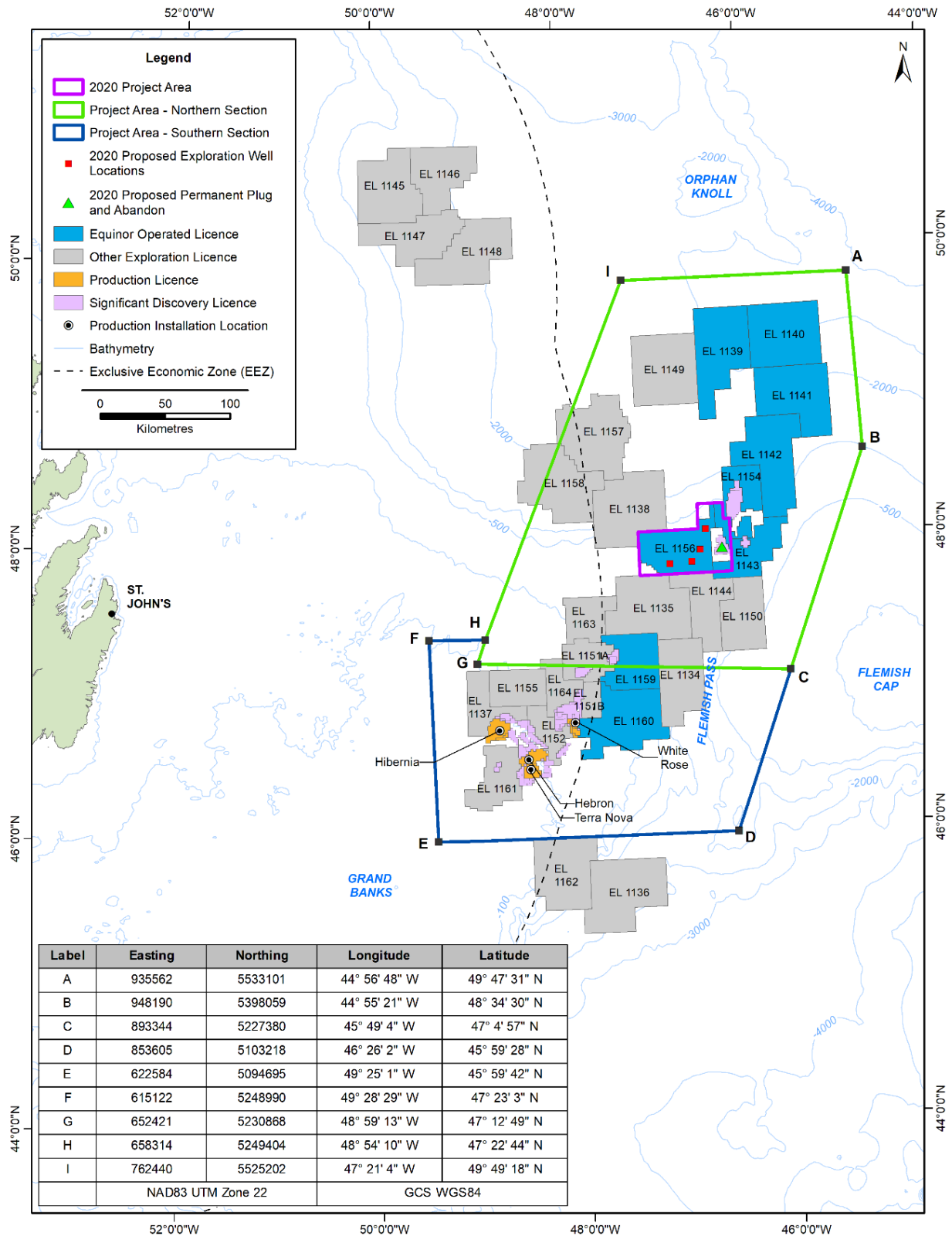


Figure 2-1 Project Area and Corner Point Coordinates

Table 2.2 Project Area – Northern Section Coordinates

Project Area Vertices	Coordinates – NAD83 UTM ZONE 22N			
	Longitude (DMS)	Latitude (DMS)	Easting (m)	Northing (m)
A	44° 56' 48" W	49° 47' 31" N	935562	5533101
B	44° 55' 21" W	48° 34' 30" N	948190	5398059
C	45° 49' 04" W	47° 04' 57" N	893344	5227380
G	48° 59' 13" W	47° 12' 49" N	652421	5230868
I	47° 21' 04" W	49° 49' 18" N	762440	5525202

Table 2.3 Project Area – Southern Section Coordinates

Project Area Vertices	Coordinates – NAD83 UTM ZONE 22N			
	Longitude (DMS)	Latitude (DMS)	Easting (m)	Northing (m)
C	45° 49' 04" W	47° 04' 57" N	893344	5227380
D	46° 26' 02" W	45° 59' 28" N	853605	5103218
E	49° 25' 01" W	45° 59' 42" N	622584	5094695
F	49° 28' 29" W	47° 23' 03" N	615122	5248990
G	48° 59' 13" W	47° 12' 49" N	652421	5230868
H	48° 54' 10" W	47° 22' 44" N	658314	5249404

2.3 Temporal Scope of Approved EA

All activities scoped in the previously approved EA (Statoil 2017) could be carried out year-round from 2019 to the end of 2027.

2.4 Proposed Activities for 2020

2.4.1 Exploration Drilling Program

For 2020, Equinor is proposing to execute an exploration drilling program approximately 430 km offshore Newfoundland and Labrador (NL). Equinor’s 2020 drilling plans include the following and locations are shown in Figure 2-1:

- One permanent plug and abandon (PP&A) located in Significant Discovery Licence (SDL) 1055;
- Two exploration wells in exploration licence (Exploration Licence [EL] 1156);
- One potential sidetrack in EL 1156; and
- Two optional top holes in EL 1156 (i.e., 42” top hole drilling and running 36” conductor only).

Water depths at well locations range from approximately 612 metres to 974 metres. Due to water depths in the well locations, the mobile offshore drilling unit (MODU) will maintain position using a dynamic positioning (DP) system rather than anchoring / mooring systems.

Equinor completed pre-drill coral and sponge surveys at the proposed well locations in November 2019 to follow up from the 2018 surveys that were carried out but were not completely successful in obtaining all of the required data. This work scope was included in the 2019 EA Update (Equinor 2019) and completed under a C-NLOBP authorization. Equinor developed a Coral and Sponge Survey Plan which was submitted to C-NLOPB and Fisheries and Oceans Canada (DFO) for review and acceptance prior to commencing the survey. Equinor is also in the process of preparing a Coral and Sponge Results Report (Equinor 2020a) and Coral and Sponge Risk Assessment Report, which will be provided to C-NLOPB and DFO for review and acceptance at least 60 days before drilling commences.

In addition to the activities outlined above, the following may be completed to support the 2020 activities:

- Vessel and helicopter support for supply and servicing;
- Acceptance Test Program activity as per rig intake requirements- DP system test, Remotely Operated Vehicle (ROV), test, and cement unit testing where cement slurry would be discharged overboard;
- ROV placement of transponders on the seafloor;
- Deployment of metocean equipment;
- Wellsite surveys (may include shallow hazard survey, as-found and as-left surveys using ROV, geotechnical surveys and environmental surveys);
- VSP surveys; and
- Well testing using formation testing while tripping, or a similar method that does not require flaring and is deemed acceptable by the C-NLOPB.

2.4.2 Other Offshore Programs

If Equinor executes other offshore programs in addition to the exploration drilling program, then a separate EA Update will be prepared and submitted to the C-NLOPB.

