7.0 EXISTING HUMAN ENVIRONMENT

This chapter provides an overview of the existing socio-economic environment in offshore Newfoundland and Labrador (NL), as it relates to the Project. The offshore environment is known to support human-based activities that are conducted for recreational, academic, and commercial purposes, including the equipment and components to carry out these activities (e.g., fishing gear). The description of these activities applies to both the Project Area (where interaction would likely occur), and within the larger Regional Assessment Area (RAA) to give context on the various activities that occur in the offshore. This chapter also provides an overview of Indigenous communities and people who may use the Newfoundland and Labrador offshore waters to support or sustain their traditional way of life. This includes traditional harvesting of species that are present in, or may migrate through, the Newfoundland and Labrador offshore, including areas encompassed by the Project Area.

The description of the existing environment is based on a literature review of published research and publicly available datasets. It does not include field work activities specific to this Environmental Impact Statement (EIS). Information sources are cited within each section. Key sources widely used to support this EIS and acknowledged here include the Eastern Newfoundland SEA (AMEC 2014), previous EA reports prepared for other exploration drilling and development projects in the Eastern Newfoundland offshore area, and statistical data provided by Fisheries and Oceans Canada (DFO).

7.1 URBAN AND RURAL SETTING

Newfoundland and Labrador is a Canadian province located along the East Coast and is bordered by the Atlantic Ocean. The province is comprised of an island portion (Newfoundland) and a mainland portion (Labrador), and has a total land area of approximately 405,690 km², of which the majority (60%) is occupied by Labrador. Based on Statistic Canada census data (released every five years), the population increased by 1% from 514,536 in 2011 to 519,716 in 2016.

Project-related activities will take place approximately 350 km northeast of the capital city, St. John's, and are not expected to have a meaningful interaction with the urban and rural setting of the Province (including land zoning and community plans), except for Project support vessel and the shorebase in the eastern Newfoundland region.

The closest permanent residence to the Project Area is within the City Limits of St. John's. St. John's is the largest city in Newfoundland and Labrador with a population of 108,860 as of 2016. For the same year, the population of the St. John's Census Metropolitan Area was 205,955, representing approximately 40% of the total provincial population (Statistics Canada 2017). The port of St. John's is an important hub for servicing and support to the oil and gas industry. Outside St. John's, eastern Newfoundland is comprised of smaller rural communities along the coastline with aging populations. Population losses in rural areas of the province have resulted in an increased concentration of the population in urban areas. Continued youth out-migration combined with negative natural population change means that the population in rural areas will likely continue to decline (NL Department of Finance 2019). These communities generally rely on industries such as tourism and fishing for subsistence.

The oil and gas industry is an important component of the provincial economy. According to the Newfoundland and Labrador Department of Finance (April 2019), oil production totaled 84.0 million barrels in 2018, up 4.3% (approximately 3.4 million barrels) relative to production in 2017. The oil and gas industry in the Province accounts for approximately 15.6% of the total nominal provincial gross domestic product (GDP). This was the largest overall contributor in the goods-producing sector, next to construction, which accounted for 12.8% of the provincial GDP in 2017. The fishing industry is another marine-based sector contributing to the province's GDP and which also continues to be an important from a cultural perspective (See Section 7.2). Given the importance of the fishing industry to the Province and the potential overlap of Project activities with fishing activities, the description of the existing socio-economic environment focuses primarily on domestic commercial fisheries.

7.2 COMMERCIAL FISHERIES

Commercial fishing is the principal human activity in many parts of the NL offshore. It is important for economic, social, and cultural reasons dating from the European settlement of the region. For many centuries before that, fishing helped to sustain Indigenous populations, as it continues to do today (see Section 7.4). Various components of the industry employed nearly 15,900 people in the Province in 2018, including 9,234 in wild-fisheries harvesting, 424 in aquaculture, and 6,224 in the fish processing sector (DFLR 2019). In addition, commercial harvesters from other Atlantic Provinces operate in waters on and near the Grand Banks and northward at some time during the year. Beyond Canada's 200 nautical mile (370 km) Exclusive Economic Zone (EEZ), fishing enterprises from other nations harvest year-round alongside Canadian vessels within the Northwest Atlantic Fisheries Organization (NAFO) Regulatory Area (NRA) as shown in Figure 7-1.

This section describes historical and current domestic and recent foreign commercial fisheries relevant to both routine Project activities and accidental events. While the main focus is on the Project Area and Local Assessment Area (LAA) where routine Project-related effects on commercial fisheries are expected to occur, the section also describes fisheries associated with potential PSV transit routes between the eastern Avalon Peninsula and the Project Area, and fisheries within the Regional Assessment Area (RAA). These include coastal aquaculture operations that are adjacent to the RAA on the Island of Newfoundland.

Fisheries science research activities are described in Section 7.3, as are recreational fishing and other marine activities. Although there are no known Indigenous food, social, and ceremonial (FSC) fisheries conducted in offshore areas within the RAA, several Indigenous groups in Atlantic Canada hold commercial communal licences for certain offshore areas, and these fisheries are captured in the discussion that follows. Further information about these fisheries and Indigenous FSC fish harvesting are included in Section 7.4.

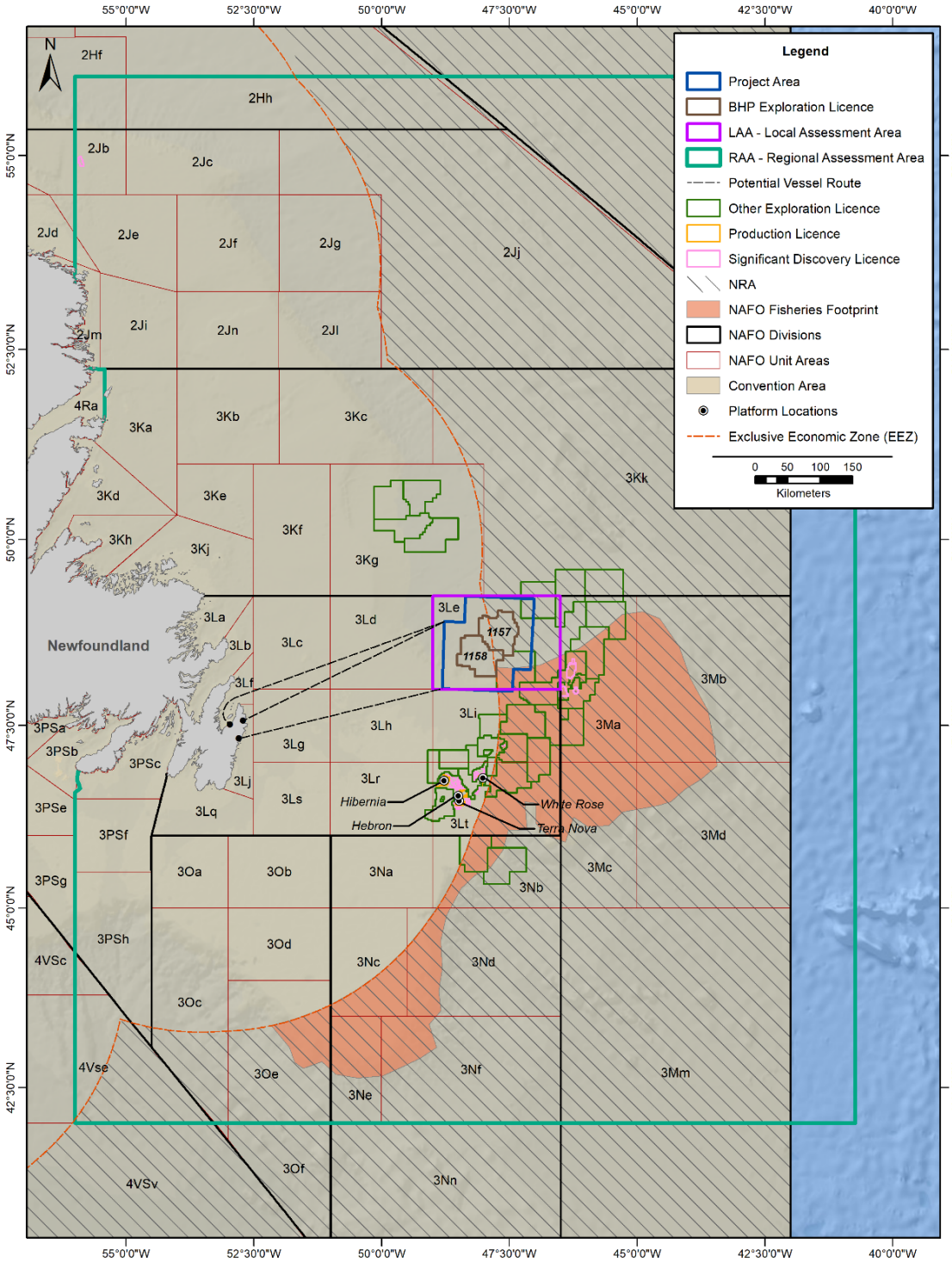


Figure 7-1 Fisheries Management and Assessment Areas

7.2.1 Fisheries Management and Information Sources

7.2.1.1 Management Authorities and Boundaries

Most commercial fisheries within and adjacent to Atlantic Canadian waters are managed by two authorities, Canada's Department of Fisheries and Oceans (DFO) and NAFO. DFO has management and regulatory responsibility for several fish stocks and fishing activity within much of Canada's EEZ, and for sedentary species (e.g., snow crab) throughout the Canadian continental shelf. Through the Convention on Cooperation in the Northwest Atlantic Fisheries, NAFO manages several species (straddling stocks) within much of Canada's EEZ and discrete stocks in the portion defined as the NRA: "that part of the Convention Area which lies beyond the areas in which Coastal States exercise fisheries jurisdiction" (NAFO 2004) (i.e., beyond the EEZ).

For administrative and management purposes the Convention Area is divided into Sub-Areas, Divisions / Sub-Divisions and Unit Areas (largest to smallest). For instance, Unit Area 3Le is in Sub-Area 3, Division L. The Divisions in Sub-Areas 0 and 1 are not divided into Unit Areas. DFO also uses these area boundaries and designations in many of its management and regulatory regimes (e.g., licence conditions, quota setting), and for statistical reporting. The Project Area is contained almost entirely within Unit Area 3Le, which is also the LAA for Commercial Fisheries. Unit Area 3Le and the Project Area overlap both NRA and Canadian EEZ waters. A small portion of the southeastern Project Area (approximately 950 km²) is within an area designated by NAFO as the fisheries "Footprint", or Existing Bottom Fishing Areas - a 120,048 km² zone within the NRA where bottom fishing (e.g. otter trawling) has historically occurred.

Many large pelagic species (swordfish and tunas) in the RAA are managed by the International Commission for the Conservation of Atlantic Tunas (ICCAT), which has responsibility throughout the North and South Atlantic.

7.2.1.2 Conservation and Management

To manage and conserve commercial fisheries under their authority, NAFO and DFO use licensing systems and a total allowable catch (TAC) and quota (for individual harvesting entities, for example, enterprises or fleet sectors, or signatory nations for NAFO fisheries) for most directed fisheries. Bycatch limits are typically set for species where a directed fishery is not permitted (e.g., Atlantic cod in many areas). Additional measures, depending on the species and authority, may include regulation by open / closed season, vessel size, trip limits, gear specifications, and geographical boundaries. Market conditions and the business strategies of individual enterprises also affect when certain fisheries are pursued and to what extent.

Most TACs and quotas are apportioned based on geographical areas, such as NAFO Divisions or individual species management areas (e.g., Shrimp Fishing Area [SFAs] or Crab Fishing Areas [CFAs]).

7.2.1.3 Information Sources and Data Limitations

Commercial harvesting data are available through DFO for domestic (Canadian) fisheries and through NAFO for foreign and most domestic fisheries in the Convention Area. DFO provides data for quantity (landed weight) and value (current Canadian dollars), and geospatial (mappable) data. The smallest area for which DFO quantity and value data is provided is the Unit Area. The available NAFO statistical data can be accessed only at the much larger level of Divisions (e.g., 3L) or Sub-Divisions (e.g., 3Ps = 3P South). Figure 7-1 and Table 7.1 show the NAFO Divisions and the Unit Areas within these Divisions that overlap with portions of the Project Area, the LAA, and/or the RAA, and indicates the approximate size of each area.

Table 7.1 NAFO Divisions and Unit Areas that Overlap the Project Area, LAA and RAA

EIS Area	NAFO Divisions	NAFO Unit Areas	Approximate Area (km²)
Project Area	3L	3Le, 3Li*	15,775
LAA	3L	3Le	25,700
RAA	1F*, 2H*, 2J*, 3K, 3L, 3M*, 3N*, 3O*, 3Ps*, 4Vs*[1]	2Hf, 2Hh, 2Jb*, 2Jc, 2Jd*, 2Je*, 2Jf, 2Jg, 2Ji, 2Jj, 2Jl, 2Jm*, 2Jn, 3Ka, 3Kb, 3Kc, 3Kd, 3Ke, 3Kf, 3Kg, 3Kh, 3Ki, 3Kk, 3La, 3Lb, 3Lc, 3Ld, 3Le, 3Lf, 3Lg, 3Lh, 3Li, 3Lj, 3Lq, 3Lr, 3Ls, 3Lt, 3Ma, 3Mb, 3Mc, 3Md, 3Mm*, 3Na, 3Nb, 3Nc, 3Nd, 3Ne, 3Nf, 3Oa, 3Ob, 3Oc*, 3Od, 3Oe, 3Psc, 3Psf, 3Psh, 4Vsc*, 4Vse*, 1F*	1,672,180

* partial overlap

To quantify the fish harvests within these EIS areas, the data tables and graphs in the following sections use these Unit Areas (DFO data) and Divisions (NAFO data), with the following exceptions:

1. For the Project Area, 3Le data only are used for domestic fisheries summaries. This is because the amount of overlap with Unit Area 3Li to the south is limited (approximately 0.006% of that Unit Area's size). Including Unit Area 3Li data would misrepresent the fisheries in the Project Area.
2. For the RAA, Unit Areas 4Vsc and 4Vse are excluded for domestic fisheries summaries because a relatively small part of these areas are within the RAA, and the part that is within has little recorded harvesting. Including the catch recorded in those Unit Areas would inappropriately distort the catch from the RAA. For similar reasons Unit Areas 2Hh is excluded. DFO has provided no quantity and value data (2013 to 2017)[2] for 3M Unit Areas, owing to its application of protection of privacy requirements (see below). DFO also reports no data for Division 1F.
3. For the RAA, Divisions 1F and 2H, and Sub-Division 4Vs are not included for international fisheries summaries when using the NAFO datasets, for the similar reasons, to avoid data distortion.

[1] 3Ps and 4Vs are Sub-Divisions (i.e., Divisions 4V and 3P are divided into North and South areas for management and reporting purposes).
[2] 2017 is the latest year for which these data are available at the time of writing.

DFO statistical data for 1985 to 2009 are used (DFO 2009a) to quantify historical domestic fisheries, and for DFO data for 2013 to 2017 (DFO 2019a) are employed in the catch and value tables and graphs, and for geospatial mapping of recent domestic fishing. The available variables include year, Unit Area of catch, species and fishing gear, as well as the associated landed weight and value of the catch. A similar DFO dataset which includes data by month (DFO 2019b) is used to generate the monthly quantity and value graphs in Section 7.2.3.2.

The NAFO data accessed (NAFO 2019a, 2019b) are contained in the organization's on-line Statlant 21A and 21B databases. Statlant 21A (NAFO 2019a) has data fields for the year harvested, the nationality of the vessel, the species caught, the NAFO Division or Sub-Division of catch, and the total weight of the catch. Statlant 21B (NAFO 2019b) includes the year, the month caught, the nationality of the vessel, the main species caught, the gear used, the NAFO Division or Sub-Division of catch, and the weight. These datasets contain data for both Canadian and foreign catches, including species not managed by NAFO, and including the full Convention Area (i.e., inside and outside member nations' EEZs and the NRA). The data are supplied to the NAFO Secretariat by the signatory states.

DFO's geospatial datasets (2013-2017) do not contain quantity or value information but are used to illustrate domestic commercial fish harvesting locations based on 6 x 4 nautical mile (11.1 x 7.4 km) grid squares. These data include variables for month, species, and gear type. Although quantities and values of harvest are not included, the number of catch reports for each cell have been tabulated to generate the relative harvest intensity representations presented in the maps in Section 7.2. These datasets are also used to generate the monthly quantity graphs in Section 7.2.6, based on the number of records occurring per month for the species indicated.

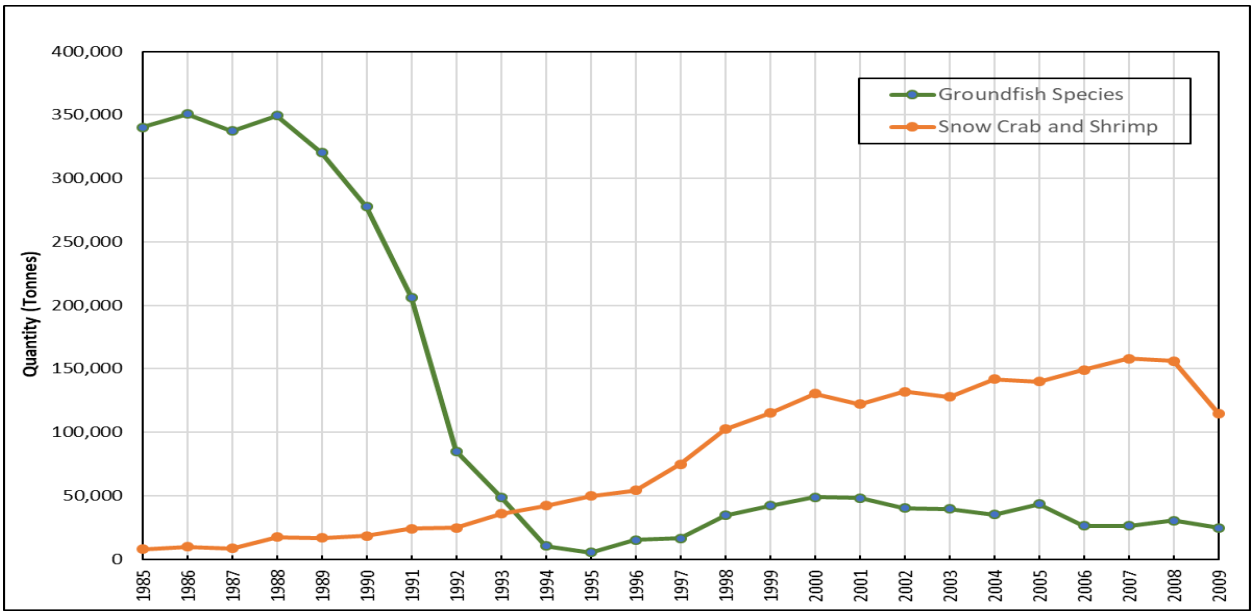
It is important to note that DFO datasets for 2013 to 2017, which are used to describe current domestic fisheries in the RAA, the LAA, and in the vicinity of the potential PSV transit routes have been redacted for some species in most areas owing to DFO's application of federal government privacy legislation. The level of data suppression varies across datasets, species and geographical areas, based primarily on the number of instances of a data component in a particular area. Generally, in areas where there are more fishing entities involved, the redaction is less; in areas with less activity (a smaller number of active harvesters) the redaction levels are greater or the numbers may be completely suppressed. For example, while the geospatial data indicate domestic harvesting locations in Division 3M (2013 to 2017), and the NAFO data show some 244 tonnes (t) taken by Canadian vessels in 3M during the period, the quantity and value data sets provided by DFO for that period return zero quantities and values for the Division. Because of redaction and different data capture, DFO and NAFO data do not match in many cases for Canadian vessels.

In the following tables and graphs, the landed weight should be viewed as a better measure for year-to-year comparisons than the value of the catch, since value may vary independently of effort, based on negotiated species prices, changes in exchange rates and fluctuating market conditions.

Other sources used to describe commercial fishing in the RAA, LAA, and Project Area include DFO species management and conservation plans, Canadian Science Advisory Secretariat reports and research documents, DFO quota reports, NAFO annual Conservation and Enforcement Measures (CEM), and NAFO Science Council reports and studies.

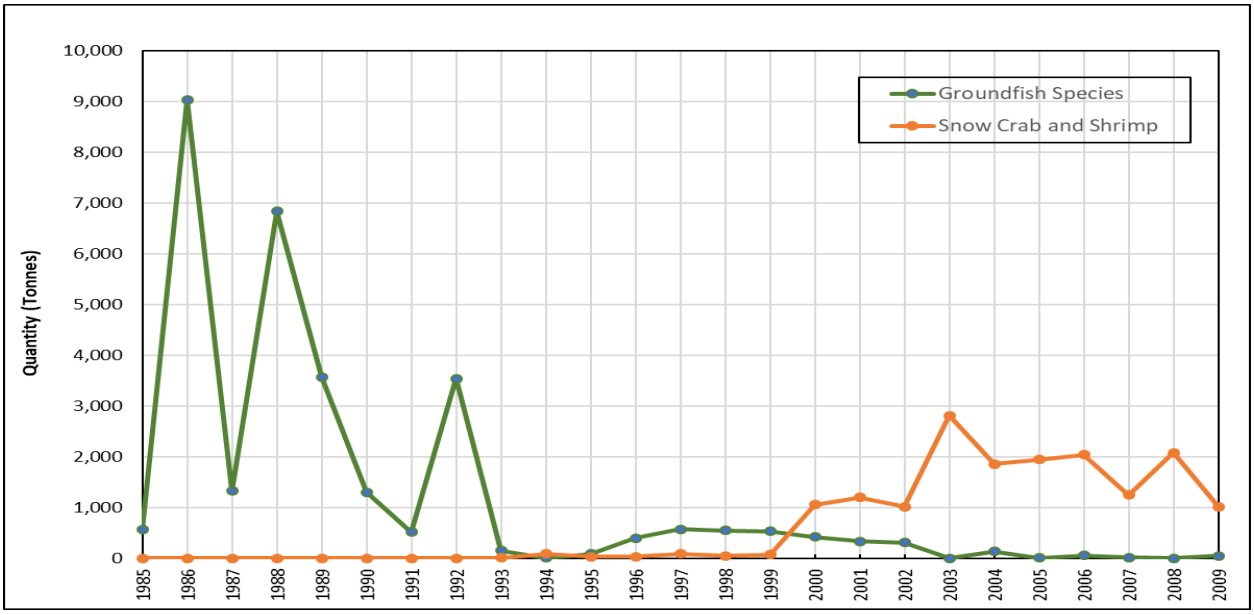
7.2.2 Historical Overview

Fish harvesting has taken place around the shores of NL for thousands of years, originally by Indigenous Peoples and later by Europeans who eventually settled on the Island and parts of the Labrador coasts, primarily to harvest fish. The fishery has remained an important component of the region's economy and way of life since then. Until the early 1990s, groundfish species accounted for most of the catch in most areas, with the majority taken by offshore stern otter trawlers harvesting such species as Atlantic cod, redfish species, American plaice, and other flounders. In 1992, a moratorium was instituted for directed fishing of many groundfish species because of severe stocks declines. This closure is still in effect for some species in most areas. Since then, the composition of the fisheries has changed within NL and other parts of Atlantic Canada, as groundfish harvesting numbers dropped and shellfish species were pursued much more actively, primarily snow crab and northern shrimp. Since then, these species have made up the greatest part of the domestic commercial harvest in the RAA, though in more recent years there have been declines in some of these shellfish stocks as well, with closures for shrimp harvesting in the RAA south of Division 3K, including within the Project Area and LAA, as described in following sections. Figure 7-2 illustrates the change during the 25-year period from 1986 to 2009 in the RAA (groundfish vs. snow crab and shrimp landings), and Figure 7-3 shows the same for the LAA. During this period the number of fish harvesters in NL also declined, and a certification program was established in 1997 for training and licensing professional harvesters (Professional Fish Harvesters Certification Board [PFHCB] 2019).



Source: DFO 2009a

Figure 7-2 1986-2009 RAA Domestic Groundfish Harvest vs. Shrimp and Snow Crab Harvest (Quantities)



Source: DFO 2009a

Figure 7-3 1986-2009 LAA Domestic Groundfish Harvest vs. Shrimp and Snow Crab Harvest (Quantities)

While groundfish quantities declined, the landed value of the overall catch in NL increased in the years after the closures, owing to the dominance of higher-value shellfish species (as illustrated in Table 7.2 for the 1990-2010 period).

Table 7.2 Landed Value of Catch in NL (1990-2010)

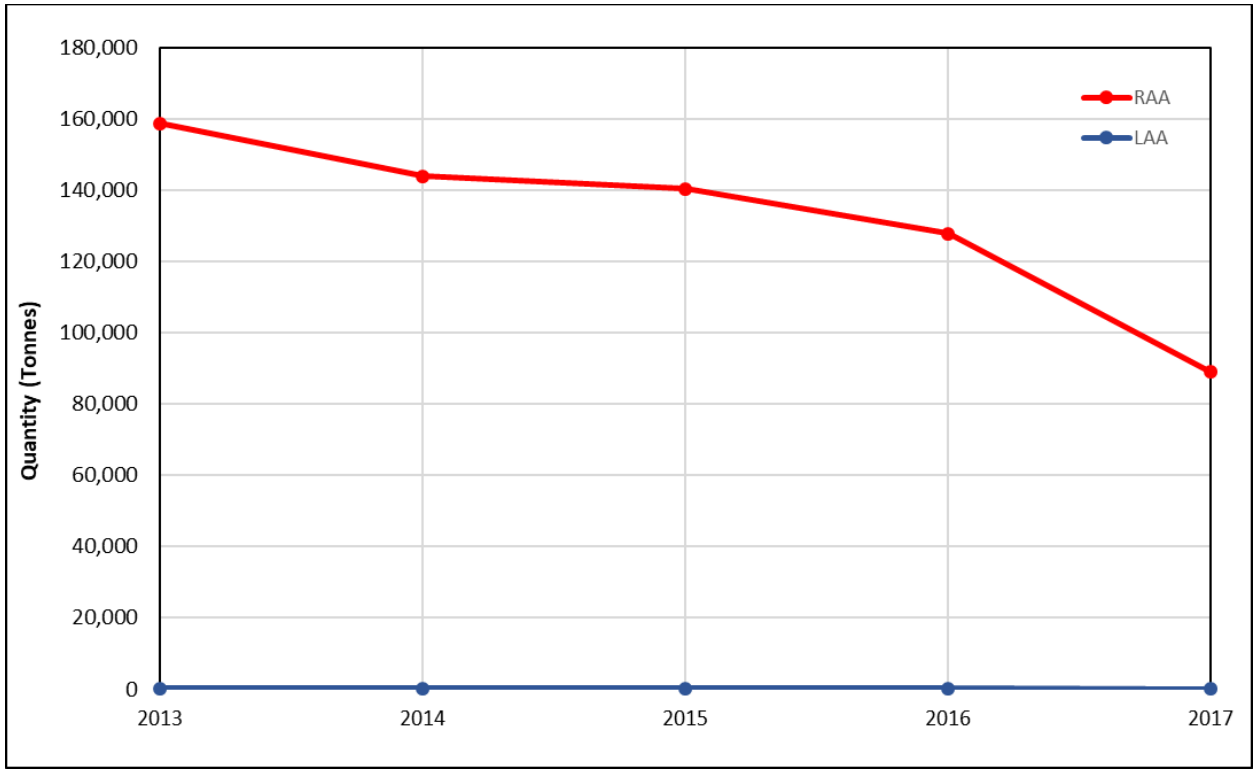
Year	Groundfish	Shellfish	Total All Species	Groundfish as a % of Total	Shellfish as a % of Total
1990	175,260	78,252	285,506	61%	27%
1995	19,866	313,559	349,299	6%	90%
2000	74,706	490,839	584,319	13%	84%
2005	72,756	383,969	515,206	14%	75%
2010	75,399	399,920	510,699	15%	78%
2015	107,251	721,154	860,684	12%	84%

7.2.3 Current Domestic Fisheries

Table 7.3 presents the landed quantities and values of the harvest from the RAA and LAA, based on the most recent datasets available from DFO; Figures 7-4 and 7-5 illustrate these data graphically. Years indicating low catch in the LAA may be attributable, at least in part, to DFO's protection of privacy restrictions, where few harvesters result in data suppression.

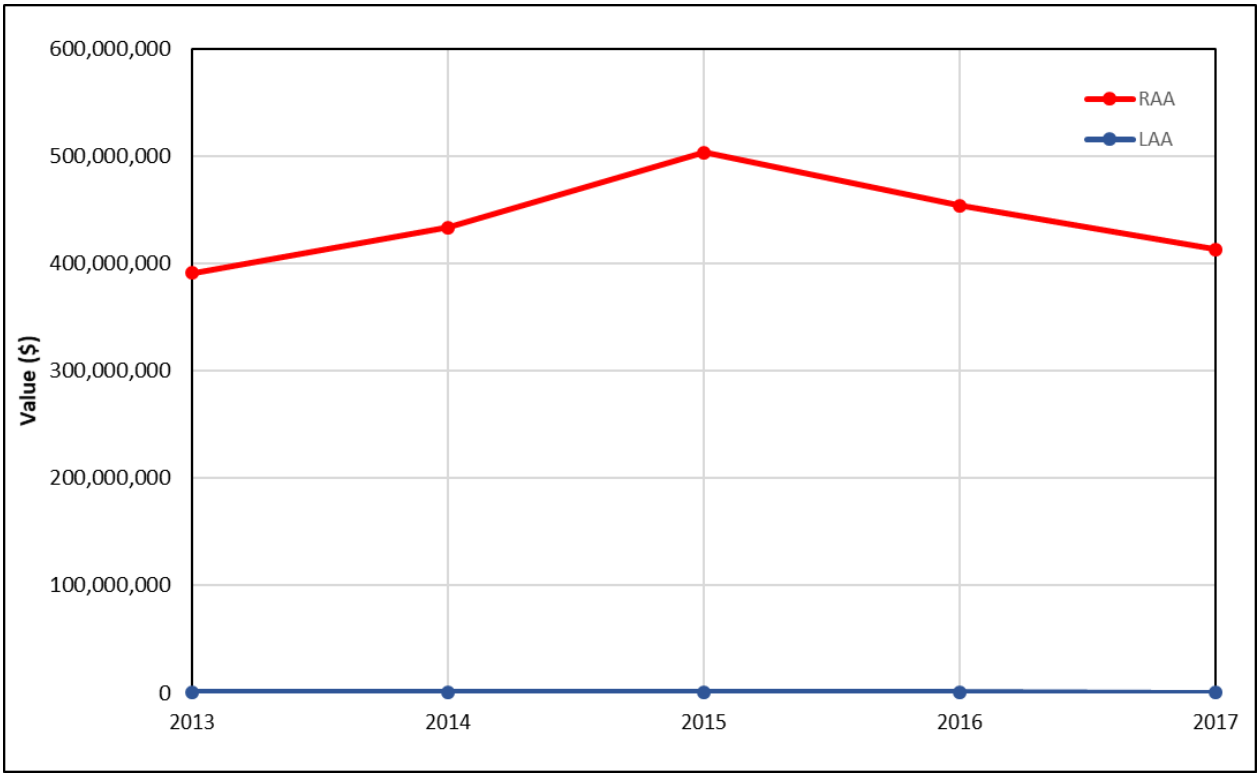
Table 7.3 2013-2017 Quantity and Value of the Domestic Harvest from the RAA and LAA

Year	RAA (t)	LAA (t)	RAA ($)	LAA ($)
2013	158,536	253	390,847,637	669,456
2014	143,675	209	433,725,021	610,645
2015	140,164	155	503,296,616	670,678
2016	127,723	112	454,139,715	424,313
2017	88,604	91	413,211,480	342,161
Average	131,740	164	439,044,094	543,451
Source: DFO 2019a				



Source: DFO 2019a

Figure 7-4 2013-2017 RAA and LAA Quantity of Domestic Harvest

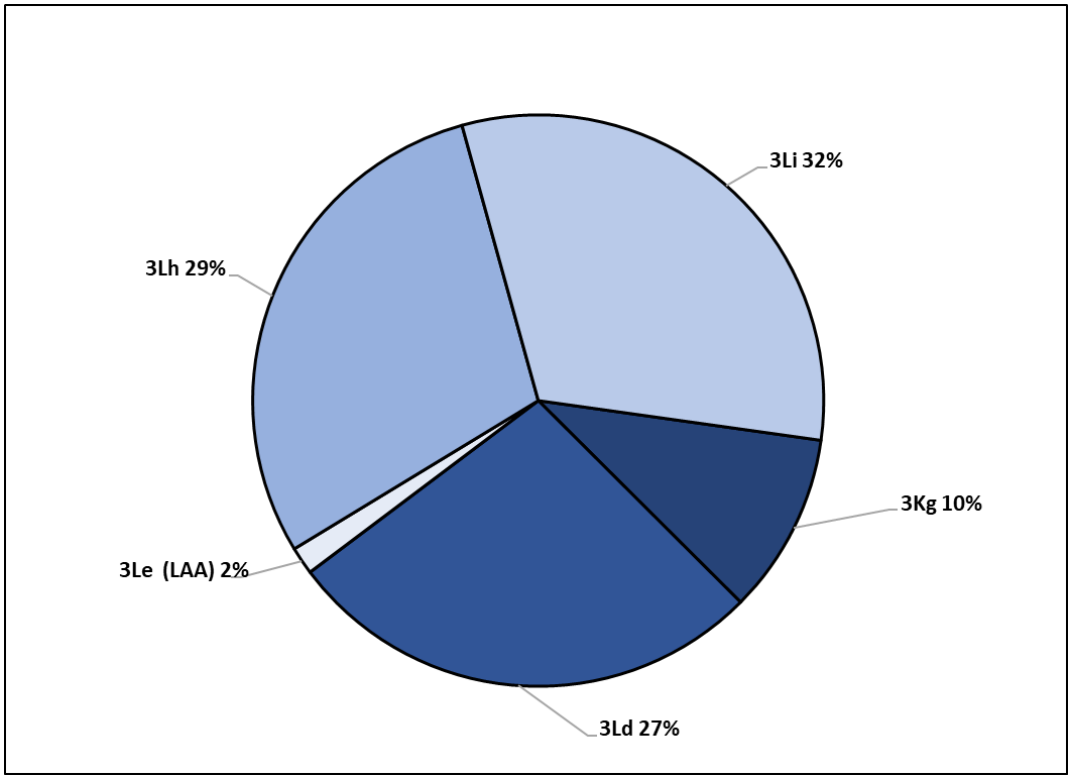


Source: DFO 2019a

Figure 7-5 2013-2017 RAA and LAA Value of Domestic Harvest

As these and the historical data presented above suggest, the LAA (Unit Area 3Le) has not been a heavily used area overall, relative to other offshore areas. Figure 7-6 illustrates the relative quantity of harvest in Unit Area 3Le and the other immediately adjacent Unit Areas (see Figure 7-1). (Unit Area 3Kk to the Northeast of the LAA and Unit Area 3Ma to the east, have 100% redacted quantities in the data provided by DFO for these years.)

Beginning in 2018 (so not reflected in the available domestic DFO data), a large part of Unit Area 3Le (approximately 38%) was closed to most of the types of fish harvesting (i.e., with bottom-tending gear) that formerly occurred in this Unit Area (see Section 7.2.3.3). This is the result of the establishment of the Northeast Newfoundland Slope Closure by DFO to conserve sensitive benthic organisms (see details in Section 6.4.1 [Special Areas]). Going forward (since the beginning of 2018), fishing activity in the LAA will likely be lower than in past years, and/or more limited in geographic scope (see Section 7.2.3.2). As indicated on the maps in the following sections, because of the closure, little fishing activity would be expected within exploration licence (EL) 1157 or EL 1158.



Source: DFO 2019a

Figure 7-6 2013-2017 Relative Quantity of Domestic Harvest, LAA and Adjacent Unit Areas

7.2.3.1 Domestic Harvest Composition

Table 7.4 presents the average quantities and values of the harvest from the RAA, and Table 7.5 for the LAA, for the 2013 to 2017 period, based on the available DFO data. As Table 7.4 indicates, recent harvesting within the RAA reflects the historical changes and trends described above, with shellfish (mainly snow crab and shrimp) making up the greatest part of the harvest by both value and quantity. Together, these two species accounted for 62% of the catch by quantity and nearly 92% by value, while groundfish species made up 10% and 5%, respectively, based on these data.

Table 7.4 2013-2017 Average Quantity and Value of Domestic Harvest from the RAA, by Species

Species	Quantity(t)	Value ($)	% of Total Quantity	% of Total Value
Shrimp, *Pandalus borealis*	43,739.4	136,299,929	33.2%	31.0%
Crab, Queen / Snow	42,627.8	254,749,500	32.4%	58.0%
Capelin	22,899.6	6,815,910	17.4%	1.6%
Cod, Atlantic*	10,559.8	14,356,123	8.0%	3.3%
Herring, Atlantic	3,567.8	983,564	2.7%	0.2%
Turbot / Greenland Halibut*	3,310.6	12,710,022	2.5%	2.9%

Table 7.4 2013-2017 Average Quantity and Value of Domestic Harvest from the RAA, by Species

Species	Quantity(t)	Value ($)	% of Total Quantity	% of Total Value
Whelk	1,285.4	2,240,199	1.0%	0.5%
Mackerel	631.0	379,882	0.5%	0.1%
Sea Urchins	466.0	852,733	0.4%	0.2%
Sea Cucumber	389.4	367,106	0.3%	0.1%
Shrimp, *Pandalus montagui*	316.2	1,213,446	0.2%	0.3%
Halibut - Atlantic*	243.8	3,029,769	0.2%	0.7%
Pollock*	242.0	206,050	0.2%	0.0%
Hake, White*	228.2	241,737	0.2%	0.1%
Lobster	186.2	2,181,438	0.1%	0.5%
Haddock*	159.2	266,427	0.1%	0.1%
Scallop, Sea	143.0	370,428	0.1%	0.1%
Greysole / Witch*	131.0	194,261	0.1%	0.0%
Crab, Spider / Toad	105.2	109,758	0.1%	0.0%
Swordfish	93.2	912,451	0.1%	0.2%
Redfish*	82.8	94,760	0.1%	0.0%
Squid, *Illex* / Shortfin	72.2	116,397	0.1%	0.0%
Winter Flounder*	62.6	40,602	0.0%	0.0%
American Plaice*	58.4	58,382	0.0%	0.0%
Crab, Atlantic Rock	52.4	47,674	0.0%	0.0%
Skate*	42.2	11,105	0.0%	0.0%
Tuna, Bluefin	14.4	99,132	0.0%	0.0%
Eels	12.2	62,609	0.0%	0.0%
Scallop, Icelandic	9.6	16,862	0.0%	0.0%
Shark, Mako	3.8	9,774	0.0%	0.0%
Monkfish (American Angler)*	2.8	3,379	0.0%	0.0%
Cusk*	1.4	1,174	0.0%	0.0%
Yellowtail Flounder*	0.4	223	0.0%	0.0%
Roe, Lumpfish*	0.4	1,288	0.0%	0.0%
Total	131,740.4	439,044,094	100.0%	100.0%

* Classified as groundfish species by DFO
Species names shown are those used in DFO datasets
Source: DFO 2019a

Table 7.5 2013-2017 Average Quantity and Value of the Domestic Harvest from the LAA (Unit Area 3Le) by Species

Species	Quantity (t)	Value ($)	% of Total Quantity	% of Total Value
Turbot / Greenland Halibut*	124.0	415,311	76%	76%
Shrimp, *Pandalus borealis*	29.6	71,589	18%	13%
Crab, Queen / Snow	10.4	56,551	6%	10%
Cod, Atlantic*	-	-	0%	0%
Redfish*	-	-	0%	0%
Halibut – Atlantic*	-	-	0%	0%
American Plaice*	-	-	0%	0%
Greysole / Witch*	-	-	0%	0%
Grenadier, Rough-Head*	-	-	0%	0%
Herring, Atlantic	-	-	0%	0%
Mackerel	-	-	0%	0%
Argentine	-	-	0%	0%
Total	164.0	543,451	100%	100%

* Classified as groundfish species by DFO
Species names shown are those used in DFO datasets
Source: DFO 2019a

Along and near the potential PSV transit routes through the RAA from the Project Area to port, the principal fisheries will likely be (offshore to onshore): 1) turbot / Greenland halibut gillnetting (mainly spring through autumn), and groundfish otter trawling, usually to depths of 1,500 m but occasionally to 1,900 m (R. Ellis, pers. comm. 2019) potentially year-round near the western boundary of the Northeast Newfoundland Slope Closure, 2) Snow crab harvesting with pots (typically April to the end of July) from approximately the 200 m depth contour westward to the coast of the Island along each of the potential routes; 3) Nearer shore, a few other species fisheries, some using mobile gear at different times, such as capelin seining, and others using fixed gear, particularly gillnetting for groundfish. Lobster harvesting also occurs in some areas of the eastern Avalon Peninsula near the shore, although these locations are not included in the geospatial data. Of the three potential routes, Conception Bay (Unit Area 3Lf) has historically recorded the largest quantities of lobster landings, an average of 7.6 t annually, 2013-2017, compared to 0.2 t in the nearshore area from Cape St. Francis to Cape Race (Unit Area 3Lj).

The reported fisheries within the LAA for the 2013-2017 period are presented (averaged) in Table 7.5. The available data indicate that, unlike other parts of the RAA, the principal catch in this area has been groundfish, particularly from the Greenland halibut (turbot) gillnet fishery, along with small quantities of shellfish. Other species listed (with quantity and value shown as "-") were indicated as being caught in the LAA, but numbers were redacted by DFO to protect privacy. Although northern shrimp (*Pandalus borealis*) are indicated in Table 7.5, this fishery has been closed in parts of the RAA south of NAFO Division 3K (beginning in 2015) for the foreseeable future; consequently, no fishery for this species is expected within the LAA, Project Area or PSV routes during the temporal scope of this EIS.

Additional information about principal commercial species fisheries in the RAA and LAA are provide in Section 7.2.5.

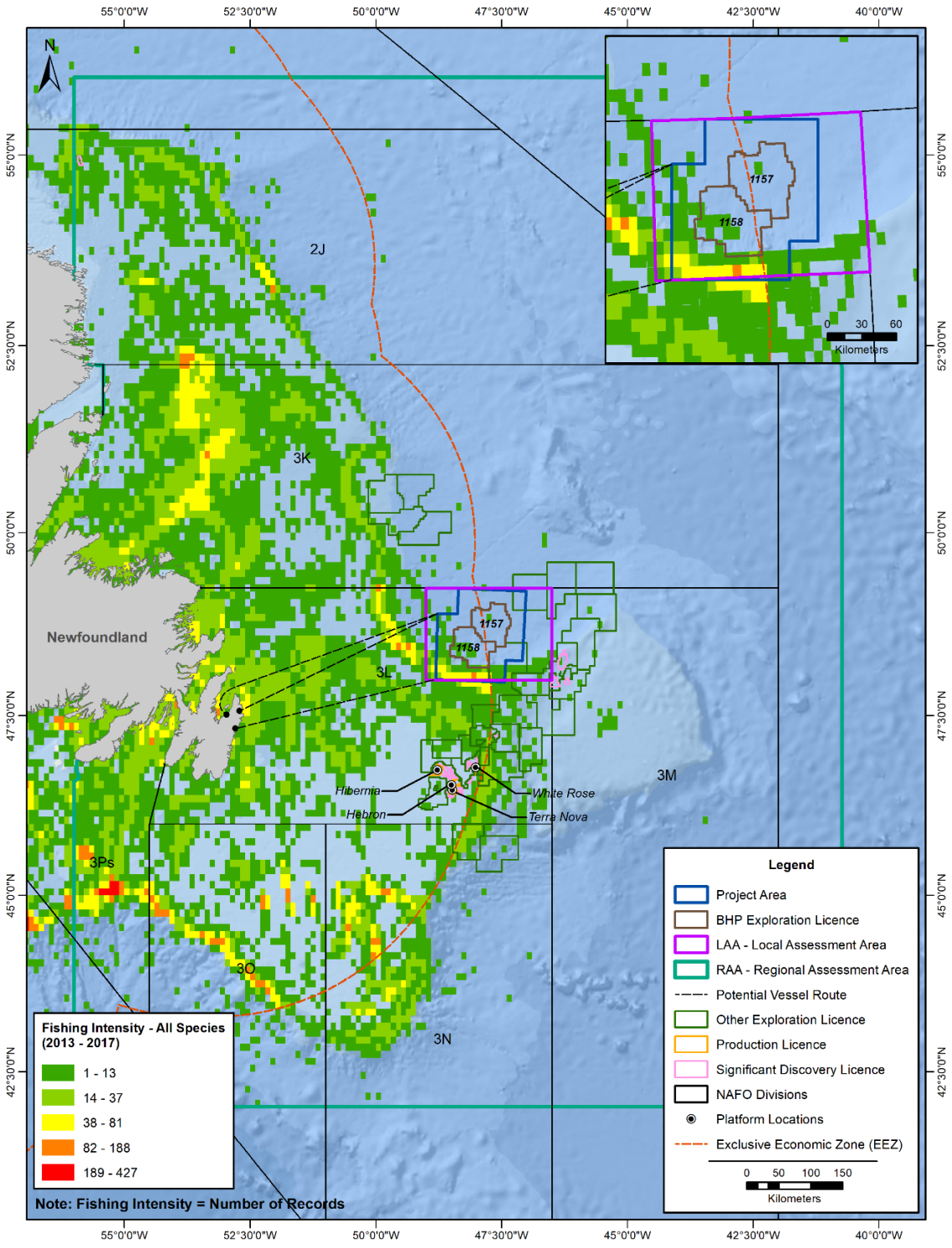
7.2.3.2 Location and Timing

Where and when fishing takes place depends on several factors. Logically, harvesting focuses on locations where a target species is expected to occur in economically feasible quantities (influenced, for example, by available habitat, including prey species), but both location and timing may also be affected by the resource management decisions of the responsible authority (e.g., DFO, NAFO). These include open and closed seasons for particular species, management areas defined in licence conditions, closed zones or areas with restrictions for specific types of gear. Weather may also affect when fishing takes place, as well as the individual business plans of harvesters. In general, fishing tends to occur in consistent locations from year to year in similar timeframes, so historical harvesting locations are a good predictor of future harvesting, barring the establishment or lifting of restricted areas. For some inshore harvesting (notably, lobster) no geolocational data is collected in these datasets, although it does occur within the RAA near many coastlines and islands.