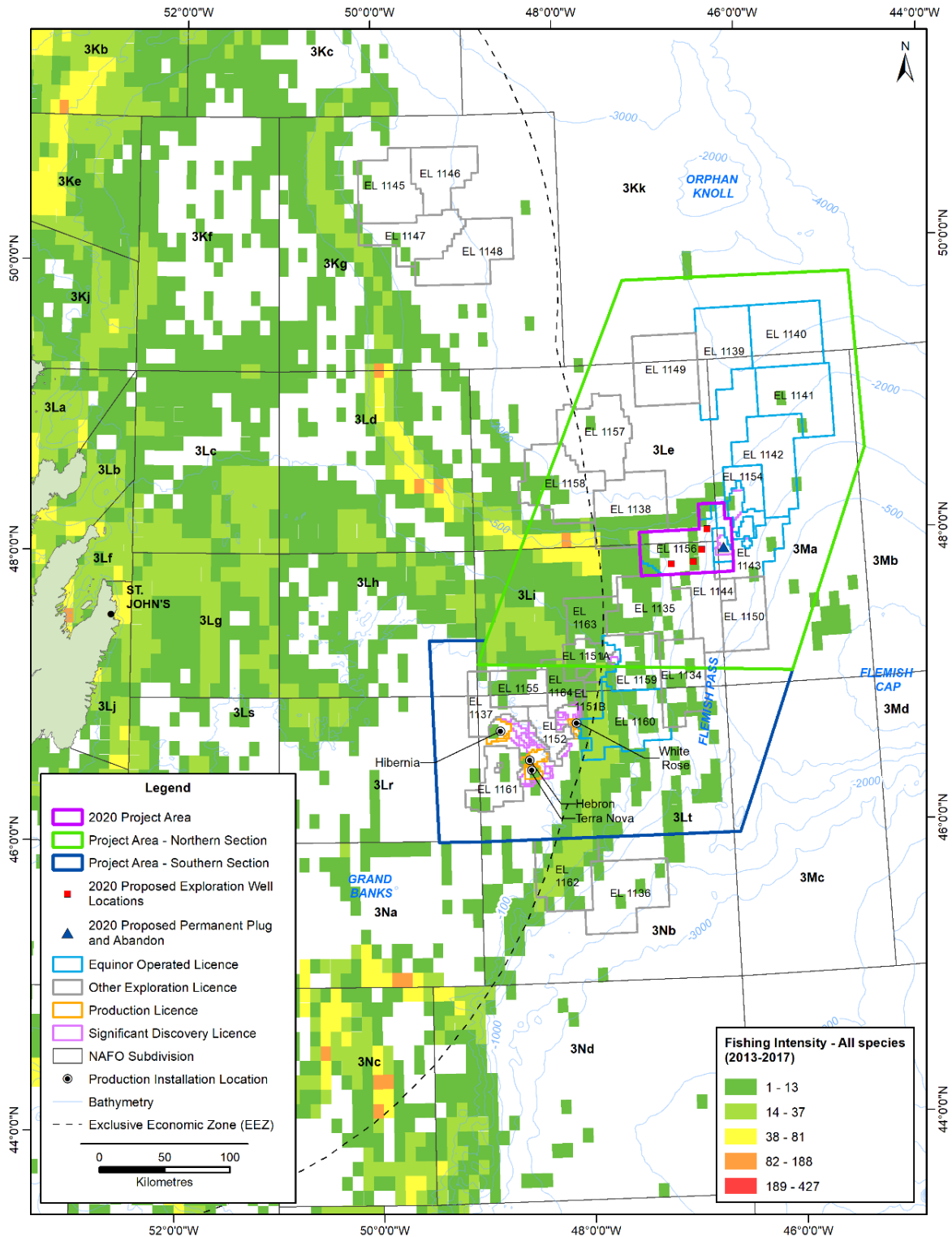
3.0 ENVIRONMENTAL ASPECTS

This section addresses the environmental aspects associated with the activities outlined in Section 2.1.1.

3.1 Commercial Fisheries

Figure 3-1 illustrates the pattern of fishing activity in 2017 for commercial species based on domestic (i.e., Canadian) geospatial catch data as obtained from DFO with respect to Project Area. This pattern of activity is consistent with that documented in the previously approved EA (Statoil 2017).

Within offshore NL and the Drilling EIS Project Areas, general fishing distribution and activity for most species has remained consistent since the previously approved EA. Quotas for fisheries have changed throughout fishing seasons, resulting in lower harvesting activity for some fisheries. However general fishing trends and locations of harvesting activities for species have remained consistent.



Note: Fishing for northern shrimp in NAFO Division 3L has been under a moratorium since 2015.

Figure 3-1 Pattern of Canadian Fishing Activity (2013 to 2017) for All Commercial Species in Relation to the Project Area (Canadian data only)

Commercial harvesting for northern shrimp (*Pandalus borealis*) in Shrimp Fishing Area 7 (Northwest Atlantic Fishing Organization [NAFO] Division 3L) was placed under moratoria in 2015 due to declining shrimp stocks and poor recruitment numbers (DFO 2018a; 2019a). Commercial harvesting activity for northern shrimp is under moratoria in Division 3L where it occurs within the Canadian 200 nautical mile (NM) Exclusive Economic Zone (EEZ) and in the portion of Division 3L outside the EEZ (and in Division 3M), regulated by NAFO; no directed fishery is planned for 2020 or 2021 (NAFO 2020). The proposed 2020 activities fall within NAFO Division 3L, as a result there is no directed fishing activity for northern shrimp within the 2020 Project Area (Figure 3-2).

DFO's fishing activity information for commercial species of interest (i.e., Greenland halibut [*Reinhardtius hippoglossoides*] and snow crab [*Chionoecetes opilio*]) are provided in Figures 3-3 and 3-4, respectively. Mapping for additional species of commercial interest (i.e., Atlantic cod [*Gadus morhua*], American plaice [*Hippoglossoides platessoides*], and redfish [*Sebastes* spp.]) are provided in Appendix B.

Snow crab is harvested within the EIS Project Areas but with low activity within Equinor's licences. Figure 3-4 shows the 2017 patterns of Canadian fishing activity for snow crab. The pattern of activity shown for snow crab is showing a decline in fishing activity in the areas / locations associated with proposed 2020 activities as compared to the previously approved EA. This is due to continual declines in total allowable catch (TAC) for these species, as biomass appears to be shrinking and recruitment is low in certain areas (DFO 2019b).

With respect to international fishing, Equinor is aware that redfish will likely be fished by NAFO fishing vessels in the area of the Flemish Pass as part of their activities within the NAFO "footprint", outside the EEZ.

The fisheries quotas allocated to NAFO vessels for 2020 are described in NAFO/COM Doc. 19-01 (NAFO 2020). This document indicates TAC of 12,542 tonnes (t) for Greenland halibut and 46,690 t for redfish. Of these amounts, 1,881 t of Greenland halibut TAC and 14,210 t of redfish TAC have been allocated to Canadian vessels. Domestically, the most recent fisheries management decision for snow crab set the current TAC for the 2019 fishing season in NAFO Divisions 3LNO at 15,818 t (DFO 2019b), which is a decrease compared to the 2018 season (18,840 t).

For international fishing operations, the data on previous fishing activities cannot be definitively used to predict the extent quota allocations will be taken in the EIS Project Areas. There is no scheduled northern shrimp fishery in NAFO Division 3L for 2020 (or 2021) due to the current moratorium in place.

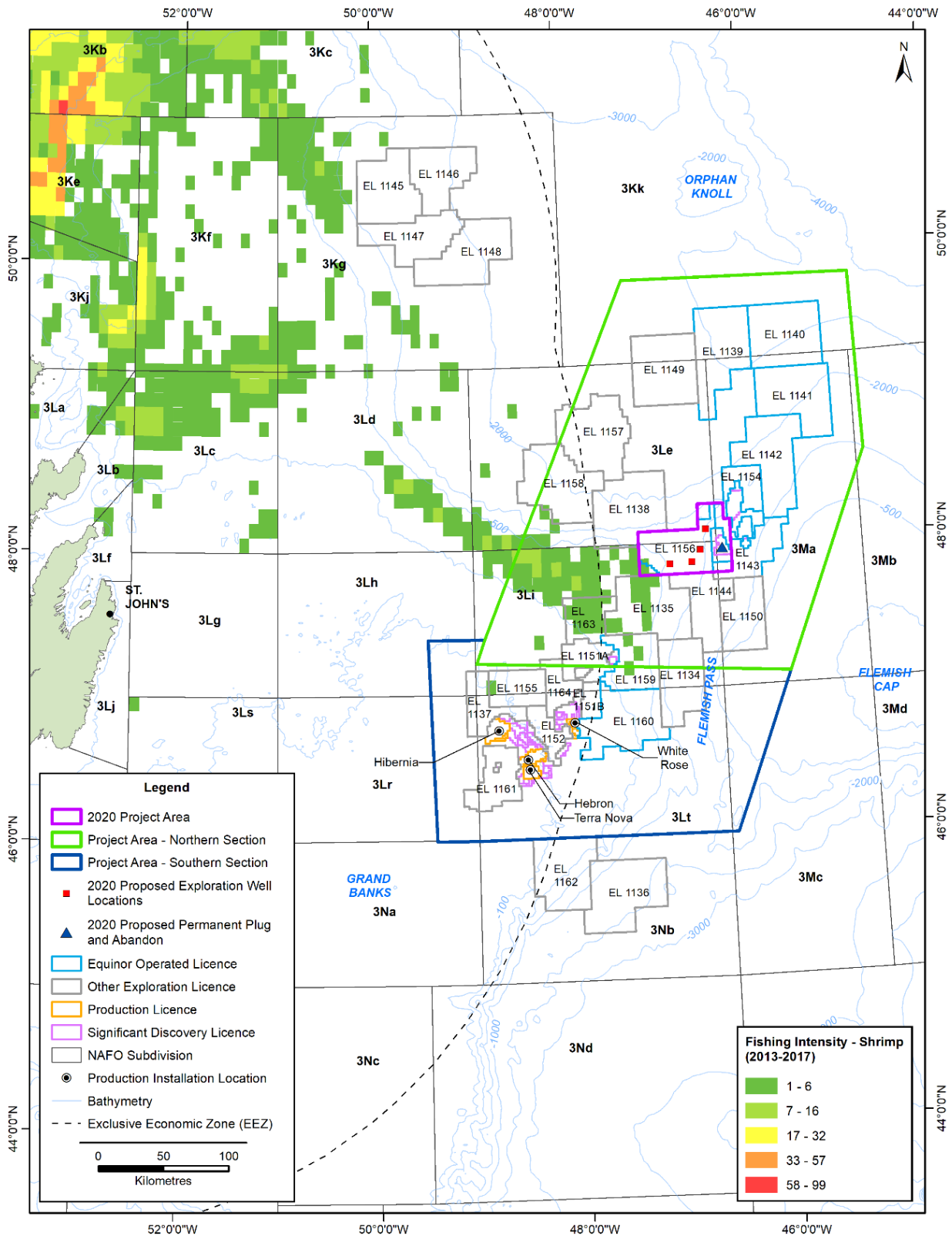


Figure 3-2 Pattern of Northern Shrimp Fishery, 2013 to 2017 (Canadian data only)

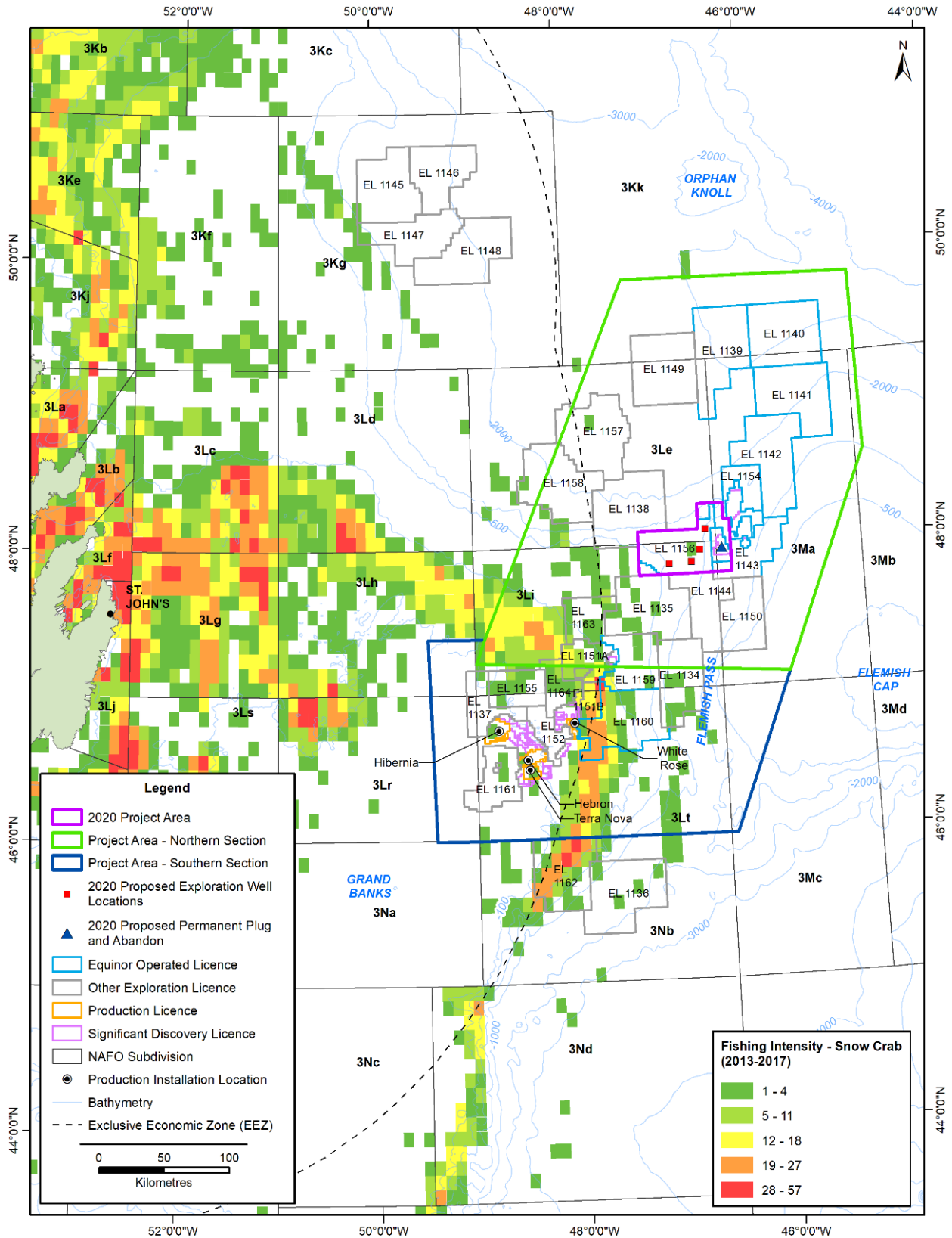


Figure 3-4 Pattern of Snow Crab Fishery, 2013 to 2017 (Canadian data only)

3.2 Engagement

3.2.1 Regulatory Agencies

3.2.1.1 C-NLOPB – EA Commitments and Conditions

Commitments and conditions applicable to the 2020 drilling program are outlined in the Flemish Pass Environmental Impact Statement (EIS) (e.g. refer to table 17.2 in Statoil 2017), responses to select IRs (Equinor and ExxonMobil 2018a, 2018b; Statoil 2018; Statoil and ExxonMobil 2018), and conditions outlined in the Decision Statement (ECCC 2019).

Equinor has developed an EA Implementation Schedule for the 2020 drilling program. This schedule contains information such as, but not limited to:

- Description of the commitment or condition;
- Compliance plan details;
- Program phase;
- Commencement and completion dates;
- Verification details.

Equinor will meet with the C-NLOPB on a regular basis review the Decision Statement conditions (ECCC 2019) and associated compliance plans, commencement / completion dates and verification details. The frequency of meetings will be determined with the C-NLOPB; however, it is anticipated that monthly meetings will occur initially and will then increase to biweekly.

3.2.1.2 C-NLOPB – Follow-up and Monitoring Programs

Under the EA Decision Statement (ECCC 2019), Equinor is required to execute a follow-up and monitoring program. Compliance associated with this program will be provided to the C-NLOPB in the tracking register and regular meetings discussed in Section 3.2.1.1.

3.2.1.3 C-NLOPB and DFO – Coral and Sponge Surveys

Equinor completed pre-drill coral and sponge surveys at the proposed well locations in August 2018 and November 2019. Equinor developed a Coral and Sponge Survey Plan, which was submitted to C-NLOPB and DFO for review and acceptance prior to commencing the survey. Equinor has submitted a Coral and Sponge Results Report (Equinor 2020a) and will submit a Coral and Sponge Risk Assessment Report, which will be provided to C-NLOPB and DFO for review and acceptance before drilling commences. This 2020 EA Update will not be updated with the results of the survey as they will be included in a separate cover and available online.

3.2.1.4 DFO – Research Vessel Surveys

DFO undertakes annual fisheries research surveys in the NL offshore area. Table 3.1 provides a tentative schedule for DFO research surveys for 2020 (L. Mello, pers. comm. 2020). Equinor will coordinate with DFO prior to commencement of proposed 2020 activities described in Section 2.1.1 to determine if there are spatial or temporal conflicts.