Figures 7-7 and 7-8 show historical domestic harvesting locations for 2013-2017, all species, all months, all gear types combined, based on the geospatial landings data provided by DFO (DFO 2019c), described above. Cells in the figures (and in subsequent domestic intensity maps) are colour coded to provide an indication of relative fishing intensity based on the number of harvesting records at each cell location: green represents areas with relatively lower numbers of records and yellow to red indicates where more fishing activity records occur, as identified in the map legends. As these figures illustrate, fishing effort is generally concentrated on the continental shelf and the shelf margins and upper slopes throughout the RAA, though different species often target particular depths.

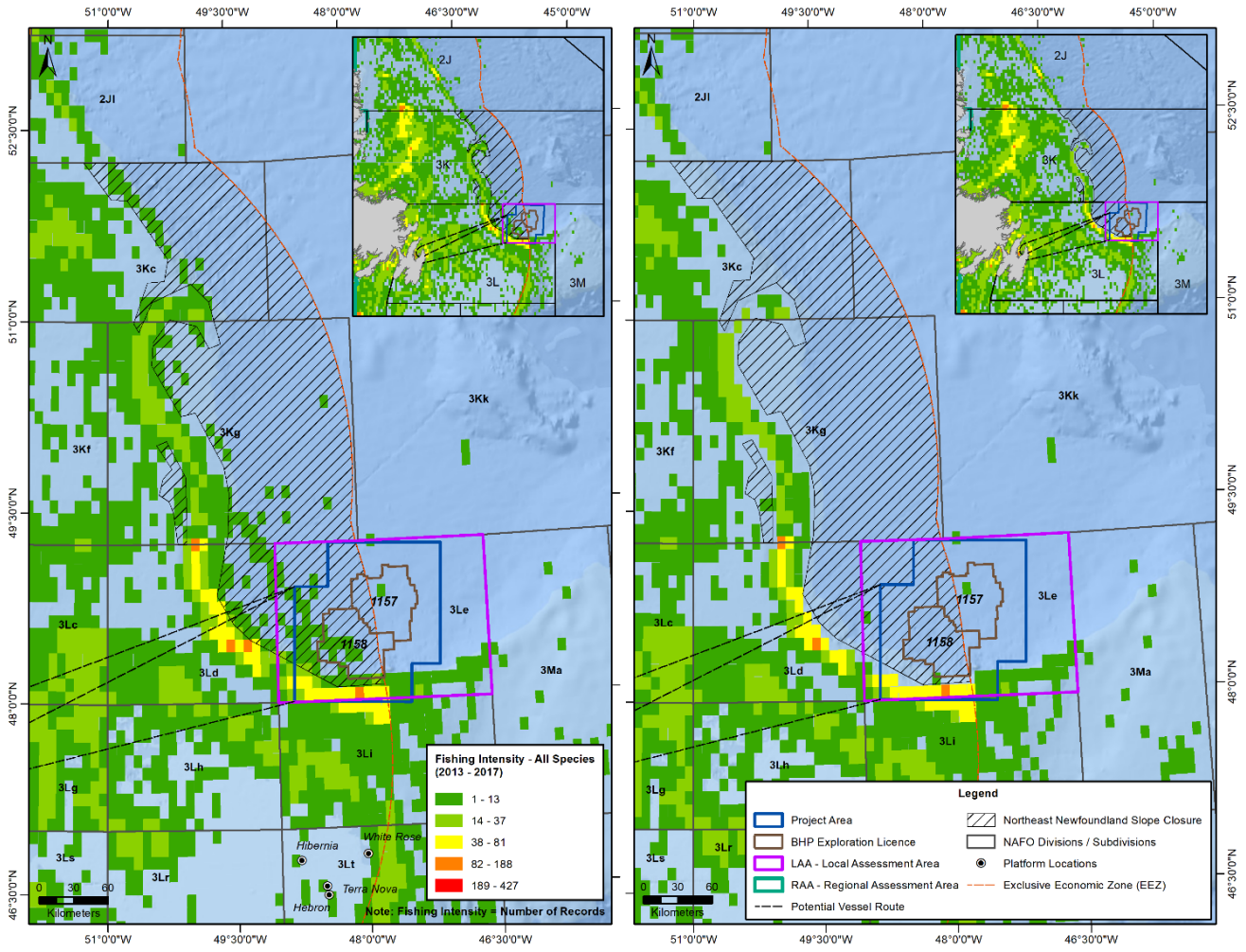
Figure 7-8 focuses on the LAA to indicate the expected scope of the fisheries near the location of planned Project activities. Figure 7-8 shows the same data as Figure 7-7 in the left panel, while the right panel shows these data with all bottom gear fisheries removed from inside the Northeast Newfoundland Slope bottom gear closure area (announced in December 2017). This view provides a more accurate depiction of the current (2019) situation, and the likely situation through the temporal scope of this EIS. With harvesting (mostly Greenland halibut gillnetting and bottom trawling in recent years) removed from the Closure area, activity is expected to be more densely concentrated on the shelf slope immediately to the west and southward, an area which has already been quite active based on the geospatial data.

As the map illustrates, given these factors and the history of past domestic harvesting locations, little domestic fishing is expected within other parts of the LAA and Project Area, and little in the BHP ELs. Harvesting that might still occur in the Closure is restricted to non-bottom-seeking gear, such as midwater trawls, purse seines or surface longlines, though the available data indicate that these are uncommon in that area. Since only a small part of the NAFO fisheries Footprint (see Section 7.2.4) overlaps the Project Area, this would also be expected to be true for international fisheries in most of the LAA and Project Area.



Source: DFO 2019b

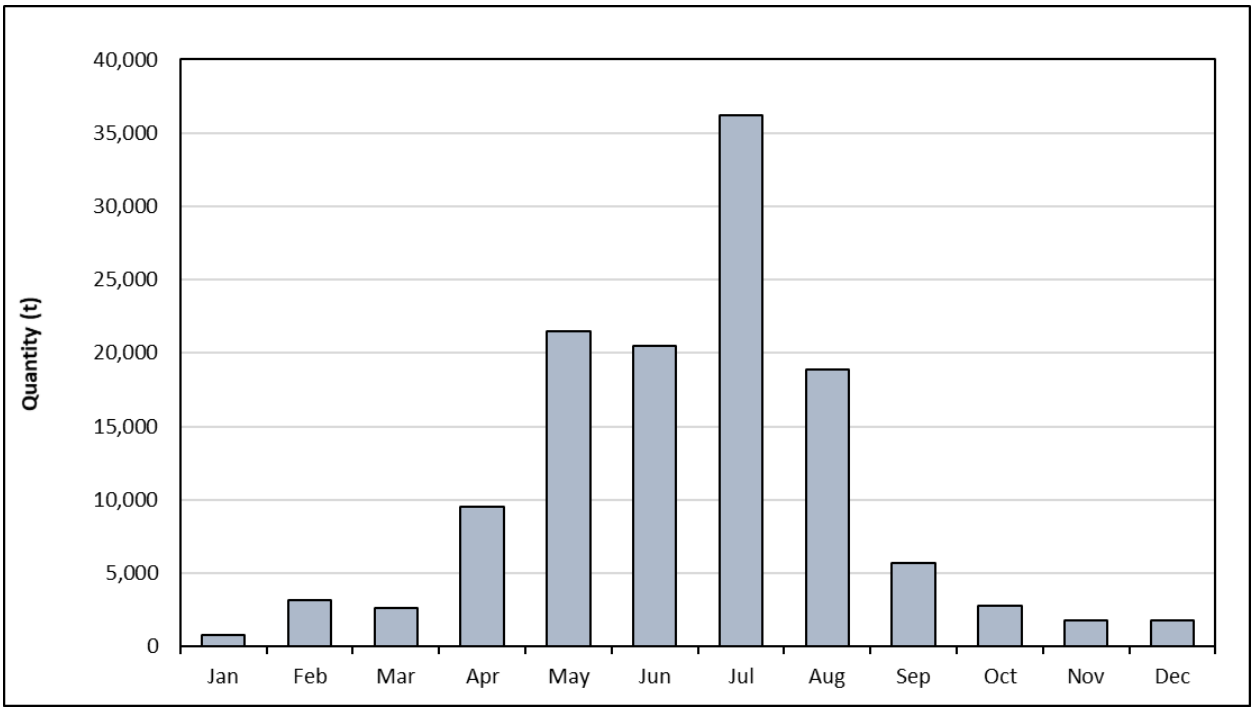
Figure 7-7 2013-2017 Domestic Fishing Locations by Intensity, All Species, All Months



Source: DFO 2019b
Note: Left figure includes all gear types, right figure has bottom gear removed from Closure Area

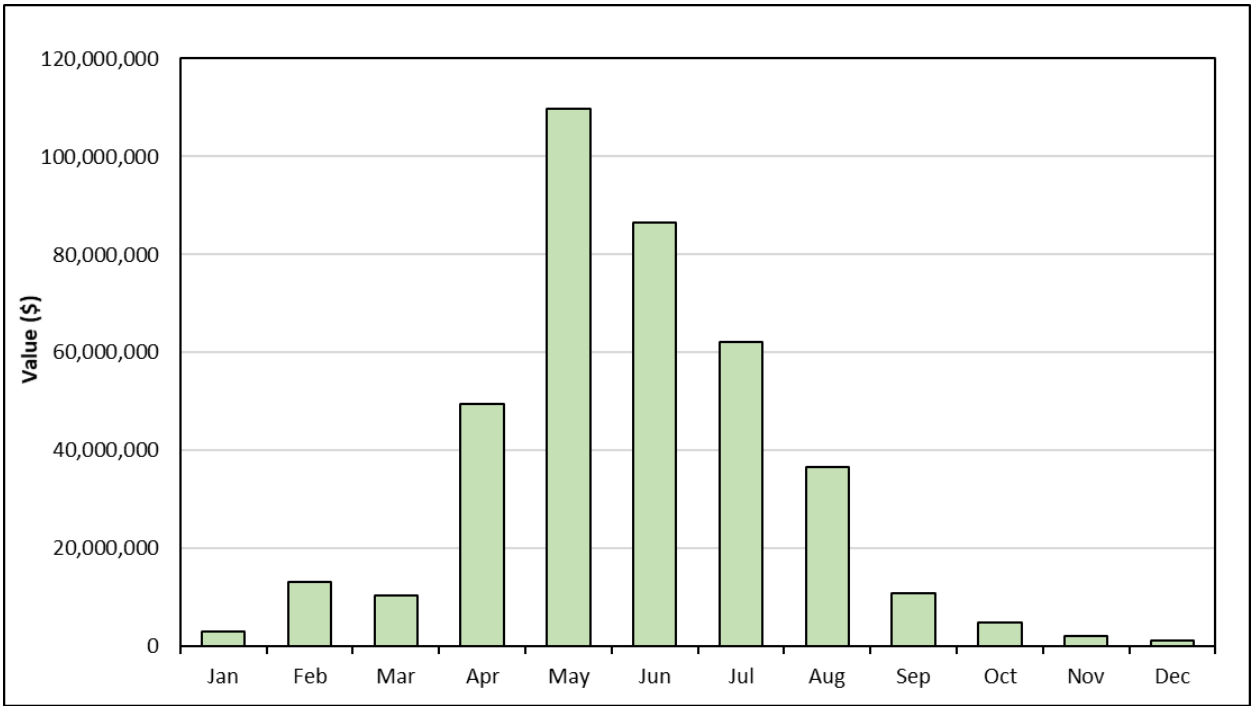
Figure 7-8 2013-2017 Domestic Fishing Locations by Intensity All Species, All Months, Closure Area (LAA and Project Area)

The timing of many fisheries also varies with species, gear type and/or vessel size, based on natural cycles and management decisions. Many fisheries are more active in the spring to autumn period, but some (such as groundfish and shrimp trawling) may operate year-round. Figures 7-9 and 7-10 show the average quantity and value of catch (all species) by month from the RAA based on the 2013-2016 DFO quantity and value data.



Source: DFO 2019c

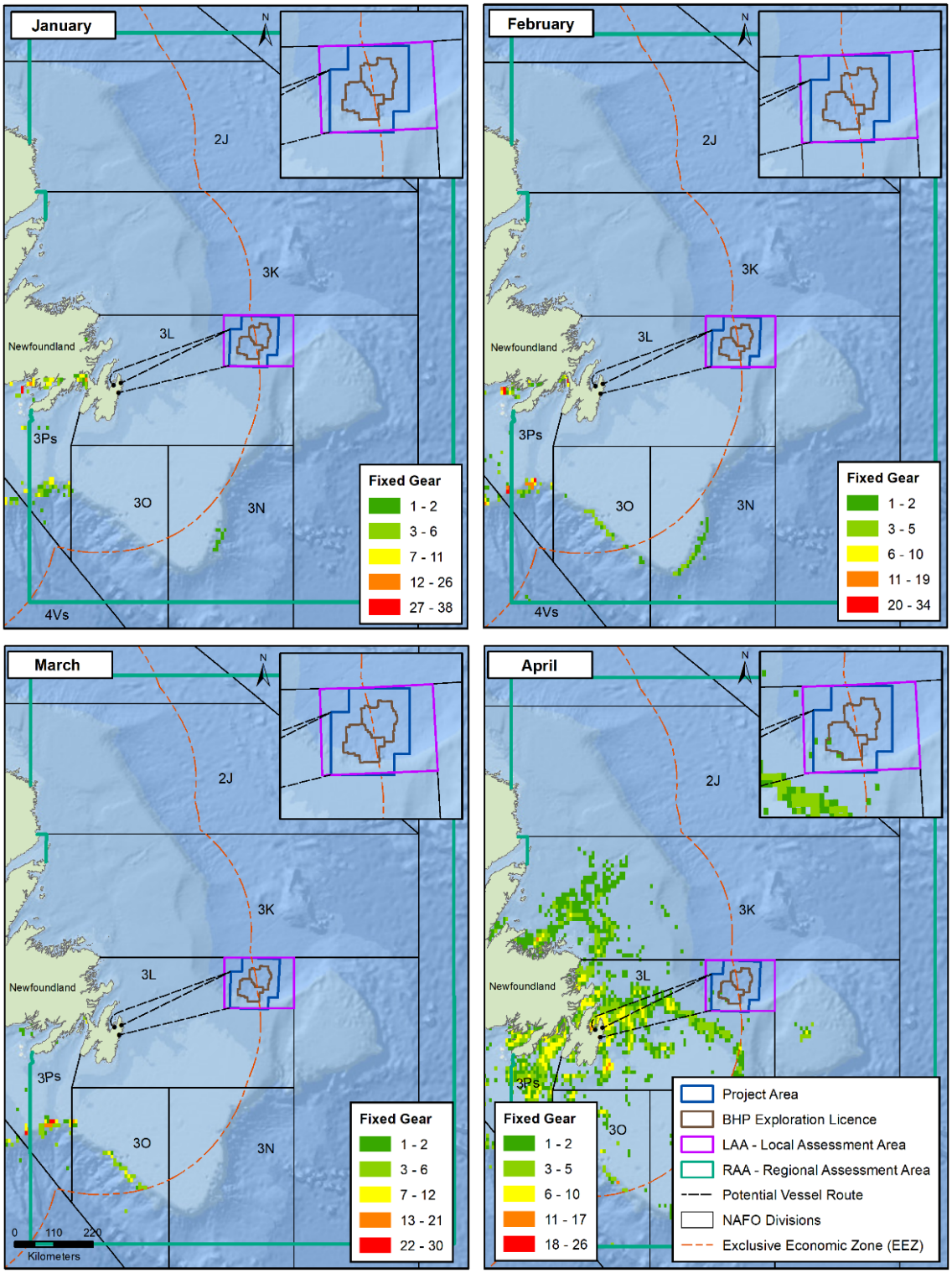
Figure 7-9 2013-2016 Domestic Harvest Quantities by Month (Averaged, RAA)



Source: DFO 2019c

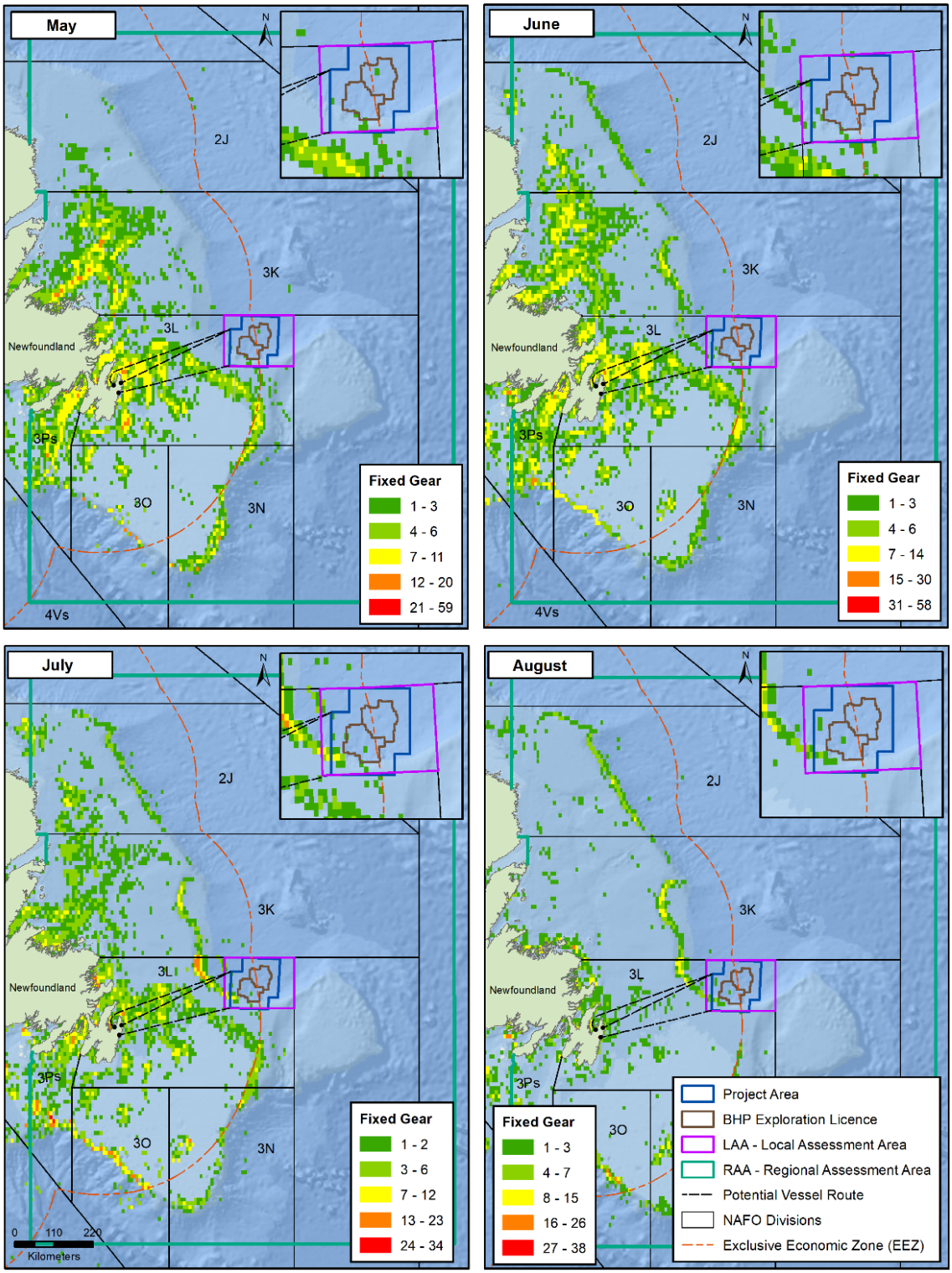
Figure 7-10 2013-2016 Domestic Harvest Values by Month (Averaged, RAA)

Figures 7-11 to 7-16 show locations of domestic fishing activity by gear classification (see Section 7.2.3.3) by month, based on DFO geospatial data. Additional information about the location and timing of principal species fisheries is provided in Section 7.2.6. As these graphs and maps indicate, domestic harvesting tends to be more active and widespread during the spring to early autumn months.



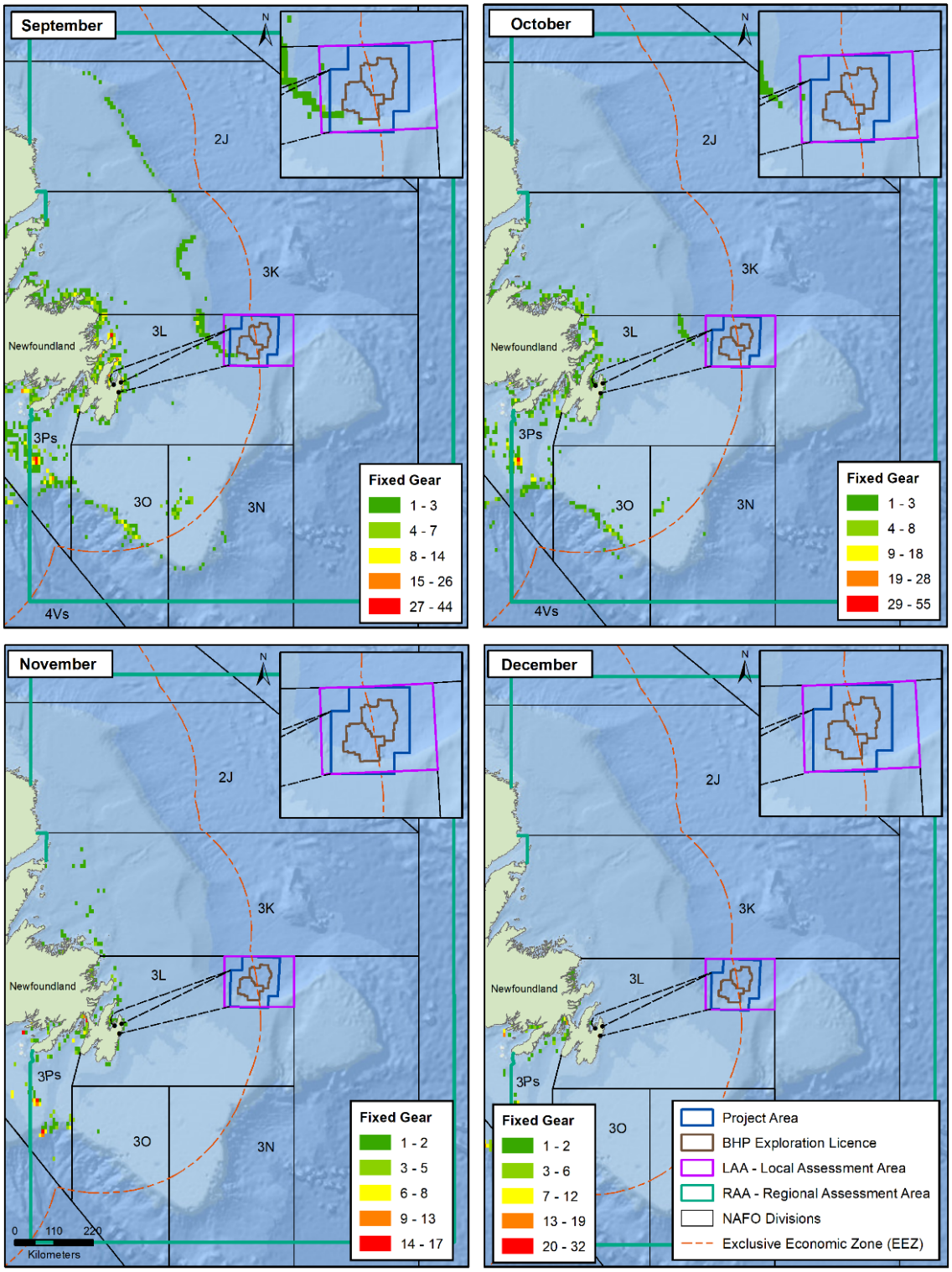
Source: DFO 2019b

Figure 7-11 2013-2017 Domestic Fishing Locations by Intensity, Fixed Gear, All Species by Month, January to April



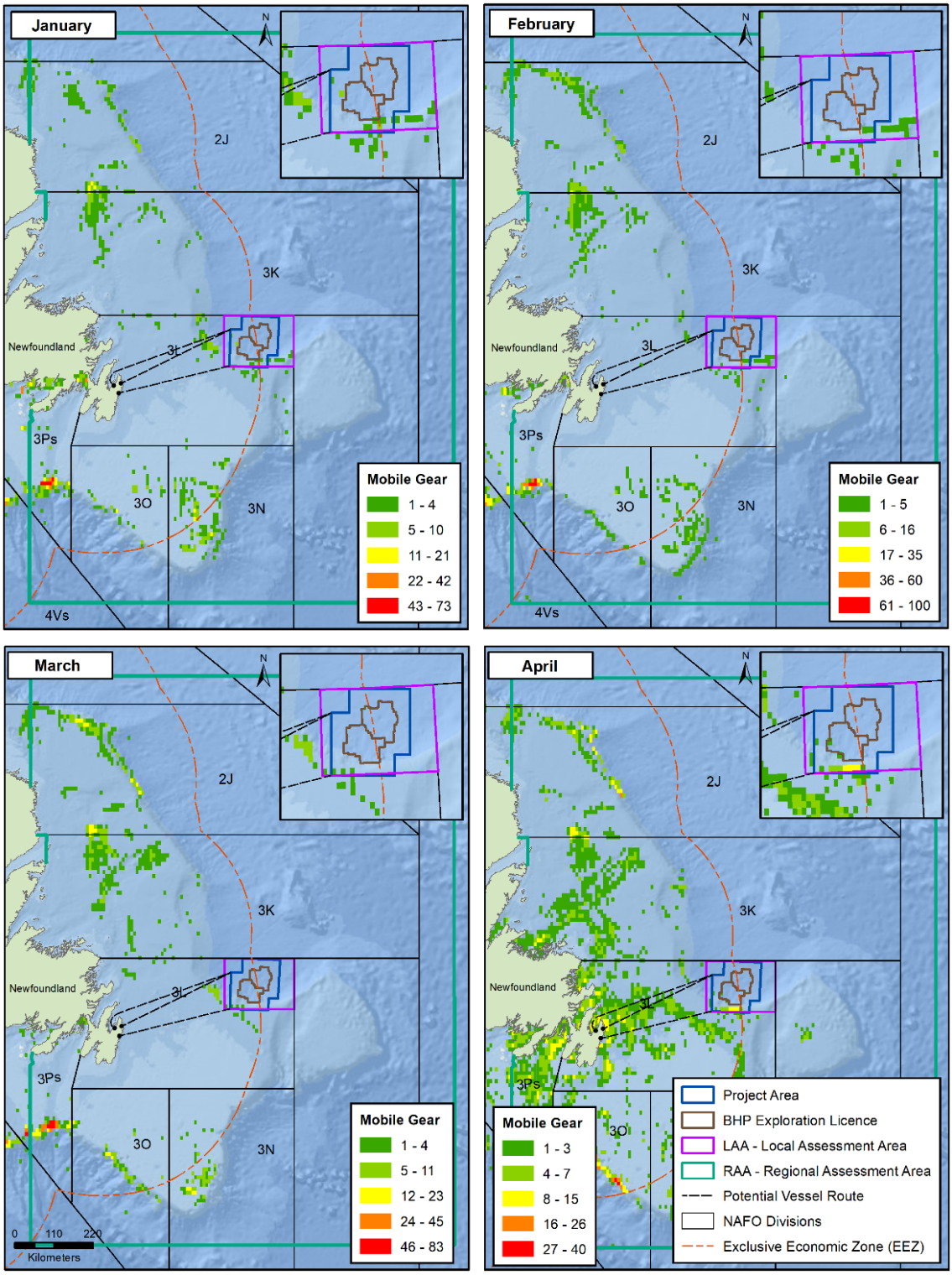
Source: DFO 2019b

Figure 7-12 2013-2017 Domestic Fishing Locations by Intensity, Fixed Gear, All Species by Month, May to August



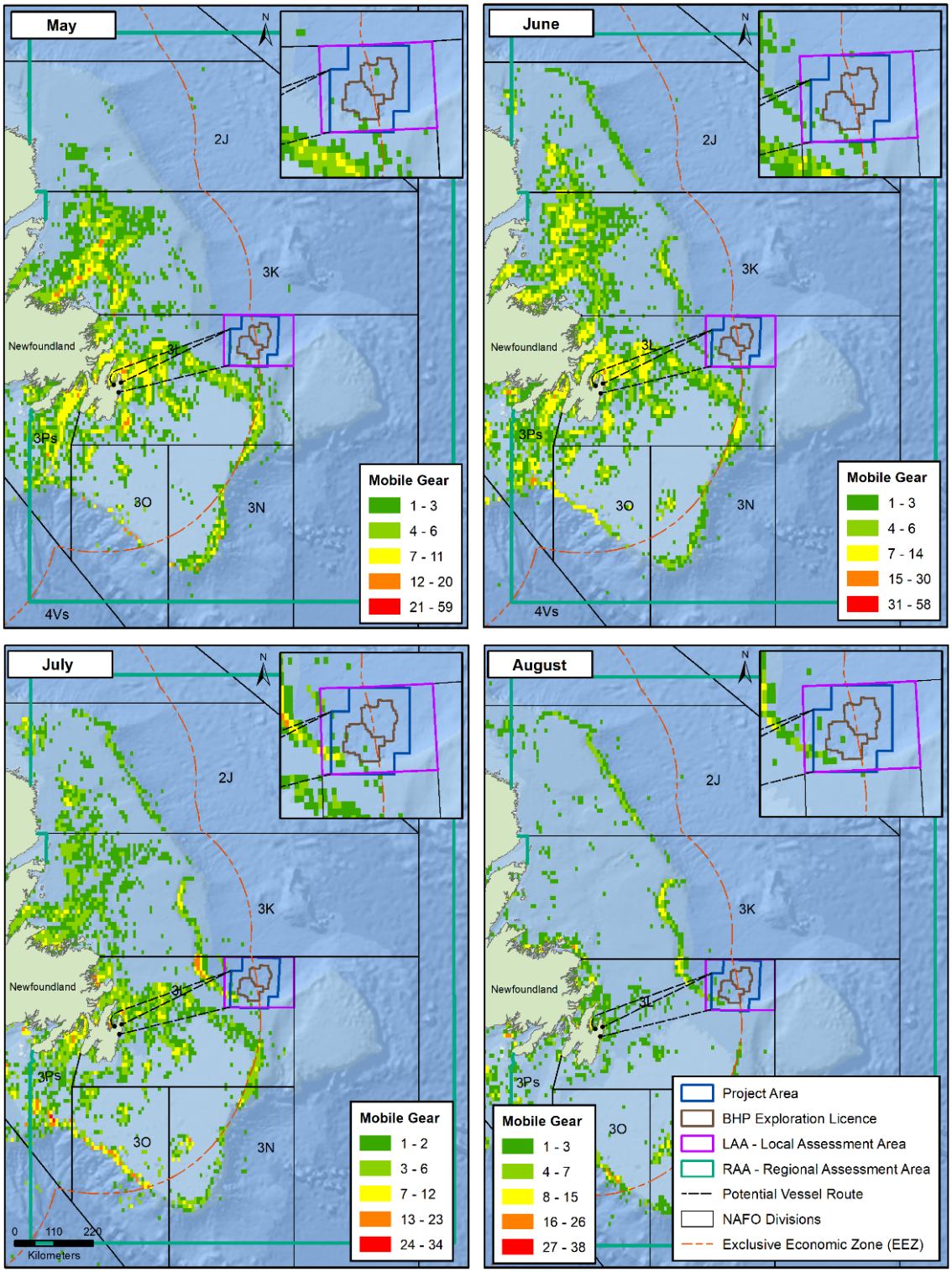
Source: DFO 2019b

Figure 7-13 2013-2017 Domestic Fishing Locations by Intensity, Fixed Gear, All Species by Month, September to December



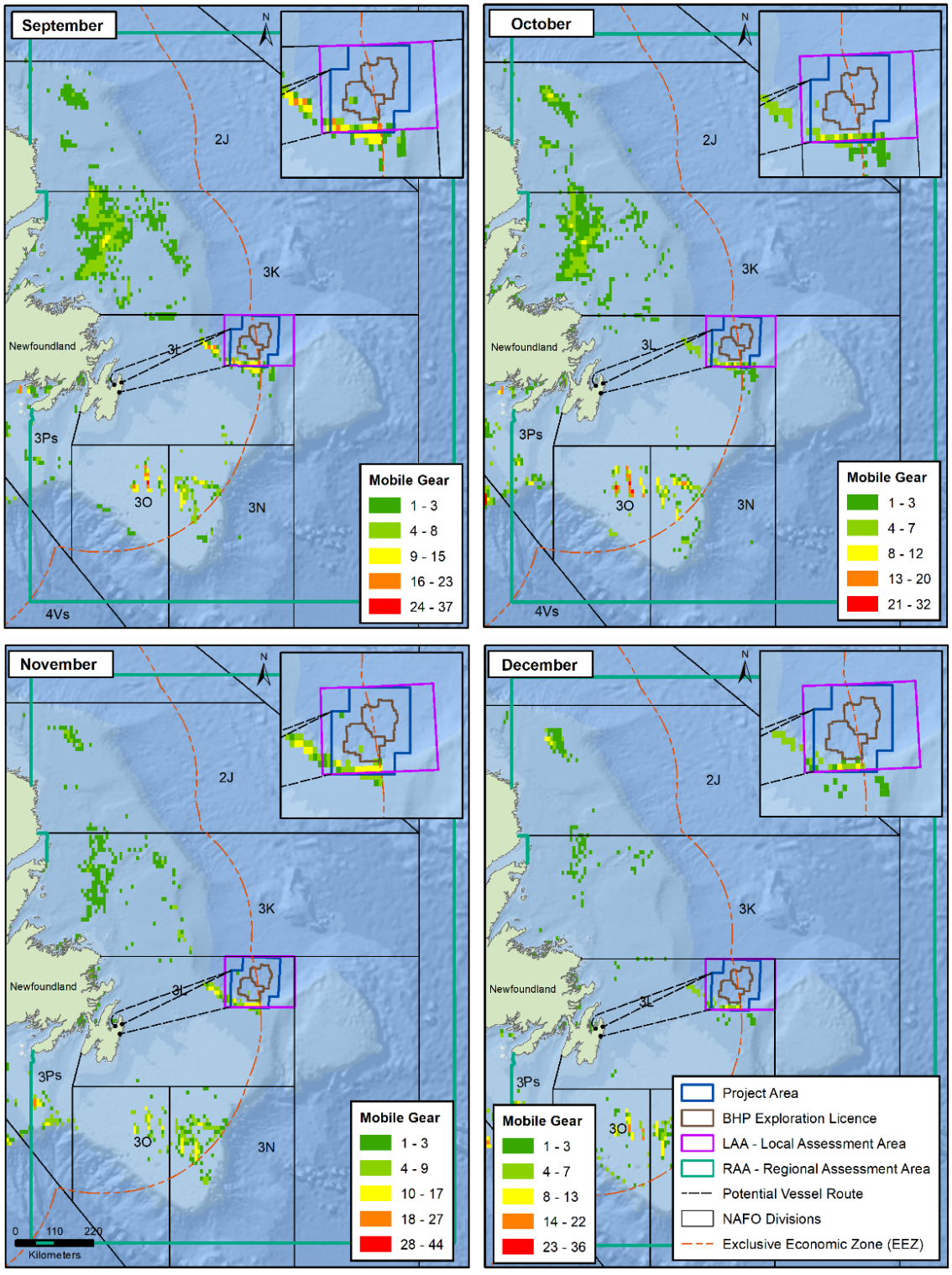
Source: DFO 2019b

Figure 7-14 2013-2017 Domestic Fishing Locations by Intensity, Mobile Gear, All Species by Month, January to April



Source: DFO 2019b

Figure 7-15 2013-2017 Domestic Fishing Locations by Intensity, Mobile Gear, All Species by Month, May to August



Source: DFO 2019b

Figure 7-16 2013-2017 Domestic Fishing Locations by Intensity, Mobile Gear, All Species by Month, September to December

7.2.3.3 Harvesting Gear

Many different types of gear are used to harvest species within the RAA. Some species fisheries use one type of gear only, such as fixed gear pots for snow crab and lobster, and mobile shrimp trawls for shrimp, while other species, particularly groundfish, are targeted using a variety of fixed and mobile gears, such as gillnets, otter trawls, and baited longlines. Both fixed and mobile gear fishing occurs throughout the RAA, including along or near the potential PSV transit routes between port and the Project Area. In general, fixed gears pose a greater potential for physical interactions with other marine activities (e.g., buoy-line snagging on seismic survey streamers) than does mobile gear. Fixed gear fisheries are more common in the spring to autumn months while some mobile gears are used year-round. Further information about principal commercial species fisheries and the gear employed in the RAA and LAA is provided in Section 7.2.6.

Table 7.6 provides the available domestic data for landings by gear type from the RAA and the LAA for the 2013 to 2017 period. Shrimp trawling is now prohibited in the LAA, and within the RAA south of NAFO Division 3K.

Table 7.6 2013-2017 Average Quantity of the Domestic Harvest from the RAA and LAA by Gear Type

Gear	RAA (t)	% of RAA Total	LAA (t)	% of LAA Total
Pot*	44,257	33.6%	10	6.3%
Shrimp trawl	44,056	33.4%	30	18.0%
Tuck seine*	11,561	8.8%		
Gillnet (set or fixed)*	11,315	8.6%	124	75.6%
Purse seine	11,149	8.5%		
Trap net*	2,815	2.1%		
Bottom otter trawl (stern)	1,915	1.5%		
Beach and bar seine*	1,522	1.2%		
Hand line (baited)*	1,295	1.0%		
Longline*	725	0.6%		
Diving with hand tool	466	0.4%		
Sea Cucumber drag*	389	0.3%		
Dredge (boat)	153	0.1%		
All Other	122	0.1%		
Total	131,740	100.0%	164	100.0%

* Classified as fixed gear by DFO
Source: DFO 2019a

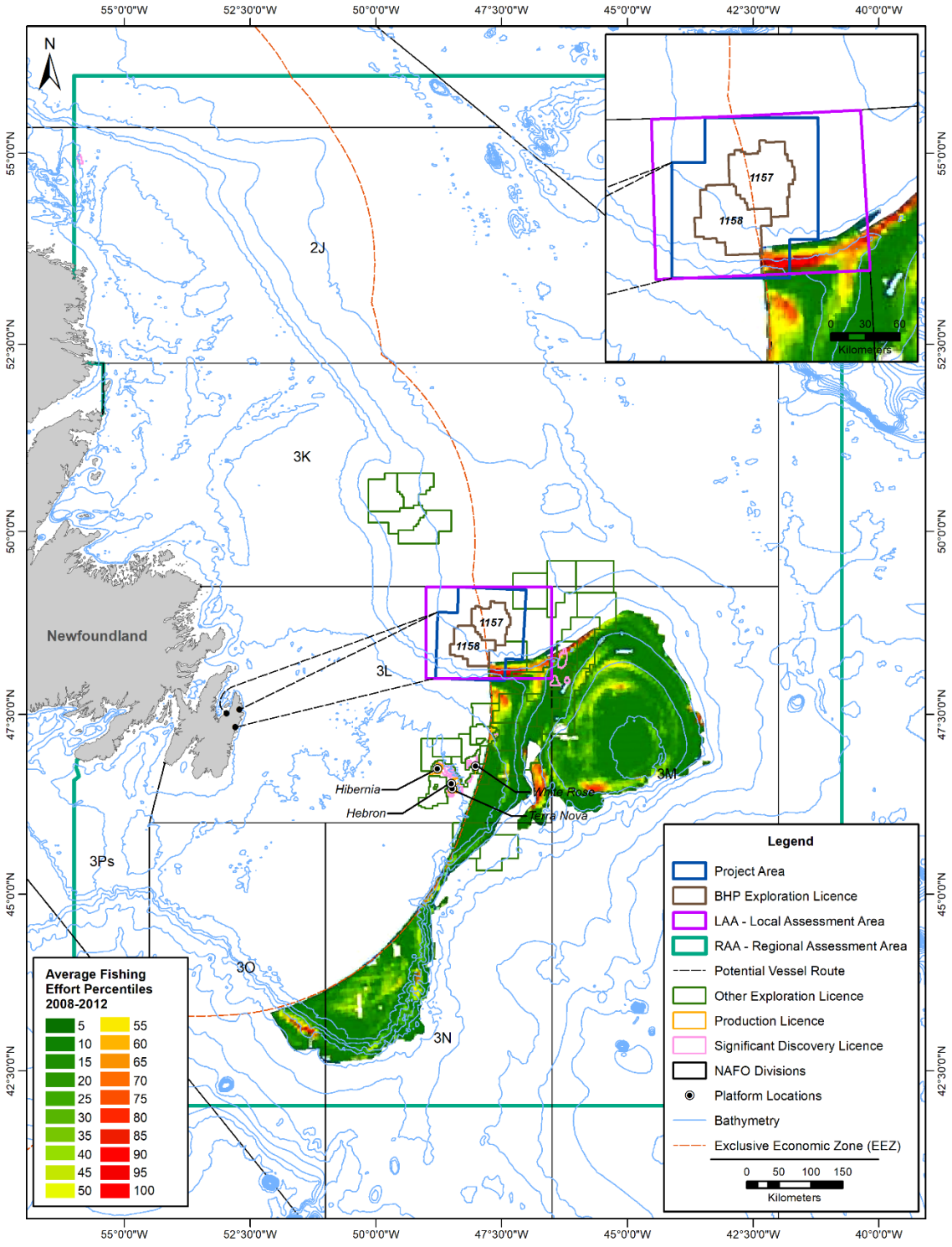
7.2.4 International Fisheries

As Figure 7-1 indicates, and as described in Section 7.2.1, part of the Project Area, the LAA and the RAA are located outside of the Canadian EEZ, within the NRA where vessels from several NAFO Convention nations fish along with Canadian vessels. A small part, of the LAA in the southeast also overlaps with the NAFO fisheries "Footprint" where most Canadian and foreign fishing occurs. It is the only area in which bottom-tending fishing gear is permitted to be used, unless authorized by NAFO for exploratory purposes (NAFO 2019c). Most international fishing in the NRA has been with bottom gear (88% of the catch during the 2010-2016 period, based on NAFO 2019b data), particularly bottom otter trawls. Within the footprint there are several vulnerable marine ecosystems (VMEs) within which bottom fishing is also prohibited (see Section 6.4 Special Areas).

Figures 7-17 and 7-18 illustrate the location and relative intensity of harvesting in the NRA (foreign and Canadian) for 2008 to 2012 based on automated vessel monitoring system (VMS) "ping" data, collected as part of NAFO's conservation enforcement measures (see NAFO 2019c). The mapped colours differentiate between areas of lower activity (greens) based on fewer received pings over time, and areas with higher levels of activity (yellows to reds) based on more numerous VMS records (NAFO 2012, 2014).

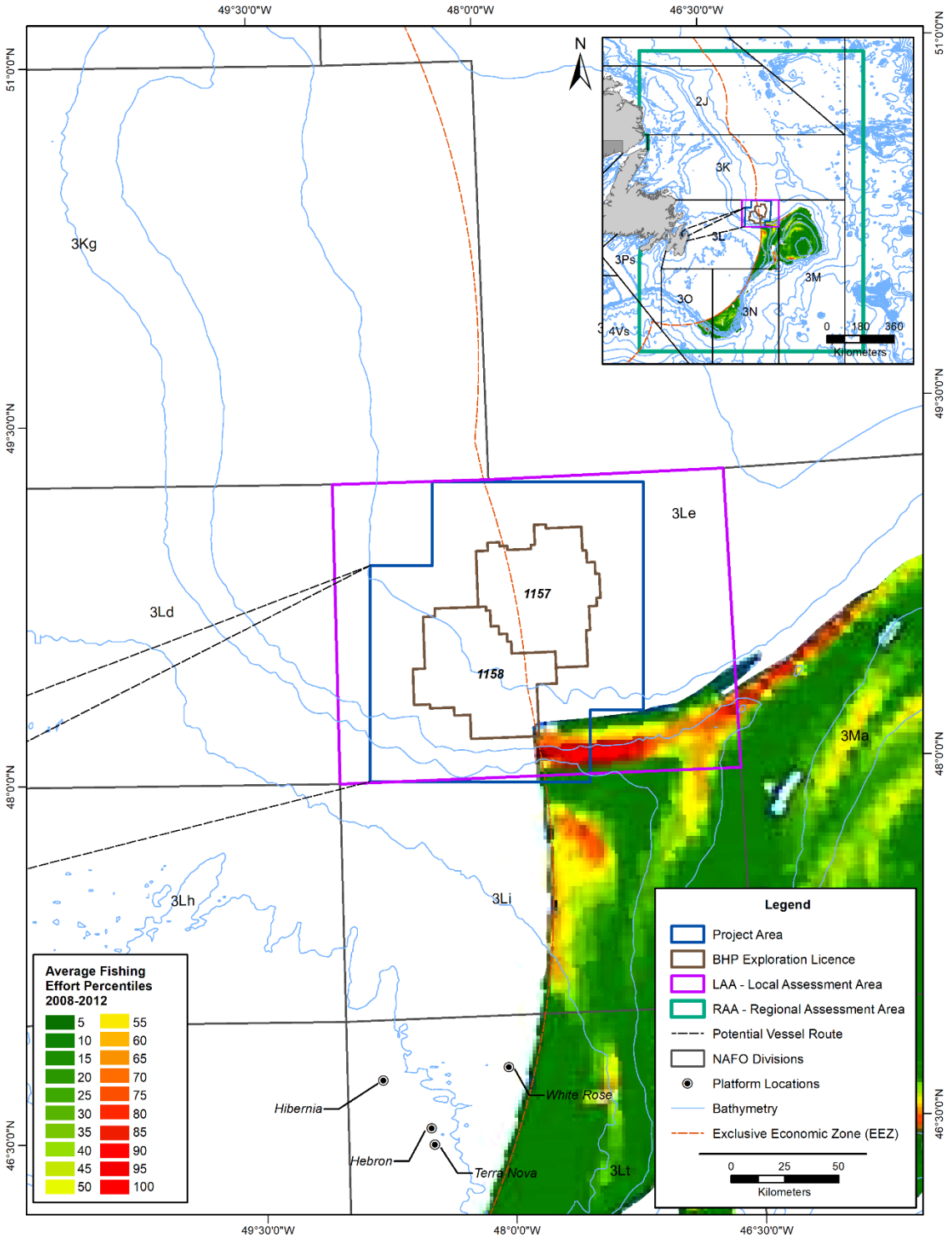
As Figure 7-18 indicates, some of the more frequently used areas of the NRA overlap with part of the LAA and the Project Area, though only overlapping approximately 34 km² of EL 1158, outside the EEZ. Figure 7-19 shows catch quantities for Canadian and foreign harvesters within the RAA and the LAA NAFO Divisions for the years 2013 to 2017. Canadian landings have been much higher than foreign catches since these data include fishing inside the EZZ and therefore outside the NRA where the foreign harvesters operate. These data also include Canadian catch for species not managed by NAFO, such as snow crab and lobster. Since Canadian harvests are described in previous sections using Canadian DFO data, the following discussion focuses on harvesting by foreign signatory nations.

Figure 7-20 shows the relative quantity of harvest by nation (foreign only) for 2013 to 2017.



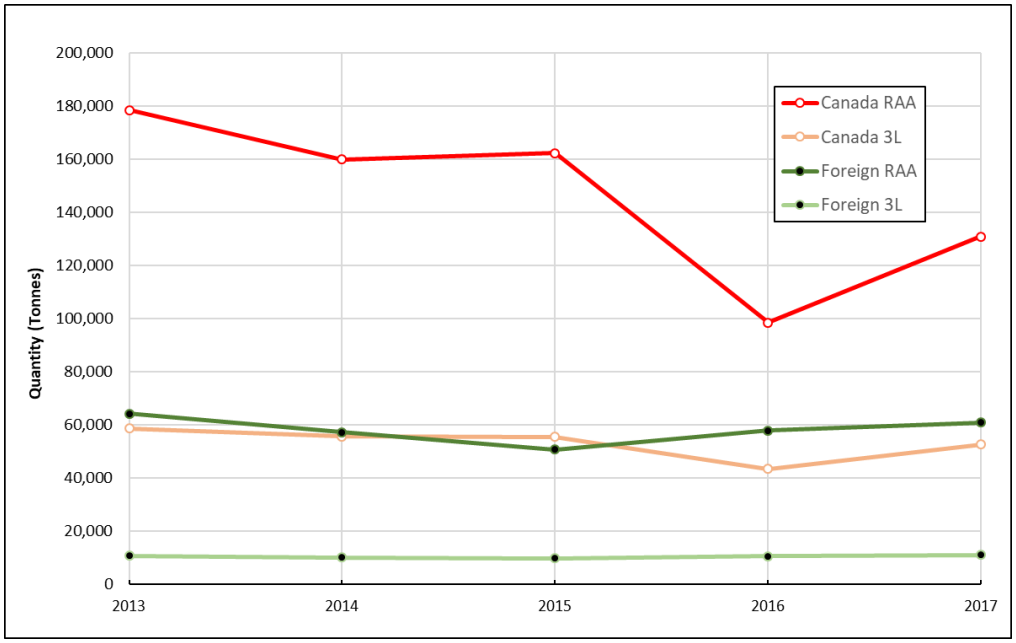
Source: NAFO 2014

Figure 7-17 2008-2012 NRA Foreign and Domestic Fishing Effort Locations and Intensity, RAA View



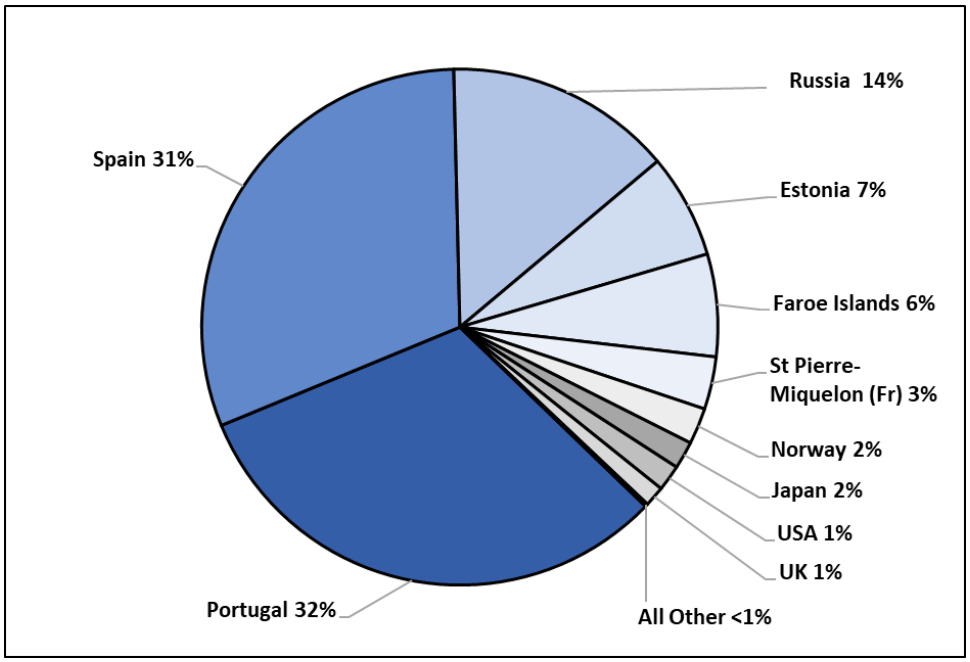
Source: NAFO 2014

Figure 7-18 2008-2012 NRA Foreign and Domestic Fishing Effort Locations and Intensity, LAA View



Source: NAFO 2019a

Figure 7-19 2013-2017 Canadian and Foreign Quantities of Harvest from RAA and LAA NAFO Divisions



Source: NAFO 2019a

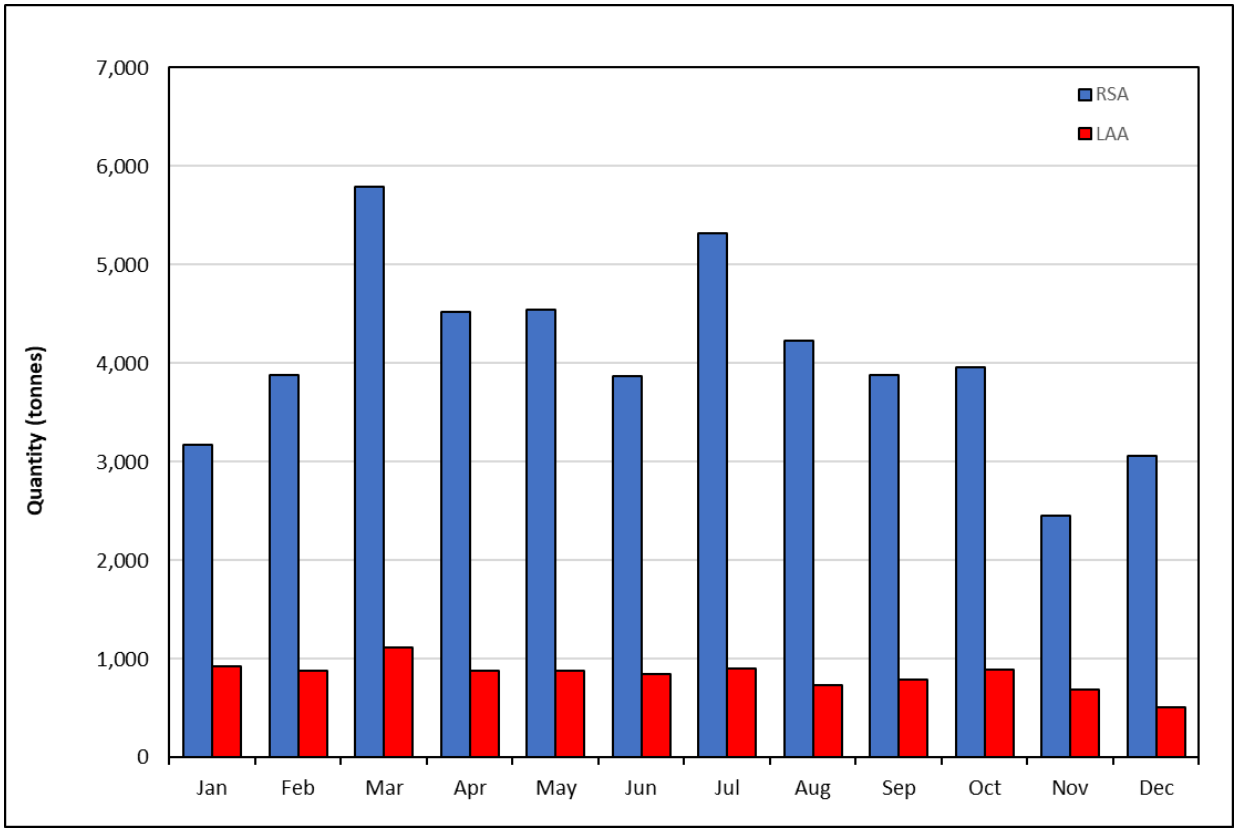
Figure 7-20 2013-2017 Foreign Harvest by Nation (Proportional) from RAA NAFO Divisions

Table 7.7 quantifies the species harvest by foreign nations from the RAA and the LAA, averaged for the 2013 to 2017 period. As these data indicate, the great majority of the foreign harvest during the period was groundfish species (87%). Most were taken with bottom otter trawls. As Figure 7-21 illustrates, the timing of foreign fisheries in both the RAA and LAA NAFO Divisions is more evenly distributed than the domestic harvest in these areas (Figure 7-9). These data are based on NAFO 2019b for 2010 to 2016, the latest international data available that allows analysis by month. More information about principal domestic and international species fisheries is provided in Section 7.2.6.

Table 7.7 2013-2017 Average Quantity of Foreign Harvest from RAA and LAA NAFO Divisions, by Species

Species	RAA Divisions (t)	% of RAA Total	LAA Division (3L) (t)	% of LAA Total
Atlantic Redfishes*	19,443	33.4%	3,297	31.6%
Atlantic Cod*	15,329	26.4%	142	1.4%
Greenland Halibut*	8,779	15.1%	6,059	58.1%
Skates*	4,197	7.2%	57	0.5%
Great Blue Shark	3,193	5.5%	2	0.0%
Yellowtail Flounder*	2,249	3.9%	3	0.0%
American Plaice*	1,075	1.8%	100	1.0%
Silver Hake*	569	1.0%	0	0.0%
Atlantic Halibut*	496	0.9%	73	0.7%
Witch Flounder*	487	0.8%	38	0.4%
Northern Prawn (Northern Shrimp)	467	0.8%	467	4.5%
Haddock*	296	0.5%	0	0.0%
Swordfish	284	0.5%	0.2	0.0%
Roughhead Grenadier*	279	0.5%	122	1.2%
Shortfin Mako Shark	238	0.4%	0	0.0%
White Hake*	225	0.4%	1	0.0%
Roundnose Grenadier*	117	0.2%	42	0.4%
American Angler (Monkfish)*	95	0.2%	0	0.0%
Greenland Cod*	84	0.1%	0	0.0%
Bigeye Tuna	51	0.1%	0	0.0%
Wolffishes*	61	0.1%	18	0.2%
All Other Species	130	0.3%	18	0.2%
Totals	58,144	100.0%	10,437	100.0%

Source: NAFO 2019a
*Groundfish species (DFO classification)



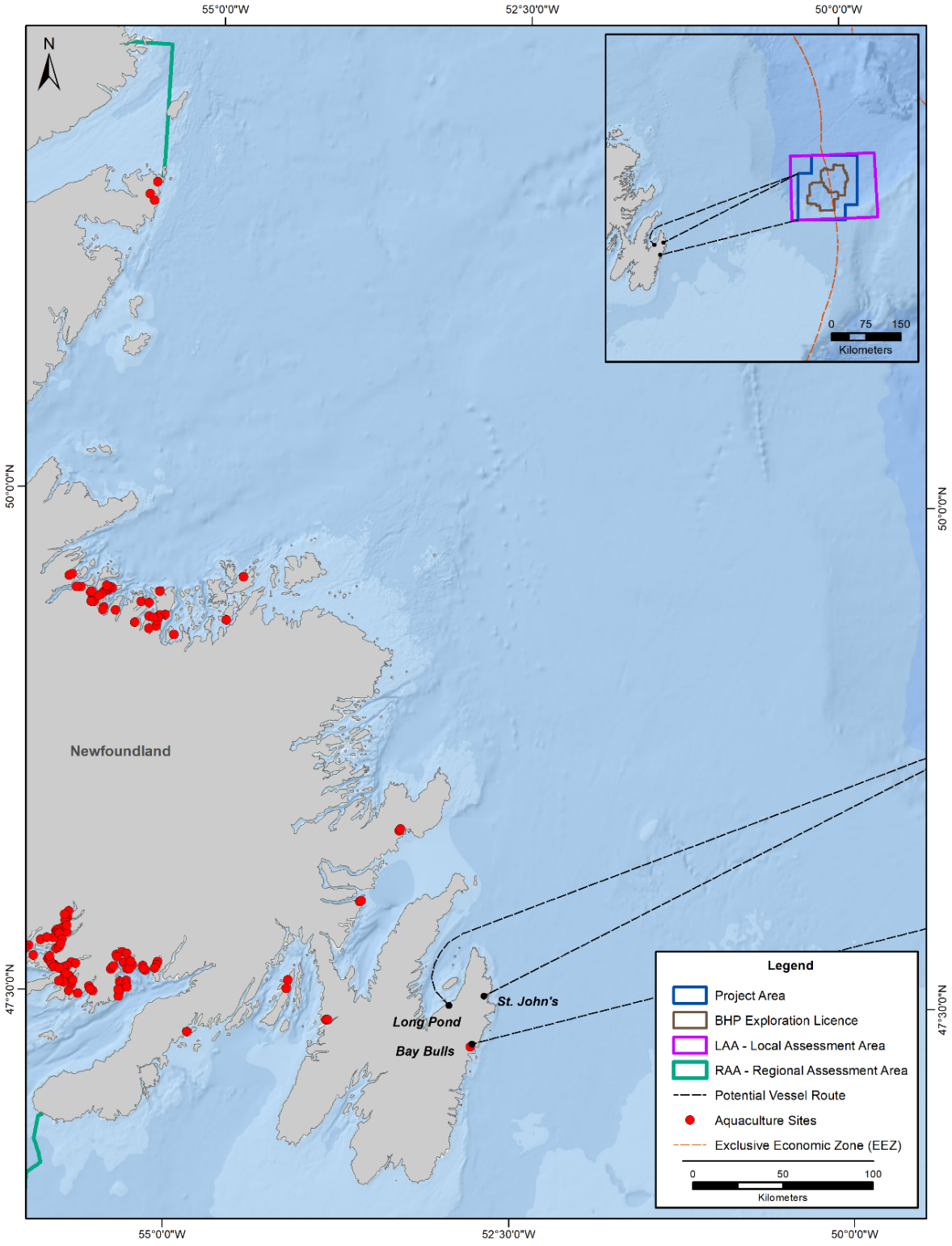
Source: NAFO 2019b

Figure 7-21 2010-2016 Foreign Harvest from RAA and LAA NAFO Divisions, Average by Month

7.2.5 Aquaculture

Given the distance from shore of the Project Area and the LAA, there are no aquaculture operations within or adjacent to these areas; however, there are several associated with the shorelines of the Island of Newfoundland within the RAA, including one in the Bay Bulls area. Locations for 2018 are shown on Figure 7-22. The main concentration in the RAA (blue mussels) is within Notre Dame Bay, in NAFO Division 3K.

In 2018, province-wide there were 424 people reported as employed in aquaculture grow-out and hatchery activities, with an estimated production of approximately 18,000 t, a decrease of 17% from 21,700 t in 2017 owing mainly to a decrease in salmonid production. The value of aquaculture production also decreased in 2018, down 8% to approximately $204 million, though overall production and values have increased during most years of the last decade (DFRL 2019; GNL 2019). Data presented in previous tables and graphs do not include aquaculture production.



Source DFLR 2019

Figure 7-22 Aquaculture Site Locations Adjacent to the RAA, 2018

7.2.6 Principal Species Fisheries

As described above, domestic fisheries within the RAA have been largely for shellfish in terms of both quantity and value since the 1990s (primarily snow crab and northern shrimp, as well as deep-sea clams in more localized areas). Overall, snow crab is now the principal commercial species fishery in the region. Northern shrimp is no longer harvested in the RAA south of Division 3K owing to the closures in 3L and 3M, though it is still important in 3K and northwards. Most of the other catches have been groundfish, some in directed fisheries (such as redfish) and others as an allowed bycatch (such as Atlantic cod in some areas). Groundfish species, predominantly Greenland halibut, are the principal domestic harvest in the LAA and Project Area, though there had been some shrimp dragging in those areas before 2015. Other notable fisheries in the RAA include small pelagic species harvesting closer to shore (potentially near the potential PSV routes) and some large pelagic species along shelf margins. Seal harvesting also occurs in parts of the RAA near coasts in the spring.

For international / foreign fisheries, groundfish harvesting dominates throughout the NRA, although before the shrimp closures (starting in 2011 in NRA waters), that fishery accounted for a large share (e.g., nearly 40% of the foreign catch in 2000 [NAFO 2019a]).

The following provides additional information about key fisheries within the RAA and/or the LAA. Section 6.1 (Fish and Fish Habitat) contains information about the biological and stock status of these and other commercially fished species.

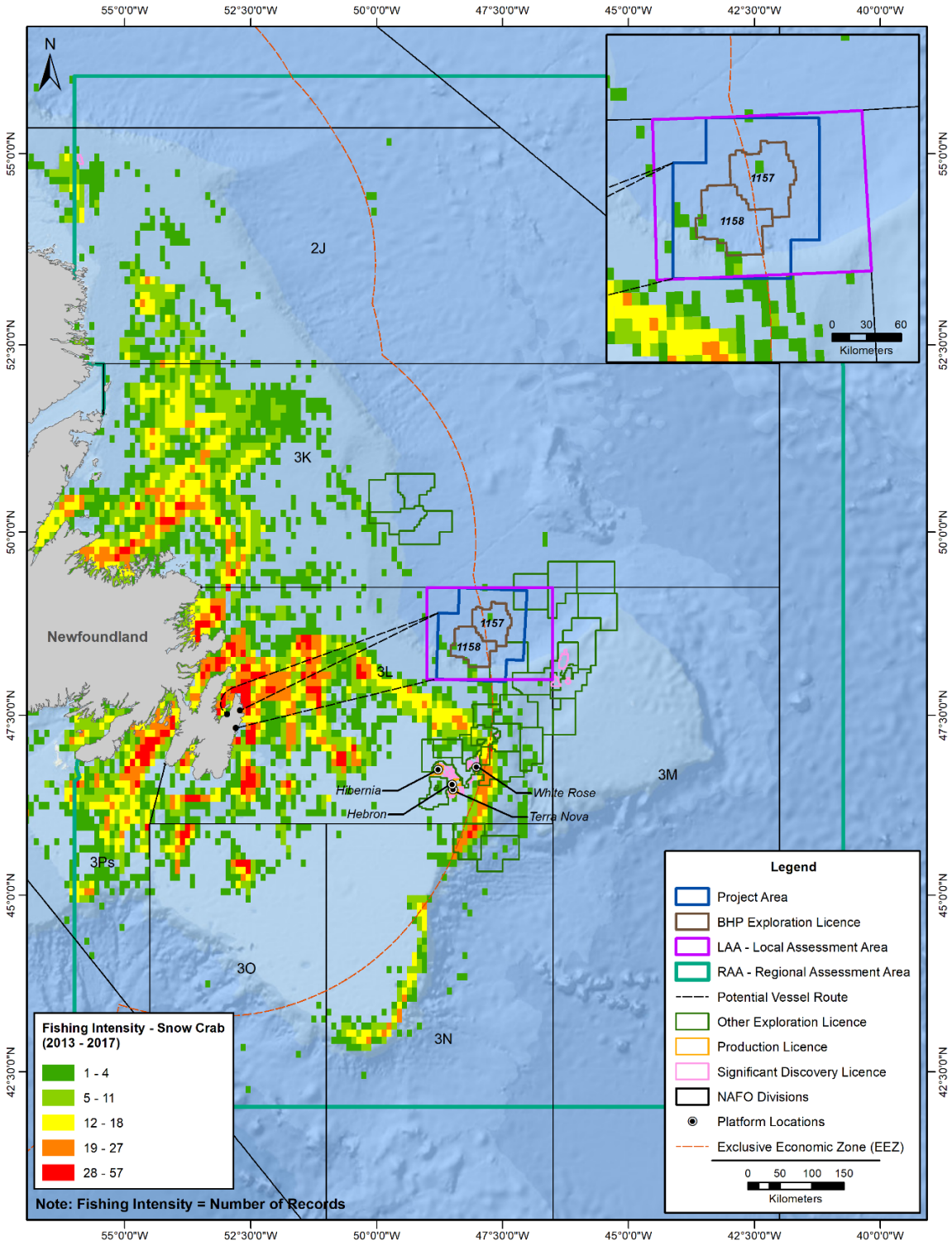
7.2.6.1 Shellfish

Snow Crab

Although a key fishery throughout much of the RAA, including within and near much of the potential PSV transit routes, there is little recorded snow crab harvesting in the LAA and the Project Area (Table 7.5), owing largely to water depths, as indicated in Figure 7-23. This species is managed by DFO and there is no foreign fishery for snow crab within Canada's EEZ or the NRA. The species is harvested using baited conical crab pots, which are set on the sea floor in long fleets (e.g., strings of 90 pots) with lines rising to surface buoys at one or both ends to mark their locations. In 2017 there were 2,188 enterprises with snow crab licences, down from 2,964 in 2008; the majority of these were based in homeports in NAFO Division 3L (DFO 2019o).

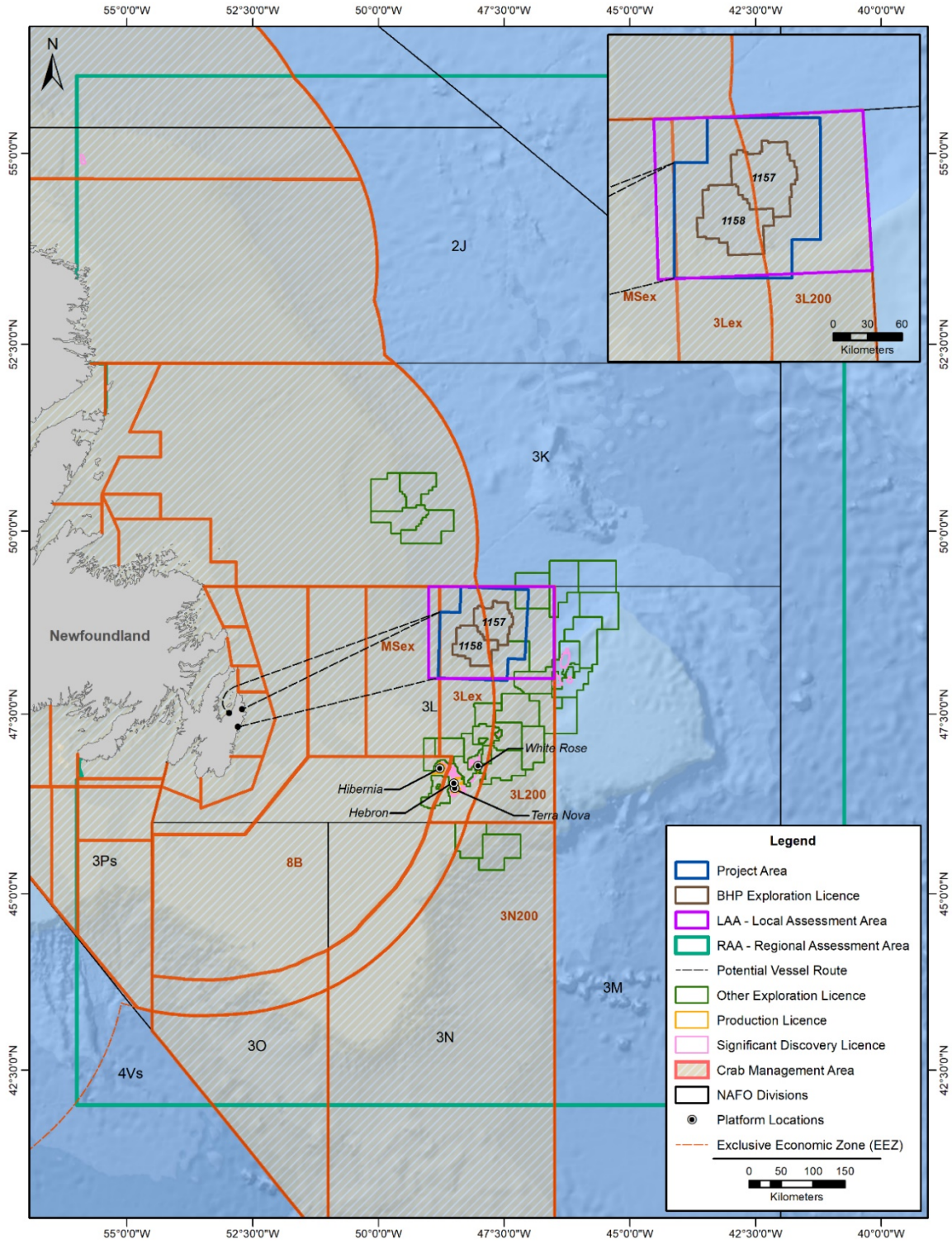
The snow crab fishery uses a TAC and individual enterprise quota system based primarily on different marine CFAs, shown in Figure 7-24. Many of these CFAs have quota assignments based on vessel size, and different start and end dates (which may vary somewhat from year to year). Seasons may be shortened if quotas are taken early or for other management reasons. They may also be extended if quota remains at the end of the planned close date (DFO 2019o).

While still the most important species fishery in terms of overall value and quantities in the RAA, stocks and consequently quotas and catches have been declining in many areas in recent years. From a Newfoundland and Labrador DFO Region high in 1999 (69,131 t), total landings had dropped to 33,605 t by 2017 (DFO 2019o). Preliminary numbers for 2018 and 2019 indicate total regional harvests of 28,083 t and 26,906 t, respectively (DFO 2019d). Figure 7-25 indicates snow crab landings from the RAA during the 2013-2017 period.



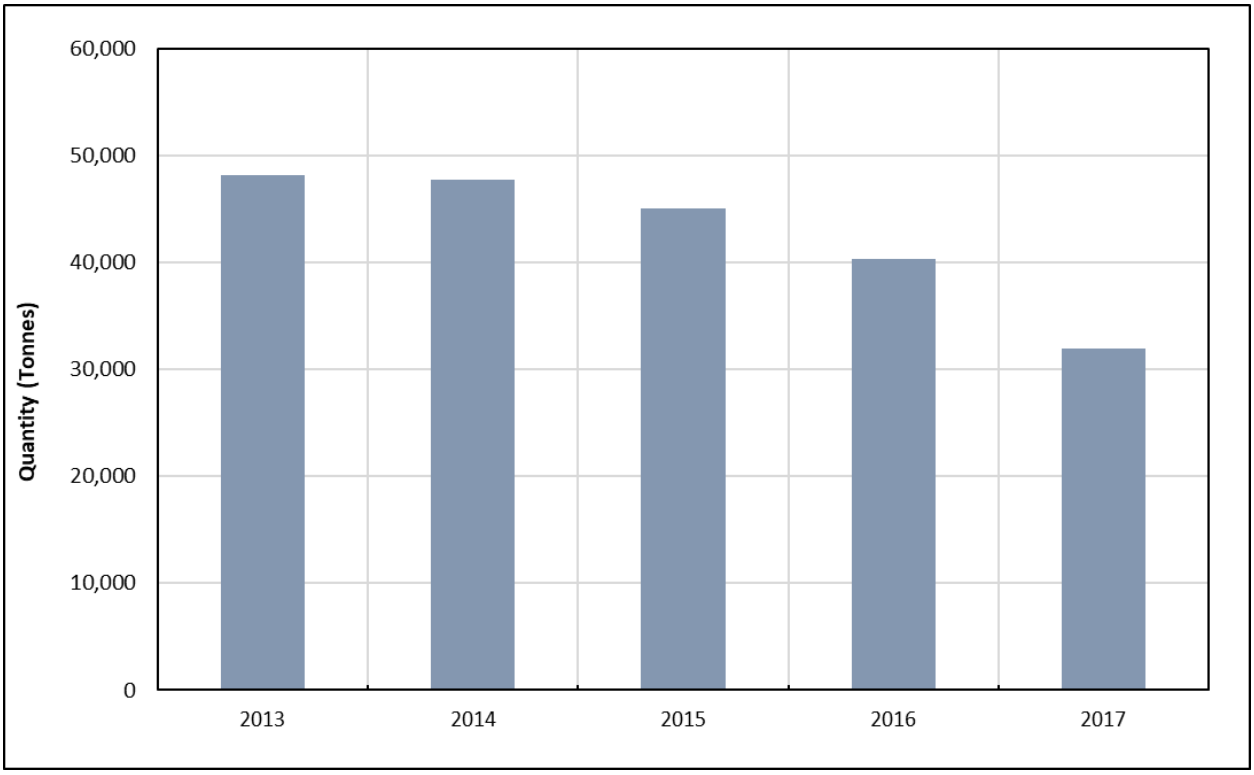
Source: DFO 2019b

Figure 7-23 2013-2017 Domestic Snow Crab Fishing Locations by Intensity, All Months



Source: DFO 2019o

Figure 7-24 Newfoundland and Labrador Region Snow Crab Fishing Areas



Source: DFO 2019a

Figure 7-25 2013-2017 RAA Domestic Snow Crab Landings by Year

Dates and TAC / quotas for the 2019 crab fishing season for RAA NAFO Divisions and CFAs are provided in Table 7.8. Although some individual CFAs saw increases in TACs for 2019, overall there was a decrease of 9% from 2018, to a planned maximum of 26,894 t (DFO 2019e).

Table 7.8 2019 RAA Snow Crab TAC and Seasons

NAFO Division	TAC (t)	Crab Fishing Area	2019 Season Dates
2JGH	1,865	2H, 2J North	TBD
		2J South, All fleets	26 May – July 31
3K	5,856	3A	April 14 – July 15
		3BC, 3D. 4	April 14 – June 30
		3B	April 21 – June 30
		3C	April 29 – June 30
3LNO	15,818	8Bx south	April 8 – July 15
		Most Fleets	April 8 – July 31
3Ps	2,649	All fleets	April 8 – June 30
Source: DFO 2019e; DFO Notices to Fish Harvesters for 2019 (http://ww.nfl.dfo-mpo.gc.ca/NL/CP/Orders/2019/Notices-List			

Shrimp (Spp.)

Beginning in 2015, shrimp harvesting has not been permitted south of NAFO Divisions 3Kwithin the RAA, and consequently none now occurs in the LAA or Project Area. In SFA 7 (Figure 7-26), shrimp was a highly valuable fishery until declining stocks led to the closure in 2015. For similar reasons, shrimp harvesting in the NRA was halted in 3NO in 1995 and in 3M in 2010 (NAFO 2019f). In SFA 6 and SFA 5, shrimp harvesting continues to be permitted but with overall quotas declining. For example, for the 2016/2017 season quotas for SFA 5 + SFA 6 were nearly 53,000 t, while the 2019/2020 quota for these areas totaled just over 31,000 t (DFO 2019f). Figure 7-27 shows the domestic and foreign harvest from the RAA by year for 2013-2017.

The main species, northern shrimp, is often caught with smaller quantities of striped / pink / Aesop shrimp (*P. montagui*). The domestic fishery involves both inshore and offshore fleets. Both use specialized bottom trawls (stern or side beam) that are designed to reduce bycatch of other species. The fishery is open year-round, but the smaller inshore boats are more active in the spring and summer months, with most landings in July and August (DFO 2009b). Figure 7-28 indicates the relative monthly domestic harvesting effort in the RAA, based on numbers of geolocational catch records.

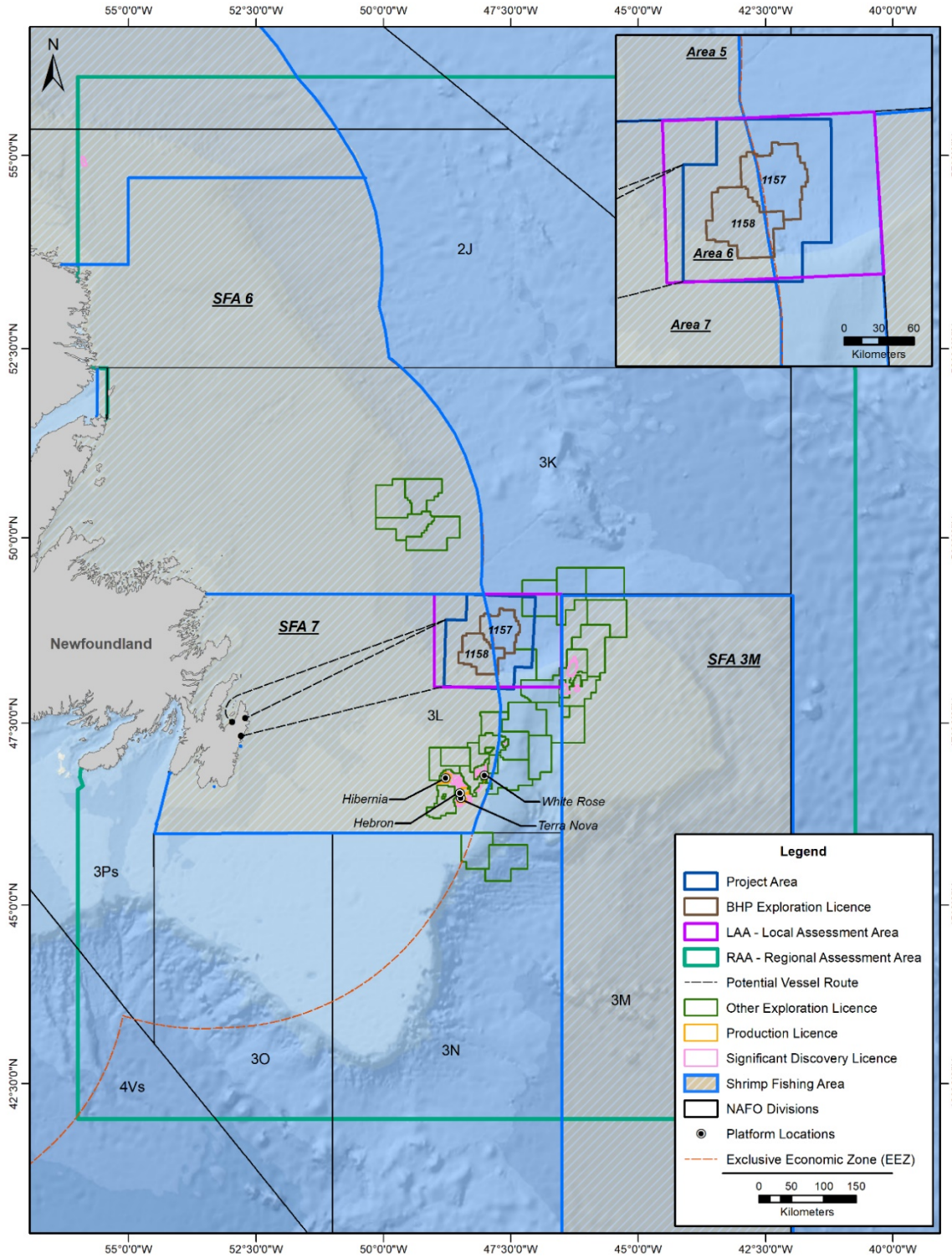
Figure 7-29 illustrates the aggregated domestic shrimp harvesting locations from 2013 to 2017 in relation to the RAA, the LAA, and the Project Area. Note, however, that fishing locations indicated south of 3K in the RAA no longer occur there; these locations are pre-2015 only.

Deep-Sea Clams

Although much of DFO data for this fishery is redacted for confidentiality reasons since it is currently harvested by one operator, it is an important fishery within the RAA, primarily on the eastern Grand Bank shelf and the southeastern slope near the Tail of the Bank. It does not take place near the LAA. The fishery targets Arctic / Stimpson's surf clams, under quota, but also takes other shellfish species, such as cockles and propeller clams. The other primary fishing ground for these species is the Banquereau Bank area on the eastern Scotian Shelf. Both areas are managed under a common plan with a single overall TAC. The fishery may be conducted year-round and uses large factory-freezer vessels equipped with hydraulic dredges for harvesting, generally at depths of 60 m to 110 m on sandy bottoms (DFO 2018a).

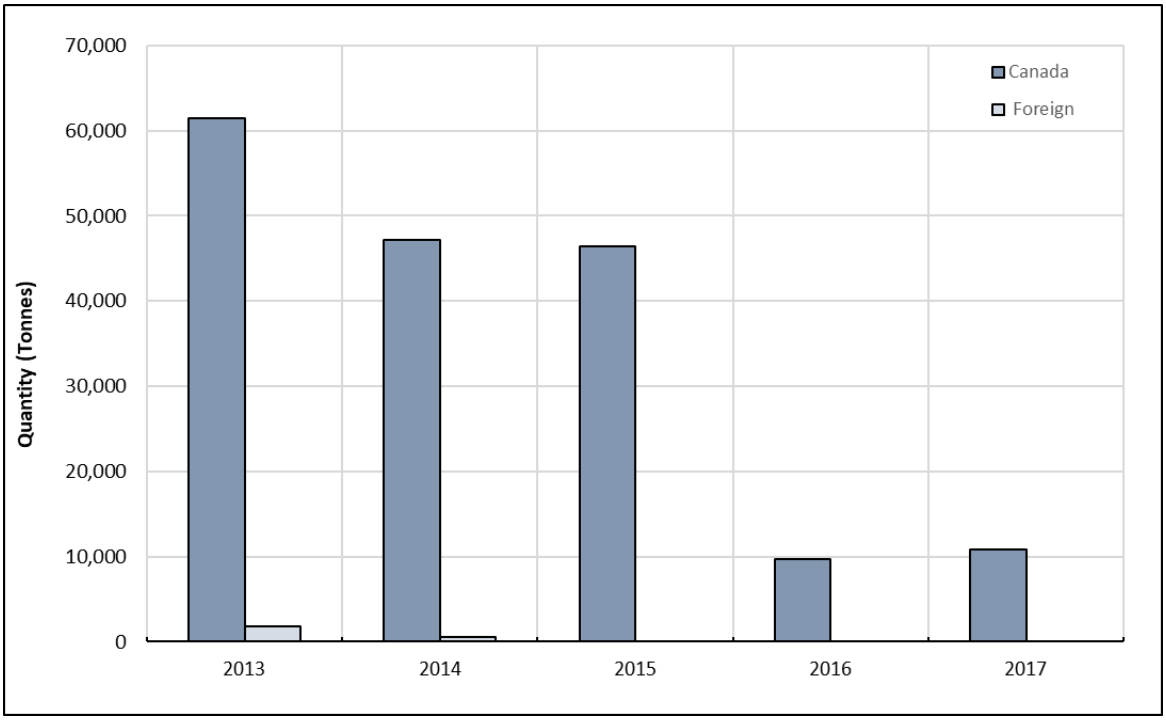
Clearwater Seafoods Limited Partnership, which holds the Atlantic Canada licences for this fishery, reported clam sales of $120,235,000 from clam harvests in 2018 from both Newfoundland and Nova Scotia waters (Clearwater 2019). In 2019 the company announced that it had established a partnership arrangement for the fishery with First Nations in Nova Scotia and Newfoundland aimed at profit sharing and capacity building (CBC 2019).

Fisheries management approaches for the offshore clam fishery are limited licences, the annual TAC, full dockside monitoring, logbooks, and VMS onboard the harvesting ships; for 2019, the TAC was set at 35,699 t (14,756 t for the Grand Banks and 20,943 t for Banquereau Bank), for what is considered to be a stable resource (DFO 2018a, 2019q). Figure 7-30 shows reported domestic harvesting locations for relevant clam species, 2013-2017. (This map also shows some other shellfish harvesting in Division 3Ps not associated with the fisheries described above.)