Table 3.1 Proposed 2020 DFO Research Vessel Surveys

Vessel	Activity	NAFO Divisions	Planned Start	Planned End
<i>RV Needler</i>	NL Spring Survey	3L+3N	May 20, 2020	June 2, 2020
	NL Fall Survey	3K+3L+3N	October 7, 2020	November 17, 2020
<i>RV Teleost</i>	NL Spring AZMP	3L	March 30, 2020	April 21, 2020
	Calibrations	3P+3KLMNO	April 22, 2020	April 27, 2020
	Capelin Survey	3KL	April 28, 2020	May 19, 2020

There is also an annual Industry-DFO Collaborative Post Season Trap Survey for snow crab, which is conducted using commercial and modified snow crab traps at established trap stations. The survey typically starts in late August or early September after the commercial snow crab season has ended. Appendix C outlines the 2019 locations (2020 locations have not yet been determined) of the post-season survey, and there is no overlap with proposed 2020 drilling activities.

3.2.1.5 DND – Military Exercises

Equinor SSU Manager will contact the Department of National Defence to determine if there are any planned military activities scheduled in 2020 in the vicinity of the EL well locations. If there is no planned activity, Equinor will commence drilling as per the planned drilling schedule.

3.2.1.6 Canadian Coast Guard – Seabed Hazards

As mentioned in Section 2.1.1, a shallow hazard survey will be completed prior to drilling. If unexploded ordnance or other seabed hazards are observed, then they will not be disturbed. Equinor will contact the Canadian Coast Guard’s Joint Rescue Coordination Centre in Halifax and the C-NLOPB to determine an appropriate course of action prior to commencing the drilling program.

3.2.2 Fishers

Information regarding the proposed 2020 exploration drilling program was provided to the following fisheries organizations:

- Association of Seafood Producers (ASP);
- Atlantic Groundfish Council (AGC);
- Fish, Food and Allied Workers-Unifor (FFAW-Unifor); and
- Ocean Choice International (OCI).

There is also ongoing liaison with the fishing industry through the regular meetings of the One Ocean Industry Board that includes representatives from the various operating oil and gas operators and the fishing sector. Equinor recognizes that other countries fish outside Canada’s 200 NM EEZ. To reduce potential conflict, Equinor will inform Canada’s representative, DFO, on NAFO regarding 2020 activities and will also communicate Navigational Warnings (NAVWARNs) to the NAFO Secretariat in Halifax, Nova Scotia via DFO.

Equinor recognizes that communication and coordination between oil and gas industry activities and fishing interests are critical to avoid or reduce interference with either industries offshore operators. Key factors to achieve this from Equinor’s perspective include:

- Implementing protocols outlines in the Fisheries Communication Plan (Equinor 2020b);
- Ongoing communication with commercial fish harvesters in the Project Area including AGC, ASP, FFAW-Unifor and OCI;
- Ongoing communication with One Ocean and NAFO (through DFO);
- As the geophysical scope will be VSP and therefore will not require a fisheries liaison officer (FLO) during the tow to field operations;
- If nearshore sea trials are required, determining final location in consultation with FFAW to ensure no conflict with ongoing fishing activities in sea trial areas;
- There are no designated shipping lanes within the designated 2020 EL drilling locations;
- Establishing a single point of contact (SPOC) for reporting potential fishing gear interactions during 2020 activities;
- Implementing a compensation program for damages resulting from program activities, and in consideration of C-NLOPB’s Compensation Guidelines Respecting Damages Relating to Offshore Petroleum Activities (C-NLOPB and CNSOPB 2017);
- Issuing NAVWARNs; and
- Issuing Notice to Mariners for abandoned wellheads.

3.2.3 Indigenous Groups

As per the Equinor Implementation Schedule consultation with indigenous groups will be conducted in the designated period to ensure satisfaction to the consultation requirement. A SPOC will be established to further ensure consistency and accurate information if provided. This information will be provided in the Implementation Schedule and further discussed in meetings with the C-NLOPB. An Indigenous Fisheries Communication Plan has been completed and submitted to the C-NLOPB. Further engagement was carried out in February 2020 regarding any updates to contact information.

If material changes are made that could have result in adverse impacts on the environment, Equinor will consult with indigenous groups at least 60 days prior to initiating the change. Any potential environmental effects, proposed mitigation measures, follow-up requirements, as well as results of consultation feedback and views will be tracked using the engagement log.

Equinor will annually provide indigenous groups and the C-NLOPB written intent to participate in Atlantic salmon (*Salmo salar*) in the Jeanne d’Arc Basin research. Equinor will establish an external website prior to drilling that contain required pre-drilling and project documents. Documents supporting follow-up/monitoring programs and executive summaries will not be posted until post drilling. Indigenous groups will be provided 48-hour notice post Equinor publishing on the site.

3.3 Corals and Sponges

Drilling will involve the use of water-based mud and synthetic-based mud. Potential effects of drilling activities on corals and sponges were assessed in the previously approved EA. Information on these species was provided in the previously approved EA as well as the understanding of their distribution in the EIS Project Areas. Since that time there has been no substantial additional descriptive information on the Flemish Pass area that has been published relevant to corals and sponges. Chapter 6 of the Flemish Pass Exploration Drilling EIS provides an overview (Statoil 2017).

There are no special areas related to corals and sponges that overlap with the well locations (see Section 3.5).

As previously mentioned, Equinor completed a coral and sponge survey at the well locations in August 2018 and November 2019. The C-NLOPB and DFO were provided with the Coral and Sponge Survey Plan for review and acceptance prior to the survey commencing. Equinor is currently in the process of preparing the Coral and Sponge Survey Results Report and Coral and Sponge Survey Risk Assessment Report; both of which will be provided to C-NLOPB and DFO for review and acceptance.

3.4 Species at Risk

Appendix D outlines SAR as designated by the *Species at Risk Act* (SARA) and Committee on the Status of Endangered Wildlife in Canada (COSEWIC), as well as the Newfoundland and Labrador *Endangered Species Act*, for the Grand Banks and Flemish Pass areas.

A review of the SARA species-specific recovery plans and the two critical habitat statements, as noted in Appendix D, do not indicate that new or modified mitigation measures are required beyond those already committed to by Equinor for the scope of the operations addressed by the previously approved EA relevant to the activities described in this update.

DFO is conducting consultation on listing the Atlantic and Northern Gulf of St. Lawrence population of white hake (*Urophycis tenuis* - currently assessed as threatened by COSEWIC) (DFO 2019c) and the Eastern Scotian Shelf and Newfoundland population of winter skate (*Leucoraja ocellata* - currently assessed as endangered by COSEWIC) (DFO 2019d) under SARA.

The list of SAR in the EIS Project Areas has been updated from the previously approved EA. Roughhead grenadier (*Macrourus berglax*) was removed from the list of species as COSEWIC considers it no longer at risk (COSEWIC 2018). COSEWIC placed the shortfin mako (*Isurus oxyrinchus*) in a higher risk category (Endangered) (COSEWIC 2019). Red-necked phalarope (*Phalaropus lobatus*) was added to SARA Schedule 1 and listed as Special Concern (Government of Canada 2019).

3.4.1 North Atlantic Right Whale

North Atlantic right whale (*Eubalaena glacialis*) has a Critical Habitat Protection Statement pursuant to SARA (DFO 2009); however, there has been no critical habitat designated in the EIS Project Areas and based on known sightings to date, it is an infrequent visitor to the EIS Project Areas (Statoil 2017). The critical habitat designated for this species is in the Grand Manan Basin in the Bay of Fundy, which is outside the EIS Project Areas. The National Oceanic and Atmospheric Administration (NOAA) Northeast Fisheries Science Centre (NEFSC) has an interactive North Atlantic Right Whale Sightings Map and most reported sightings between January 2010 and end January 2020 have been along the United States

eastern seaboard, southwest of Nova Scotia and east of New Brunswick (NOAA NEFSC 2020). A few observations occurred off NL and none were reported within the 2020 Project Area (NOAA NEFSC 2020). A few observations were also documented in the Flemish Pass Exploration Drilling EIS (Statoil 2017).

3.4.2 Northern Bottlenose Whale (Scotian Shelf Population)

The northern bottlenose whale (*Hyperoodon ampullatus*) (Scotian Shelf population) has a Critical Habitat Protection Statement pursuant to SARA (DFO 2010). However, the identified critical habitat is outside the EIS Project Areas and in the Scotian Shelf area (Statoil 2017). There is some evidence that northern bottlenose whale are also found on the edge of the Grand Banks near the Flemish Cap, although it's unclear whether these individuals are from the Scotian Shelf or Davis Strait-Baffin Bay population (Statoil 2017; DFO 2016). Seismic activities are not planned for 2020, which reduces potential interactions and effects with this species.