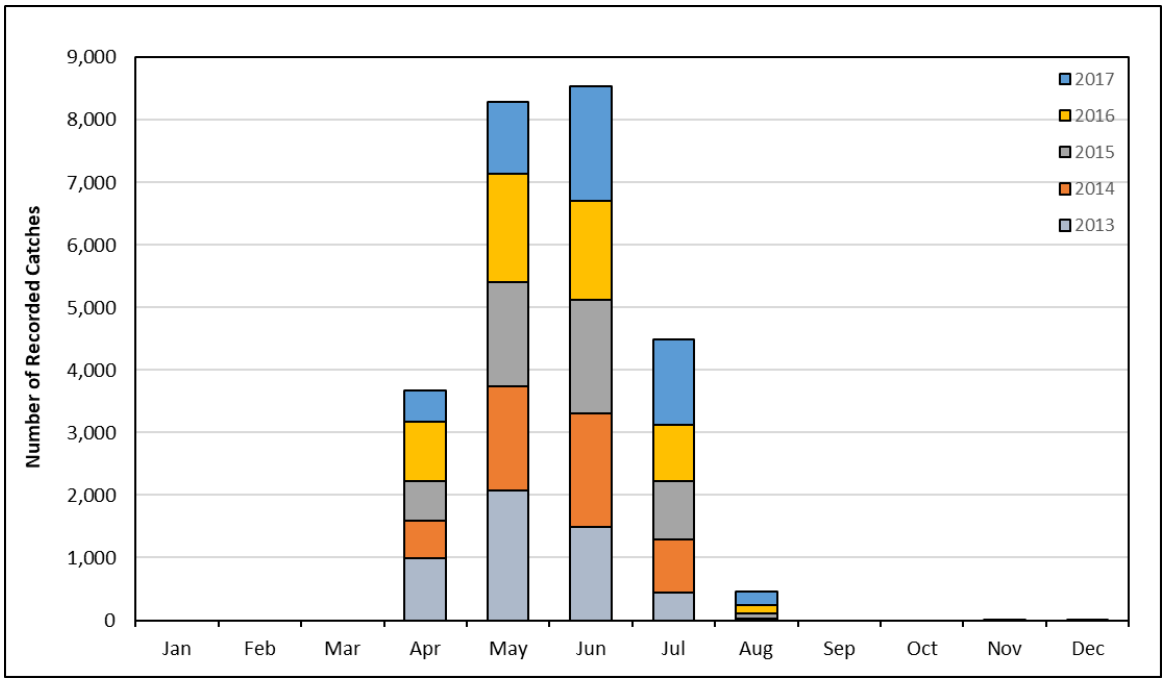
Source: DFO 2018l

Figure 7-26 Newfoundland and Labrador Region Northern Shrimp Fishing Areas



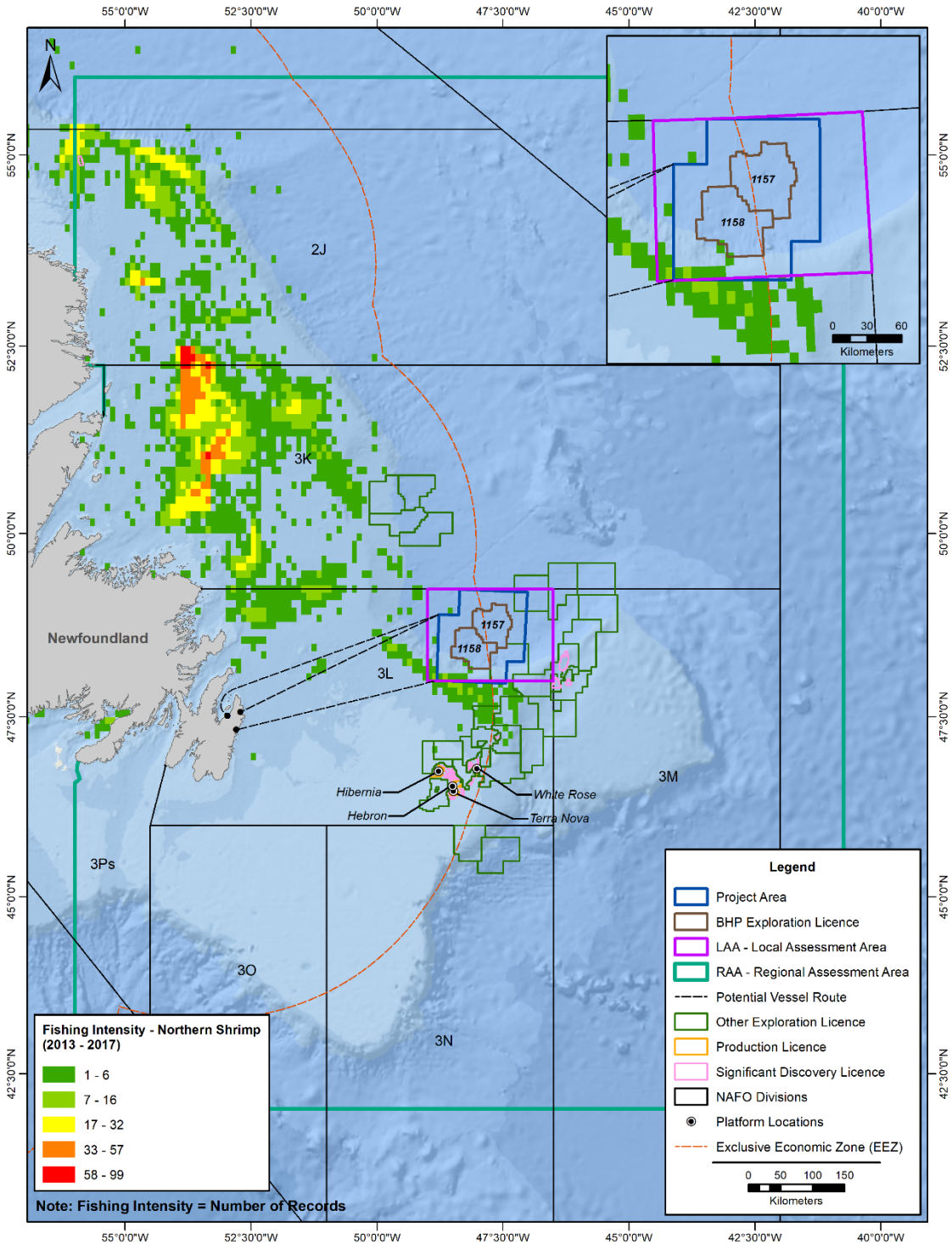
Source: NAFO 2019a

Figure 7-27 2013-2017 RAA Divisions Domestic and Foreign Shrimp Landings by Year



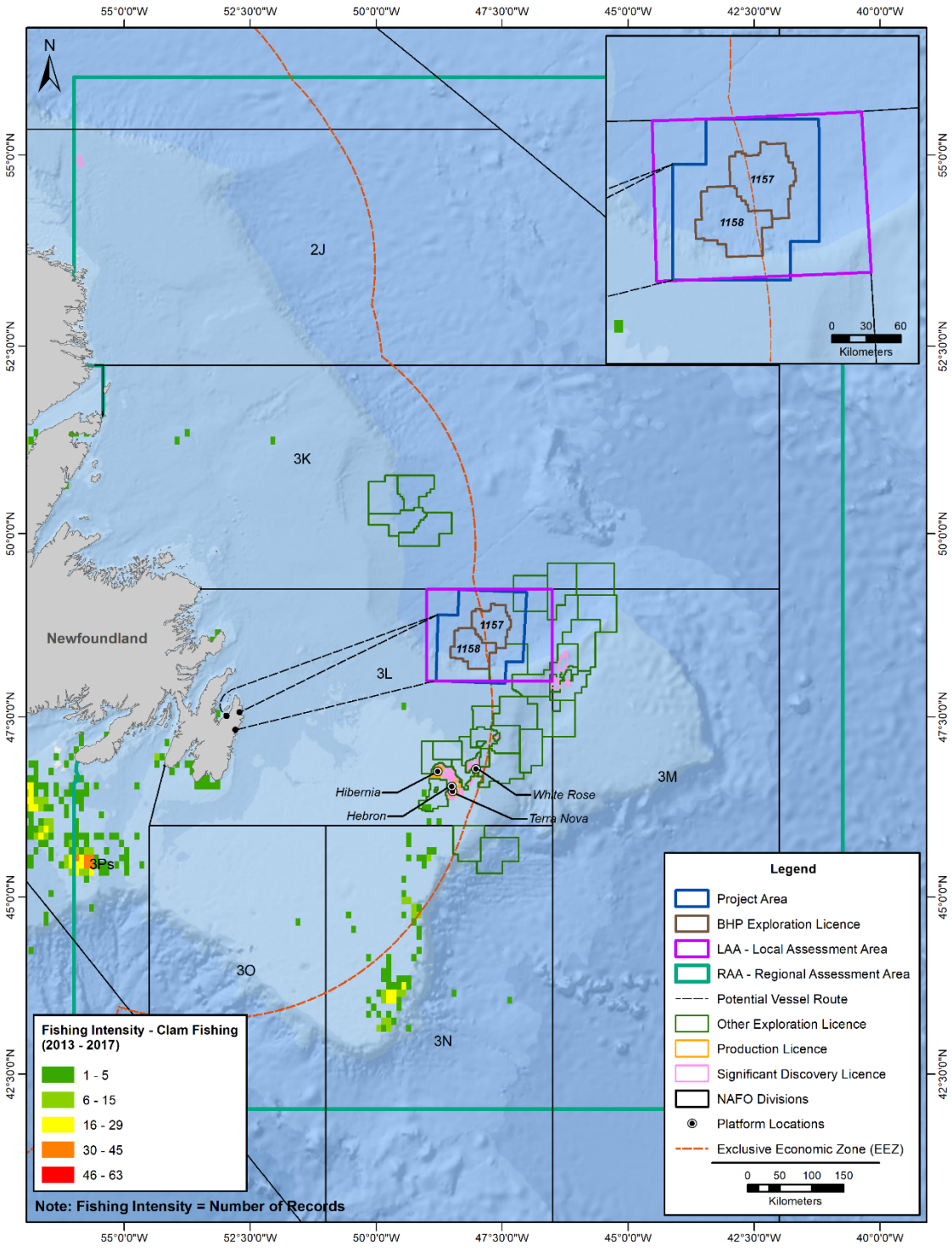
Source: NAFO 2019b

Figure 7-28 2013 – 2017 RAA Domestic Shrimp Records by Month



Source: DFO 2019b

Figure 7-29 2013-2017 Domestic Shrimp (Spp.) Fishing Locations by Intensity, All Months



Source: DFO 2019b

Figure 7-30 2013-2017 Domestic Clam Fishing Locations by Intensity, All Months

7.2.6.2 Groundfish

Within the NRA portion of the RAA, as well as the LAA and Project Area, the principal fisheries are for groundfish, typically pursued year-round. Inside Canada's EEZ in the LAA, Canadian boats primarily target Greenland halibut using fixed-gear gillnets (western part of the LAA) and a variety of species using mobile trawls (western and southern parts of the LAA). Outside the EEZ in the southeastern corner of the LAA, groundfish species are taken by ships from several nations, mainly using mobile bottom trawls. Some fixed-gear groundfish harvesting (mainly with gillnets) may also occur near the potential PSV routes, closer to shore.

As Tables 7.4, 7.5 and 7.7 together indicate, the main groundfish harvest in the RAA comprises three principal species: Greenland halibut (directed fishery); redfishes (directed fishery); and Atlantic cod (bycatch in most areas). These three species made up 95% of the reported domestic RAA groundfish harvest (100% in the LAA), and 82% of the foreign RAA groundfish in the years indicated. These groundfish species are often harvested together, with the same gear, and often with other species, some as directed fisheries (under TAC), and several others as bycatches of the directed fisheries. For bycatch harvesting, directed fisheries may be halted if bycatch quantities are too high.

Table 7.9 indicates management responsibility and status (directed or moratorium / bycatch) of key RAA stocks. Canadian species fisheries (e.g., for Atlantic cod, witch flounder, redfish, and American plaice) in NAFO Sub-Division 3Ps in the southwest part of the RAA are managed separately by DFO, some in cooperation with France (for Saint-Pierre et Miquelon). Figure 7-31 indicates the location of recorded groundfish harvesting by domestic harvesters.

Although data are not available to map the locations of most species harvests in the NRA, Table 7.10, derived from NAFO 2016, summarizes the principal groundfish fisheries (the main international fisheries in the RAA or the LAA) by NAFO Division and general depth strata. As noted in Section 7.2.4, most of the fishing vessel activity mapped in Figure 7-17 are involved in groundfish harvesting.

Quotas and other management and enforcement measures for NAFO-managed species are set annually for each member nation involved in the fishery. These details are available for the current and past years at the NAFO web site: https://www.nafo.int/Fisheries/Conservation. The following sub-sections focus on the three principal groundfish species identified above as well as other notable groundfish species that are fished in the RAA.

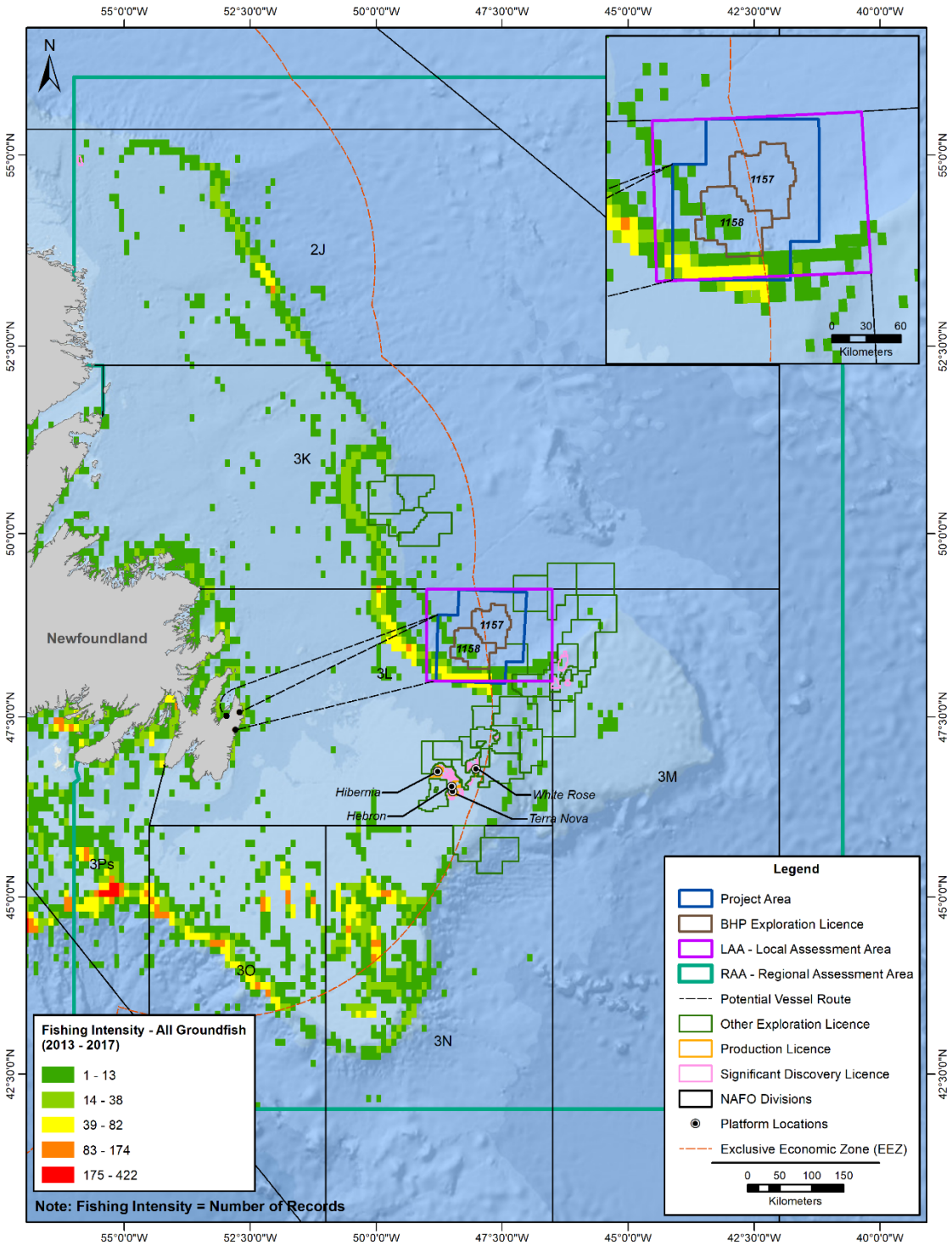
Table 7.9 2017-2019 Canadian TAC for Directed Groundfish Fisheries, Species under Moratorium, and Management Authority (Divisions Overlapping RAA)

Species/Fishery	2017 TAC (t)	2018 TAC (t)	2019 TAC (t)
2+3K American plaice	Under moratorium	Under moratorium	Under moratorium
3LNO American plaice (NAFO)	Under moratorium	Under moratorium	Under moratorium until at least 2021
3M American plaice (NAFO)	Under moratorium	Under moratorium	Under moratorium until at least 2020
2GH Atlantic cod	Under moratorium	Under moratorium	Under moratorium
2J3KL Atlantic cod	Moratorium; inshore stewardship fishery	Moratorium; inshore stewardship fishery	To be determined
3M Atlantic cod (NAFO)	111.448	89.16	140
3NO Atlantic cod (NAFO)	Under moratorium	Under moratorium	Under moratorium until at least 2021
3NOPs4VWX5Zc Atlantic halibut	Managed by DFO Maritimes Region.		
2+3K Greenland halibut (NAFO)[a]	3,832.90	4,273	4,151
3LMNO Greenland halibut (NAFO)	1,644.90	1,833.90	1,836
2+3 Grenadier	Under moratorium	Under moratorium	Under moratorium
3LNO Haddock	Under moratorium	Under moratorium	Under moratorium
3KL Lumpfish	No TAC is set for this fishery		
3LNO Monkfish	No TAC is set for this fishery		
2+3K Redfish	Under moratorium	Under moratorium	Under moratorium
3LN Redfish (NAFO)	6,049	6,049	7,710
3M Redfish (NAFO)	500	500	500
3O Redfish (NAFO)[b]	6,000	6,000	6,000
3LNO Thorny skate (NAFO)	1,167	1,167	1,167
3NO White hake (NAFO)	294	294	294
3KL Winter flounder	No TAC is set for this fishery		
2J3KL Witch flounder	Under moratorium	Under moratorium	Under moratorium
3NO Witch flounder (NAFO)	1,335	669.6	705
3LNO Yellowtail flounder (NAFO)	16,575	16,575	16,575

[a] Canada is allocated the entire (100%) NAFO TAC for 2+3K Greenland halibut. France is then allocated 3% of the TAC under the 1994 Procès-Verbal Applying the March 27, 1972 Agreement Between Canada and France on their Mutual Fishing Relations (PV) in respect of the French islands of St. Pierre and Miquelon.

[b] Canada is allocated 30.0% of the NAFO TAC for 3O redfish. France is then allocated 15% share of the total Canadian allocation amount under the 1994 Procès-Verbal Applying the March 27, 1972 Agreement Between Canada and France on their Mutual Fishing Relations (PV) in respect of the French islands of St. Pierre and Miquelon.

Sources: DFO 2019h; DFO 2019n



Source: DFO 2019b

Figure 7-31 2013-2017 Domestic Groundfish Fishing Locations by Intensity, All Months, All Gear Types

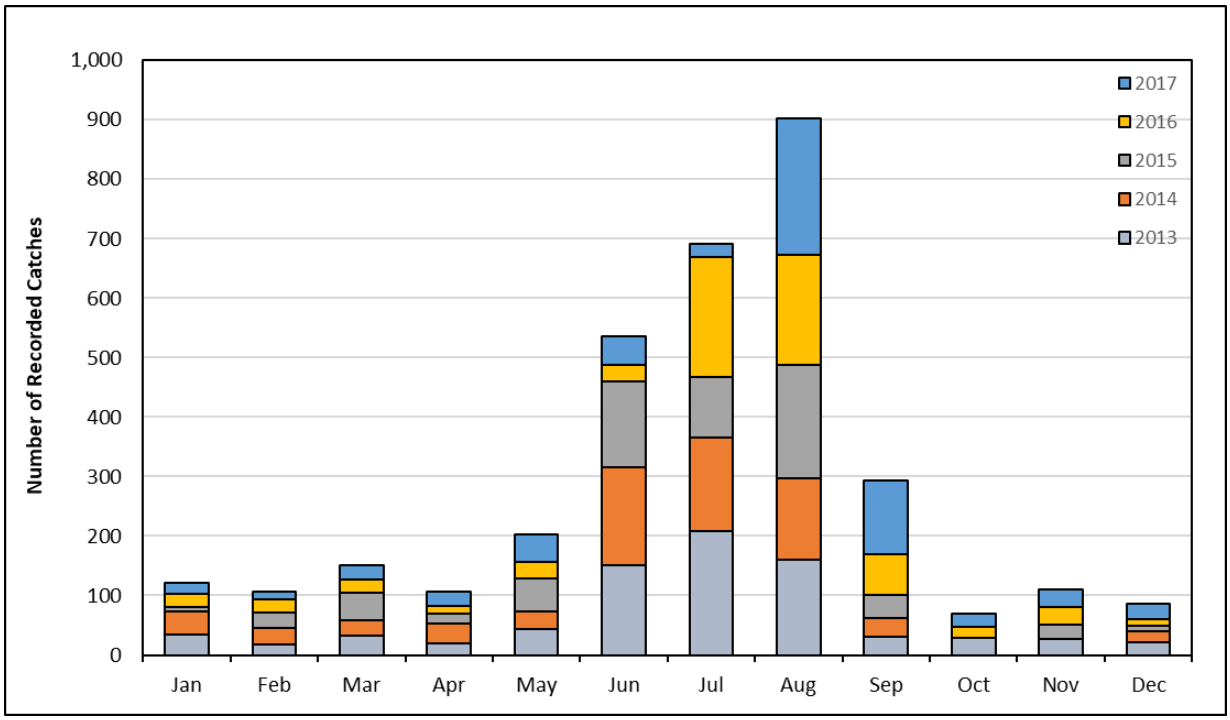
Table 7.10 Key NRA Groundfish Fisheries by Division and Depth

NAFO Divisions and Depths	Key Species Fisheries	Details
Divisions 3NO at <800 m	Witch flounder	A directed fishery for witch flounder was re-opened in 2015 for the first time since it was placed under a moratorium in 1995. This fishery is conducted with 130 mm mesh size and is likely to occur at various depths to 800 m.
Divisions 3LNO at 200-1,000 m	Redfish	The redfish fishery is conducted with 130 mm mesh size trawl bottom trawls with the primary areas being the slope area of Division 3O, the east-central area of Division 3N and the southeast area of Division 3L near the border with Division 3N in depths <600m. Redfish comprise 90% of the catch and the main bycatch species were American plaice (2%), cod (2%), silver hake (2%) and Atlantic halibut (2%) based on 2015 logbook information. Although mid-water trawling has comprised a substantial percentage of redfish fisheries for principal Russian fleet in the past, its use has diminished in recent years and only bottom trawls were deployed in 2013-2014.
Divisions 3LMNO at >800 m	Greenland Halibut	The principal fishery is conducted from 800-1400 m with 130 mm mesh size bottom trawls and although widespread throughout the divisions, there were four primary areas. These included, in decreasing area of importance: (1) the northeast of Division 3L, (2) the northwest of Division 3M, (3) the southeast of Division3L along the Division3LM boundary, and (4) the northeast of Division 3N. Greenland halibut comprised 95% of the catch based on 2015 logbook data and main bycatch are grenadiers, witch flounder, skates and plaice (each species <1%).
Division 3M at 150-600 m	Redfish	The redfish fishery is conducted with 130 mm mesh size bottom trawl gear primarily within the 200m-600 m depth zone in Division 3M along the southern and north-western slope of the bank. Redfish comprise 80% of the catch and the main bycatch species were Greenland halibut (4%) and cod (3%).
Division 3M at 150-600 m	Cod	The cod fishery in Division 3M is conducted with 130 mm mesh size bottom trawl gear at depths between 150 to 550 m, with the highest concentrations of effort in the south western and south-eastern areas of the slope of the bank. Most of the hauls were carried out at depth between 300-400 m. Cod comprised 92% of the catches and the most important species in the by catch was redfish (7%). A long-line fishery is also conducted for cod between 200 and 400 m in the north west portion of the NAFO Footprint area along the slope of the bank. The principal bycatch in this fishery is skate and Greenland shark.
Divisions 3LNO at >30 m	White hake	The white hake fishery operates mostly along the shelf edge of the southern part of NAFO Division 3NO and tends to be an opportunistic fishery and therefore can be quite irregular. The fishery uses 130 mm mesh size bottom trawl gear.

Source: NAFO 2016

Greenland Halibut

This species (often referred to as turbot) is the principal fishery in the LAA and the Project Area, based on the available DFO data for 2013-2017. Greenland halibut stocks in the RAA are managed by NAFO as a directed fishery. It is conducted primarily with fixed-gear gillnets (mainly smaller boats, less than 20 m) and by mobile bottom otter trawls (larger vessels >30 m) (Brodie et al. 2009; DFO 2019h). Fishing for the species can occur year-round, though fixed gear harvesting is more focused on the spring to autumn months (Figure 7-32). Typically, in the RAA, the gillnet harvest occurs in open "rounds" (e.g., two weeks to a month each), until the fleet quota allocation is completed for the season.

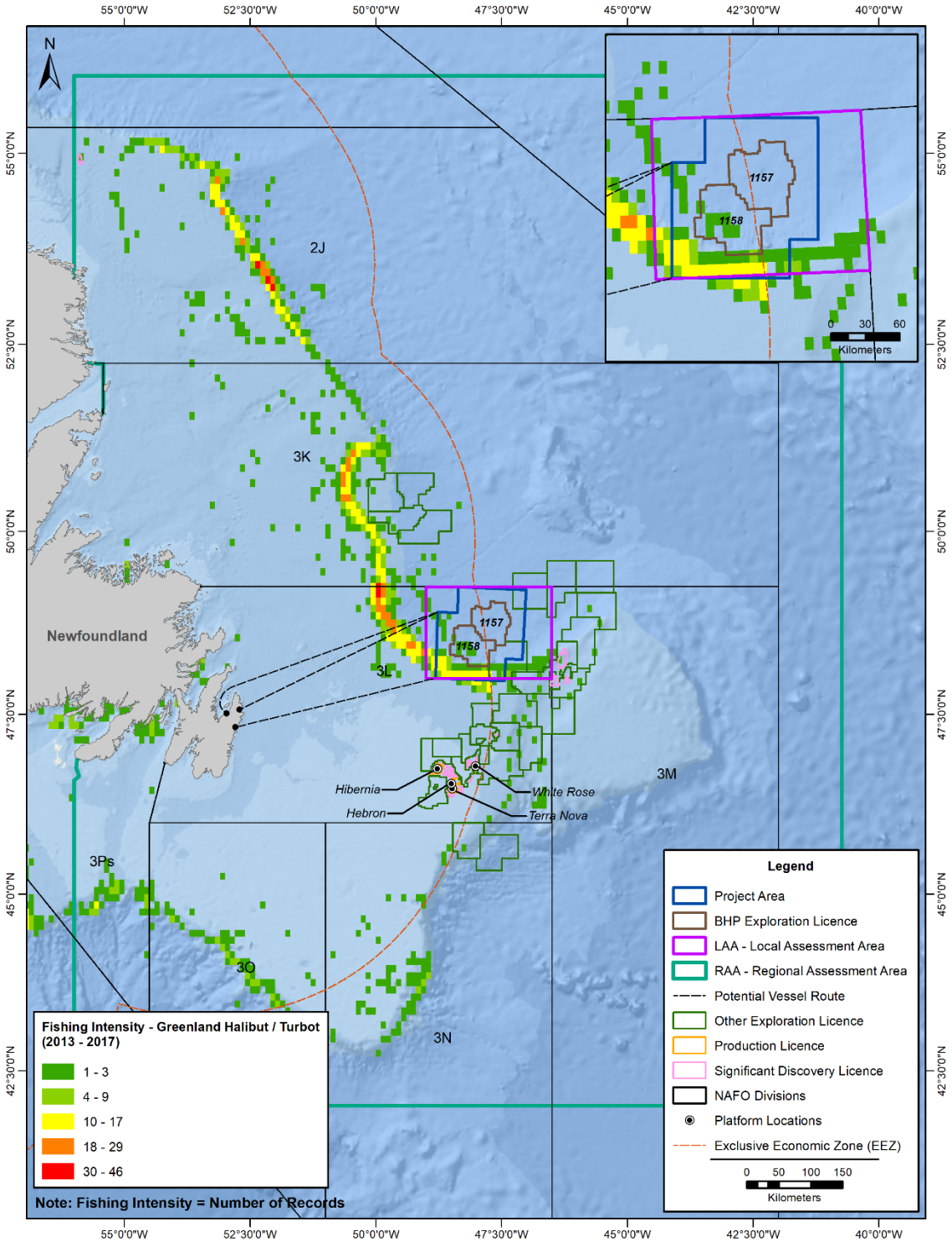


Source: DFO 2019b

Figure 7-32 2013-2017 RAA Domestic Greenland Halibut Records by Month

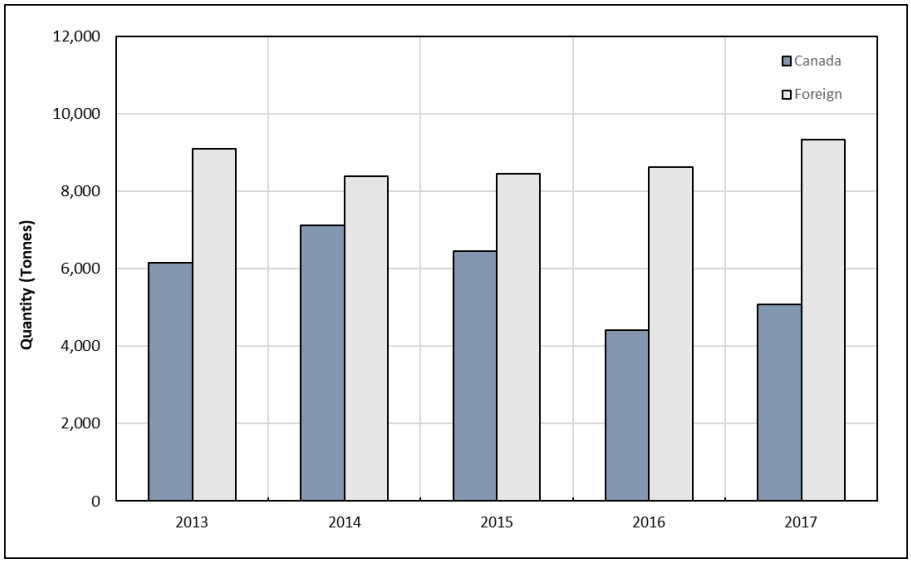
Within the westernmost parts of the LAA, the domestic fishery is conducted mainly by boats using gillnets. These nets are weighted to the sea floor and held up in the water column by a series of floats attached to a headline. They operate by entangling fish as they attempt to swim through. The nets are often deployed in series (fleets), marked by surface buoys, which present some potential for contact with other marine activities if in the area at the same time. The bottom otter trawlers focus on areas to the west and south of the LAA within the EEZ. This is also the case for the fishery outside the EEZ (Canadian and foreign vessels) in the small portion of the NRA that overlaps the LAA. As Figure 7-33 illustrates, gear is concentrated along the shelf slope, between the 500 and 1,000 m depth contours. Neither gillnet nor bottom otter trawling are permitted in the Northeast Newfoundland Slope Closure area since the beginning of 2018.

The 2019 3LMNO quota for Greenland halibut was 12,242 t, with 1,836 t allocated to Canada. Overall management areas the Canadian quota was 6,521 t in 2019 (Table 7.9). Figure 7-34 graphs the harvest by Canadian and foreign harvest in recent years, based on the available NAFO data.



Source: DFO 2019b

Figure 7-33 2013-2017 Domestic Greenland Halibut / Turbot Fishing Locations by Intensity, All Months, All Gear Types



Source: NAFO 2019a

Figure 7-34 2013-2018 RAA Divisions Domestic and Foreign Greenland Halibut, Landings by Year

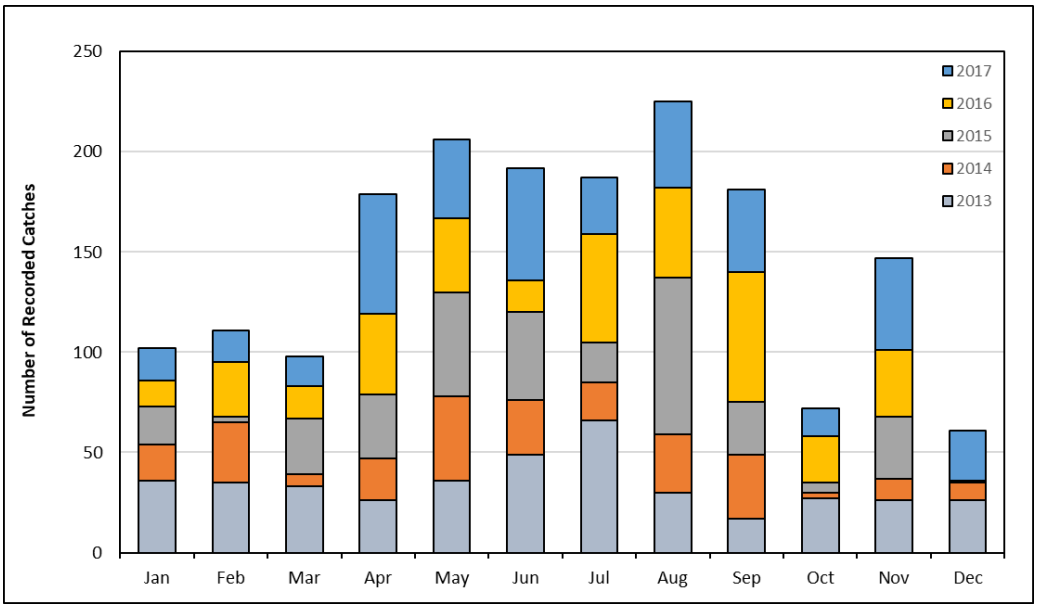
Redfish (Spp.)

Redfish (also known as ocean perch) is the highest volume catch in the NRA (Table 7.7) and is likely a key part of the harvest in the portion of the NRA that overlaps with the LAA (Figure 7-18). It is also an important part of the Canadian harvest in the LAA inside the EEZ (Table 7.5), though DFO data do not show full amounts because of data redaction.

Three species (Acadian, golden, and deepwater redfish) occur in the RAA and are managed together under single quotas in each of three principal management areas in the RAA (i.e., 3LN, 3M, and 3O) (NAFO 2019d). Redfish are typically located at water depths below 200 m and are found along the northeast slope of the Grand Banks and the Tail (3LMNO). In the NRA, as within the EEZ, most of the harvest is with bottom otter trawls, with smaller quantities taken in gillnets and some other gear, mainly in Greenland halibut fishing locations. NAFO collectively manages the stocks of the three species of redfish in Divisions 3KLMNO. The stock in Divisions 2J and 3K (and northward) is jointly managed with the Northeast Atlantic Fisheries Commission and are currently under moratorium (NAFO 2019c, 2019d). Redfish fisheries in NAFO Sub-Division 3Ps are managed through DFO as part of the Unit 2 redfish management plan (DFO 2018b, 2018c).

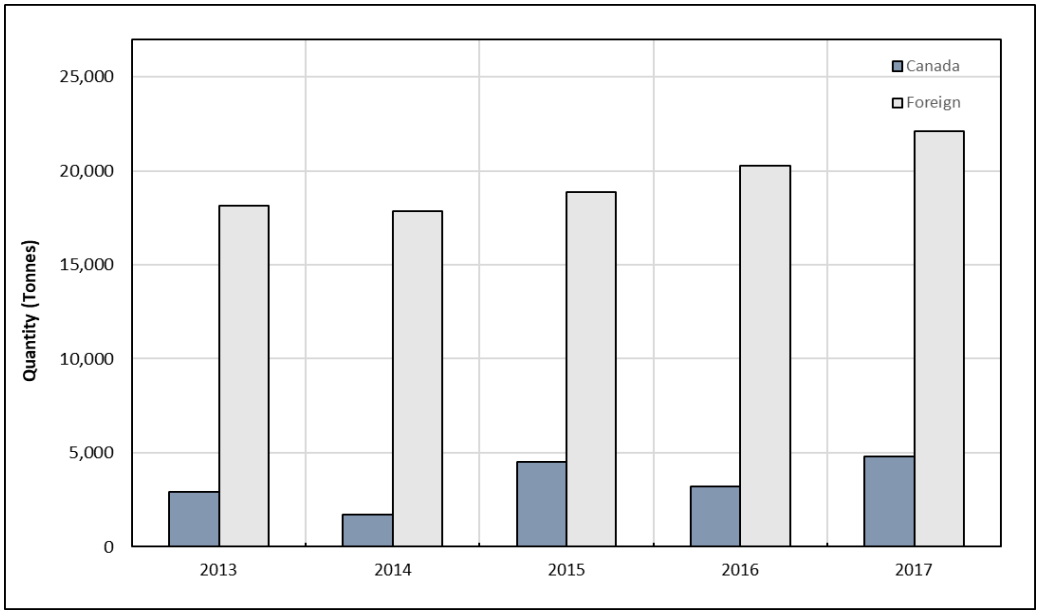
The commercial stock for redfish in 3LN was placed under moratorium in 1998 but re-opened in 2010. Catches for redfish in 3LMN reached 6,000 t in 2013, the highest level in 20 years. However, there have been concerns about recruitment levels for stocks in Division 3M (NAFO 2017). The NAFO-set TACs for 2019 were 18,100 t in Divisions 3LN and 10,500 t in 3M and 20,000 t in 3O, with Canada being allocated 7,710 t, 500 t and 6,000 t, respectively, in these areas (NAFO 2019c). The 3Ps quota was set at 8,500 for Unit 2 for 2018-2019 (i.e., for Divisions 3Ps, 4Vs, a portion of 4W, and 3PN + 4VN from June 1 to December 31).

Redfish harvesting is conducted year-round (Figure 7-35). Figure 7-36 graphs the Canadian and foreign redfish harvests for 2013 to 2018 from RAA Divisions based on NAFO 2019a. Figure 7-37 shows reported domestic redfish harvesting locations, which are concentrated primarily along the upper continental shelf margin.



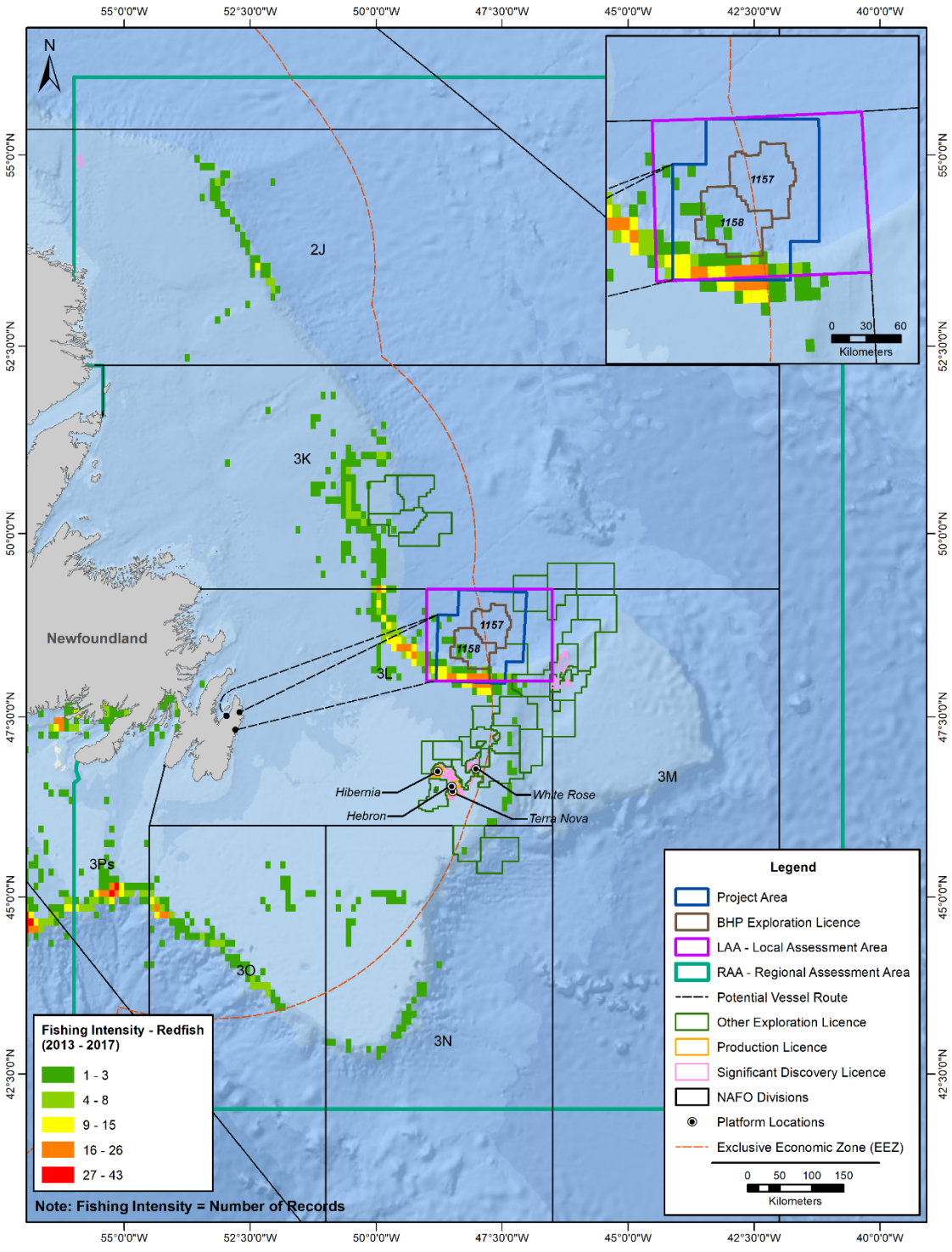
Source DFO 2019b

Figure 7-35 2013-2017 RAA Divisions Domestic Redfish (Spp.) Records by Month



Source: NAFO 2019a

Figure 7-36 2013-2018 RAA Divisions Domestic and Foreign Redfish Landings by Year



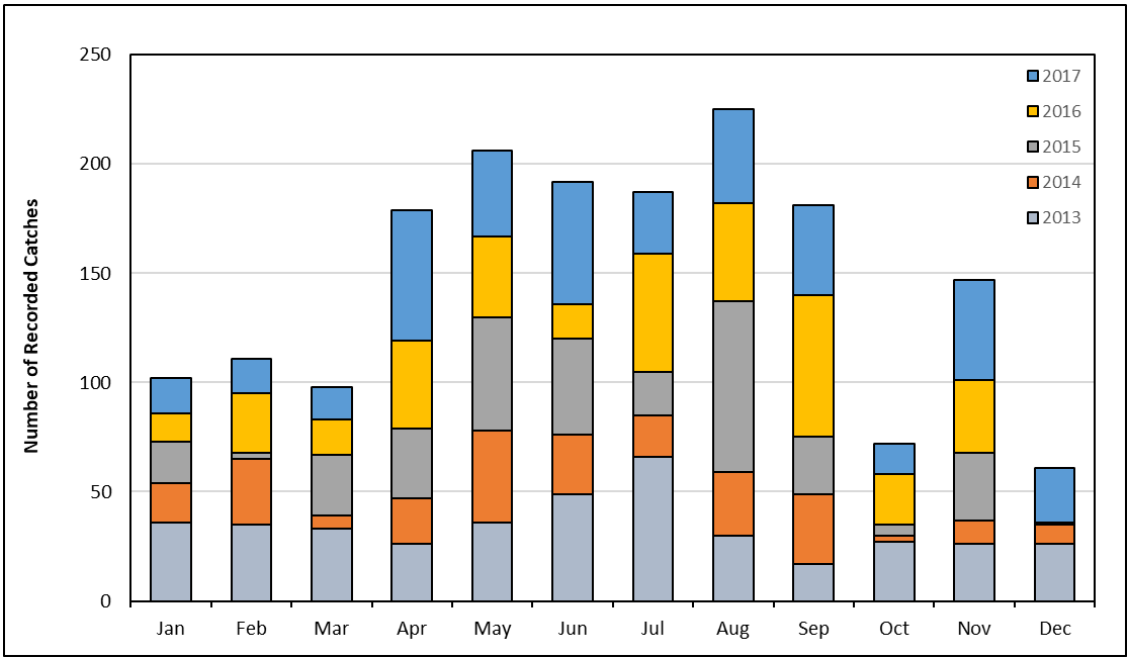
Source: DFO 2019b

Figure 7-37 2013-2017 Domestic Redfish Fishing Locations by Intensity, All Months, All Gear Types

Atlantic Cod

As Tables 7.4 and 7.7 demonstrate, Atlantic cod is also a key fishery in the RAA, and likely accounts for part of the harvesting within and near the LAA and Project Area, as bycatch. As described in Section 7.2.2, the species was initially placed under moratorium in Canadian waters in the early 1990s, but since then directed quotas have been reestablished in some areas. Currently, there are directed commercial fisheries for Atlantic cod permitted in Division 3M and 3Ps. Division 3M had a 2019 NAFO-set quota of 17,500 t, an increase of nearly 60% from 2018; 140 t of this was allocated to Canadian harvesters (NAFO 2019c). Domestically, the directed commercial fishery for groundfish in NAFO Division 3Ps had a 2018 / 2019 quota of 5,980 t (DFO 2018b). There has also been a directed Atlantic cod stewardship fishery for inshore Canadian harvesters in Divisions 2J and 3KL since 2006 (DFO 2018d). In 2019 this program had a quota allocation of 12,350 t, up from 9,500 t in 2018 (DFO 2018e, 2019j). Otherwise, cod taken in these areas is bycatch in directed fisheries.

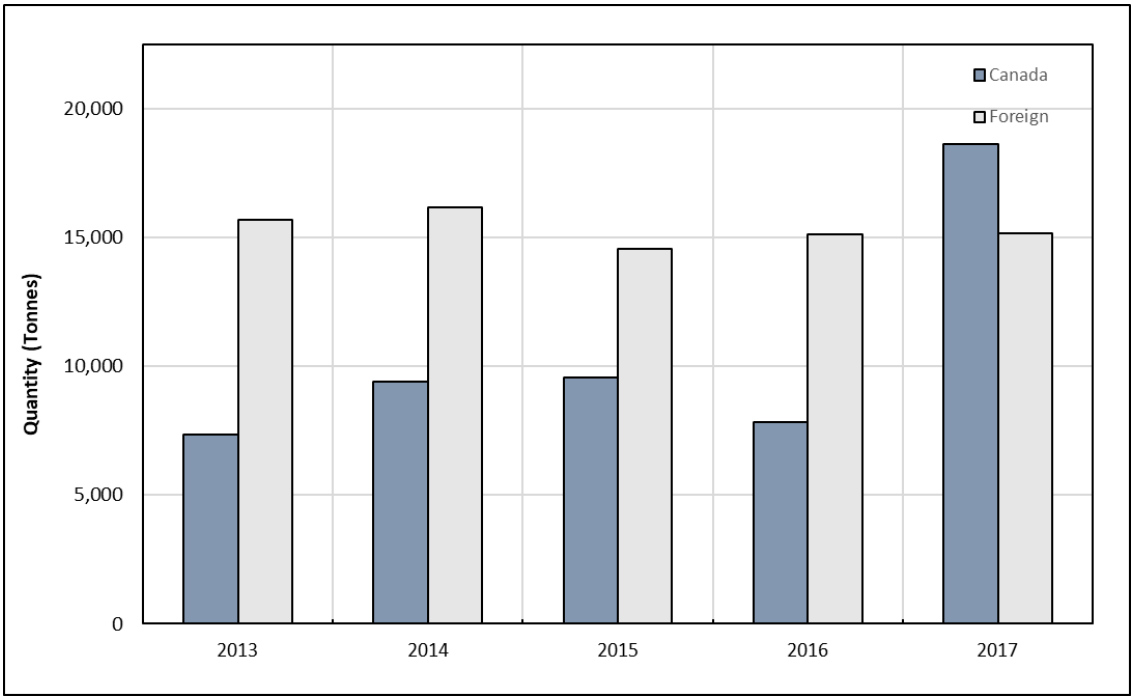
In the NRA, cod is caught in directed trawl and longline fisheries and typically as trawler bycatch in the directed redfish fishery (NAFO 2018). For the 2J3KL stewardship program, cod can only be caught in gillnets, longline, handline, and cod pots (DFO 2019j). In 3Ps, most Atlantic cod are caught by gillnets, mobile trawls, and handlines. Harvesting is more concentrated in the spring to autumn in the RAA but takes place in every month (Figure 7-38). The 2J3KL stewardship fishery is usually conducted between August and November.



Source: DFO 2019b

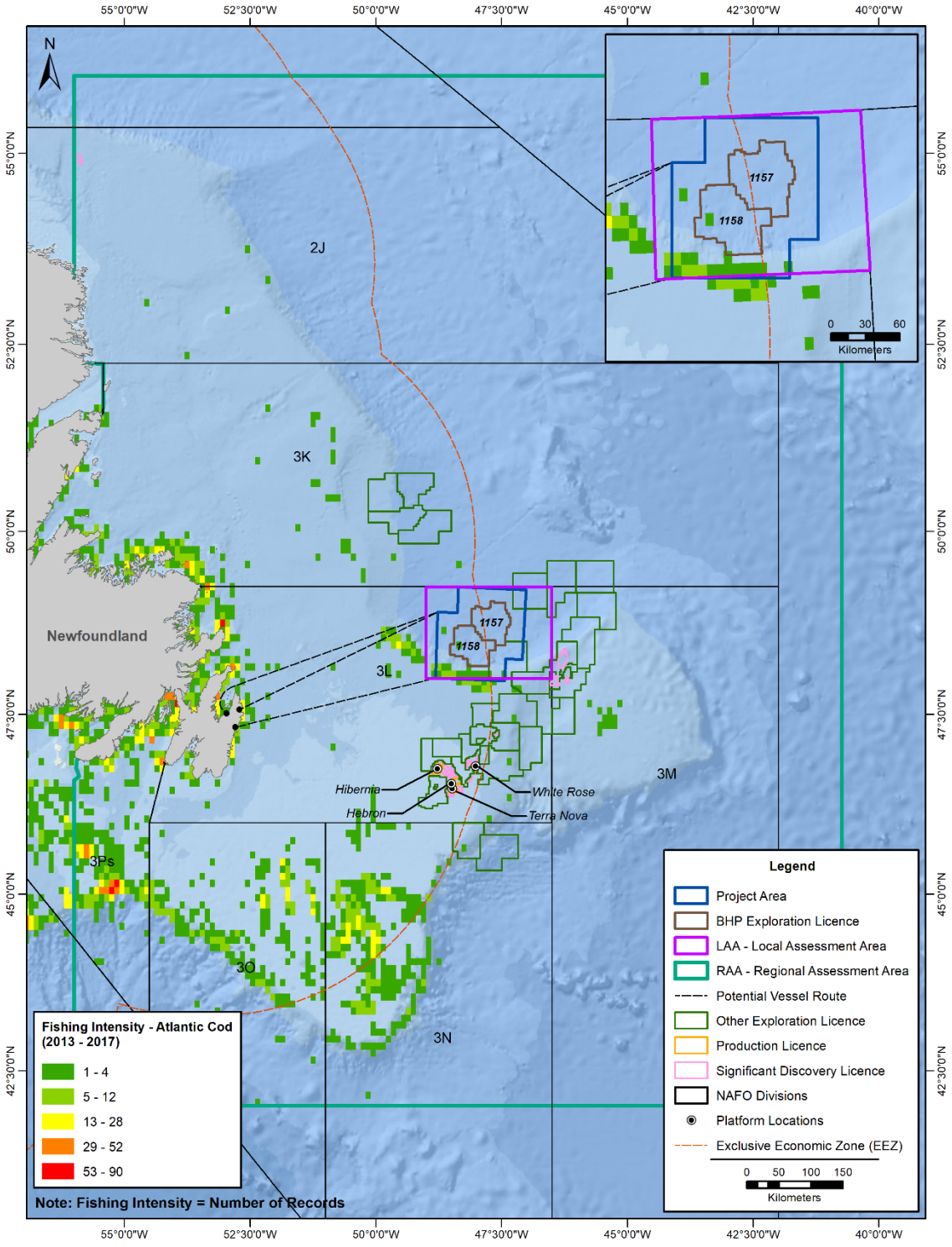
Figure 7-38 2013-2017 RAA Domestic Atlantic Cod Records by Month

Figure 7-39 graphs the reported Atlantic cod landings by Canadian and foreign vessels in the RAA NAFO Divisions based on NAFO datasets. Figure 7-40 maps recorded domestic Atlantic cod harvesting locations and relative intensity of fishing activity for 2013 to 2017.



Source: NAFO 2019a

Figure 7-39 2013-2018 RAA Divisions Domestic and Foreign Atlantic Cod Landings by Year



Source: DFO 2019b

Figure 7-40 2013-2017 Domestic Atlantic Cod Fishing Locations by Intensity, All Months, All Gear Types

Other Groundfish Species Fisheries

Table 7.11 provides summary information for other notable groundfish species.

Table 7.11 Other Groundfish Species Fisheries

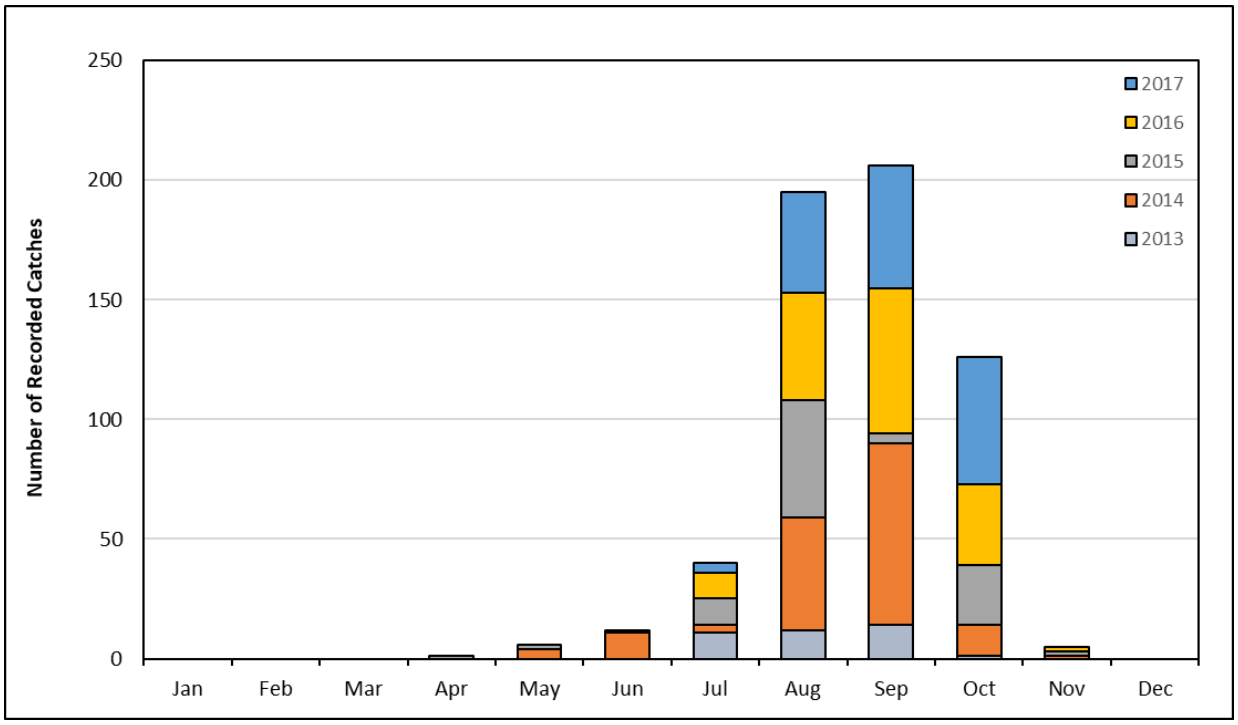
Species	Summary
Skates	Demersal species that belong to the same class as sharks (Chondrichthyes), they occur in depths ranging from 18 m nearshore to at least 1,400 m off the Banks. Several species are caught but the main directed fishery is the thorny skate, which is found most commonly at depths greater than 110 m. Domestically, the skate fishery expanded the moratoria on other groundfish in the 1990s, though the foreign was established much earlier (DFO 2018h, 2018i).The NAFO quota for Divisions 3LNO was 7,000 t with 1,167 as the Canadian allocation in 2019. These amounts have been consistent since 2013, though higher in earlier years. Skates are also caught in other directed groundfisheries as bycatch (NAFO CEM Tables; NAFO 2019h). The skate fishery in Sub-Division 3Ps is managed by DFO, with a quota of 1,050 t in 2019 (DFO 2018j).
Yellowtail Flounder	Under moratorium 1995-1998, there is now a strong directed fishery in 3LNO. It is managed by NAFO as a straddling stock, inside and outside the NRA. The stock is considered to be in good condition, with a TAC of 17,000 t in 2019, 16,575 t of which was allocated to Canada, with provisions for a 1,000-t transfer to the United States. The quota figures have been at these levels since 2009, though high American plaice bycatches may limit yellowtail harvests (NAFO 2019g; NAFO CEM Tables 2009-2019). Most harvesting is with bottom otter trawls, and to a lesser extent with groundfish longlines. Both domestic and foreign harvesting is focused mainly in NAFO Division 3N. Yellowtail are typically harvested at depths of 40 m to 70 m, rarely at depths > 100 m (DFO 2016b).
Atlantic Halibut	As indicated in Table 7.9, Atlantic halibut fishing is managed by DFO Maritimes Region as a single stock from Georges Bank in the west to Division 3N in the east. In the RAA on the southern Grand Banks, Atlantic halibut are most abundant between 200 m and 500 m in the deep channels between the banks and along the edge of the shelf. Larger halibut are found in a larger depth range. It is fished primarily using bottom hook-and-line gear (DFO 2018k, 2018g). The most recent stock assessment update (DFO 2018g) indicated that there continues to be a high exploitable biomass, though there were some concerns about continuing recruitment. A stock-wide quota of 4,789 mt was set for 2019, an increase from 4,164 t in 2018. The quota includes 100 t set aside for US and French harvesters and 185 t to finance science and management activities. (DFO 2019p). Within the LAA, and to the north near the Northeast NL Slope closure area, Atlantic halibut bycatch is taken with gillnets and otter trawls (DFO 2019b).
American Plaice	American plaice has not had a directed fishery within the RAA since the 1990s, though it has continued as an important bycatch in the NRA as Table 7.7 indicates (DFO 2019n; NAFO 2019c). In the RAA, most of this species is taken in the Canadian yellowtail flounder fishery within the EEZ, mainly in Divisions 3NO, and in the directed redfish, cod, Greenland halibut and skate fisheries outside the EEZ. For both fisheries, the main gear used is stern otter trawls. (Alpoim et al. 2017; Wheeland et al. 2018; DFO 2019b).

7.2.6.3 Other Species

Several other species fisheries are important for their value, locations in relation to planned Project activities (e.g., fisheries near the potential PSV routes), or for other logistical or socio-economic reasons. In more distant areas of the RAA, there are other more localized fisheries, including scallop harvesting (dredges / drags), a whelk (pot) fishery, and a well-established sea cucumber fishery (drags); these three fisheries occur in the RAA part of Division 3Ps. Other key RAA fisheries are described in this section.

Large Pelagic Species (Swordfish, Tunas, and Sharks)

Although DFO geospatial catch data do not show harvesting occurring within the LAA or Project Area, domestic and foreign harvesting of these high-value species may occur there. The species are typically taken in similar areas focused on shelf breaks around the Grand Banks and the Flemish Cap, often with the same or similar near-surface longline fishing gear, typically extended many kilometres behind the operating boat. Canadian fisheries for these species focus primarily on or off the edges of Georges Bank and the Scotian Shelf to the west and to a lesser extent on the Grand Banks (mainly 3Ps and 3O), sometimes extending as far north as the Flemish Cap during April to December (DFO 2013; Andrushchenko et al. 2014).The much larger foreign component of these fisheries (by harvest quantity) occurs mainly in NAFO 3M and to a somewhat lesser extent in 3N, usually over the same time period. As Table 7.7 indicates, swordfish, sharks and tunas made up approximately 6% of the foreign harvest by quantity, 2013-2018, and would have represented a larger proportion of its value. Figure 7-41 indicates timing of domestic harvesting effort.



Source: NAFO 2019a

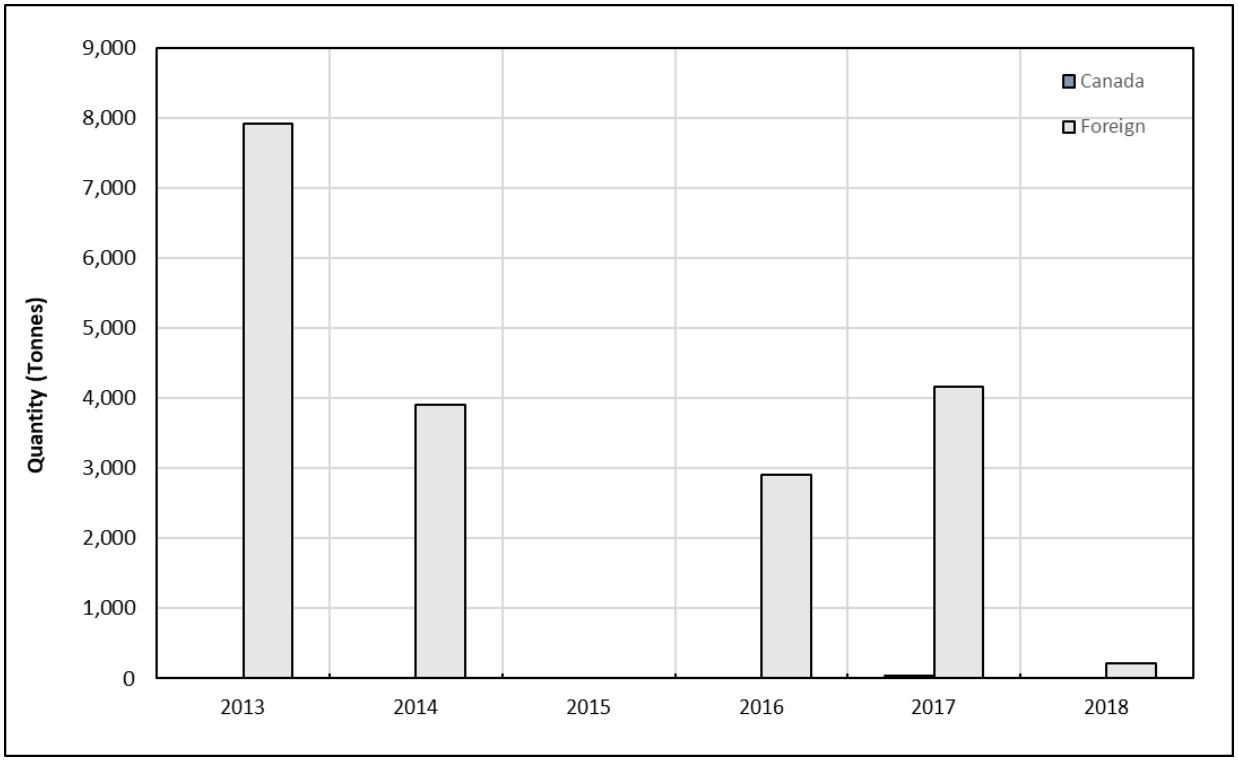
Figure 7-41 2013-2017 RAA Domestic Large Pelagics Records by Month

The majority of active domestic commercial swordfish licences are held in the DFO Maritimes Region, with a few longline licences held in NL. International fishing for swordfish outside the Canadian EEZ is pursued primarily by Spanish harvesters and is most concentrated within 3M (ICCAT 2013a, 2013b; NAFO 2019a). Swordfish quotas are assigned by ICCAT. As outlined in Section 7.4, multiple Indigenous groups hold commercial communal licences to harvest swordfish and tuna in 3LMNOPs, in the RAA (see Tables 7.25 and 7.26 in Section 7.4 for specific Indigenous groups). Domestic tuna harvesting occurs primarily in the waters off the southwestern Grand Banks in the RAA. Tunas harvested include bluefin, bigeye, and

albacore as part of a directed fishery and as bycatch in other fisheries, such as swordfish (DFO 2014a). ICCAT assigns Canada a quota for harvesting bluefin tuna. Tuna are harvested between spring and late fall, with most landings between late July and late September (DFO 2014b). International tuna fishing is primarily for bigeye, and takes place mainly in 3M and 3N, outside the EEZ (NAFO 2019a; ICCAT 2013a, 2013b). Tunas are also taken using rod and reel and with electronic harpoons in some areas (e.g., 3Ps).

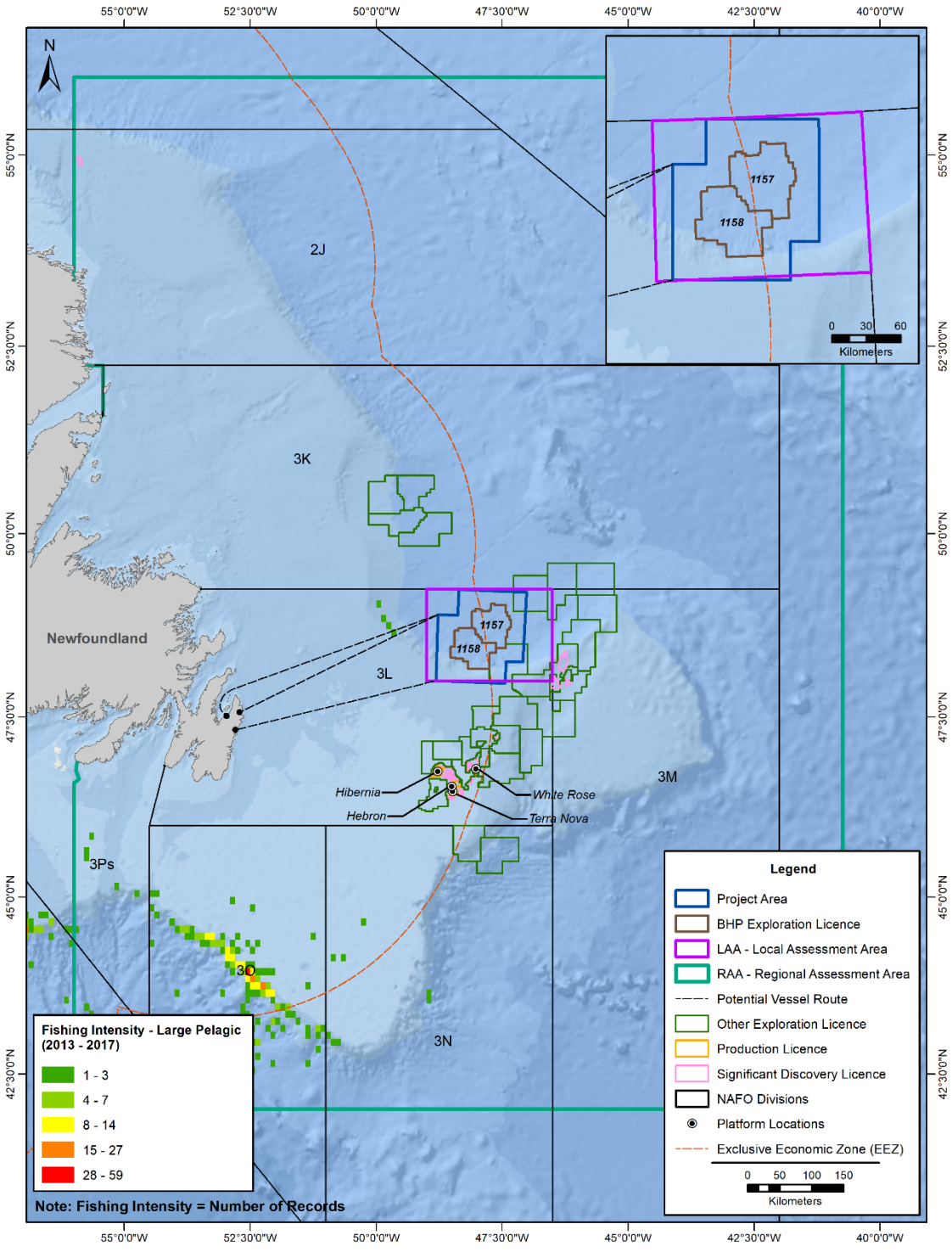
Shark fisheries in Atlantic Canadian waters are currently under DFO moratorium, although limited bycatches are allowed in the swordfish and tuna longline fishery (see DFO 2019g). International fisheries for sharks are active in the RAA and potentially in parts of the LAA. The primary species caught is the great blue shark and to a lesser extent the shortfin mako shark. Harvest is most concentrated in 3M and to a lesser extent in 3N, pursued primarily by Spanish harvesters.

Figure 7-42 indicates the reported landings by Canadian and foreign vessels in the RAA NAFO Divisions based on NAFO datasets. Figure 7-43 maps recorded domestic large pelagic species harvesting locations and relative intensity for 2013 to 2017.



Source: NAFO 2019a

Figure 7-42 2013-2018 Domestic and Foreign RAA Large Pelagics Landings by Year



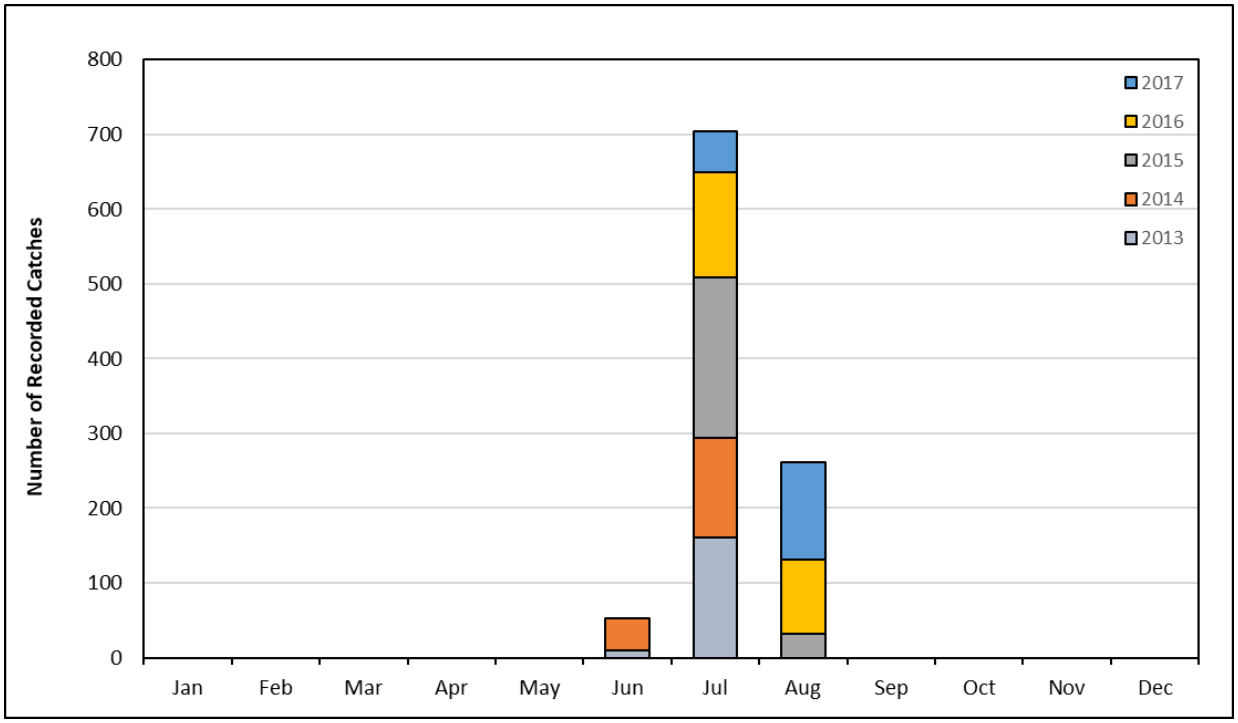
Source: DFO 2019b

Figure 7-43 2013-2017 Domestic Large Pelagic Fishing Locations by Intensity (Swordfish, Sharks and Tunas)

Capelin

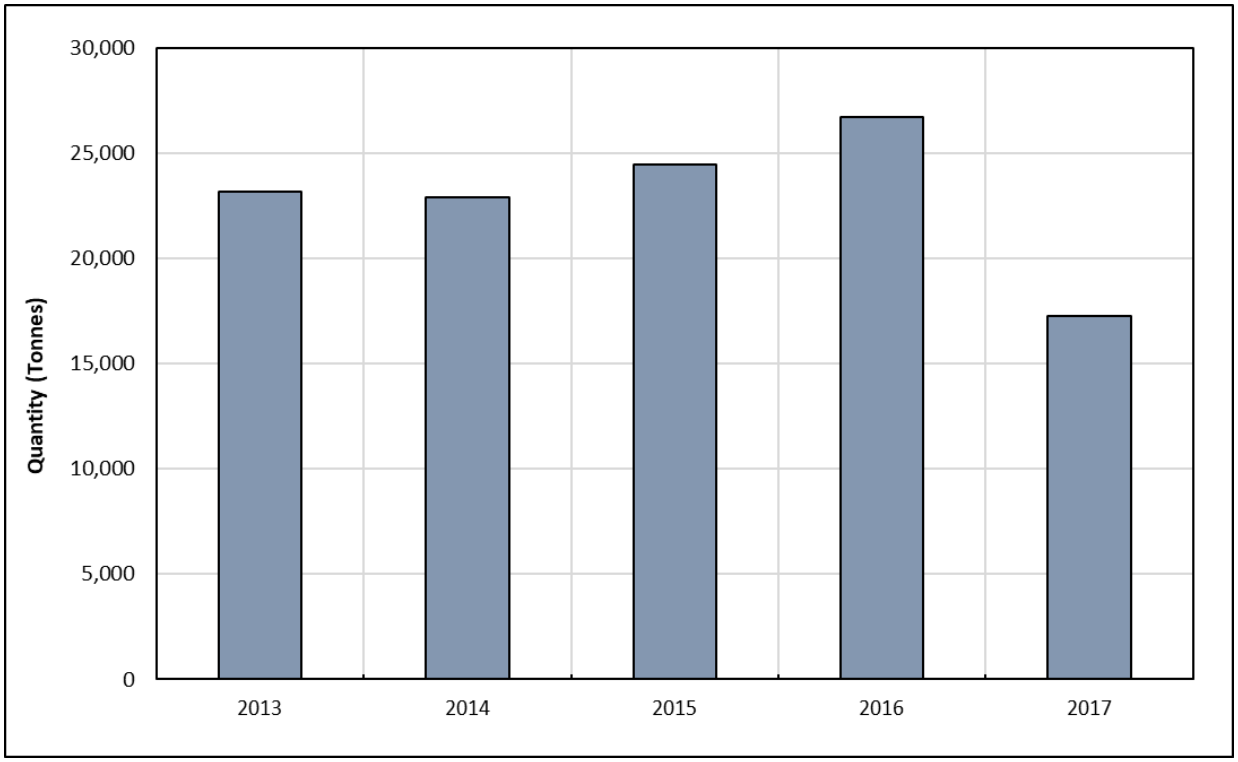
As Table 7.4 indicates, capelin represents a high quantity of catch in the RAA (third only to snow crab and shrimp), based on DFO 2013-2017 data, though it has a lower commercial value in proportion to many other species catches. This fishery is focused primarily in the coastal areas and bays around the Island of Newfoundland and southern Labrador, in 3K and 3L. A small amount of harvesting (purse seining) has been reported in the LAA and Project Area in the past. However, it is more likely to occur at some time of the year near the potential PSV routes between the Project Area and shore ports.

The capelin harvest is a directed quota fishery using fixed and mobile gear (mainly seines). Commercially, they are sold primarily for their roe, with some sold and used as bait. Capelin in Divisions 3NO are managed by NAFO and the fishery in those areas have been under moratorium since 1995 (NAFO 2019e). In Divisions 2J3KLPs, DFO established a quota of 22,796 t for 2019, with most allocated to Division 3L. This was a quota increase from 2018 (19,823 t). Opening dates vary by management area and fleet, and are determined independently (DFO 2018f, 2019k). Figure 7-44 graphs the RAA catch by month (averaged) for 2013-2017, and Figure 7-45 shows the reported quantity of the domestic harvest 2013-2017 for the RAA. Figure 7-46 maps reported domestic harvesting locations.



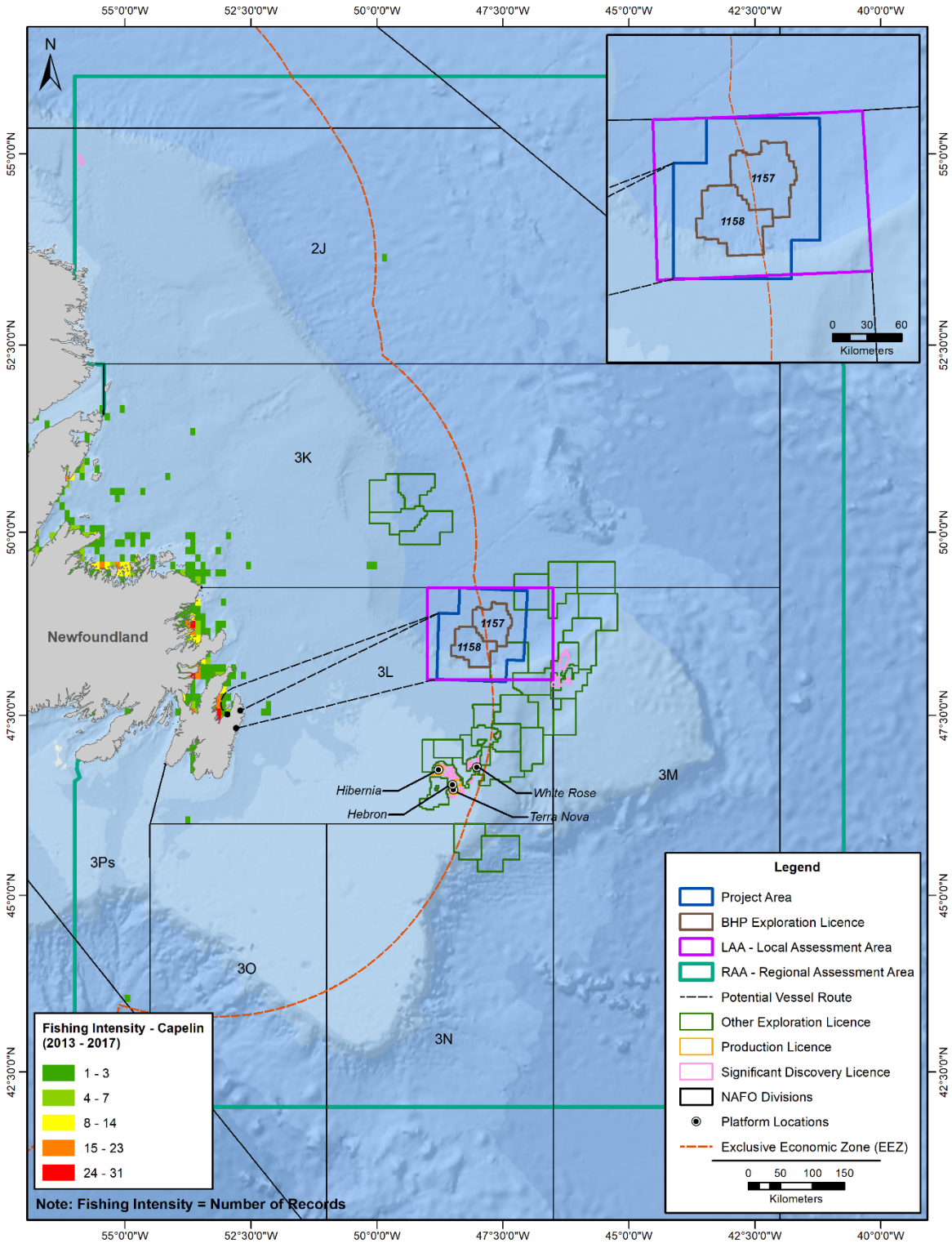
Source: DFO 2019b

Figure 7-44 2013-2017 RAA Divisions Domestic Capelin Records by Month



Source: DFO 2019a

Figure 7-45 2013-2017 Domestic RAA Capelin Landings by Year



Source: DFO 2019b

Figure 7-46 2013-2017 Domestic Capelin Fishing Locations by Intensity

Sealing

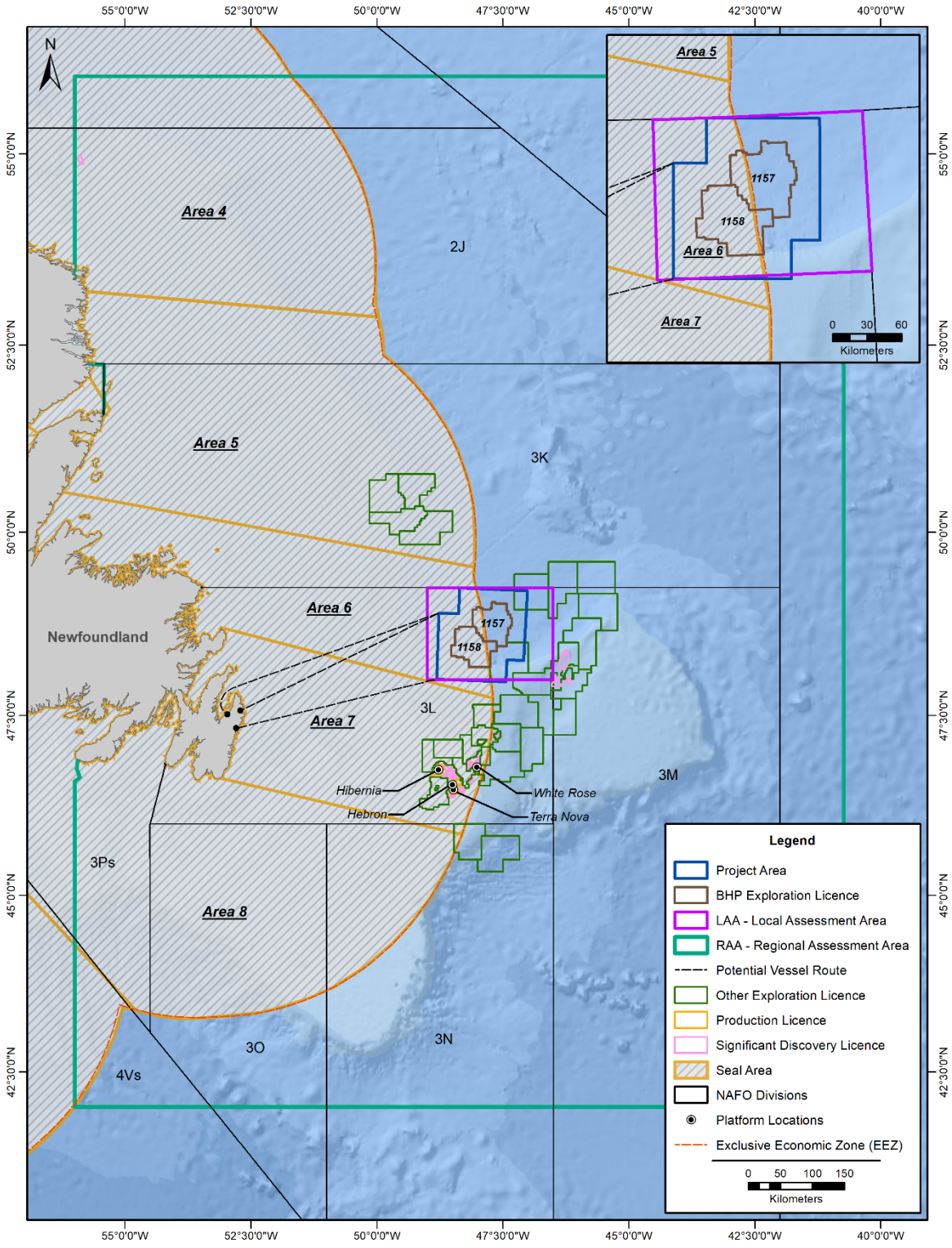
Sealing in Atlantic Canada targets harp seals primarily, but smaller numbers of grey and hooded seals are also taken. In 2016, there were 9,710 commercial seal licences, although DFO estimated that only approximately 1,000 were active (DFO 2016a). Parts of Seal Fishing Areas 4-8 and 33 fall within the RAA (Figure 7-47), though most harvesting occurs at “The Front” in areas adjacent to Newfoundland and Labrador coastlines. Although the areas extend to the EEZ, and therefore include part of the LAA and Project Area, harvesting takes place closer to shore (e.g., on or near ice flows from the Gulf of St. Lawrence and Labrador). In harvesting areas that overlap the RAA, it is also an important commercial and Indigenous subsistence harvest.

The open season is November 15 to June 14 annually, though most seals are harvested at The Front between April and May, or until individual quotas are reached or ice conditions are unfavourable (DFO 2011). DFO (2016b) notes that Canadian catches declined from a peak of 355,000 animals in 2006 to 35,000 in 2015. Commercial quotas are allocated provincially. In 2018, 59,554 harp seals were reported taken by Newfoundland and Labrador harvesters, with a value of $1,497,000 (GNL 2019).

7.2.7 Potential Future Commercial Fisheries

Changes in fisheries management decisions in recent years have include decreases in quotas for snow crab and the closure of the northern shrimp fishery in RAA Divisions south of 3K. In response to these changes, some fishers anticipate switching from shellfish back to groundfish as in pre-moratorium times (e.g., AMEC 2014; Whiffen 2016; National Post 2017). There are also a few new and emerging to fisheries that may increase in importance and value in coming years. The sea cucumber fishery, for instance, has been growing since 2003. Now focused near the Saint Pierre Bank in 3Ps (with quotas increasing from 454 t in 2003 to 7,016 t in 2019), new emerging / exploratory fisheries for the species were also conducted in 2018 and 2019 within Divisions 3LNO (DFO 2017a, 2019l).

Given these changes and developments, and continuing changes in the ocean environment (see Chapter 6 [Fish & Fish Habitat]), it is important to consider not only the characteristics of current fisheries, but what may exist in the future, potentially within the temporal scope of this EIS. For example, if a directed fishery for cod were to resume in areas now closed, there might be an increased use of mobile and fixed groundfish gear in some areas, including parts of the LAA. New marine closures in offshore areas are also influencing where some fisheries are now conducted compared to past years, with the relocation of fishing to other grounds. Such is the case with Greenland halibut fishing in the LAA since the institution of the Northeast Newfoundland Slope Closure. There is also a possibility that the northern shrimp fishery might be reinstated during the temporal scope of the Project in areas that have been closed, though recent cuts in other areas do not support a short-term return (see Section 7.2.6.1.2). Monitoring management decisions and the results of new, exploratory fisheries and fishing areas will help to identify these potentials in future years.



Source: DFO 2011

Figure 7-47 Seal Fishing Areas

7.3 OTHER OCEAN USES

Other human activities are common in the RAA, in addition to commercial fish harvesting. Although many activities are concentrated near coastal areas (such as marine tourism and ferries), others (international shipping, petroleum exploration) are widespread throughout the region, including within the LAA and Project Area. This section provides an overview of other uses of RAA waters (including known infrastructure), using information available through federal and provincial government departments and agencies (e.g., DFO, Department of National Defence, Transport Canada, NL Department of Tourism, Culture, Industry and Innovation, Statistics Canada), industry regulators (e.g., Canada-Newfoundland and Labrador Offshore Petroleum Board [C-NLOPB]), and other private- and public-sector entities (e.g. Fish, Food and Allied Workers Union [FFAW-Unifor], Cruise NL, corporate web sites). Such activities and anthropogenic installations represent an important component of overall activity occurring offshore, some of which could interact with the Project.

7.3.1 Research Activities

A variety of research activities take place within the RAA, and some potentially in the LAA or Project Area, at times. Many activities recur annually (e.g., DFO fisheries science studies), and others follow different schedules or occur as opportunities and needs arise, such as studies by other government agencies (e.g., the Geological Survey of Canada), research conducted by independent operators (including seismic surveys), or environmental monitoring and sampling associated with existing petroleum production sites (see Section 7.3.2).

7.3.1.1 Fisheries Science

Most fisheries science research in the RAA is in support of commercial fisheries and most are conducted using standard commercial fishing gear or modified versions. Many surveys follow a consistent annual cycle, but others may be conducted according to specific investigation objectives and requirements (such as Environmental Studies Research Fund [ESRF] studies).