3.4.3 Northern and Spotted Wolffish

The proposed “Recovery Strategy for Northern Wolffish (*Anarhichas denticulatus*) and Spotted Wolffish (*Anarhichas minor*), and Management Plan for Atlantic Wolffish (*Anarhichas lupus*) in Canada” (DFO 2018b) identifies proposed critical habitat for the northern and spotted wolffish. DFO has not issued a Critical Habitat Protection Statement for these species. The critical habitat identified falls within the EIS Project Areas but does not overlap with proposed 2020 activities in the Flemish Pass area.

3.5 Special Areas

As illustrated in Figure 3-5, there are a number of special areas within the EIS Project Areas, including NAFO Fishery Closure Areas (FCAs), a marine refuge, Vulnerable Marine Ecosystems (VMEs), and Ecologically or Biologically Significant Areas (EBSAs).

As illustrated in Figure 3-5, proposed 2020 drilling activities overlap with the United Nations Convention of Biological Diversity EBSA – Slopes of the Flemish Cap and Grand Bank, which has a total area of approximately 87,817 km². This special area contains most of the aggregations of indicator species for VMEs in the NAFO Regulatory Area and includes NAFO closures to protect corals and sponges and a component of Greenland halibut fishery grounds in international waters. A high diversity of marine taxa, including Threatened and listed species are found within this area. A small VME of large gorgonian coral is also within the 2020 Project Area.

Given the location of special areas associated with corals and sponges, nature of drill cuttings deposition and the mitigation measures noted above, the conclusions of the previously approved EA and amendments remain valid.

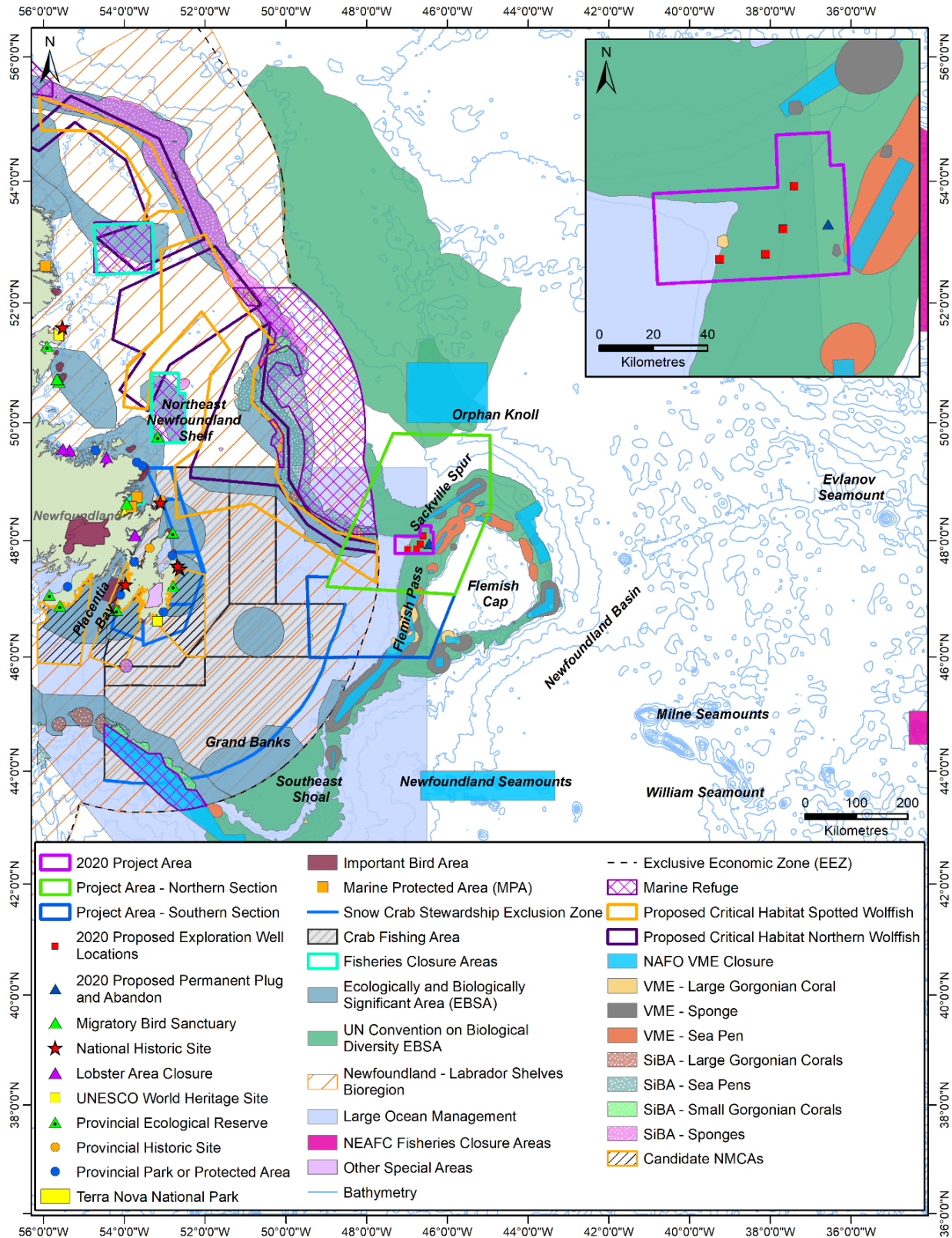


Figure 3-5 Locations of Special Areas within and near the Project Area

3.6 Mitigation Measures

Equinor regards the environmental predictions, consequent mitigations and subsequent significance determination as cited in the previously approved EA and amendments as valid and re-commits to implementing these mitigation measures for the proposed activities to be carried in 2020. Mitigation measures to be implemented for all proposed 2020 activities, as outlined in the previously approved EA and amendments, include the following:

- Communication with DFO regarding research vessel surveys;
- Fishing gear and vessel compensation program;
- Establish a single point of contact;
- Marine mammal and seabird observations, including protocols for observing and reporting;
- Passive acoustic monitoring during the VSP (if carried out);
- Handling and release of stranded seabirds including protocols for these activities;
- C-NLOPB's Chemical Screening Guidelines (NEB et al. 2009);
- C-NLOPB's Offshore Waste Treatment Guidelines (NEB et al. 2010);
- Total Fluids Management Plan (Equinor 2020c);
- Communication with DND regarding planned offshore military activity;
- Communication with Indigenous groups as per decision statement conditions including an Indigenous Fisheries Communication Plan which has been approved;
- Communicate according to approved Fishers Communication Plan (Equinor 2020b);
- Communication with One Ocean and NAFO (through DFO);
- SPOC for reporting potential fishing gear interactions during 2020 activities;
- Issuing NAVWARNs;
- Issuing Notice to Mariners for abandoned wellheads;
- Notice to shipping is not required as there are no shipping lanes in the well locations for the 2020 drilling program;
- As per Equinor Marine Operations Plan and EPCMP supply and other support vessels will maintain 300 m from Cape St. Francis and Witless Bay Islands Important Bird and Biodiversity Areas, unless there is an emergency;
- Helicopters to fly at altitudes greater than 300 m above sea level from active bird colonies and at a lateral distance of 1,000 m from Cape St. Francis and Witless Bay Islands Important Bird and Biodiversity Areas as per the Canadian *Civil Aviation Regulations*;
- Supply vessels will reduce speed to a maximum of 13 kilometres per hour [7 knots] when a marine mammal or sea turtle is observed or reported within 400 m of a supply vessel, except if not feasible for safety reasons.

Note that the Implementation Schedule, which will be posted online, contains further detailed information on mitigations regarding the drilling program, including some items on this list.

4.0 CONCLUDING STATEMENT

The proposed 2020 drilling program to be executed by Equinor have been reviewed and assessed to be within the scope of previously approved EA, specifically:

- The scope and nature of proposed activities and addressed under the previously approved EA and amendments have not changed;
- The nature and extent of the fishing activities being undertaken in the Project Area have been validated and have not changed such that proposed activities pose any potential effects not previously assessed;
- The nature of the SAR in the Project Area have been validated and no new species has been added to Schedule 1 of SARA nor to COSEWIC listings;
- As noted previously in this update, no critical habitats for any of these species defined pursuant to the SARA occur in the Project Area;
- The mitigation measures defined and committed to in the previously approved EA are still valid and will continue to be implemented;
- The commitments and conditions associated with the previously approved EA will be implemented; and
- Equinor continues to consult with regulatory agencies, fishers and Indigenous groups directly affected by the proposed activities under the previously approved EA.