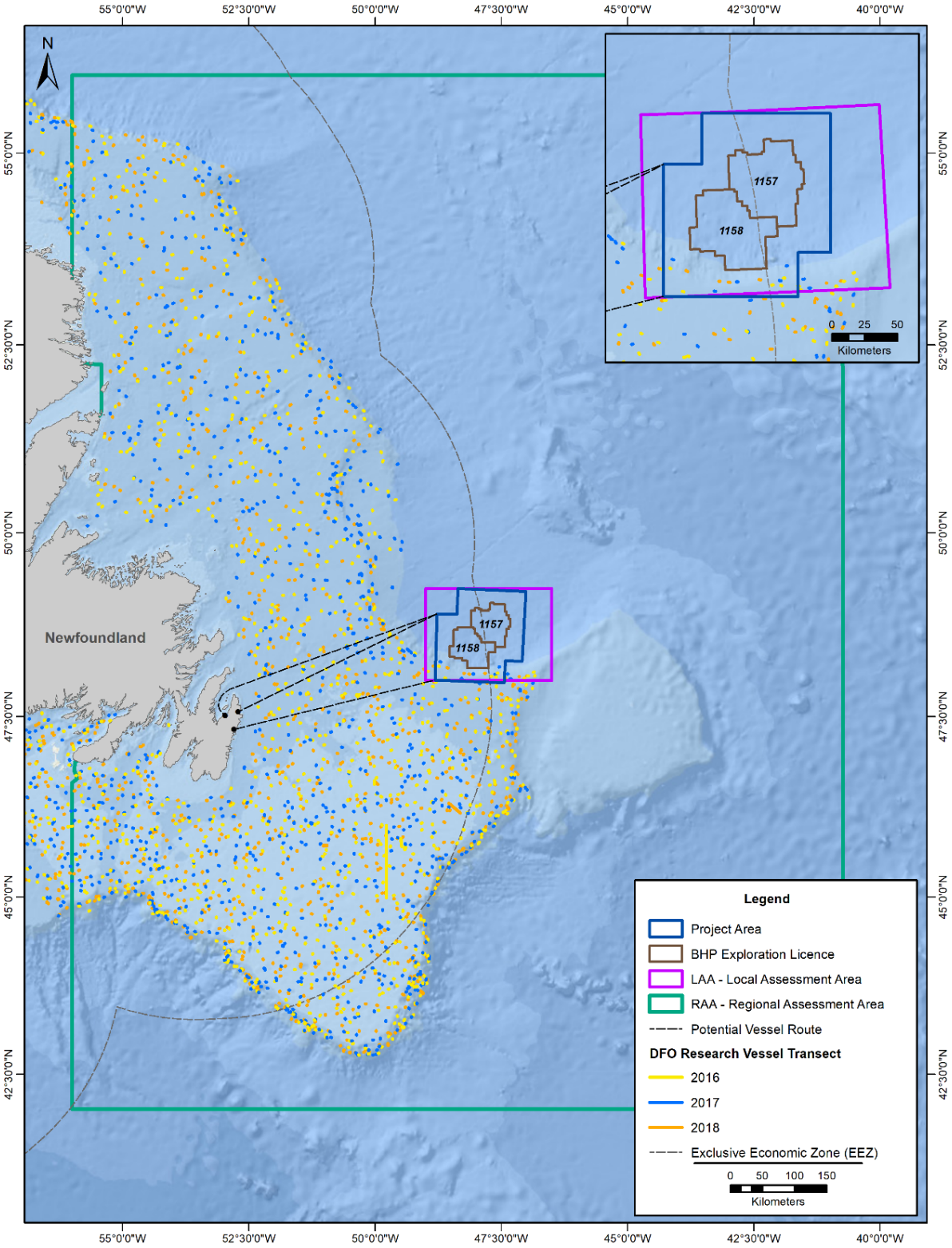
DFO Research Vessel Surveys

DFO uses mobile trawls to conduct annual surveys of fish resources and habitat characteristics throughout Atlantic Canada, following a generally consistent time frame and geographical plan. Table 7.12 provides the planned locations and timing of the annual components, by research vessel (RV), for 2016. (Locations and timing of these surveys in future years can be obtained annually through DFO managers in St. John's.) Figure 7-48 shows the locations of recent DFO trawl survey transects in relation to the RAA, the LAA and the Project Area.

Table 7.12 2019 DFO Research Vessel Schedule (RAA Overlap Areas)

RV and/ Activity	Start Date	End Date	Start Location	End Location	Area
Canadian Coast Guard (CCG) Teleost					
NL Spring Survey	28 Mar	9 Apr	St. John's	Argentia	3P
NL Spring Survey	23 Apr	7 May	Argentia	St. John's	3P + 3O
NL Spring Survey	8 May	21 May	St. John's	St. John's	3O + 3N
NL Spring Survey	22 May	18 Jun	St. John's	St. John's	3L + 3N
NL Spring Survey	18 Jun	22 Jun	St. John's/Bull Arm	St. John's	Bull Arm
Shellfish Survey	30 Aug	10 Sep	St. John's	St. John's	3N
NL Fall Survey	11 Sep	24 Sep	St. John's	St. John's	3O
NL Fall Survey	25 Sep	8 Oct	St. John's	St. John's	3O + 3N
NL Fall Survey	9 Oct	22 Oct	St. John's	St. John's	3N + 3L
NL Fall Survey	23 Oct	5 Nov	St. John's	St. John's	3L
NL Fall Survey	6 Nov	3 Dec	St. John's	Lewisporte	3K + 3L
CCG Teleost					
NL Spring AZMP*	11 Apr	18 Apr	St. John's	St. John's	3L
Capelin Survey	30 Apr	20 May	St. John's	St. John's	3KL
NL Summer AZMP	07 Jul	28 Jul	St. John's	St. John's	Regional
NL Fall Survey	09 Oct	23 Oct	St. John's	St Anthony	2H
NL Fall Survey	23 Oct	05 Nov	St Anthony	St Anthony	2H+2J
NL Fall Survey	06 Nov	19 Nov	St Anthony	St Anthony	2J
NL Fall Survey	19 Nov	03 Dec	St Anthony	St. John's	3K
NL Fall Survey	04 Dec	20 Dec	St. John's	St. John's	3K

*AZMP = Atlantic Zone Monitoring Program
Source: L. Mello pers. comm. 2019



Source: DFO 2019s

Figure 7-48 DFO RV Survey Locations 2016 to 2018

International Research Vessel Surveys

Other NAFO signatory nations also conduct research within the NRA portion of the RAA. These include regular trawl surveys conducted by Spain (e.g., RV *Vizconde de Eza*), and other non-Canadian ships at other times. The locations and timing of studies vary depending on the subjects being investigated. Annual NAFO Scientific Council Summary Documents include a summary of the research work planned for the current year and those planned at the time of publication for the following year (see https://www.nafo.int/Library/Documents/Scientific-Council-SC/SCS). Specific up-to-date plans for the year may be obtained through Canada's NAFO representatives at DFO.

Collaborative Post-Season Snow Crab Survey

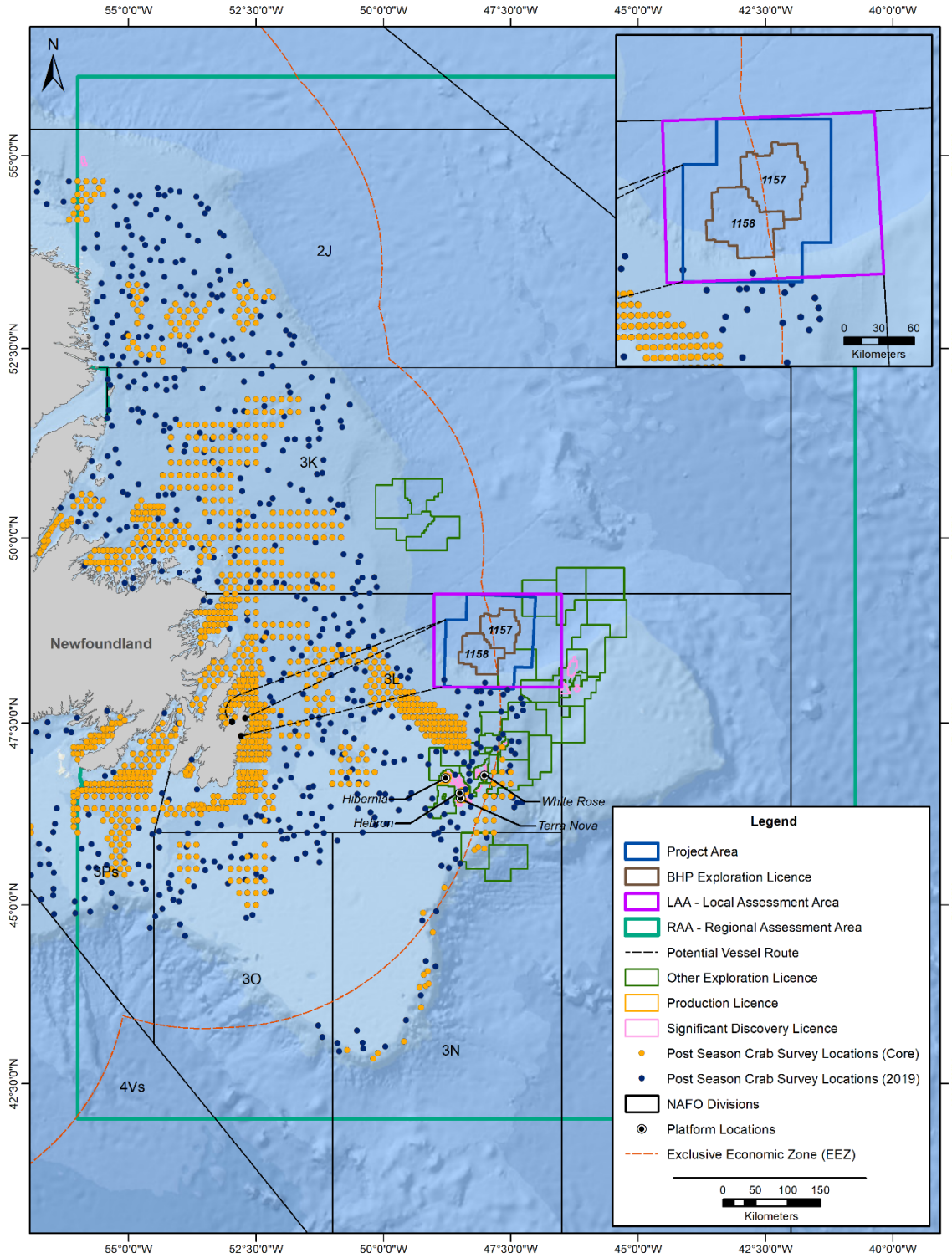
DFO coordinates an annual snow crab survey to assist with stock assessment. It is conducted by FFAW-Unifor members in most areas and by fishers in parts of Labrador through the Torngat Fisheries Secretariat (Nunatsiavut). Sampling is conducted at more than 1,200 locations in the Newfoundland and Labrador DFO Region each year after the commercial fishery has ended and involves setting crab pots at specified locations. Approximately half the locations (core stations) are sampled every year, while the remainder (random stations) are chosen yearly on a randomized plan. Figure 7-49 shows survey locations for 2019. It typically begins in late August or early September and may continue into November in some areas.

Atlantic Halibut Survey

An annual survey of Atlantic halibut resources is conducted in southern areas of the RAA (i.e. in Divisions 3NO and Sub-Division 3Ps), as well as in areas to the west beyond the RAA, usually occurring from May to July. Like the post-season snow crab survey, it is a collaborative effort with harvesters groups involving the FFAW-Unifor and others from Nova Scotia. It involves approximately 250 locations; approximately half of these are fixed stations (every year) and the rest are random stratified stations (chosen annually). The stations are fished by commercial fish harvesters using halibut longlines (B. Wringe, pers. comm. 2019). Figure 7-50 shows the locations of the fixed stations and the 2019 random stations.

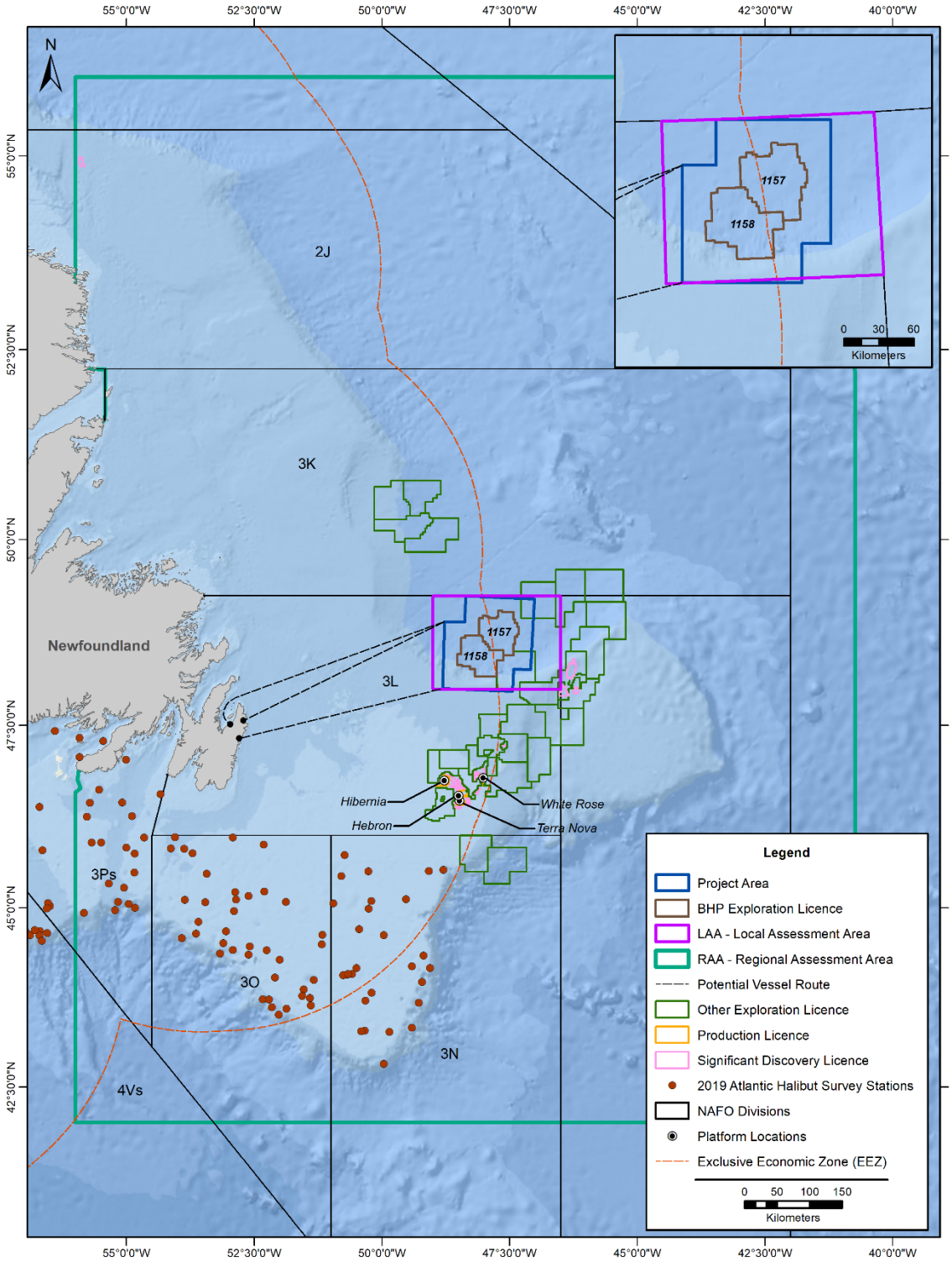
Other Fisheries Research

Other surveys that may occur in some part of the RAA during the temporal scope of this EIS include those undertaken by the Atlantic Groundfish Council (AGC; formerly the Groundfish Enterprise Allocation Council). Targeted fish species may change from survey to survey. For 2020, a bi-annual redfish survey (Unit 2) is planned for parts of the southern Grand Banks (K. Vascotto, pers. comm. 2019). The Canadian Association of Prawn Producers conducts an annual shrimp survey in areas north of NAFO Division 3K in northern waters of the RAA (R. Ellis, pers. comm. 2019). DFO, in cooperation with Nova Scotia swordfish harvesters, has surveyed sharks in set locations from Georges Bank to the eastern Grand Banks in past years, though the timing of future surveys is not known (H. Bowlby, pers. comm. 2019). There are also regular environmental monitoring and sampling associated with existing petroleum production and drilling sites.



Source: FFAW-Unifor 2019

Figure 7-49 2019 Collaborative Post-Season Snow Crab Survey Locations



Source: B. Wringe, pers. comm. 2019.

Figure 7-50 2019 Atlantic Halibut Survey Locations

Other surveys may be conducted (often with harvester participation) for new fisheries or for new fishing areas, such as the expansion of sea cucumber harvesting into NAFO Divisions 3NO. As a part of this emerging fishery in those areas, harvesters conduct test drags within assigned harvesting grids during their fishery.

Other recent fisheries-related studies have included research conducted by DFO in conjunction with the ESRF (e.g., Morris et al. 2018) examining potential effects of geophysical surveys on commercial resources, often with harvester and petroleum industry participation. Studies of this kind (snow crab, groundfish) have taken place each year for the past several years and will likely occur from time to time at various locations in the future.

7.3.1.2 Other Marine Research

Other research that may be conducted in waters near or within the RAA from time to time include marine studies by educational institutions (e.g., marine mammal and seabird research), by other industries (including geophysical and geotechnical surveys for other petroleum interests, environmental monitoring programs associated with offshore drilling and production installations, and ice studies), other government agencies (such as geological, environmental and tourism departments, including international investigations), and industry or non-profit associations such as marine archaeology interests.

Organizations that have supported, sponsored or conducted research work in these areas include the Geological Survey of Canada, Petroleum Research Newfoundland and Labrador, the Centre for Cold Ocean Resources Engineering, Provincial Aerospace Ltd., Memorial University of Newfoundland and Labrador's Marine Institute, and the Natural Sciences and Engineering Research Council. The nature, timing, location and duration of such research that may occur in a year will depend on research interests and opportunities, and funding.

7.3.2 Other Offshore Petroleum Activity

Petroleum exploration, production, supply services and related activities currently constitute the largest component of the NL economy. In 2017, oil and gas and related services contributed $4.7 billion to nominal GDP, 15.6% of the provincial total. Direct employment in the industry was approximately 5,200 person years in 2018, 2.3% of total employment (GNL 2019). Many parts of the Newfoundland and Labrador offshore have seen active oil and gas exploration activities related to the industry, dating from the 1950s.

Much of the marine activity is associated with geophysical (seismic) exploration, usually the first stage of identifying resource production prospects Since 2010, more than 195,000 km of 2D seismic data and 2,924,000 km (common mid-point) 3D data have been acquired during nearly 50 geophysical surveys (C-NLOPB 2019a). Annual geophysical programs are expected to occur regularly within the RAA as will other exploration drilling and delineation drilling programs from time to time. Proposed programs undergoing environmental assessment (as well as past proposed programs) can be accessed through the C-NLOPB public registry at https://www.cnlopb.ca/assessments.

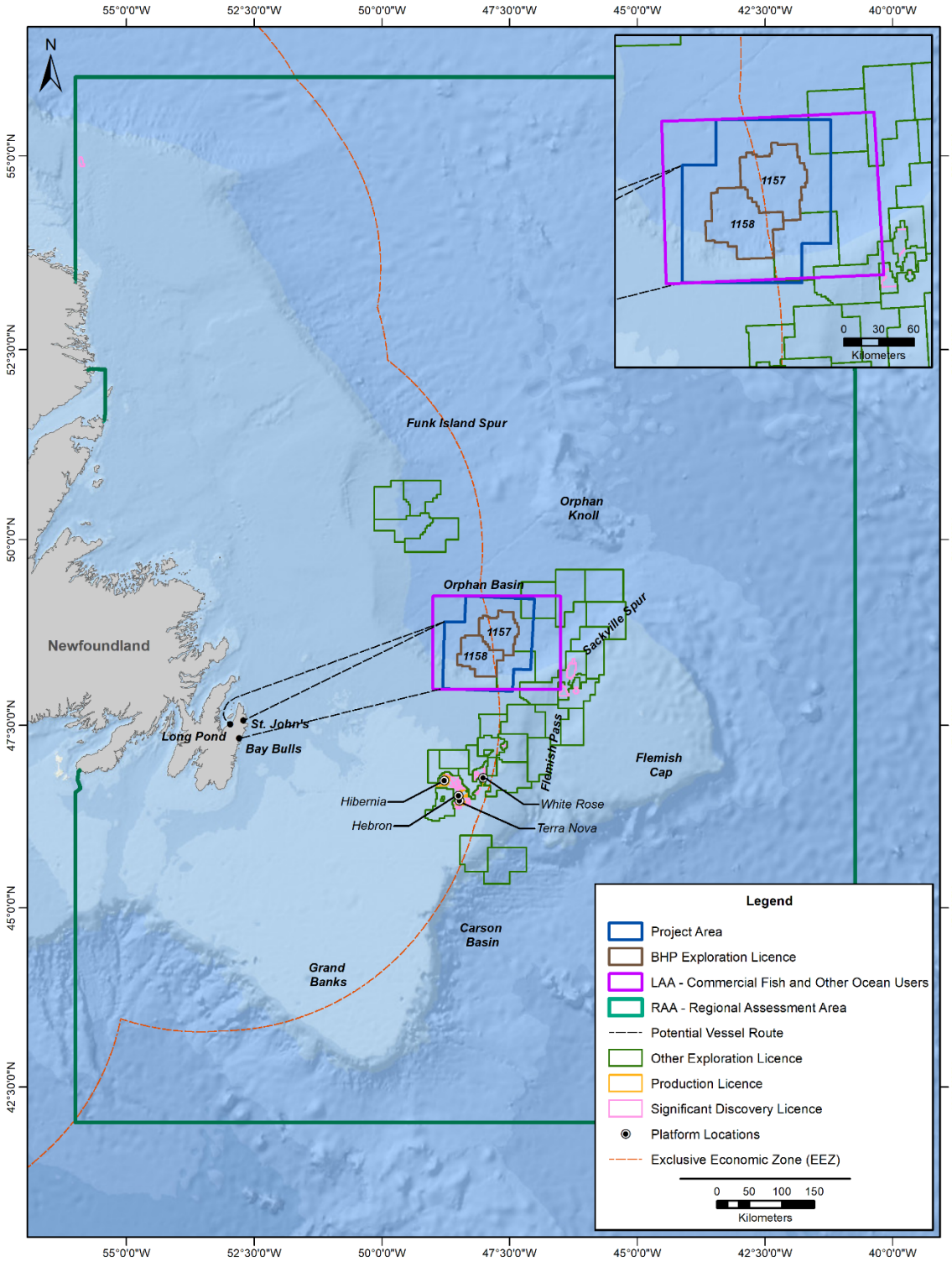
Based on these kinds of research undertakings, and on many exploration drilling programs and other marine data collecting in the past, four offshore operations are currently producing oil from fields in the

Jeanne d'Arc Basin area on the eastern Grand Banks. Table 7.13 provides a description of each of these. In addition to the existing producers, a fifth production operation in the Flemish Pass area has been proposed by Equinor Canada Ltd (Equinor) (Bay du Nord Development Project). As of 2019, it was undergoing environmental assessment through the *Canadian Environmental Assessment Act, 2012* (CEAA 2012) (see https://www.ceaa.gc.ca/050/evaluations/proj/80154).

Table 7.13 Current Offshore Petroleum Production Operations in the RAA

Production Project (Operator)	Summary Description
Hibernia 1997 (Hibernia Management and Development Company)	The first oil-producing operation offshore Newfoundland and Labrador began production in 1997 with estimated recoverable reserves of 1.4 billion barrels. It is a gravity-based structure (GBS) permanently fixed to the sea floor approximately 315 km east-southeast of St. John's. The Hibernia Southern Extension excavated drill centre was a later addition, with operations beginning in 2011. A safety zone extends 500 m (covering 53 km²) from the outer edge of installation infrastructure (i.e., the GBS, its subsea crude loading system, the Southern Extension drill centre and associated subsea equipment including the water injection flowlines)
Terra Nova 2002 (Suncor Energy Inc.)	The Terra Nova Project began producing in 2002 from a Floating production storage and offloading (FPSO) located approximately 340 km southeast of St. John's. The development has estimated recoverable reserves of approximately 500 million barrels. Later additions include a series of drill centres accessed via a semisubmersible drilling platform. The facility has a 9.26 km (5 nautical mile) radius (270 km²) Safety Zone around the FPSO, which encloses a smaller fisheries exclusion zone, within a larger 18.52 km (10 nautical mile) radius precautionary zone.
White Rose 2005 (Husky Energy Inc.)	The *SeaRose FPSO*, located approximately 360 km southeast of St. John's, began producing in 2005 with initial estimates of 230 million barrels of recoverable oil. In 2010 the operation (with five drill centres) was expanded (North Amethyst) in 2010. A further expansion is expected to go into operation in 2022 consisting of a fixed drilling installation tied back to the FPSO. The safety zone around the facilities is approximately 105 km².
Hebron 2017 (ExxonMobil Canada Properties)	The Hebron development is located approximately 340 km southeast of St. John's and is situated partially inside the Terra Nova project safety zone. First oil occurred in 2017, with estimated recoverable resources in excess of 700 million barrels. The operation consists of a drilling and production GBS and related infrastructure. Hebron's safety zone is approximately 6 km² which includes the GBS and its offloading system.
Sources: Operator project descriptions; One Ocean n.d.	

The locations of these facilities in relation to the RAA, the LAA and the Project Area are mapped in Figure 7-51, as well as the locations of current Production Licences (PLs), ELs and Significant Discovery Licences (SDLs). As of 2019 there were 12 PLs (associated with the four production operations listed above), 30 ELs and 60 SDLs within the NL Offshore Area (C-NLOPB 2019b).



Source: C-NLOPB 2019b

Figure 7-51 Production Platforms, SDLs, ELs and PLs in the RAA, 2019

Each of the producing operations and other exploratory projects (such as exploratory drilling) also have extensive marine and air support operations and associated vessel traffic, most moving between the project locations and port in or near St. John's. Regular marine tanker traffic for crude oil off-loading make regular transits between the platforms to transshipment facilities at Whiffen Head, Placentia Bay. Newfoundland Transshipment Ltd notes that this facility had received 3,584 vessels and handled in excess of 2.594 billion barrels of Grand Banks crude between 1998 and the end of 2017 (NLT 2019). Transits include second-leg tankers carrying the oil from the facility to markets in other parts of the world.

7.3.3 Tourism and Recreational Uses

Marine tourism has become an important part of the NL economy. Components include both resident and non-resident tourists participating in recreational fishing, iceberg- and seabird-watching tours, sea-kayaking and pleasure craft excursions, visits to parks, beaches and marine archaeological sites, diving and other types eco-tourism that occur along the coastlines of the Province. Many of the non-resident visitors arrive by passenger and vehicle ferries from Nova Scotia (see Section 7.3.5). A further important marine component of the industry has been cruise ship visits to ports around NL. In 2018, 30 cruise ships made 87 port calls to 21 different ports. Although the port calls are usually short duration, they bring important economic opportunities to local businesses, with the approximately 31,162 cruise visitors spending an estimated at $2.9 million in NL in 2018 (DTCII 2019). Table 7.14 summarizes the cruise ship visits to NL ports that were planned for the 2019 season (Cruise Newfoundland and Labrador 2019). Details for cruise ship visits to the Port of St. John's are provided in Section 7.3.6.

Table 7.14 Current Planned Newfoundland and Labrador Cruise Ship Visits, 2019

Item / Activity	Numbers (Tentative)
Ports Visited	21
Total Port Calls	116
Ships	32
Operators	24
Passengers / Visits	96,096
Crew	39,830
Total (Passengers + Crew)	135,926
Source: Cruise Newfoundland and Labrador 2019	

Recreational fisheries take place in both coastal waters and rivers that feed into the RAA. An annual recreational groundfish fishery takes place in all NAFO Divisions adjacent to NL, except for Marine Protected Areas (MPAs). This sea fishery is open to both residents and non-residents. For 2019, the open dates were every Saturday to Monday from 29 June to 2 September, and then each day from 21 September to 29 September. Limits were set at five groundfish per day, including cod. Retention of certain species (Atlantic halibut, spotted and northern wolffish, sharks) is not allowed, and restrictions apply to the type of gear that may be used. For safety, fishing is only permitted from one hour before sunrise until one hour after sunset (DFO 2019m). Activities are usually focused in bays and other areas near to shore; they are not expected within the LAA or Project Area.

Recreational fishing for other species, such as smelt, Atlantic salmon, and trout occurs in coastal or inland waters. Angling for smelt in coastal waters is allowed year-round with no set limit for an individual fisher. Recreational fishing for salmon and trout are permitted during certain times, depending on the location of the river, and time of year. NL has approximately 186 scheduled (licenced) salmon rivers, divided into different categories or zones. These different zones have specific fishing regulations and requirements associated with them, including bag limits and fishing seasons (DFO 2019r).

7.3.4 Military Operations

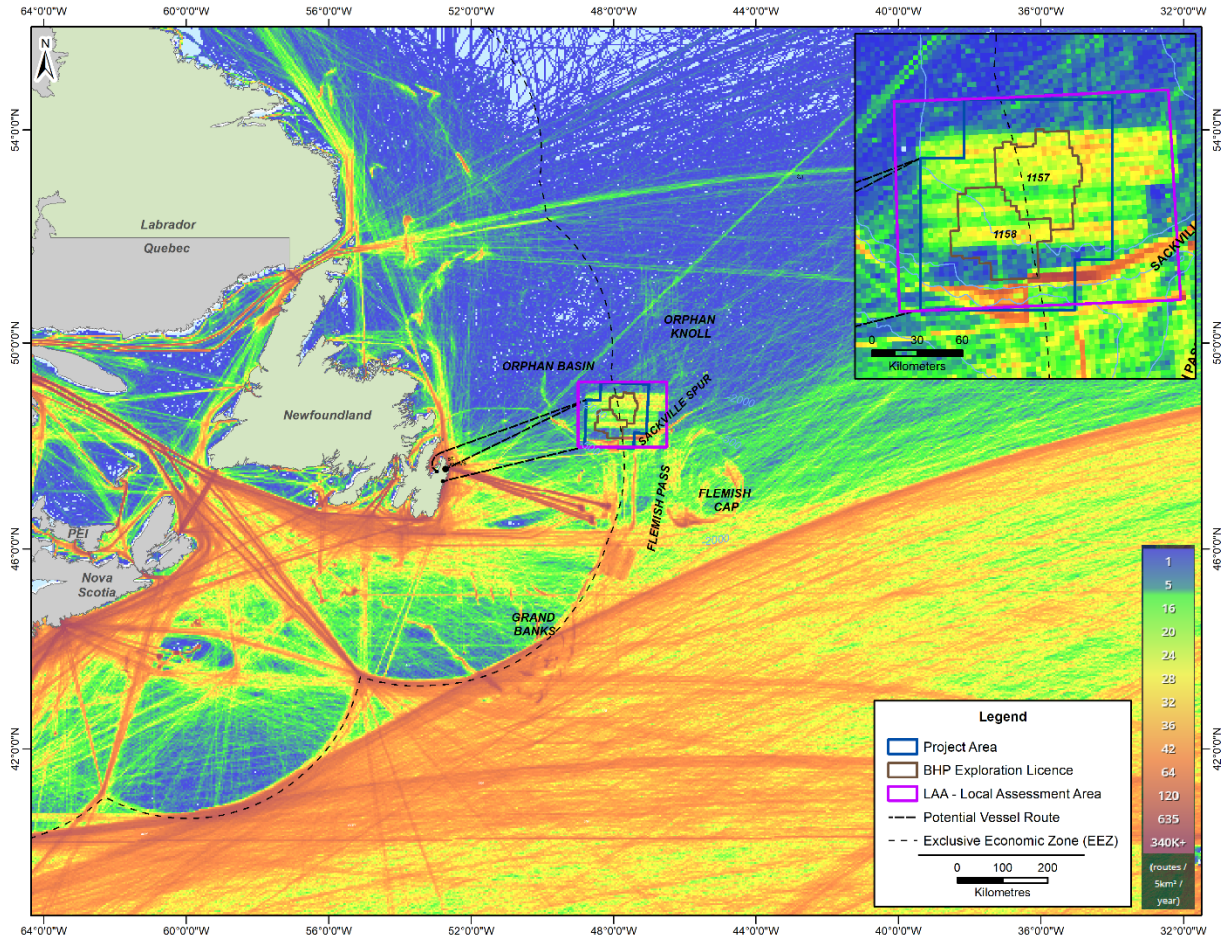
The Royal Canadian Navy and Air Force conduct training exercises and coastal surveillance in waters offshore NL within and beyond the EEZ. These activities may involve the use of aircraft and marine vessels, and activities have the potential to occur in or near the LAA and Project Area. Allied and other nation exercises and maneuvers may also take place in RAA waters. Navy vessels also provide support to DFO (Canadian Coast Guard, CCG) to conduct fishery patrols and law enforcement within the RAA and assisting CCG with search and rescue activities (AMEC 2014).

Past military operations in the region have also resulted in the deposition of unexploded ordnance (UXO) in many locations (see Section 7.3.7).

7.3.5 Other Shipping and Transportation

In addition to vessels associated with fishing, marine research, the petroleum industry, tourism / recreation, military operations and Coast Guard activities, there is a large volume of other marine vessel traffic off Canada's Atlantic coasts, operating year-round. These are predominantly large cargo vessels travelling between various ports in North America (mainly Canada and the United States) and Europe, the Mediterranean or other parts of the world. Within the RAA, there are also regular ore-carrier movements between nickel mining operations (Vale) in Voisey's Bay, Labrador, and Long Harbour in Placentia Bay, and refined product movements outbound from that facility.

International shipping includes tankers (petroleum products, chemicals), container ships, automobile carriers, and may other goods-carriers. In general, other than in managed zones, such as Placentia Bay, the routes taken are typically the shortest distances between ports. (Rule 10(s) of Canada's *Collision Regulations* under the *Canada Shipping Act* 2001 states, however, that "a vessel making a transatlantic voyage shall, as far as practicable, avoid crossing the Grand Banks of Newfoundland and Labrador north of latitude 43° north" (i.e., not north of the southernmost tip / tail of the Grand Banks.) However, as the patterns in Figure 7-52 indicate, certain routes are more commonly followed than others; some transits typically pass through the LAA and Project Area. Figure 7-52 also shows the particularly heavy transit frequencies between St. John's and the existing petroleum production platforms and patterns related to seismic surveys and other exploration work within the Project Area and ELs that year.



Source: MarineTraffic.com 2019

Figure 7-52 Marine Traffic Intensity Indications 2017

The eastern region of NL recorded nearly 700 international shipping movements in 2011 carrying approximately 16,650 t of cargo. In the same year, there were more than 3,000 ship movements between NL ports and other Canada ports, handling approximately 27,250 t of cargo (Statistics Canada 2011). Many of these intra-Canadian movements were attributable to passenger / automobile ferries within the RAA around the NL and between NL (Argentia) and Nova Scotia (North Sydney). Current Argentia-North Sydney schedules are available at https://www.marineatlantic.ca/en/plan-your-travel/Schedule/; provincial ferry service schedules and routes are available at https://www.tw.gov.nl.ca/ferryservices/schedules/index.html; the Labrador northern service at https://labradorferry.ca/reservations/.

Intra-provincially within the RAA, the GNL operates services for passengers and freight, connecting many coastal communities on the Island and Labrador. None of these ferry services extend offshore; thus, none are in or near the LAA or Project Area. The Argentia ferry service operates up to three times a week, from June to September annually, and is operated by Marine Atlantic, a crown-corporation. Many of these ferry transits bring tourists to the Avalon Peninsula and areas beyond. In 2018, this service reported 84 transits with 30,537 passenger movements and 13,269 passenger related vehicle movements (DTCII 2019). Table

7.15 indicates the number of trips and the number of passengers recorded for each ferry service within the RAA between 2013 and 2017. In 2019 a new passenger and automobile ferry service began for the Northern Labrador coast transporting passengers, their vehicles and freight weekly to Rigolet, Makkovik, Postville, Hopedale, Natuashish, and Nain, and to Cartwright and Black Tickle twice a week during the summer (DTW 2019).

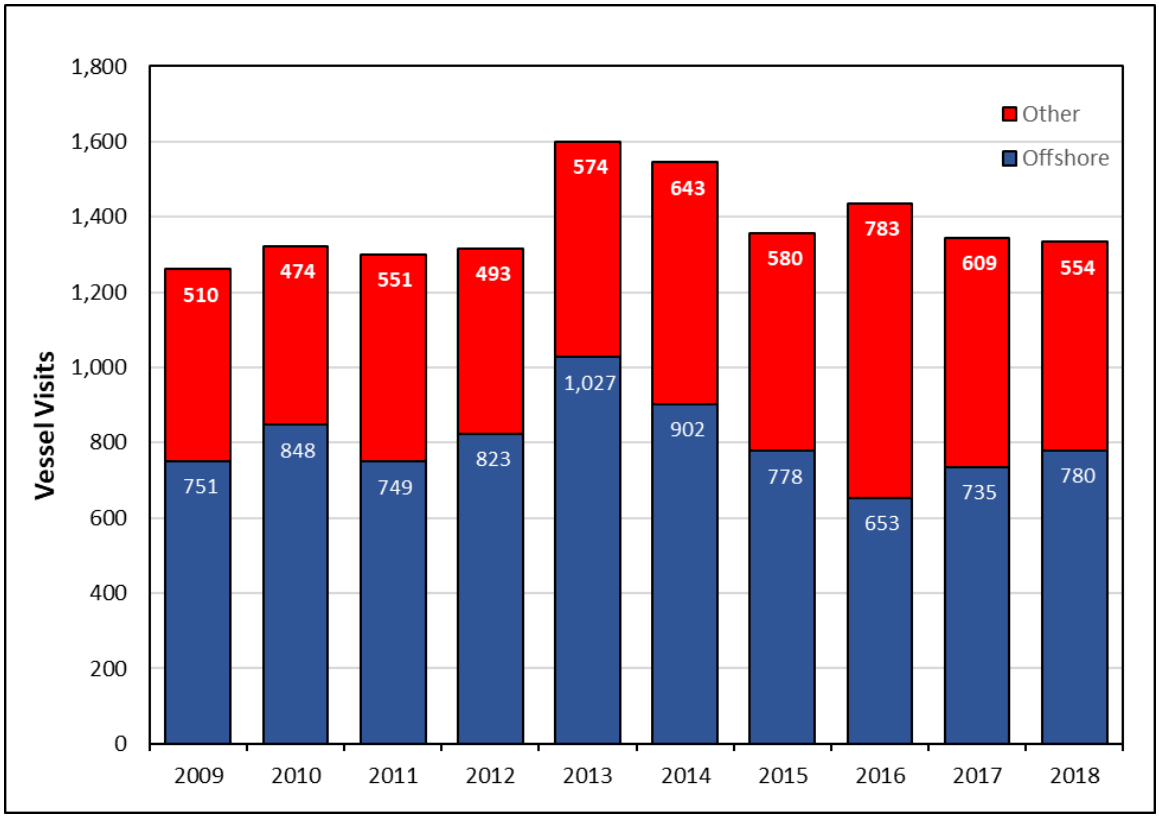
Table 7.15 Recent Intra-Provincial Ferry Statistics, RAA

Ferry Service	2014/15		2015/16		2016/17	
	Trips	Passengers	Trips	Passengers	Trips	Passengers
Bell Island - Portugal Cove	12,903	463,764	12,631	474,855	10,647	426,234
Charlottetown - Norman's Bay – William's Harbour - Port Hope Simpson	398	1,071	443	1,038	367	929
Fogo Island – Change Islands - Farewell	6,058	152,648	6,789	177,883	5,868	177,179
Labrador North Coast - Passenger*	335	5,034	440	6,723	471	5,768
Little Bay Islands – Long Island - Pilley's Island	7,706	38,645	7,828	44,480	7,865	43,439
Shoal Arm - Little Bay Islands – Pilley's Island - Long Island	N/A	N/A	N/A	N/A	N/A	N/A
South East Bight - Petit Forte	1,845	6,826	1,785	6,674	1,575	7,033
St. Brendan's – Burnside	2,335	16,678	2,622	17,806	2,351	17,217
* total number of individual port-to-port trips						

7.3.6 Ports and Harbours

Most types of marine activities described above require port and/or harbour facilities, if they are arriving in and departing from the Island or Labrador. On the east coast of Newfoundland, St. John's is one of the busiest ports, as it has the most infrastructure, and can accommodate both domestic and international shipping. It is also the primary service port for the offshore oil and gas industry. Bay Bulls to the south of St. John's and Long Pond Harbour to the west in Conception Bay also have marine facilities for offshore operations.

St. John's Harbour is managed by the St. John's Port Authority, which is responsible for activities occurring in the harbour, along with port development. Figure 7-53 shows the numbers of vessels visiting St. John's Harbour for the ten-year period to 2018, by offshore and other types of shipping. The oil and gas industry has historically accounted for the largest number of vessels entering the harbour, with the exception of 2016, when vessels representing other industries accounted for more port movements than the oil and gas industry. Cruise ship visits also account for an important part of the Port of St. John's activities during the touring season.

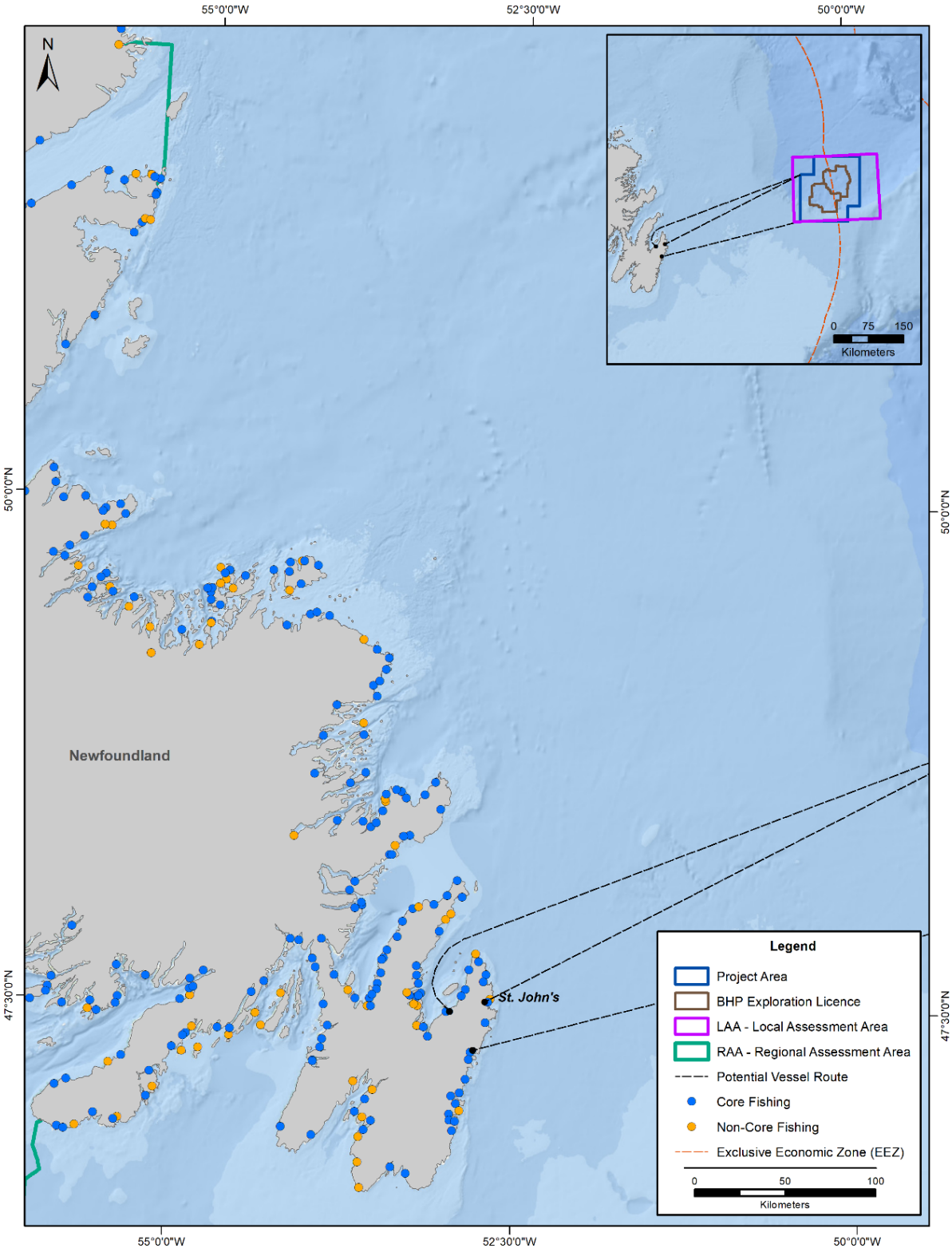


Source: St. John's Port Authority (2018; 2019; B. McCarthy, pers. comm., 2017 in BP 2018)

Figure 7-53 Port of St. John's Vessel Visits (Offshore, Other) 2009-2018

Penecon Energy Marine Base in Bay Bulls has facilities to provide services for offshore petroleum industry PSVs and MODUs; the Long Pond Harbour Authority in Conception Bay South services a variety of industrial marine users including PSVs and is a growing facility. Other key port facilities adjacent to the RAA include Lewisporte, St. Anthony and Happy Valley-Goose Bay (HV-GB) in the North, and within Placentia Bay Marystown, Whiffen Head (petroleum transshipment), Long Harbour (ore and processed nickel carriers) and Placentia / Argentia (including the ferry terminal). However, most coastal communities in the RAA maintain harbour / docking facilities.

Small craft harbours are operated by DFO and are critical to the fishing industry throughout NL. While fishing is the main purpose of many such facilities in the Province, these harbours can also support recreational marine activities. There are a total of 339 small craft harbours within NL, with approximately 260 of these harbours considered core fishing harbours. Figure 7-54 maps small craft harbours in the region.



Source: DFO 2017b

Figure 7-54 RAA Small-Craft Harbour Locations

7.3.7 Subsea Infrastructure and Artifacts

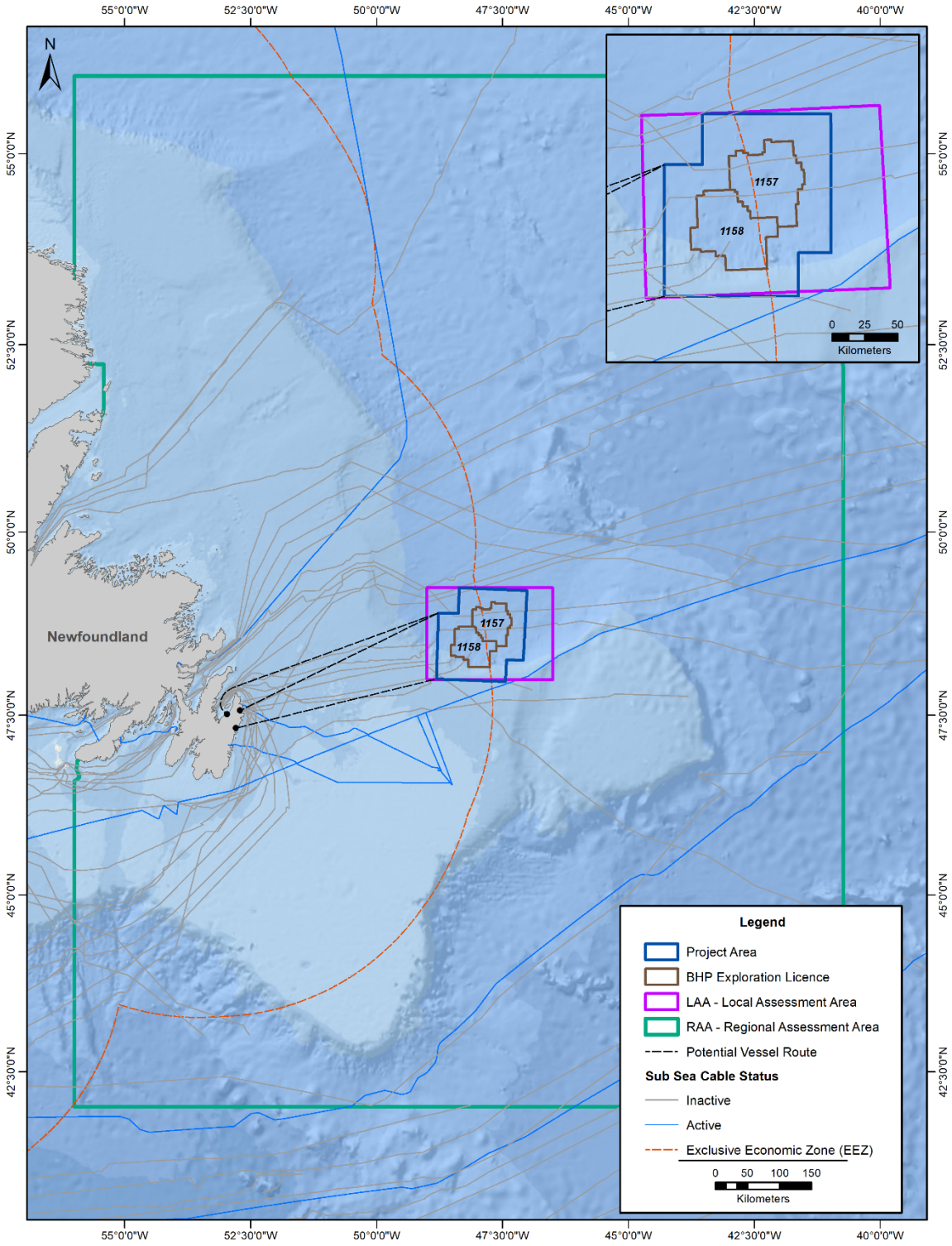
Subsea cables have been laid within the RAA since the 1850s, when the first transatlantic connection between Europe and North America became active (Valentia, Ireland to Heart's Content, Newfoundland). Originally metal (galvanic), most today are fibre optic. Figure 7-55 maps the locations of known cables (active and abandoned) in the region. As this map indicates, within the RAA there are dozens of abandoned cables and four active installations. Of these, eight abandoned lines pass through some part of the LAA (three within the two ELs), but no active cables are located there. The RAA active cables are described in Table 7.16. Fishing activities pose a hazard to the cables, and under international law harvesters must avoid damaging them (HMDC 2019)

Table 7.16 Active Subsea Cables within the RAA

Name	Type	Connecting	Owner
Grand Banks Offshore Optical Cable	Fibre Optic	Newfoundland – Jean'dArc Basin Petroleum installations (Hibernia, Hebron)	ExxonMobil Properties Canada
Hibernia-Canada Express	Fibre Optic	Ireland – Nova Scotia	GTT Communications Inc.
Greenland Connect	Fibre Optic	Greenland - Newfoundland	TELEGreenland A/S
Placentia Bay, Conception Bay, Trinity Bay sections of inter / intra provincial link	Fibre Optic	Newfoundland – Nova Scotia	Eastlink
Source: DFO pers. comm. 2015			

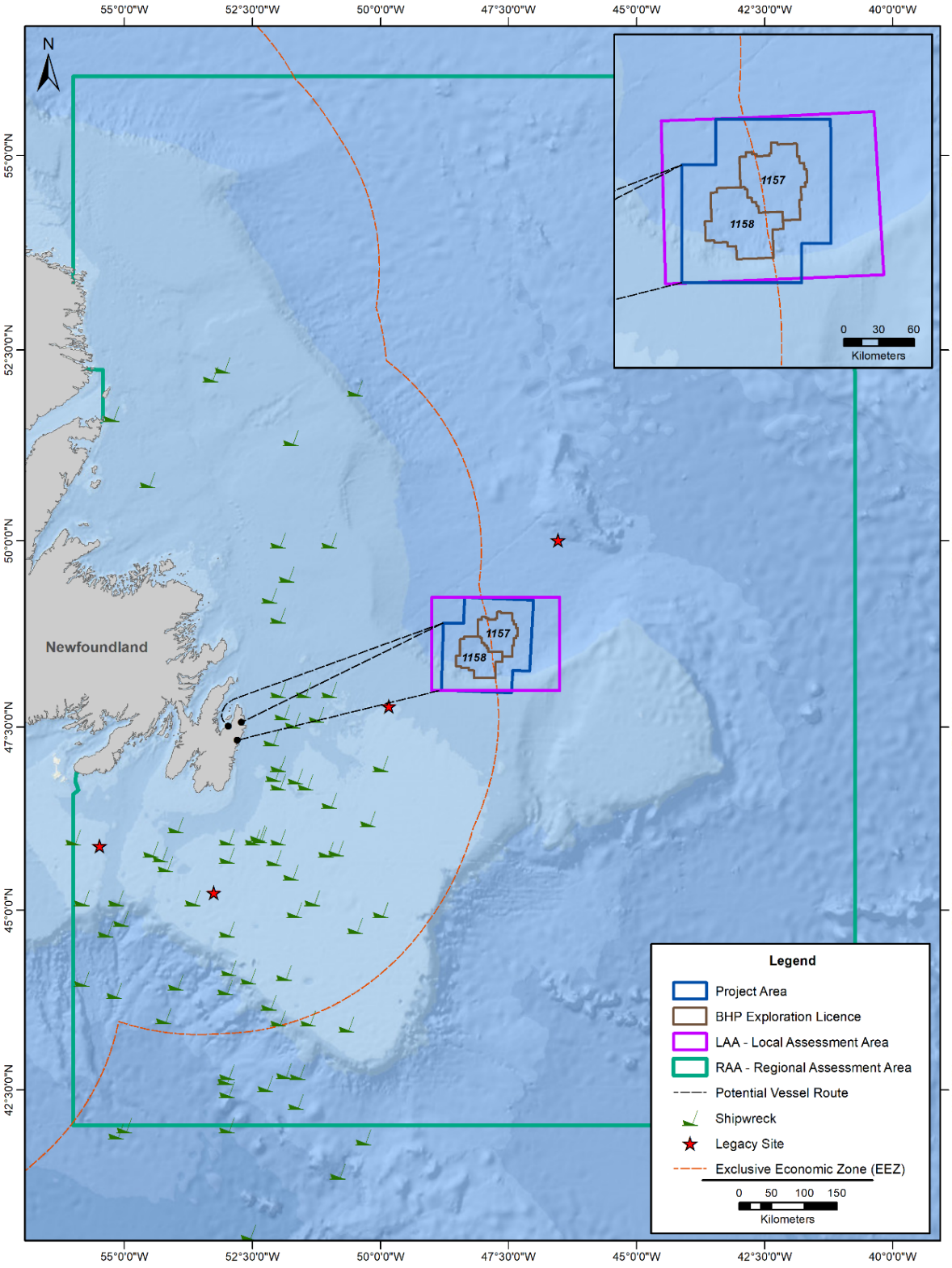
In addition to subsea cables, other kinds of anthropogenic objects and structures may be found within the RAA. As described above, there are four producing petroleum operations with associated subsea infrastructure, such as intra-field flowlines, tiebacks and drill centres, although these are contained within their existing safety zones. Other fairly common artifacts in the region are marine UXO legacy sites (locations where military engagements or exercises took place and where underwater UXO may be encountered) and shipwrecks that may have UXO. There are approximately 1,100 known UXO sites off Canada's east coast (AMEC 2014; DND 2019). Known locations within and near the RAA are mapped in Figure 7-56. None are known to be within the LAA or Project Area. Shipwrecks known to be within the RAA are also mapped in Figure 7-56.

A series of navigation, wave / weather (Ocean Data Acquisition System) and other buoys and markers also occur in the waters around the Island of Newfoundland and the coast of Labrador, particularly nearer to shore. Canadian managed markers are listed and regularly updated for these waters at https://www.notmar.gc.ca/list-livre-en.php.



Source: DFO pers. comm. 2015; Infrapedia 2019

Figure 7-55 Subsea Communications Cables



Source: DCC 2018

Figure 7-56 UXO Shipwrecks and UXO Legacy Sites

7.4 INDIGENOUS PEOPLES AND COMMUNITIES

The information in Sections 7.4.1 to 7.4.7 was provided to BHP by Equinor. The goal of using the same information prepared by Equinor (and incorporating information provided by Indigenous groups who reviewed the tables in these sections) is to provide consistent information on the 41 Indigenous groups operators have engaged and continue to engage with during preparation for environmental assessments (EAs) for offshore exploration drilling projects.

As per Section 5 of the EIS Guidelines (Appendix A), this section of the environmental impact statement (EIS) provides existing conditions information on 41 Indigenous groups in NL, Nova Scotia (NS), New Brunswick (NB), Prince Edward Island (PEI), and Québec (QC). These existing conditions are required to facilitate an assessment of Project effects on potential or established Aboriginal or treaty rights under section 35 of the *Constitution Act, 1982*. As outlined in paragraph 5(1)(c) of *Canadian Environmental Assessment Act, 2012.*

(CEAA 2012), the EIS Guidelines also indicate that the EIS is to address potential Project effects on:

- Health and socioeconomic conditions
- Physical and cultural heritage
- The current use of lands and resources for traditional purposes
- Any structure, site or thing that is of historical, archaeological, paleontological or architectural significance

It is BHP's understanding that the lands and waters of Atlantic Canada where the Project components and activities will be located, are not within an area that the listed Indigenous groups has asserted or established Aboriginal or treaty rights protected by section 35 of the *Constitution Act, 1982* (section 35 rights). The Project components and activities will be located at a considerable distance from Indigenous groups and many of their harvesting activities and other known interests (illustrated in Chapter 2 and throughout this section of the EIS). However, the various Indigenous groups identified in the EIS Guidelines have asserted or established section 35 rights to harvest for food, social or ceremonial (FSC) purposes or to earn a moderate livelihood in their traditional territories. Commercial communal fishing licences are held by various Indigenous groups for Northwest Atlantic Fisheries Organization (NAFO) divisions that overlap with the Project. In addition, migratory species (including fish, birds, and mammals) may potentially be affected by Project activities as they may move through the Project area. These species may be harvested by Indigenous groups in coastal areas through FSC fishing, commercial communal fishing or through other harvesting activities.

Traditional harvesting (including FSC fishing) is a way of life for many Indigenous communities and is an important component of Indigenous culture and sustenance, and a main aspect of community social and ceremonial activities. Although the location, species and methods of harvesting may have changed over time, Indigenous people continue to engage in traditional land and resource use practices harvesting a variety of species (e.g., fish, birds, marine mammals, wildlife, plants) for sustenance, medicine, spiritual and cultural practices, and for trade.

In Canada, various Supreme Court of Canada decisions, such as the “Sparrow decision” (1990), and the “Marshall decision” (1999) have been affirmed through section 35 rights to harvest for FSC purposes or to earn a moderate livelihood. FSC and commercial communal licences are the two types of communal fishing licences issued by Fisheries and Oceans Canada (DFO) to Indigenous groups, which are held under the name of the Indigenous community, not under the name of a specific individual. Programs and services in Indigenous communities are supported by the revenue from commercial communal licences.

To provide a regulatory framework for FSC fishing, DFO introduced the Aboriginal Fisheries Strategy in 1992. Succeeding conservation measures, fishing for FSC purposes takes priority over other fisheries, including commercial and recreational fisheries, in Canada.

To increase Indigenous access to the commercial fishery through the issuance of commercial communal licences, the Marshall Response Initiative (MRI) was implemented by DFO in 2000. The MRI was later (2007) replaced by the Atlantic Integrated Commercial Fisheries Initiative (AICFI) to sustain the public investment in Indigenous commercial fisheries. The AICFI provided the 34 Mi’kmaq and Wolastoqiyik First Nations, affected by the Marshall decision, with capacity-building support for the successful management of Indigenous commercial communal fisheries and effective Indigenous participation in fisheries co-management (DFO 2012a, 2012b, 2012c).

The value of commercial communal fisheries has increased, with continued anticipated growth, since the inception of the MRI and AICFI initiatives. The economies of Indigenous communities receive an annual contribution of $100 million from commercial communal fisheries, in the Atlantic region. Commercial communal fisheries are a high percentage of sole-sourced revenue for many Indigenous groups and often fund community ventures, social programs, and benefits. Potential effects on commercial communal fisheries may therefore be broader than direct and indirect economic effects upon communities (DFO 2012a, 2012b, 2012c).

Indigenous groups have communicated, during ongoing engagement and consultation for this Project and other offshore activities, that in addition to potential interactions and effects on commercial communal and FSC fishing practices, they have further interests and concerns. Several species, of cultural or spiritual significance to Indigenous peoples, could occur in the eastern NL offshore area and potentially interact with Project activities. These may include species that have been traditionally harvested for food, medicinal, social or ceremonial purposes, and may also hold other cultural value. Concerns also relate to species of ecological importance which contribute to ecosystem sustainability that, if adversely impacted, could potentially affect asserted or established Indigenous rights.

Available information on the history and current socioeconomic conditions of each of the 41 identified Indigenous groups are outlined in the following sections, with a focus on aspects that may have potential to interact with the Project and/or which are otherwise specified in the EIS Guidelines. Given that the Project is in the offshore NL marine environment and located at a considerable distance from the Indigenous communities listed in the EIS Guidelines (Appendix A), the description of existing conditions, focuses on marine associated species of importance to Indigenous peoples, including species of importance for both FSC fishing and commercial communal fishing. As per paragraph 5(1)(c) of CEAA 2012, the descriptions also include specific reference to harvesting activity and the current use of land and resources for traditional purposes.

7.4.1 Newfoundland and Labrador

Indigenous groups in NL are:

- Labrador Inuit (Nunatsiavut Government)
- Labrador Innu (Innu Nation)
- NunatuKavut Community Council (NCC)
- Qalipu Mi'kmaq First Nation (QMFN) Band
- Miawpukek First Nation (MFN)

The locations of Indigenous groups in NL are provided in Figure 7-57. Profiles for each NL Indigenous group are provided in the following sections (Table 7.17).

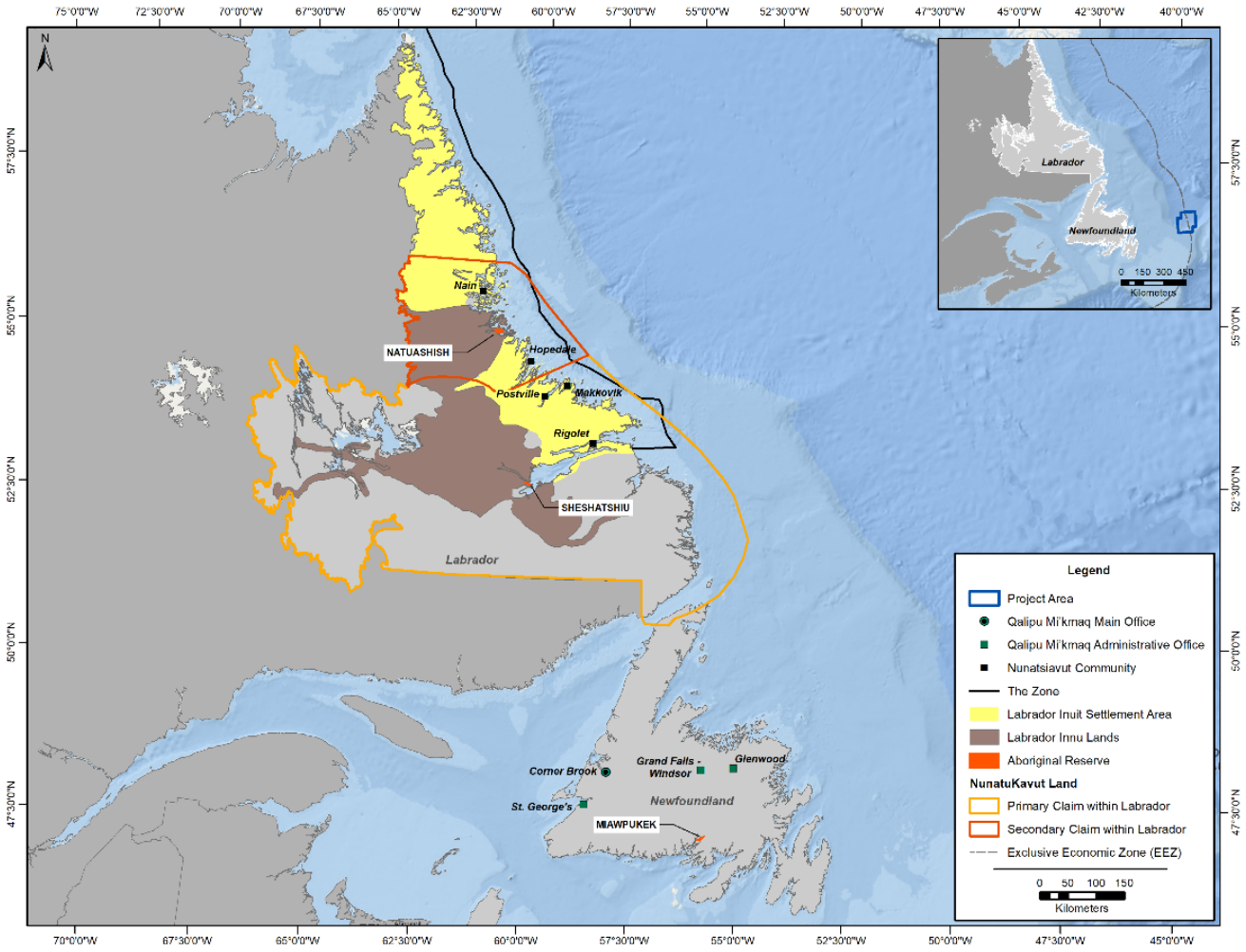


Figure 7-57 Indigenous Communities in Newfoundland and Labrador

Table 7.17 Newfoundland and Labrador Indigenous Groups Community Profiles

Community Indicator	Description
Labrador Inuit (Nunatsiavut Government)	
Location and Proximity to Project Area	The traditional territory of the Labrador Inuit extends from Cape Chidley in the north, to south of Groswater Bay in Labrador and includes a portion of the offshore area adjacent to northern QC (C. Sheppard, pers. comm. 2018). To the west, it extends to the QC-Labrador border. To the east, it includes the adjacent Tidal Waters of the Labrador coast, extending 12nautical mile offshore to encompass the marine area referred to as the "Zone" in Schedule 2A of the Labrador Inuit Land Claims Agreement (LILCA) (NG 2005). The Labrador Inuit Settlement Area (LISA), is approximately 817 km from the Project Area. Nunatsiavut Government beneficiaries live in the Inuit communities Nain, Hopedale, Makkovik, Postville and Rigolet (Figure 7-57), and elsewhere.
General Overview	The Nunatsiavut Government, an Inuit regional self-government, was established following three decades of land claims negotiations between the Labrador Inuit Association (LIA) and the Governments of Canada and NL. On December 1, 2005, the LILCA came into effect, establishing land ownership, resource-sharing, self-government and delivery of programs and services within the LISA, and providing for harvesting rights within and outside of the LISA in interior, coastal, and offshore areas of northern Labrador. The LISA is comprised of approximately 72,520 km² of land in northern Labrador, of which 48,690 km² is within the Labrador Sea. The LILCA is a modern, comprehensive treaty and land claims agreement within the meaning of sections 25 and 35 of the *Constitution Act, 1982*. The LILCA gives the Nunatsiavut Government power and authority including administration, control, development, conservation and management of Labrador Inuit Lands (LIL) (15,799 km²). The Project does not overlap with lands covered by the treaty. The Nunatsiavut Government represents Labrador Inuit beneficiaries who live in the five Inuit communities: Nunainguk (Nain), Agvitok (Hopedale), Maggovik (Makkovik), KipukKak (Postville) and Tikigiaksaugusik (Rigolet) and elsewhere (spelling provided by D.M. Webb). The Nunatsiavut Government also includes two Inuit Community Corporations that provide representation in the Nunatsiavut Assembly for members living outside of the LISA. These are the NunaKatiget Inuit Community Corporation that serves beneficiaries residing in HV-GB and Mud Lake and the Sivunivut Inuit Community Corporation serving beneficiaries residing in North West River and Sheshatshiu (Sivunivut 2018). Some of the five Inuit communities are experiencing population growth while others have declined. From 2011 to 2016, the populations of Hopedale and Makkovik increased while the populations of Nain, Postville, and Rigolet decreased. The population of most of the Labrador Inuit communities is relatively young as the percentage of population under 15 years of age (between 18 and 23%) is higher and the median age (31 to 41.2 years) is lower than that of the NL population in general (i.e., 14.3% below 15 years and median age of 46 years) (Felt, et al. 2012; Statistics Canada 2017; NG 2018). The Nunatsiavut Government reports that there are 7,133 beneficiaries of LILCA Canada-wide (C. Sheppard, pers. comm. 2018).
Health and Socioeconomic Conditions	The Nunatsiavut Government provides community infrastructure and services such as schools, firefighting, drinking water, recreation, health care, home care, health promotion, healing and mental health services to the Labrador Inuit communities. Policing is provided by the Royal Canadian Mounted Police (RCMP). The Labrador Inuit communities are accessible seasonally (from July to November) by ferries operated by the Government of NL and Nunatsiavut Group of Companies (NGC). Regional airlines such as Air Borealis provide air transportation year-round (Statoil 2017). Labrador Winter Trails (funded by Provincial Government) provides grooming services for public trails to several communities throughout the winter. The NGC provides airline, helicopter, marine cargo, construction and other services to residents and industries such as mining and tourism.

Table 7.17 Newfoundland and Labrador Indigenous Groups Community Profiles

Community Indicator	Description
	Common health-related issues across communities include, heart disease, diabetes, arthritis, high blood pressure, cancer, tuberculosis, high cholesterol, obesity, cigarette smoking, alcohol consumption, food insecurity, access to affordable housing and access to health services. Major employers include the Nunatsiavut Government, NGC, Torngat Fisheries Co-op, Inuit Community Governments, Torngat Regional Housing Association and the Voisey's Bay Mine / Mill near Nain. As described in more detail below, the Nunatsiavut Government has commercial communal licences for a variety of fish and marine species. The Torngat Fish Producers Co-operative owns and operates seafood processing plants in Nain and Makkovik (C. Sheppard, pers. comm. 2018).
Physical and Cultural Heritage (including archaeological, paleontological, historical, or architectural sites)	The Labrador Inuit are descendants of the pre-historic Thule people. The Labrador Inuit are culturally and linguistically part of the Inuit peoples who occupy the Arctic and parts of the sub-Arctic, from Alaska east across northern Canada, Greenland and the Arctic edges of the former Soviet Union. The Labrador Inuit are the most southernly expansion of this culture (Fitzhugh 1977; NG 2018). The pre-contact Inuit lifestyle included harvesting throughout the year for food, clothing, shelter and tools and seasonal migration to follow the movements of the animals and fish upon which the Inuit depended. European immigration and establishment of Moravian missions beginning in 1771 and Hudson's Bay Company (HBC) fur-trading posts beginning in the 1830s resulted in permanent communities and dramatic changes in traditional Inuit culture, settlement, and subsistence patterns. In the late 19th century and early part of the 20th century, Inuit became increasingly involved in the market economy and adapted new practices to earn income from industries focused on trapping and seal harvesting, as well as fishing for cod, char, and salmon (Brice-Bennett 1977; Kaplan 2012). Based on current research, 3,424 archaeological sites have been identified within LIL, LISA and Torngat Mountains National Park. There are no known physical, cultural or heritage sites within or near or near the Project Area (C. Sheppard, pers. comm. 2018).
Current Use of Lands and Resources for Traditional Purposes	Many Labrador Inuit continue to undertake traditional land and resource use activities within the LISA, including hunting, fishing, and trapping. Key species, identified as being harvested by 50% or more households in 2007, included Atlantic salmon, Arctic char, caribou, eider ducks and eggs (Felt et al. 2012). Caribou are currently under a harvesting ban but each year a quota is approved for sharing among Indigenous groups. Traditional food has important value beyond market criteria, because its cultural, social and nutritional qualities are an integral part of the Inuit lifestyle. In a 2012 health survey, 90% of Labrador Inuit (15 years of age and older) indicated that they had participated in hunting, fishing, trapping or gathering plants in the previous 12 months (Statistics Canada 2015). Fishing activity is dispersed throughout the Labrador Shelf area, and is extensively fished for crab, rock cod, cod, Arctic char, sculpins, mussels, winkles and sea urchins (SEM 2008). Capelin is harvested for food within coastal waters around Hopedale, Postville, Sandy Beach, and Rapid Point area (SEM 2008). Capelin can be harvested in all communities and base camps. Salmon are also harvested by the Labrador Inuit (C. Sheppard, pers. comm. 2018). Although there is no commercial salmon fishery, an Indigenous traditional fishery for Atlantic salmon exists in Labrador. In 2012, approximately 14,200 salmon (36 tonnes) were harvested by Labrador Indigenous Groups (DFO 2015). Migratory birds are also an important part of the Labrador Inuit harvest. The Labrador Inuit traditionally harvest eider and black ducks, ptarmigan/grouse, Canada goose, murres, mergansers, scoters and loons. Important areas for migratory birds along the north coast of Labrador include areas from north of Hopedale to the former community of Davis Inlet, Island Harbour Bay, Tunungayualok Island, Mugford Tickle to Cape Kiglapait,

Table 7.17 Newfoundland and Labrador Indigenous Groups Community Profiles

Community Indicator	Description
	Okak Bay, Tasiuyuk Bay, Napartok Bay to Kangalaksiorvik Fjord, Kaipokok Bay, White Bear Island, Hare Islands, Windsor Harbour south the Byron's Bay, Turnavik Islands area, Ailik Islands, Cape Makkovik, Island Harbour Bay, Dunn's Island, Adlavik and Ironbound Islands, Jako's Bight, Makkovik Bay, Jeanette Bay, Groswater Bay and Back Bay (Brice-Bennett 1977). Other important bird areas and surrounding waters used by the Labrador Inuit for traditional harvesting activities include the waters and islands of the Backway, Table Bay and St. Peter's Bay where sea ducks are harvested, and the waters of Point Amour where sea ducks and murres (also called turrs) are harvested (Intervale Associates Inc. 2012). Following the ice break-up in spring, the Inuit hunt or net harp seals as well as ringed, harbour, grey and bearded seals in the outer island areas and in the bays as the seals move with the tide. Important harbour seal harvesting areas include Tunungayualok Island and area, Shoal Tickle, Big Bay, Flowers Bay, Kikkektak and Ivjogiktok Islands, Okak Bay, Tasiuyak Bay, Amitok Island, Illuviktalik Island, Iglusuaktaliak Island, Tikkigaksuk Peninsula, Napartok Bay, Seal Bight, Cod Bag Harbour, Shark Gut Harbour, Saglek Fjord, Kaipokok Bay, Big Brook, Jeanette Bay (including Sandy Cove), and Jako's Bight. Grey seal harvesting occurs in areas around Tunungayualok Island and near Tasiuyak Bay (Brice-Bennett 1977; SEM 2008). Labrador Inuit also harvest seals within Hamilton Inlet and Lake Melville and in Back Bay, Head of Groswater Bay, Black Island, Island Harbour Bay, Jako's Bight, Makkovik Bay, Adlavik Bay, Saglek Fjord and Kanairiktok Bay (Brice-Bennett 1977; SEM 2008). Ringed seals are harvested for subsistence purposes in the early spring. Important ringed seal harvesting areas include locations from Hare's Ears and The Highlands to Back Bay, Groswater Bay in The Channel area, Double Mer, areas around Drunken Harbour Point and the Advalik Islands, Napartok Bay, Hebron Fjord, Saglek Fjord, Kangalaksiorvik Fjord, Okak Bay, Tasiuyak Bay, Mugford Bay, Anchorstock Bight, Aulatsivik Island area, Tunungayualok Island, Nain Bay, Voisey's Bay, Tikkoatokak Bay, Webb Bay, Anaktalak Bay, areas around Hopedale, Flowers Bay to Island Harbour Bay, and the Turnavik Islands (Brice-Bennett 1977; SEM 2008).
Commercial Communal Fishing	The Nunatsiavut Government currently holds several commercial communal fishing licences. Groundfish licences are held for NAFO Divisions 2GHJ, 3KL and Greenland halibut may be harvested in 2+3K, 3LMNO and 0B. Seal licences permit harvesting in Sealing Areas 4 through 33, which includes Atlantic Canada. Scallop licences have been issued for Scallop Area 1 off the coast of northern Labrador. Snow crab licences include Snow Crab Areas 1 and 2 (Lake Melville Area) as well as an exploratory licence for NAFO 2H (Northern Labrador). Northern shrimp licences are held for SFAs 4 and 5 (Central Labrador) and Pikalujak Fisheries Ltd. (50/50 partnership Nunatsiavut Government (NG) and Ocean Prawns Canada Ltd.) holds a licence for SFAs 0-6 (D. Ball, pers. comm. 2019). The group also has an Arctic char licence for the area from Cape Rouge to Cape Chidley in Northern Labrador (D. Ball, pers. comm. 2019; Statoil 2017).
Food, Social, Ceremonial Fishing	The Nunatsiavut Government holds FSC fishing licences for salmon, trout, and Arctic char throughout the LISA. These three species as well as smelt and seal may be harvested in the Upper Lake Melville Area. As per the LILCA, beneficiaries have the right to harvest at any time of the year throughout the LISA for any species or stock of fish or aquatic plant, up to the quantity needed for their food, social and ceremonial purposes (D. Ball, pers. comm. 2019).

Table 7.17 Newfoundland and Labrador Indigenous Groups Community Profiles

Community Indicator	Description
Asserted or Established Aboriginal and / or Treaty Rights	The Labrador Inuit have established Aboriginal rights under section 35 of the *Constitution Act* 1982, and beneficiaries of the LILCA have treaty rights within the LISA as set out in the Agreement, including the right to harvest species throughout the LISA. In addition, the Agreement allows for a negotiated arrangement for Beneficiaries residing in Labrador, outside of LISA, to harvest for food social and ceremonial purposes in tidal waters of Upper Lake Melville, outside of LISA (12E area). The Aboriginal and treaty rights of the Labrador Inuit do not extend to the lands and waters in or near the Project Area.
Labrador Innu (Innu Nation)	
Location and Proximity to Project Area	The Labrador Innu claim Aboriginal rights and title to much of Labrador and parts of Québec. The Labrador Innu primarily reside in two communities: Sheshatshiu in central Labrador and Natuashish on the North Coast of Labrador (Figure 7-57). Small numbers of Innu also reside in HV-GB. Sheshatshiu is approximately 945 km from the Project Area and Natuashish is approximately 1,140 km from the Project Area.
General Overview	In 1978, the Labrador Innu land claim was accepted for negotiation by the Government of Canada. In 1991, following the completion of a land use and occupancy study, formal negotiations with the Governments of Canada and NL began. In 1996, a self-government framework agreement was signed and ratified in 1997. In 2008, the Government of NL and Innu Nation announced the Tshash Petapen (translated as “New Dawn”) Agreement, which resolved key issues related to the land claim, as well as impacts and benefits related to past and proposed hydroelectric developments in Labrador (Newfoundland and Labrador Intergovernmental and Indigenous Affairs Secretariat 2018). The three parties have completed detailed agreements, including a Land Rights Agreement-in-Principle (AIP), which was signed in 2011. Under the AIP, areas of Labrador have been designated as Labrador Innu Lands (LIL, Category 1), Labrador Innu Settlement Area (LISA, Category 2), Permit-Free Hunting Area (Category 3) or other designated lands under the AIP. The AIP is not legally binding and forms the basis of ongoing treaty negotiations that will result in a Final Agreement (Newfoundland and Labrador Intergovernmental and Indigenous Affairs Secretariat 2018; INAC 2018; Heritage NL 2018). The Project does not overlap with lands claimed by the Labrador Innu. The Sheshatshiu Innu and the Mushuau Innu of Natuashish are represented by Innu Nation in land claims negotiations and on other matters of common interest (INAC 2018). Sheshatshiu, located in central Labrador, was formerly part of North West River. In 1979, the Innu formed the community of Sheshatshiu, which is now a First Nation reserve with an elected Chief and Band Council (INAC 2017). The community of Natuashish was formed following the Innu’s relocation from the community of Utshimassit (Davis Inlet). Natuashish is a reserve with an elected Chief and Band Council (INAC 2018). The March 2018 registered population of the Labrador Innu was 2,728. Approximately 90% live on-reserve. Small numbers of Innu also reside in HV-GB and elsewhere. In 2016, the median age of the population of both First Nations (approximately 21.5 years) was less than half of that of the NL population in general (46 years) and the percentage of individuals below 15 years of age in Sheshatshiu (36.3%) and Natuashish (40.1%) was three times higher than that of the NL population (14.3%) (Statistics Canada 2017).
Health and Socioeconomic Conditions	Sheshatshiu and Natuashish are relatively small communities that offer services and infrastructure to their members and residents. Sheshatshiu is 40 km by road from the regional service centre of HV-GB and is accessible year-round. The Natuashish community is approximately 300 km north of HV-GB and is only accessible by plane or boat. Band Council and other agencies provide infrastructure and services such as schools, community recreation facilities, policing, firefighting and health care to both communities. Within Sheshatshiu, the RCMP and Health Canada have established a Sheshatshiu Crisis Intervention Team. The Labrador Grenfell Regional Health Authority provides health and community services to both communities. In Sheshatshiu, the Health Authority

Table 7.17 Newfoundland and Labrador Indigenous Groups Community Profiles

Community Indicator	Description
	and the Sheshatshiu Innu Health Commission operate a community health clinic with basic trauma and resuscitation equipment (Statoil 2017). In Natuashish, the Health Authority, in partnership with Mushuau Innu Health Commission, operates a community health clinic with an emergency room bed, basic trauma and resuscitation equipment and a defibrillator (Statoil 2017). Health issues within the communities include diabetes, youth mortality, teenage pregnancy and Fetal Alcohol Spectrum Disorder. The Innu Business Development Centre was created in 2001 to establish businesses and contribute to Innu communities. The Centre maintains a database of registered Innu businesses to facilitate business opportunities, and approximately 125 businesses were registered in April 2018. Innu Nation has invested in a range of businesses and partnerships to provide services mainly in construction and industrial supply (Innu Business Development Centre 2018). Sheshatshiu Innu First Nation Band Council is a major employer. Major employers in Natuashish include the Mushuau Innu First Nation Band Council, Mushuau Innu Health Commission, Mushuau Innu General Store and the Natuashish Hotel. Other major employers include Voisey's Bay and Muskrat Falls. As described in more detail below, Innu Nation holds several commercial communal licences for a variety of fish and marine species. Ueushuk Fisheries Ltd. holds a mid-shore groundfish licence for various areas and a shrimp licence.
Physical and Cultural Heritage (including archaeological, paleontological, historical, or architectural sites)	The Labrador Innu are descendants of Algonkian-speaking hunter-gatherers (Heritage NL 2018). The Innu were traditionally a nomadic people whose movements responded to the seasons and migrations of the animals (e.g., caribou) they relied upon for food and clothing. Labrador Innu culture and heritage are focused on their relationship to game animals most especially caribou, which is the focus of their philosophical and spiritual beliefs. For the Innu, Kanipinikassikueu (caribou master) is considered to the most powerful of the animal masters. Archaeologists have documented Innu presence as early 1,500 A.D. at interior sites from Northwest River to Davis Inlet in Labrador. The Innu gathered in coastal areas in summer and spent the winter in the interior. During the 19th century, the life of the Innu people began to change with the establishment of European fur-trading posts and permanent settlements in Labrador (Fitzhugh 1977; Heritage NL 2018). Nearly 500 Innu archaeological sites are known to be located throughout northern, central and western Labrador. The identified sites are in inland and coastal areas and were often discovered in relation to developments such as communities, roads, railways, and mining areas. There are no known physical, cultural or heritage sites within or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes Marine Mammal Harvesting	Following establishment of a permanent settlement in Sheshatshiu, women and children began to remain in the community for most of the year and men spent less time on the land harvesting and trapping. Nonetheless, the Sheshatshiu Innu continued to harvest a range of resources including caribou, black bear, small game and fish, in a relatively wide-ranging area not necessarily restricted to the lands and waterways surrounding the community (Nalcor 2011). An Outpost Program was established in the 1970s to help finance travel by Innu families to and from camps in the interior of Labrador and to enable Innu to travel into the country as an educational opportunity and community activity and to practice their traditional activities. In a 1997 study, approximately 42% of the Innu Nation population that participated in the survey indicated that they partake in country-based harvests year-round. Spring is the most active season, with 48% of participants spending at least one week on the land hunting, fishing and gathering wild foods (Nalcor 2011). The Labrador Innu currently undertake land and resource use activities on their traditional lands within Labrador. The core areas traditionally used by Sheshatshiu Innu are the headwaters of Eagle River, the area bounded by Winnokapau Lake, Smallwood Reservoir, Seal Lake and Nipishish Lake, Shipiskan Lake, Snegamook Lake and Shapio Lake and parts of Québec. More recently, Labrador Innu have also harvested along the

Table 7.17 Newfoundland and Labrador Indigenous Groups Community Profiles

Community Indicator	Description
	Trans Labrador Highway (TLH) between HV-GB and western Labrador. Various travel routes such as roads, snowmobile trails, walking trails, canoe and motorboat routes used by Labrador Innu have been recorded in southern Labrador, with a relatively high number of travel routes near the TLH between Churchill Falls and HV-GB and near Lake Melville (Alderon Iron Ore Corp [AIOC] 2012). In 2010, an Innu traditional land use study was conducted for a travel corridor from central to western Labrador, for the period between 1990 and 2010. In this study, Innu stated that caribou is the priority large animal and caribou harvesting holds high cultural importance. Innu identified caribou harvesting sites in the study area between Tshiashku-nipi (Gull Lake) and Churchill Falls. Small animals and partridge harvested in the study area included snowshoe hare, porcupine, spruce grouse, ruffed grouse, and willow ptarmigan. A variety of furbearing animals were trapped, snared and shot within the study area including beaver, muskrat, river otter, marten, mink, red fox, and Canada lynx. For small game, beaver was the priority animal (mainly for edible meat) followed by marten. No kill sites were reported by respondents for weasel or wolf. A variety of migratory waterfowl were harvested in the study area including American black duck, black scoter, Canada goose, common loon, northern pintail, blue-winged teal, harlequin duck, long-tailed duck, merganser, and surf scoter (Innu Nation 2010). The Innu hunt goose and duck near the TLH west of Churchill Falls, along the Churchill River and near Dominion Lake. Migratory waterfowl have been harvested around Crooks Lake and Parke Lake in southeastern Labrador, the shoreline of Lake Melville, along several roads between HV-GB and Sheshatshiu, on the south side of the Churchill River at Gull island, the Eagle River plateau, the Mud Lake/Upper Lake Melville area and near Sheshatshiu and North West River (AIOC 2012). Important bird areas and surrounding waters are known to be used by the Labrador Innu as part of their traditional harvesting areas and include the waters and islands of the Backway, Table Bay, St. Peter's Bay and the waters of Point Amour, which are used for sea duck and murre harvesting. Eider ducks, murres, and other species harvested around the Labrador Shelf, are an important source of food for Indigenous people (Intervale Associates Inc. 2012). Although there is limited publicly available information, it is understood that Innu harvest seals in coastal areas in the spring, summer and fall (VBNC 1997).
Commercial Communal Fishing	Innu Nation holds commercial communal licences for groundfish in NAFO 0, 2GHJ, 3KL, groundfish (mobile gear) in NAFO 2GHJ, 3KL, mackerel and capelin in Fishing Areas 1 to 11 (northern Labrador to Burgeo) and shrimp in Shrimp Area 4, 5, 6 (D. Ball, 2019 pers. comm.)., which is roughly from Rigolet to Postville. Ueushuk Fisheries Limited holds a mid-shore groundfish licence for various areas. This provides for harvesting a variety of species, including Greenland halibut in NAFO 2+3K, 3LMNO and 0B; skates in 3LNO and in 3Ps, 4X, 5Z (j,m) with bycatch permitted in several other areas; white hake in 3NO and 3Ps with bycatch permitted in other areas; Atlantic halibut in NAFO 3NOPs and 4VWX+5Zc with a science quota and a competitive reserve in other areas; and haddock in 5Z (j,m) with bycatch permitted in other areas. Ueushuk Fisheries also holds a shrimp licence for Shrimp Fishing Areas 6 and 7, which include areas from southern Labrador to southwest NL (D. Ball, pers. comm. 2019; Statoil 2017).
Food, Social, Ceremonial Fishing	Innu Nation holds FSC fishing licences for Sheshatshiu and Natuashish. The Sheshatshiu licence includes salmon, trout, and Arctic char in the area from Fish Cove Point north to Cape Harrison (between Rigolet and Postville), including Lake Melville and the inland waters of Little Lake and Grand Lake. The Natuashish FSC licence permits harvesting salmon, trout, and Arctic char in tidal waters of Labrador extending north and east from Cape Harrigan inclusive of Big Bay and south and east of Anaktalik Bay inclusive of Anaktalik and Anaktalik Bays, and the inland waters of Sango Pond and Big Sango Lake (D. Ball, pers. comm. 2019; Statoil 2017).