The environmental effects predicted in previously approved EA remain valid. Equinor reaffirms its commitment to implement the mitigation measures, commitments and conditions associated with the EA.

5.0 ADDITIONAL INFORMATION

5.1 Abbreviations

AGC	Atlantic Groundfish Council
ASP	Association of Seafood Producers
AUV	Autonomous Underwater Vehicle
CEAA 2012	<i>Canadian Environmental Assessment Act, 2012</i>
CEAR	Canadian Environmental Assessment Registry
CIAR	Canadian Impact Assessment Registry (formerly the Canadian Environmental Assessment Registry)
C-NLOPB	Canada-Newfoundland and Labrador Offshore Petroleum Board
CNSOPB	Canada Nova Scotia Offshore Petroleum Board
COSEWIC	Committee on the Status of Wildlife in Canada
DFO	Fisheries and Oceans Canada
DP	Dynamic Positioning
EA	Environmental Assessment
EBSA	Ecologically or Biologically Significant Area
ECCC	Environment and Climate Change Canada
EEZ	Exclusive Economic Zone

EIS	Environmental Impact Statement
EL	Exploration Licence
Equinor	Equinor Canada Ltd.
ExxonMobil	ExxonMobil Canada Ltd.
FCA	Fishery Closure Area
FFAW	Fish, Food and Allied Workers Union
IAAC	Impact Assessment Agency of Canada (formerly the Canadian Environmental Assessment Agency)
IR	Information Requirement
km	Kilometre
km ²	Square Kilometre
MODU	Mobile Offshore Drilling Unit
NAFO	North Atlantic Fisheries Organization
NAVWARN	Navigational Warning
NEFSC	Northeast Fisheries Science Centre
NL	Newfoundland and Labrador
NM	Nautical Mile
NOAA	National Oceanic and Atmospheric Administration
OA	Operations Authorization
OCI	Ocean Choice International
PP&A	Permanent Plug and Abandon
ROV	Remotely Operated Vehicle
SAR	Species at Risk
SARA	<i>Species at Risk Act</i>
SDL	Significant Discovery Licence
SPOC	Single Point of Contact
Statoil	Statoil Canada Ltd.
t	tonne
TAC	Total Allowable Catch
VME	Vulnerable Marine Ecosystem
VSP	Vertical Seismic Profile

5.2 Changes from Previous Version

N/A

5.3 Updates Required in Next Version

N/A

5.4 References

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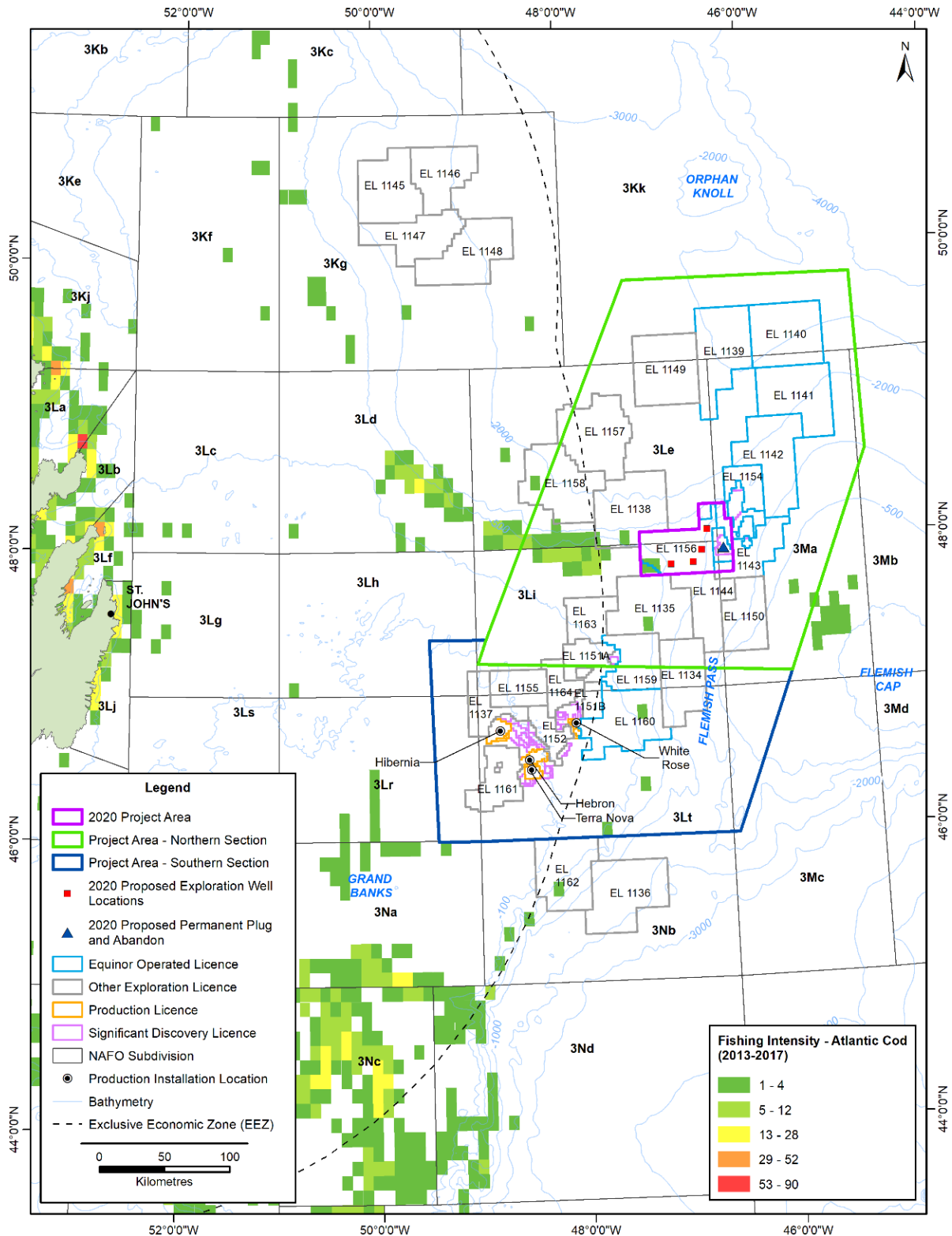
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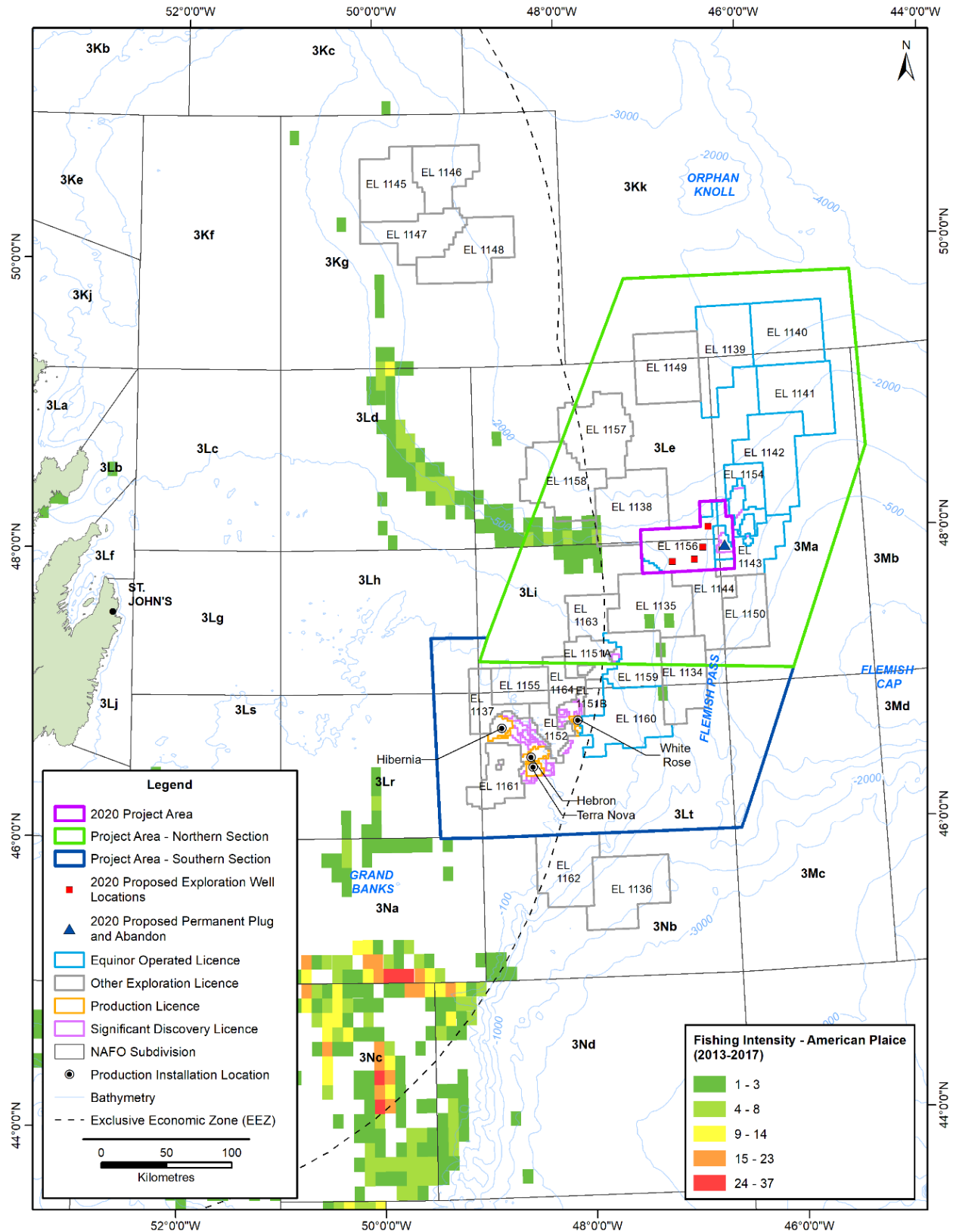
APPENDIX A – DISTRIBUTION LIST

Copy No.	Company	Position	Location
	Equinor	SSU Manager	Equinor's Office, St. John's
	Equinor	VP Operations	Equinor's Office, St. John's
	Equinor	Drilling Project Leader	Equinor's Office, St. John's
	Equinor	Lead Drilling Engineer	Equinor's Office, St. John's
	Equinor	Drilling Superintendent	Equinor's Office, St. John's
	Equinor	Drilling Supply Responsible	Equinor's Office, St. John's
	Equinor	HSE & Regulatory Advisor	Equinor's Office, St. John's
	Equinor	Environment & Regulatory Advisor	Equinor's Office, St. John's
	Equinor	Senior HSE Advisor	Equinor's Office, St. John's
	Equinor	Drilling Supervisor (days)	Transocean Barents
	Equinor	Drilling Supervisor (nights)	Transocean Barents
	Transocean	Barents Rig Manager	Transocean's Office, St. John's
	Transocean	Barents Assistant Rig Manager	Transocean's Office, St. John's
	Transocean	Senior HSE Advisor	Transocean's Office, St. John's
	Transocean	Drilling Superintendent	Transocean Barents
	Transocean	Barents HSE Advisor	Transocean Barents
	Transocean	Barents Dynamic Position Officer	Transocean Barents
	Transocean	Offshore Installation Manager	Transocean Barents
	Schlumberger	Solid Control and Fluids Contractor	Transocean Barents, Mount Pearl
	Halliburton	Cementing Services Contractor	Transocean Barents, Mount Pearl
	C-NLOPB	N/A	St John's Office
	FFAW	Industry Liaison	St John's Office
	AGC	Executive Director	Halifax Office
	ASP	Executive Director	St John's Office
	OCI	Director, Fleet Operations	St. John's Office
	One Ocean	Industry Board – Managing Director	St John's Office

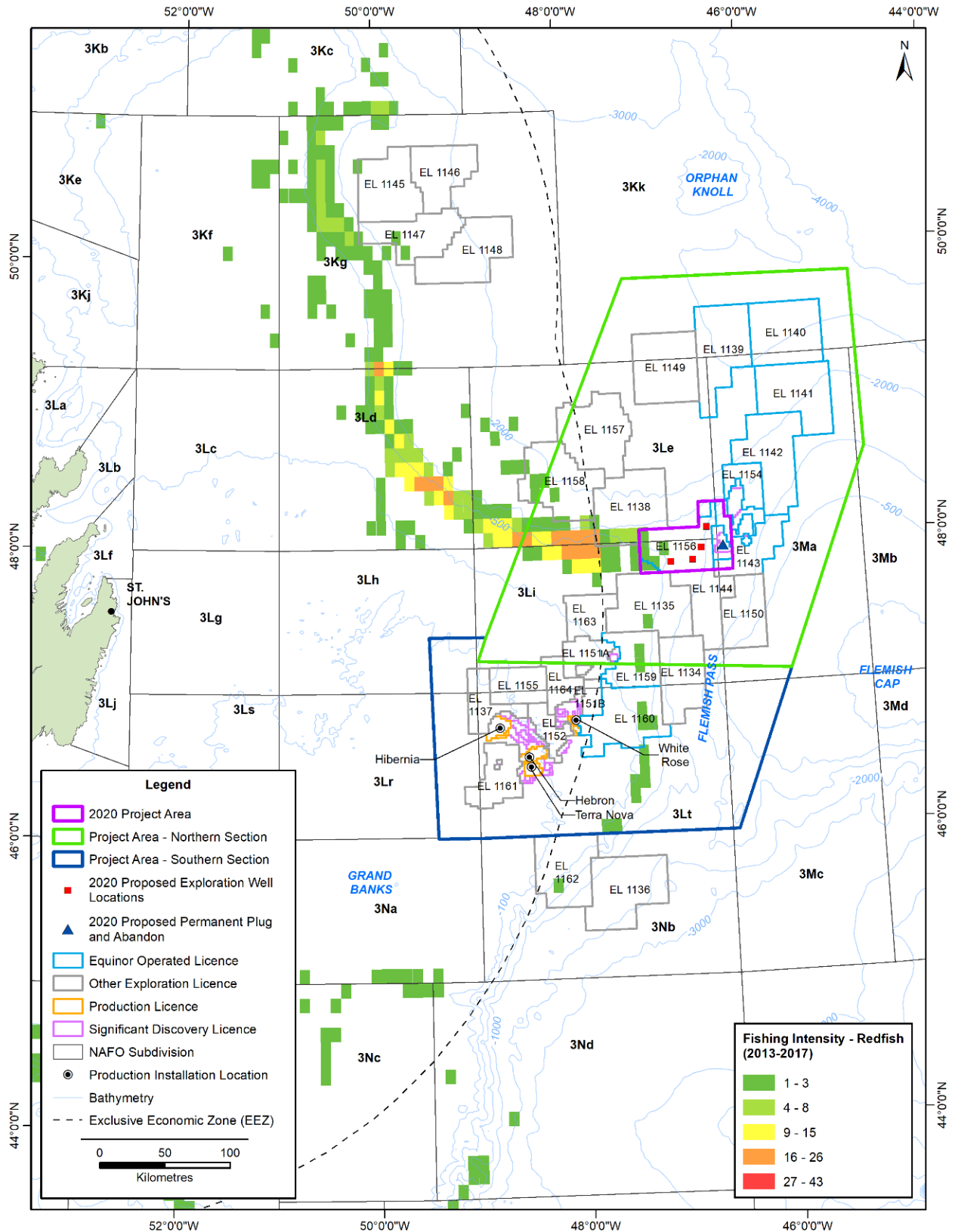
APPENDIX B – FISHING ACTIVITY MAPS FOR COD, AMERICAN PLAICE, AND REDFISH



Pattern of Atlantic Cod Fishery, 2013 to 2017 (Canadian data only)

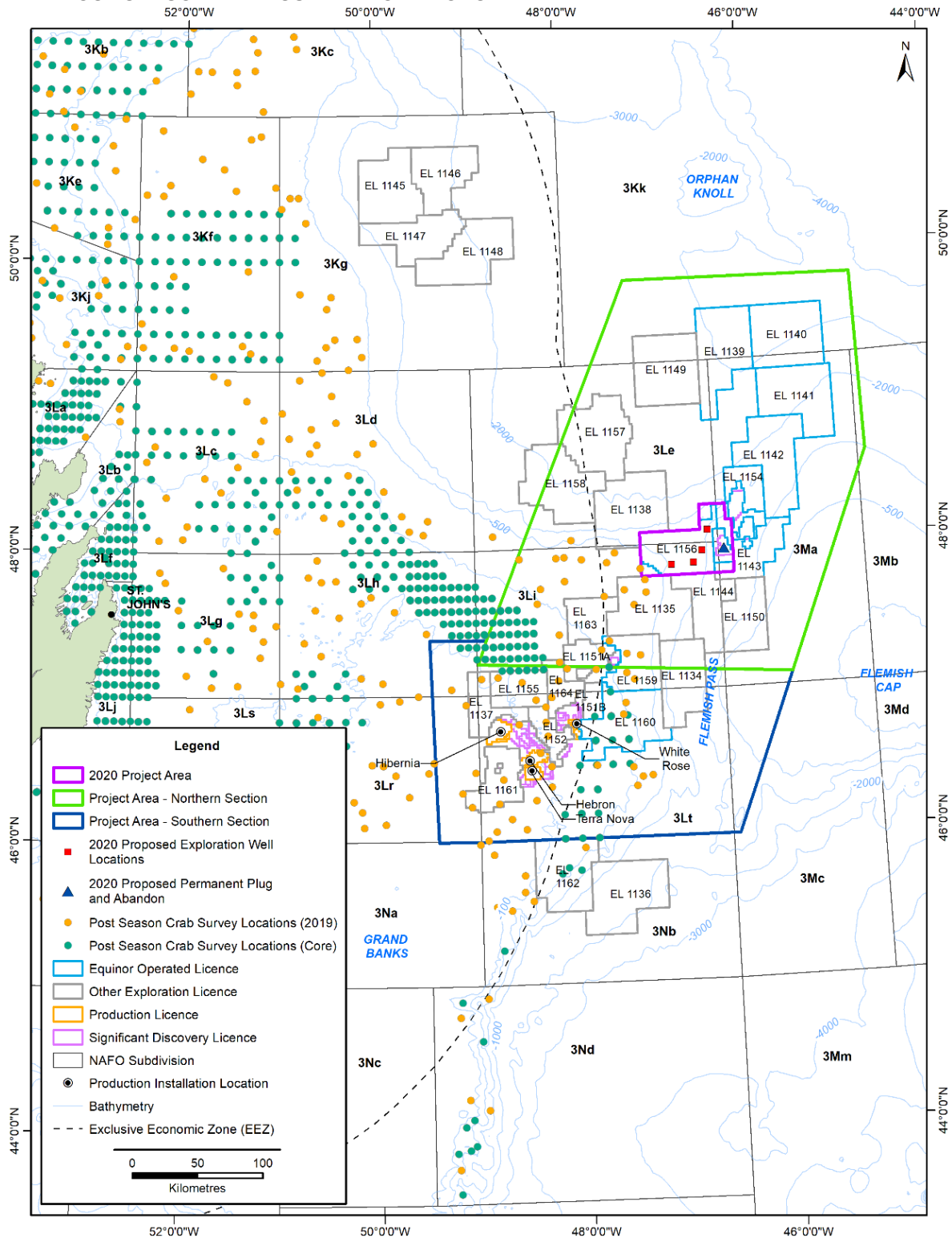


Pattern of American Plaice Fishery, 2013 to 2017 (Canadian data only)



Pattern of Redfish Fishery, 2013 to 2017 (Canadian data only)

APPENDIX C – POST SEASON CRAB SURVEY LOCATIONS



APPENDIX D –SARA-LISTED AND COSEWIC-ASSESSED SPECIES IN THE PROJECT AREA

Family	Species		Federal		Provincial
	Common Name	Scientific Name	SARA Status (Schedule 1) ¹	COSEWIC Designation	Designation
Marine Fish					
Anarhichadidae	Atlantic wolffish	<i>Anarhichas lupus</i>	Special Concern ²	Special Concern	Not listed
Anarhichadidae	Northern wolffish	<i>Anarhichas denticulatus</i>	Threatened ²	Threatened	Not listed
Anarhichadidae	Spotted wolffish	<i>Anarhichas minor</i>	Threatened ²	Threatened	Not listed
Anguillidae	American eel	<i>Anguilla rostrata</i>	Not listed	Threatened	Vulnerable
Cetorhinidae	Basking shark	<i>Cetorhinus maximus</i>	Not listed	Special Concern	Not listed
Cyclopteridae	Common Lumpfish	<i>Cyclopterus lumpus</i>	Not listed	Threatened	Not listed
Gadidae	Atlantic cod (Newfoundland and Labrador population)	<i>Gadus morhua</i>	Not listed	Endangered	Not listed
Gadidae	Cusk	<i>Brosme brosme</i>	Not listed	Endangered	Not listed
Lamnidae	Porbeagle	<i>Lamna nasus</i>	Not listed	Endangered	Not listed
Lamnidae	Shortfin mako	<i>Isurus oxyrinchus</i>	Not listed	Endangered	Not listed
Lamnidae	White shark	<i>Carcharodon carcharias</i>	Endangered	Endangered	Not listed
Macrouridae	Roundnose grenadier	<i>Coryphaenoides rupestris</i>	Not listed	Endangered	Not listed
Phycidae	White hake (Atlantic and Northern Gulf of St. Lawrence population)	<i>Urophycis tenuis</i>	Not listed	Threatened	Not listed
Pleuronectidae	American plaice (Newfoundland and Labrador population)	<i>Hippoglossoides platessoides</i>	Not listed	Threatened	Not listed
Rajidae	Smooth skate (Funk Island Deep population)	<i>Malacoraja senta</i>	Not listed	Endangered	Not listed
Rajidae	Thorny skate	<i>Amblyraja radiata</i>	Not listed	Special Concern	Not listed
Rajidae	Winter skate (Eastern Scotian Shelf and Newfoundland population)	<i>Leucoraja ocellata</i>	Not listed	Endangered	Not listed
Salmonidae	Atlantic salmon (South Newfoundland population)	<i>Salmo salar</i>	Not listed	Threatened	Not listed

Family	Species		Federal		Provincial
	Common Name	Scientific Name	SARA Status (Schedule 1) ¹	COSEWIC Designation	Designation
Salmonidae	Atlantic salmon (Outer Bay of Fundy population)	<i>Salmo salar</i>	Not listed	Endangered	Not listed
Scombridae	Atlantic bluefin tuna	<i>Thunnus thynnus</i>	Not listed	Endangered	Not listed
Scorpaenidae	Acadian redfish (Atlantic population)	<i>Sebastes fasciatus</i>	Not listed	Threatened	Not listed
Scorpaenidae	Deepwater redfish (Northern population)	<i>Sebastes mentella</i>	Not listed	Endangered	Not listed
Squalidae	Spiny dogfish	<i>Squalus acanthias</i>	Not listed	Special Concern	Not listed
Marine Birds					
Laridae	Ivory Gull	<i>Pagophila eburnea</i>	Endangered ³	Endangered	Endangered
Scolopacidae	Red-necked Phalarope	<i>Phalaropus lobatus</i>	Special Concern	Special Concern	Not listed
Marine Mammals and Sea Turtles					
Balaenopteridae	Blue Whale (Atlantic population)	<i>Balaenoptera musculus</i>	Endangered ^{4,5}	Endangered	Not listed
Balaenopteridae	Fin Whale (Atlantic population)	<i>Balaenoptera physalus</i>	Special Concern	Special Concern	Not listed
Balaenidae	North Atlantic Right Whale	<i>Eubalaena glacialis</i>	Endangered ^{6,7}	Endangered	Not listed
Ziphiidae	Northern Bottlenose Whale (Scotian Shelf population)	<i>Hyperoodon ampullatus</i>	Endangered ^{8,9}	Endangered	Not listed
Ziphiidae	Northern Bottlenose Whale (Davis Strait Baffin Bay, Labrador Sea population)	<i>Hyperoodon ampullatus</i>	Not listed	Special Concern	Not listed
Ziphiidae	Sowerby's Beaked Whale	<i>Mesoplodon bidens</i>	Special Concern ¹⁰	Special Concern	Not listed
Delphinidae	Killer Whale (Northwest Atlantic / Eastern Arctic population)	<i>Orcinus orca</i>	Not listed	Special Concern	Not listed
Phocoenidae	Harbour Porpoise (Northwest Atlantic population)	<i>Phocoena phocoena</i>	Not listed	Special Concern	Not listed
Dermochelyidae	Leatherback Sea Turtle (Atlantic population)	<i>Dermochelys coriacea</i>	Endangered ^{11,12}	Endangered	Not listed
Cheloniidae	Loggerhead Sea Turtle	<i>Caretta caretta</i>	Endangered	Endangered	Not listed

1. Blue shading means that Recovery Strategies, Action Plans and/or Management Plans have been issued for the species.
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