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Community Indicator	Description
Asserted or Established Aboriginal and / or Treaty Rights	Innu Nation asserts Aboriginal rights to land and resources within Labrador and to resources along the Labrador coast, including the right to hunt, fish, and gather throughout its traditional territory. This claim does not extend to the lands or waters in or near the Project Area.
NunatuKavut Community Council (NCC)	
Location and Proximity to Project Area	The NCC claims traditional territory that extends from central to southeastern Labrador. NCC members primarily reside in southern and central Labrador, along the southeast coast (Figure 7-57). The closest point of the NCC territory is approximately 550 km from the Project Area.
General Overview	Originally established as the Labrador Metis Association in 1985, the NCC is the governing body of a membership of over 6,000 persons who reside primarily in southeastern and central Labrador and who are collectively known as the Southern Inuit of NunatuKavut. The NCC has asserted a land claim covering most of central and southeastern Labrador. While this claim has not been accepted for negotiation by the federal and provincial governments, on July 12, 2018, the Government of Canada and the NCC committed to work together to advance reconciliation and renew their relationship based on recognition of rights, respect, co-operation and partnership. The Project Area does not overlap with lands claimed by NCC. NCC members live throughout Labrador and elsewhere, mainly in communities along the southeast coast from Hamilton Inlet south to the Labrador Straits, including the towns of Cartwright, Charlottetown, Port Hope Simpson, St. Lewis and Mary's Harbour and the communities of Paradise River, Black Tickle-Domino, Norman Bay, Pinsent's Arm, Williams Harbour, and Lodge Bay, as well as in central and western Labrador and elsewhere. Census data are not available specifically for NCC members as a group. In 2016, the population of the identified communities ranged from 15 or fewer to 427, with five communities (Paradise River, Pinsent's Arm, William's Harbour, Norman Bay and Lodge Bay) having fewer than 100 people. Where data are available, the median age is somewhat comparable to, or higher than the NL population in general (Statistics Canada 2017).
Health and Socioeconomic Conditions	The availability of community infrastructure within each community varies. For example, some communities have road access, airstrips, basic municipal services and nursing clinics, while others lack these services and residents must travel to other communities to access them (Martin et al. 2012). Health, policing, and education services also vary among the communities. RCMP travel to communities periodically from locations such as Mary's Harbour and Cartwright (Martin et al. 2012). Most communities have schools, but Paradise River, William's Harbour, Pinsent's Arm and Lodge Bay do not. Students from Pinsent's Arm and Lodge Bay travel to St. Mary's All Grade School in Mary's Harbour (Martin et al. 2012). Many of the communities have medical clinics, operated by Labrador-Grenfell Regional Health Authority. Clinics typically provide primary health care services and are staffed with nurses (Nalcor 2011). Generally, a physician and dentist visit each community every six weeks. A 2012 Health Needs Assessment outlined common health concerns such as high blood pressure, allergies, high cholesterol, arthritis, asthma, and diabetes. The NCC is invested in seasonal and year-round businesses including accommodations, convenience stores, and gas bars. As described in more detail below, the NCC holds several commercial communal fishing licences for a variety of fish and marine species. The major employer in southern Labrador communities is the fishery. Employing hundreds of individuals, the Labrador Fisherman's Union Shrimp Company has processing facilities in Cartwright, Charlottetown, Pinsent's Arm, Mary's Harbour and L'Anse au Loup (LFUSLC 2014). Nunacor Development Corporation (NDC) Fisheries Limited hold quotas for 450,000 lbs.

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Community Indicator	Description
	of snow crab as well as shrimp quotas and is required to hire NunatuKavut members as crew. A Mineral Exploration Activities Agreement was signed between Search Minerals and NunatuKavut on Aug 22, 2012. The Environmental Assessment is currently underway for the proposed Foxtrot Rare Earth Element Mine Project near St. Lewis.
Physical and Cultural Heritage (including archaeological, paleontological, historical, or architectural sites)	In the 17th century, the Labrador Inuit first encountered Europeans. In southern Labrador, these interactions were based on trade with seasonal fishers and whalers, with the first European trading post being established in North West River in 1743 to 1744. Intermarriage between the Labrador Inuit and European fur traders resulted in a generation of people of mixed descent who were born as early as 1775. Over time the population grew, and settlements were established throughout central and southern Labrador (Nalcor 2010; NCC 2018; Heritage NL 2018). Nearly 800 Inuit and Thule archaeological sites have been identified in northern, central and southern Labrador (the latter being the core area where most NCC members reside, and which is the focus of their land claim) and on the top of the Northern Peninsula on the island of Newfoundland. No known physical, cultural or heritage sites are located within or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	Members of the NCC place a high value on the importance of traditional foods, both in terms of their nutritional attributes and their cultural value. Members continue to rely upon the resources of the land, water and sea, and are known to undertake land and resource use activities throughout southern Labrador. They use the land in several ways as expressed through their movement along the overland and aquatic travel corridors, meeting in community gathering places, the establishment of habitation sites, trapper tilts and seasonal and permanent settlements (Clark and Mitchell 2010; Nalcor 2011; Martin et al. 2012). In 2014, the Iron Ore Company of Canada (IOC) gathered information from NCC members in Labrador West regarding their current land and resource use activities. Information gained from this study indicates that NCC members living in that region currently undertake a variety of land and resource use activities including hunting (i.e., big game, small game and waterfowl), trapping, fishing, ice fishing, cutting firewood and saw logs, collecting berries and medicinal plants, camping, boating, snowmobiling and all-terrain vehicle use. These activities occur throughout the western Labrador region, including areas adjacent to Labrador City and Wabush as well as at other locations along the TLH, roadways, the railway and snowmobile trails, near the Smallwood Reservoir and elsewhere. Some NCC members have cabins in Labrador West and around the Smallwood Reservoir but a larger number of cabins are located in central Labrador near their communities of origin (AMEC 2014). In this data collection exercise, 53% of Labrador West NCC members (of the 30 who participated in the survey) reported consuming traditional foods weekly. Species consumed include moose, caribou, bear, ptarmigan, grouse, hare, ducks, geese, porcupine, beaver, muskrat, squirrel, salmon, cod, trout, seal, partridgeberries, blueberries, bakeapples, black currants, red currants and squash berries. It should be noted that marine species (e.g. cod, salmon, seal) are not available in Labrador West and thus are harvested in coastal areas (AMEC 2014). A 2012 land use study also showed that members of NCC travel on the land and sea by truck, snowmobile, boat, foot, dog-team and snowshoes. Use of automobiles is currently the main mode of travel for accessing land use areas. In addition, NCC members use a network of snowmobile trails that connect North West River, HV-GB, Mud Lake and Churchill Falls with other communities in Labrador, including Labrador City, Wabush and Cartwright. These roads and trails are used by many Labrador residents, both Indigenous and non-Indigenous, for travel as well as to access land and resource use areas (NCC 2010; AIOC 2012). Traditional migratory bird harvesting areas in Labrador include the waters and islands of the Backway, Table Bay and St. Peter's Bay, which are used for sea duck harvesting and the waters of Point Amour, which are used for sea duck and murre harvesting. The NCC

Table 7.17 Newfoundland and Labrador Indigenous Groups Community Profiles

Community Indicator	Description
	has developed annual Spring Bird/Egg Harvest and Conservation Guidelines, which specify opening and closing dates, seasonal harvest of birds and gull eggs per household and associated restrictions. Members of NCC harvest a variety of birds, including geese and migratory birds such as black ducks (Intervale Associates Inc. 2012; AIOC 2012; NCC 2018). Members of NCC harvest marine mammals, with seals providing income and a source of meat.
Commercial Communal Fishing	The NCC is engaged in commercial communal fishing with licences held by the NCC or NDC Fisheries Limited. The NCC holds seal harvesting licences in Sealing Areas 4 to 33 (all of Atlantic Canada). NDC Fisheries operates enterprises for groundfish in NAFO 2GHJ, 3KL and 4RS; scallop in Scallop Areas 1 and 2 (most of coastal Labrador); shrimp in Shrimp Area 6 (southern Labrador and northern Newfoundland; whelk in NAFO 2J; holds licences for northern shrimp in Shrimp Fishing Area (SFA) 5, snow crab, capelin, herring and toad crab in southern Labrador; and bait in the Area of Home Port (D. Ball, pers. comm. 2019; Statoil 2017).
Food, Social, Ceremonial Fishing	The NCC holds FSC fishing licences for a variety of species. A licence for salmon, trout, Arctic char, Atlantic cod, rock cod, herring, scallop, whelk, smelt, and seal is held for a coastal area from Fish Cove Point to Cape Charles (central to southern Labrador). The NCC also holds a licence for salmon, trout, and Arctic char in the tidal waters of Upper Lake Melville. The Atlantic salmon fishery remains an integral part of the way of life. NCC members have been documented as fishing throughout central and southeastern Labrador, including around HV-GB, Grand Lake and its tributaries, Sebaskachu Bay and Sebaskachu River, Mud Lake, Traverspine River, the mouths of Caroline Brook, McKenzie River and lakes south of the Churchill River, including Minipi Lake and Dominion Lake (AIOC 2012; D. Ball, pers. comm. 2019; Statoil 2017). The NCC also holds a licence for seals, which are harvested on the coast from Fish Cove Point to Cape Charles (NCC 2010; AIOC 2012; D. Ball, pers. comm. 2019; Statoil 2017).
Asserted or Established Aboriginal and / or Treaty Rights	The NCC asserts Aboriginal and treaty rights to land and resources within Labrador and to resources along the Labrador coast, including the right to hunt, fish, and gather throughout its traditional territory. This claim does not extend to the lands or waters in or near the Project Area.
Qalipu Mi'kmaq First Nation (QMFN) Band	
Location and Proximity to Project Area	QMFN Band members live in 67 communities throughout NL and in other areas (Figure 7-57). The Band's main administrative office is in Corner Brook and satellite offices are in Glenwood, Grand Falls-Windsor and St. George's (QMFN 2016; INAC 2018). Glenwood (the closest QMFN community) is approximately 450 km from the Project Area.
General Overview	In 1972, the Federation of Newfoundland Indians (FNI) was formed with the primary goal of obtaining recognition for Mi'kmaq people in NL under the *Indian Act*. In 2008, the Government of Canada signed an agreement with the FNI to establish a landless Band for the Mi'kmaq of NL. The Agreement is not a treaty within the meaning of section 25 and section 35 of the *Constitution Act*, 1982. The signed Agreement initiated the enrolment process for the Mi'kmaq of Newfoundland (QMFN 2016; INAC 2018). In September 2011, QMFN was established as an Indian Band under the *Indian Act* and 23,877 members were found eligible and registered as founding members (QMFN 2016). It is anticipated that the founding member list will be finalized in 2018 (INAC 2018). The QMFN has not signed treaties with the Crown and there is currently no land base associated with the QMFN Band.

Table 7.17 Newfoundland and Labrador Indigenous Groups Community Profiles

Community Indicator	Description
Health and Socioeconomic Conditions	As QMFN members live in an identified 67 communities throughout NL and these communities are not exclusively occupied by Qalipu Mi'kmaq, consolidated information on infrastructure and services, economic conditions, and community health is not readily available. Members access services and programs provided by municipal and provincial agencies, private businesses and service agencies in communities and regions where they reside. QMFN has identified health concerns such as chronic disease including diabetes, mental health and addictions, and communicable diseases. Economic and corporate development are led by the Qalipu Development Corporation (QMFN 2016). QMFN has several wholly-owned commercial enterprises including Mi'kmaq Commercial Fisheries Incorporated (MCF), Qalipu Management Services Incorporated, Qalipu Marine Holdings and Qalipu Project Support Services Limited. Business partnerships have been negotiated and implemented between QMFN and several different construction firms. Marine Contractors Inc. Qalipu was created as a partnership between QMFN and Marine Construction to enable QMFN to bid on civil construction opportunities from Emera NL. Other business entities are Qalipu Project Support Services, Qalipu Safety and Industrial Supply, and Eastern Door Logistics. In 2016 to 2017, the QMFN earned revenues of $10.2 million and had total expenditures of $9.6 million (QMFN 2017). As described in more detail below, the QMFN and MCF holds several commercial communal fishing licences for a variety of fish and marine species. The QMFN and the MFN have a joint fisheries initiative, Mi'kmaq Alsumk Moiwimsikik Koqoey Association (MAMKA) which holds commercial communal licences for different fish and marine species.
Physical and Cultural Heritage (including archaeological, paleontological, historical, or architectural sites)	Historical evidence demonstrates that the Mi'kmaq were living in NL by the 16th century; by the 17th century there are increasing historical references (Heritage NL 2018). Limited publicly-available information exists on historic and cultural Qalipu sites; however, one has been identified (seal rocks near the Town of St. George's on the west coast (St. George's Indian Band 2017). Currently, 21 known Mi'kmaq archaeological sites exist in interior and coastal NL between the Port au Port Peninsula and Clarenville (Inside NL Archaeology 2013). In terms of culture, QMFN's practices and resources are focused on the lands and waters of the Island of Newfoundland. There are no known physical, cultural or heritage sites within or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The QMFN undertake current land and resource use activities on their traditional lands which are extensive areas of land, sea, and water. Important sources of traditional food include moose, caribou, partridge, snowshoe hare, salmon, trout, eel, shellfish, and wild berries. Migratory birds, seals, and groundfish are harvested but of lesser importance. Groundfish, pelagic fish, shellfish, and seal harvesting are also of importance to the Mi'kmaq on the west coast of NL. Qalipu Natural Resources is undertaking studies to understand and monitor specific species, including Arctic hare, woodland caribou, elver and glass eel, commercial eel, Atlantic salmon, and eelgrass, as well as invasive species such as golden star tunicate and the European green crab. Qalipu Natural Resources is also engaged in a DFO Aboriginal Fisheries Guardian Program in western and central NL (Emera NL 2013; QMFN 2016; QMFN 2017). Harvesting birds such as murre (also called turr) and seals are also considered important traditional activities.

Table 7.17 Newfoundland and Labrador Indigenous Groups Community Profiles

Community Indicator	Description
Commercial Communal Fishing	QMFN and MCF hold commercial communal fishing licences. These include groundfish licences in NAFO 2J, 3Pn, 4RST, 2GHJ and 3KL. The QMFN also has licences to harvest lobster in Lobster Areas 3, 4B, 13A, 13B (eastern and western NL) and snow crab in Snow Crab Areas 3B, 4, 12, 12C, 12E and 12F (eastern and western NL). Various mackerel fishing licences are held in Mackerel Areas 1-11, 3, 4, 12, 13, 14 and 13B (coastal Labrador, and eastern and western NL). The Qalipu has licences for herring for Herring Area 3-8, 13, and 14 (western NL); squid in Squid Areas 3, 4 and 13 (eastern to western NL); scallop in Scallop Area 13 (western NL); capelin in Capelin Areas 1-11 and 12, 13, 14 (northern Labrador to western NL); whelk in Whelk Area 13 and 3K (western NL); shrimp in Shrimp Area 6 (northern NL) and licences to harvest bait in the Area of Home Port or Lobster Areas 3, 4B, 13A and 13B. Qalipu First Nation also has licences for eel and smelt (D. Ball, pers. comm. 2019; Statoil 2017; QMFN 2017). MAMKA also holds commercial communal licences for a variety of species including groundfish in NAFO 2GHJ, 3KL, 3Pn, 3Ps in offshore NL and 4RST in western NL; whelk in NAFO 3Ps; snow crab in Snow Crab Areas 10, 11, 12 C and 12E (southern and western NL); herring in Herring Areas 10 and 13 (Placentia Bay and western NL); capelin in Capelin Area 10 (Placentia Bay); lobster in Lobster Areas 13A and 13B (western NL); and bait in the Area of Home Port or Lobster Areas 13A and 13B. MAMKA also hold a commercial communal scallop licence in 3Ps (D. Ball, pers. comm. 2019; Statoil 2017).
Food, Social, Ceremonial Fishing	There are currently no FSC licences issued for the QMFN (D. Ball, pers. comm. 2019).
Asserted or Established Aboriginal and / or Treaty Rights	It is the Operator's understanding that the QMFN Band has not asserted or established Aboriginal or treaty rights in relation to the lands and waters in or near the Project Area.
Miawpukek First Nation (MFN)	
Location and Proximity to Project Area	Miawpukek Mi'kamawey Mawi'omi First Nation (Miawpukek First Nation or MFN) is comprised of one reserve, the Samiajij Miawpukek reserve, located at the mouth of the Conne River on the south coast of the Island of Newfoundland (Figure 7-57) (BP 2017; Statoil 2017). The community is approximately 520 km from the Project Area.
General Overview	According to traditional oral history, the Samiajij Miawpukek community was established in 1870. It was officially designated as Samiajij Miawpukek Indian Reserve under the *Indian Act* in 1987 (MFN 2018). In 2004, self-government framework agreement negotiations began between MFN and the federal and provincial governments and an agreement was signed in 2005. In 2013, MFN signed a Self-Government AIP with the governments of Canada and NL. The AIP is not a treaty or a land claims agreement within the meaning of sections 25 and 35 of the *Constitution Act, 1982*. The Agreement was an important step towards self-government and planning and management of economic opportunities and delivery of services to address community needs in culture and language, education, health, child and family services, land management, resource management, licensing, regulation and operation of business, and administration of justice. Progress is being made toward a final agreement (Government of NL 2013; MFN 2018; INAC 2018). The March 2018 registered population of MFN was 3,041 (INAC 2017). Approximately 27% live on-reserve. In 2016, the reserve population was 956, an increase of 3.9% since 2011. Overall, the population is younger than the NL population (Statistics Canada 2017; INAC 2018).

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Community Indicator	Description
Health and Socioeconomic Conditions	The MFN community is accessible year-round by road. In 2017, the MFN opened a new school in the community, accommodating 180 students from kindergarten to grade 12. The school also includes a dental office and daycare centre. Conne River Health and Social Services provides access to community health services, including a medical clinic, wellness centre, youth centre, nutrition centre, ambulance services and on-call nurses. The MFN community owns and operates small businesses such as Christmas tree farms, hunting camps and small fisheries, and the Miawpukek Gas Bar and Convenience Store (INAC 2012). The community has also partnered with several outside communities and corporations in ventures including tourism and aquaculture (INAC 2012). The MFN community also owns and operates the Jipuijij'kuei Kuespem Nature Park which provides camping, kayak/canoe rentals, walking trails and float plane charters (Explore NL 2010). As described in more detail below, the MFN holds several commercial communal licences for a variety of fish and marine species.
Physical and Cultural Heritage (including archaeological, paleontological, historical, or architectural sites)	Some historical evidence demonstrates that the Mi'kmaq were present in NL by the 16th century; by the 17th century there are increasing historical references (Heritage NL 2018). Currently, 21 known Mi'kmaq archaeological sites exist in interior and coastal NL between the Port au Port Peninsula and Clarenville (Inside NL Archaeology 2013). There are no known physical, cultural or heritage sites in or near the Project area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'kmaq continue to use extensive areas of land, sea, and water for recreational and subsistence purposes such as hunting for caribou, moose, partridge and snowshoe hares; fishing for species such as Atlantic salmon; and harvesting of wild berries (Emera NL 2013). Salmon is important not only as a food source but is also important to the traditions and cultural identity of MFN. Harvesting birds such as murre (also called turr) and seals are also considered important traditional activities.
Commercial Communal Fishing	MFN is engaged in commercial communal fishing through its own licences and those held by MAMKA. MFN holds commercial communal licences for groundfish in NAFO 2GHJ, 3KL, 3Pn and 3Ps, groundfish (mobile gear) in 2GHJ, 3KL, 3Pn, 3Ps, 4R, bluefin tuna in NAFO 3LNOP Atlantic, and seal in Areas 4 to 33 (all of Atlantic Canada). The First Nation also holds licences for sea cucumber and whelk in NAFO 3Ps (southern NL); capelin in Areas 1-11 (northern Labrador to southern NL); herring in Area 11 (southern NL); mackerel in Areas 1-11 (northern Labrador to southern Newfoundland); snow crab in Areas 10 and 11 (southern NL); and squid in Squid Area 10 (Placentia Bay). The MFN also holds licences for other tuna species (3LNOP-Atlantic), swordfish (3LNOP-Atlantic), scallop (3Ps), and bait in Capelin Fishing Area 10-11. In addition, MFN also holds tuna and swordfish licences for the Scotia-Fundy region (D. Ball, pers. comm. 2019; Statoil 2017).
Food, Social, Ceremonial Fishing	MFN holds FSC licences in the coastal waters of 3Ps, which is in southern NL. This licence includes scallop, lobster, mackerel, herring, rainbow trout, brook trout, Atlantic cod, eel, smelt, capelin, harp seal, grey seal, snow crab, and redfish (D. Ball, pers. comm. 2019; Statoil 2017). Fishing areas are in a designated area in Western Head, Hare Bay (D. Ball, pers. comm. 2019).
Asserted or Established Aboriginal and / or Treaty Rights	It is BHP's understanding that MFN has not asserted or established Aboriginal or treaty rights in relation to the lands and waters in or near the Project Area.

7.4.2 The Mi'kmaq People of Eastern Canada

For more than 11,000 years the Mi'kmaq people have existed on the land, based on the earliest evidence of Indigenous peoples in the Maritimes Region (Nova Scotia Office of Aboriginal Affairs [NS OAA] 2018). During the 16th and 17th centuries, when the traditional Mi'kmaq territory (known as Mi'kma'ki) stretched from the southern portions of the Gaspé Peninsula eastward to most of modern-day NB, and the entirety of NS and PEI, the first European contact with the Mi'kmaq occurred (NS OAA 2018). The Mi'kmaq remain the predominant Indigenous group in NS as well as PEI, and have a substantial presence in NB, parts of northern Maine and eastern QC.

The Mi'kmaq generally lived in semi-permanent or permanent settlements at resource-rich locations with summer villages typically located by a navigable body of water (Mi'kma'ki All Points Services 2013). Within the context of seasonal cycles of the local vegetation, animals, and fish, the Mi'kmaq people lived as fishers, hunters and gatherers throughout their territory (Membertou Geomatics Solutions [MGS] 2016). Summer settlements, in coastal areas, provided access to fish, shellfish, fowl, and eggs (MGS 2016); while winter settlements allowed for game-harvesting, inland from the summer camps (Speck 1922, in MGS 2016; Denys 1993, in MGS 2016). The Mi'kmaq would move the encampment to a new location, when resources such as fish, game and plants became scarce near an encampment. The women would be mainly responsible for breaking camp, transporting, and establishing the new camp (Robertson 1969, in MGS 2016; Speck 1922, in MGS 2016).

Following European contact, the Mi'kmaq participated in fur and other internal trade activities and were historically tied with French colonial forces against the British. Conflict between the British and the French, ultimately involved the Mi'kmaq. In 1726, 1749, 1752, and 1760-61, the Mi'kmaq and the British signed Peace and Friendship Treaties. The treaties became the responsibility of the Government of Canada after Confederation in 1867. Today, existing Aboriginal rights and treaty rights, such as those established in the Peace and Friendship Treaties, are recognized as constitutionally protected under section 35 of the *Constitution Act, 1982*. These Treaties, as affirmed by recent Supreme Court of Canada decisions, guarantee the right to harvest, fish, and gather throughout the region to pursue a moderate livelihood. Canada is currently working with Indigenous Groups to uphold treaty rights in NS, NB, PEI, and the Gaspé region of QC (Indigenous and Northern Affairs Canada [INAC] 2017). The Mi'kmaq also assert Aboriginal rights and title throughout their traditional territory.

Some Mi'kmaq First Nations hold commercial communal licences for NAFO divisions of eastern NL that overlap with the Project Area. In addition, migratory species that may use the Project area during their life cycles and processes, are harvested by Mi'kmaq First Nations in coastal areas through FSC or other traditional harvesting activities. The focus of the discussion of current use of lands and resources for traditional purposes by Mi'kmaq First Nations is on activities occurring in the marine environment, and species of cultural importance that may migrate through the marine environment in or near the Project Area.

7.4.3 Mi'kmaq of Nova Scotia

The 13 Mi'kmaq communities in NS are:

- Acadia First Nation
- Annapolis Valley First Nation
- Bear River First Nation
- Eskasoni First Nation
- Glooscap First Nation
- Membertou First Nation
- Paq'tnkek Mi'kmaw Nation
- Pictou Landing Frist Nation
- Potlotek First Nation
- Wagmatcook First Nation
- We'koqma'q (Waycobah) First Nation
- Sipekne'katik First Nation
- Millbrook First Nation

The Mi'kmaq of NS have an established Aboriginal right to hunt, trap, and fish on ancestral lands, such as the right to fish for FSC purposes. Commercial communal fishing is also a right for the Mi'kmaq of NS through the treaty right to harvest, fish and gather for a moderate livelihood, as established in the Peace and Friendship Treaties. The Mi'kmaq of NS also Aboriginal title to the lands of NS and the adjacent offshore up to the 200 mile limit. The Mi'kmaq use the lands and waters in traditional territories for travel, harvesting, hunting and fishing for traditional and commercial purposes. Although the traditional territory of the Mi'kmaq does not extend to the Project Area, some Mi'kmaq First Nations hold commercial communal licences for NAFO Unit areas that overlap with the Project Area. Through FSC or other traditional harvesting activities, Mi'kmaq First Nations may also harvest marine migratory species in coastal areas.

To resolve outstanding issues related to Mi'kmaq Aboriginal and treaty rights, the Mi'kmaq and governments of NS and Canada signed an Umbrella Agreement in 2002 to establish a "Made-in-Nova Scotia" negotiation process. Among other issues, the Agreement includes the interests of the Mi'kmaq with respect to land, resource management and environmental protection. The three parties signed a Framework Agreement in 2007 to establish negotiations towards a resolution of issues respecting Mi'kmaq rights and title (NS OAA 2018).

In 2010, after a three-year pilot period, the Mi'kmaq communities, through the Assembly of Nova Scotia Mi'kmaq Chiefs, signed an historic agreement with the Governments of Canada and NS. The parties are to follow a consultation process, laid out in the Mi'kmaq-Nova-Scotia-Canada Consultation Terms of Reference when governments are making decisions that have the potential to adversely impact asserted Mi'kmaq Aboriginal and treaty rights. The Terms of Reference were developed under the Umbrella Agreement.

Throughout NS, from Cape Breton to the Yarmouth area, there are thirteen Mi'kmaq First Nation communities, with elected Chiefs and Councils. The Assembly of Nova Scotia Mi'kmaq Chiefs (ANSMC) currently represent eleven of those communities. Negotiations and consultation on decisions / actions that may affect Mi'kmaq Aboriginal or treaty rights are coordinated by the Kwilmu'kw Maw-klusuaqn Negotiation Office (KMKNO), the administrative office of the Assembly. Sipekne'katik and Millbrook First Nations withdrew from the ANSMC's consultation process in 2013 and 2016, respectively, and now represent themselves in consultation through their own community structures. The Sipekne'katik First Nation and Millbrook First Nation assert the same rights as the other Mi'kmaq communities.

The locations of Mi'kmaq communities in NS are illustrated in Figure 7-58. Community profiles for the 13 Mi'kmaq communities located in NS are provided in Table 7.18.

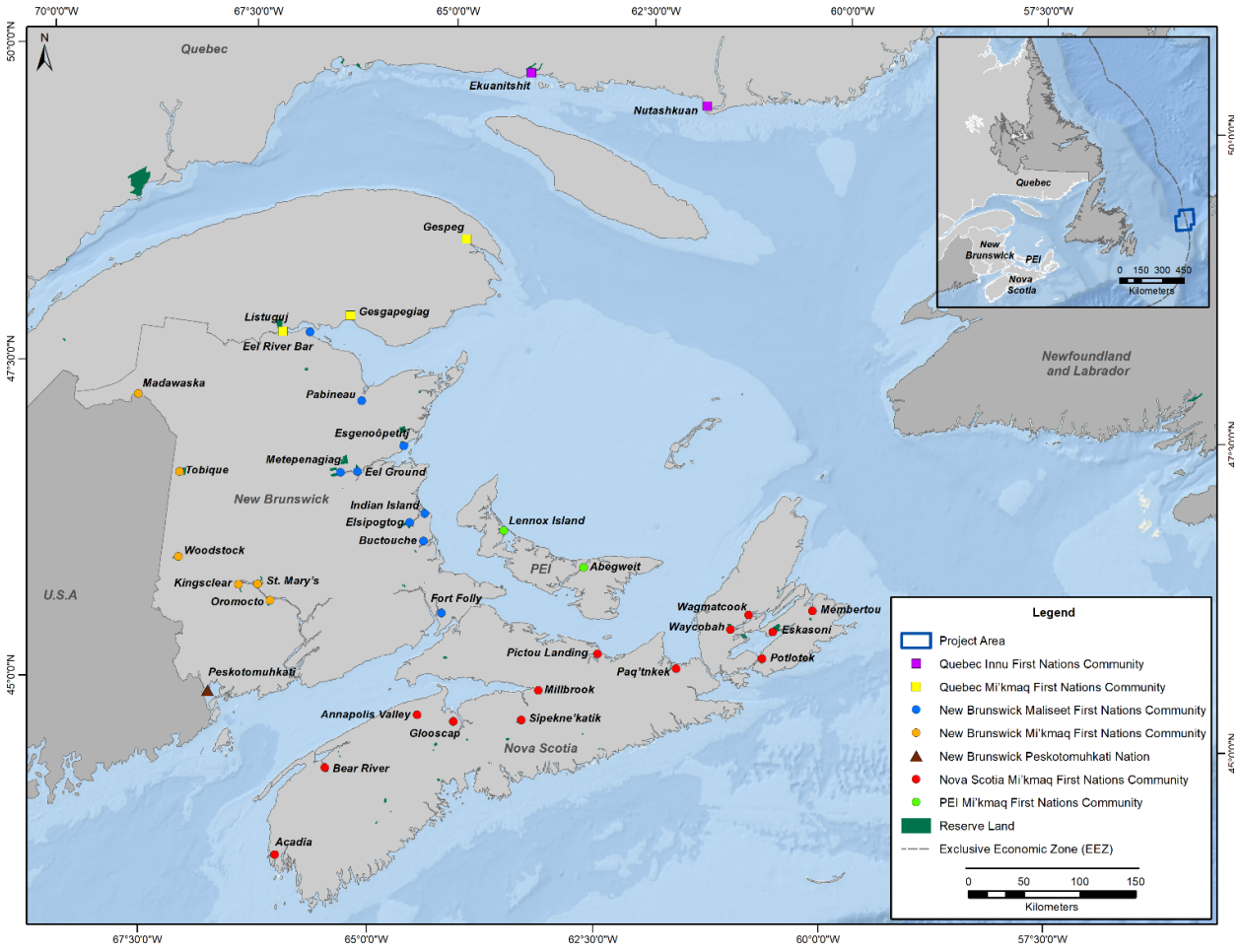

Figure 7-58 Indigenous Communities of the Maritime Provinces and Quebec

Table 7.18 Mi'kmaq of Nova Scotia Community Profiles

Community Indicator	Description
Acadia First Nation	
Location and Proximity to Project Area	Acadia First Nation, which is centred in Queen's County in southwestern NS, has six reserves (i.e., Yarmouth 33, Ponhook Lake 10, Medway River 11, Wildcat 12, Gold River 21, and Hammonds Plains) between Yarmouth and Halifax. These reserves are approximately 1,420 km from the Project Area.
General Overview	Acadia First Nation is represented by the ANSMC.The March 2018 registered population of Acadia First Nation was 1,545. Approximately 15% (232 individuals) live on-reserve (INAC 2018). The median age of the on-reserve population ranges from 33.8 to 38.2 years, approximately 10% below that of NS in general, which was 45.5 years in 2016 (Statistics Canada 2017). No data are available for Medway River Reserve.
Health and Socioeconomic Conditions	The availability of infrastructure within each community varies. In general, Acadia First Nation has experienced infrastructure growth over the past decade, including the development of housing and roads (Acadia First Nation n.d.). Development and operation of community infrastructure, such as administrative buildings, health centres and gaming facilities, provide services and employment for community members and revenue for the First Nation. Acadia First Nation holds commercial communal licences for a variety of fish and marine species. Kespuwick Resources, established in 2001, has 53 harvesting licences for 13 species (Acadia First Nation 2018).
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	Indigenous artifacts have been found along the Mersey River in Queen's County. An interpretive centre is being developed to display archaeological and cultural history of the First Nation. The Project does not overlap with the traditional territory of the Mi'kmaq of NS, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'kmaq of NS harvest Atlantic salmon as part of their Aboriginal right to fish for FSC purposes. The practice of salmon fishing creates opportunities for traditional knowledge sharing and expressing Mi'kmaq values of sharing catches with the community, and other uses specific to salmon that cannot be replaced by harvesting other species (UINR 2018). American eel is also harvested within Aboriginal rights-based fisheries. The Mi'kmaq of NS also exercise their Aboriginal and Treaty rights to harvest American eel. In addition to being a rich food source, American eel is used for medicinal purposes.
Commercial Communal Fishing	Acadia First Nation holds commercial communal licences for species including swordfish, tuna, snow crab, jonah crab, groundfish, herring, lobster, scallop, clam and marine worm. Lobster is licenced for Lobster Fishing Areas (LFAs) 33 and 34 (Licensing Services, DFO, pers. comm. 2019). These licences are located inshore and offshore NS, and thus not within or near the Project Area. The Acadia First Nation holds commercial communal licences for swordfish in NAFO divisions that overlap with the Project Area (MacDonald, DFO, pers. comm. 2019).
Food, Social, Ceremonial Fishing	Acadia First Nation hold several FSC fishing licences for blue shark, gaspereau, herring, mussel, seal, smallmouth bass, soft-shell clams, striped bass, quahaug, razor clams, eel, mackerel, shad, smelt, bar clams, haddock, pollock, white perch, yellow perch, scallop, and catfish (Newbould, DFO, pers. comm. 2019). The First Nation also hold an FSC licence to fish for groundfish (cod and halibut), lobster, and crab (other than snow crab). Lobster is licenced in LFA 33, 34, and 35. Acadia First Nation also has an Aboriginal right to fish for Atlantic salmon (including landlocked salmon) for FSC purposes. Other species harvested include brook trout, periwinkle, rainbow trout, squid and tomcod.

Table 7.18 Mi'kmaq of Nova Scotia Community Profiles

Community Indicator	Description
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'kmaq of Nova Scotia possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Annapolis Valley First Nation	
Location and Proximity to Project Area	Annapolis Valley First Nation has two reserves (Annapolis Valley (Cambridge) and St. Croix 34) located in Kings County in southwestern NS. The reserves are approximately 1,260 km from the Project Area.
General Overview	Annapolis Valley First Nation is represented by the ANSMC. The March 2018 registered population of Annapolis Valley First Nation was 292. Approximately 40% (119 individuals) live on-reserve (INAC 2018). The median age of the population of the reserves range from 29.5 to 37.2 years, approximately 12% below that of NS in general, which was 45.5 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	The Annapolis Valley First Nation Health Centre, established in 1998, has a registered community health nurse, access to prevention and weight control programs, foot care clinics, prenatal programs, massage therapy, physical activity programs, drug and alcohol abuse prevention, suicide prevention, injury / illness prevention and health and wellness promotion. The reserves do not have police detachments or fire halls (Annapolis Valley First Nation n.d.). Economic enterprises include Annapolis Valley First Nation Gaming, Annapolis Valley First Nation Smoke Shop, and Annapolis Valley First Nation Gas Bar. Annapolis Valley First Nation holds commercial communal licences for a variety of fish and marine species. The Annapolis Valley Commercial Fisheries enterprise operates one lobster fishing boat.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	Annapolis Royal and surrounding areas have a long history of Mi'kmaq presence and archeologists have identified several settlement patterns. When Europeans arrived, the Mi'kmaq lived in Annapolis Valley and their lifestyles were heavily influenced by the seasonal patterns of the ecosystems and a strong connection to the land. The Project does not overlap with the traditional territory of the Mi'kmaq of NS, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'kmaq of NS harvest Atlantic salmon as part of their Aboriginal right to fish for FSC purposes. Salmon fishing creates opportunities for traditional knowledge sharing and expressing Mi'kmaq values of sharing catches with the community, and other uses specific to salmon that cannot be replaced by harvesting other species (UINR 2018). The Mi'kmaq of NS also harvest American eel within Aboriginal rights-based, treaty rights-based and commercial fisheries. In addition to a rich food source, American eel is also used for medicinal purposes.
Commercial Communal Fishing	Annapolis Valley First Nation holds commercial communal licences for sea urchins, groundfish, herring, lobster, marine worm, gaspereau and sea scallop for inshore and offshore NS, and these do not intersect with the Project Area. Lobster is licenced for LFA 34 and 35 (Licensing Services, DFO, pers. comm. 2019).
Food, Social, Ceremonial Fishing	Annapolis Valley First Nation holds FSC licences for clams, eel, flounder, gaspereau, halibut, herring, lobster, mackerel, mussels, pollock, scallop, shad, smelt, smallmouth bass, striped bass, chain pickerel, oysters. Fish and shellfish species, including mussels, clams, mackerel, and herring are harvested in tidal waters of NS. Annapolis First Nation also holds an FSC licence to fish for groundfish, lobster and scallop in NAFO units in and around NS. Annapolis Valley First Nation also has an Aboriginal right to fish for Atlantic salmon for FSC purposes (Newbould, DFO, pers. comm. 2019). As these licences are for areas around NS, none are located within or near the Project Area. Other species harvested include brown, rainbow, and speckled trout.

Table 7.18 Mi'kmaq of Nova Scotia Community Profiles

Community Indicator	Description
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'kmaq of Nova Scotia possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Bear River First Nation	
Location and Proximity to Project Area	Bear River First Nation (also known as L'sitkuk Mainland) is located in the Annapolis Valley between Annapolis Royal and Digby. Bear River has three reserves: Bear River, Bear River 6A (known as Lequille), and Bear River 6B (known as Graywood) (KMKNO n.d.; INAC 2018). Bear River First Nation is approximately 1,355 km from the Project Area.
General Overview	The Bear River reserve was founded in 1801, with 1,000 acres set aside for the Mi'kmaq in the County of Annapolis and an additional 600 acres requested at the forks of the river (Mainland Mi'kmaq Development Inc. 2016). Bear River First Nation is represented by the ANSMC. The March 2018 registered population of Bear River First Nation was 343. Approximately 32% (111 individuals) live on-reserve (INAC 2018). The median age (i.e., 29.7 years) of the population was approximately 16% below that of NS in general, which was 45.5 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	The majority of community members live on Bear River 6 (Mainland Mi'kmaq Development Inc. 2016). Community infrastructure includes a Treaty Gas Bar, a seasonal Heritage and Cultural Centre, a Learning Centre that provides space for educational activities, and a Health Centre. An RCMP satellite office recently opened, and there are plans for a Fitness Centre. Revenue is generated through the Gas Bar and Heritage and Cultural Centre. As described in more detail below, Bear River First Nation holds commercial communal licences for lobster and tuna.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	For thousands of years, the Bear River Mi'kmaq have lived and travelled in what is now known as Digby and Annapolis counties. As early as 1612, the Mi'kmaq have been recorded as harvesting resources in the Annapolis River and French Bay (Bay of Fundy) (Mainland Mi'kmaq Development Inc. 2016). The traditional economy was based on hunting, fishing, and gathering, with people travelling a great deal in search of game. Bear River appeared to have been a capital village for the southwestern bands and central meeting place for the Mi'kmaq due to the location on traditional water routes. Bear River First Nation members are known for their artwork, specializing in embroidering porcupine quills on birchbark, leatherwork, and basketry (Mainland Mi'kmaq Development Inc. 2016). The Project does not overlap with the traditional territory of the Mi'kmaq of NS, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'kmaq of NS harvest Atlantic salmon as part of their Aboriginal right to fish for FSC purposes. Salmon fishing creates opportunities for traditional knowledge sharing and expressing Mi'kmaq values of sharing catches with the community, and other uses specific to salmon that cannot be replaced by harvesting other species (UINR 2018). The Mi'kmaq of NS also harvest American eel within Aboriginal rights-based, treaty rights-based and commercial fisheries. In addition to a rich food source, American eel is also used for medicinal purposes.
Commercial Communal Fishing	Bear River First Nation holds commercial communal licences for clams, lobster and tuna. These licences are located inshore and offshore NS and do not overlap with the Project Area. Lobster fishing is licenced in LFA 34 and 35 (Licensing Services, DFO, pers. comm. 2019).

Table 7.18 Mi'kmaq of Nova Scotia Community Profiles

Community Indicator	Description
Food, Social, Ceremonial Fishing	Bear River First Nation holds several FSC licences for bar clam, groundfish, gaspereau, herring, landlocked salmon, mackerel, mussel, quahaug, razor clam, smallmouth bass, soft-shelled clam, American eel, striped bass, shad, smelt, lobster, crab (other than snow crab) scallop, and seal. These include licences to harvest species within the inland and tidal waters of NS and NAFO units in and around NS. Bear River First Nation also has an Aboriginal right to fish for Atlantic salmon for FSC purposes (Newbould, DFO, pers. comm. 2019). Trout is also harvested by Bear River Nation. None of these licences overlap with the Project Area.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'kmaq of Nova Scotia possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Eskasoni First Nation	
Location and Proximity to Project Area	Eskasoni First Nation is comprised of three reserves (Eskasoni 3, Eskasoni 3A, and Malagawatch 4) located along the shore of the Bras d'Or Lakes in Cape Breton. Eskasoni First Nation is approximately 935 km from the Project Area.
General Overview	Eskasoni First Nation is represented by the ANSMC. The March 2018 registered population of Eskasoni First Nation was 4,535. Approximately 85% (3,857 individuals) live on-reserve (INAC 2018). The median age of the population (i.e., 23.5 years) is approximately 22% below that of NS in general, which was 45.5 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Eskasoni First Nation has community-owned infrastructure including a school for students from kindergarten to grade 12, a supermarket, ice rink, a cultural centre, and a fire department. The community operates Crane Cove Seafoods, which has 13 vessels. More than 100 community members are employed in fishing, with an additional 35 working in the processing plant. Eskasoni First Nation holds commercial communal licences for a variety of fish and marine species. Harvesting takes place throughout NS from Ingonish to Yarmouth.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	Eskasoni First Nation was first chartered in 1832 and became an official reserve in 1834. The population of Eskasoni grew in the 1940s because of a Department of Indian Affairs policy to centralize Indigenous people (Eskasoni First Nation n.d.). Eskasoni First Nation began controlling their own affairs in the 1950s and a Band Council was established in 1958 (Eskasoni First Nation n.d.). The Project does not overlap with the traditional territory of the Mi'kmaq of NS, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'kmaq of NS harvest Atlantic salmon as part of their Aboriginal right to fish for FSC purposes. Salmon fishing creates opportunities for traditional knowledge sharing and expressing Mi'kmaq values of sharing catches with the community, and other uses specific to salmon that cannot be replaced by harvesting other species (UINR 2018). The Mi'kmaq of NS also harvest American eel within Aboriginal rights-based, treaty rights-based and commercial fisheries. In addition to a rich food source, American eel is also used for medicinal purposes.
Commercial Communal Fishing	Eskasoni First Nation holds commercial communal licences for snow crab, groundfish, herring, lobster, and shrimp. These licences are in inshore and offshore areas of NS. Lobster fishing is licenced in LFA 28 (Licensing Services, DFO, pers. comm. 2019).

Table 7.18 Mi'kmaq of Nova Scotia Community Profiles

Community Indicator	Description
Food, Social, Ceremonial Fishing	Eskasoni First Nation holds FSC fishing licences for clams, cod, eel, flounder, haddock, herring, lobster, mackerel, mussels, quahaug, salmon, scallop, shad, smelt, trout, small mouth bass, striped bass, white perch, yellow perch, chain pickerel, pollock, and oyster within the inland and tidal waters of Cape Breton. Eskasoni holds a FSC licence to fish other species including groundfish and lobster in NAFO units in and around NS. Eskasoni First Nation also has an Aboriginal right to fish for Atlantic salmon for FSC purposes (Newbould, DFO, pers. comm. 2019).
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'kmaq of Nova Scotia possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Glooscap First Nation	
Location and Proximity to Project Area	Glooscap First Nation, comprised of one reserve (Glooscap 35), is located northwest of Halifax near Hantsport, approximately 1,230 km from the Project Area.
General Overview	Glooscap First Nation is represented by the ANSMC. In June 1984, Glooscap First Nation (formerly known as Horton) became the thirteenth Mi'kmaq band in NS. The March 2018 registered population of Glooscap First Nation was 380. Approximately 25% (95 individuals) live on-reserve (INAC 2018). The median age (i.e., 32.5 years) is approximately 13% below that of NS in general, which was 45.5 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Although there are no schools on-reserve, the Glooscap First Nation has appointed an education director to oversee primary and secondary education for on-reserve members who attend school off-reserve. Health care services are provided through an on-reserve health and healing centre. Glooscap Ventures, created in 2014, is responsible for on-reserve businesses including a variety store / gas bar, gaming facility, and commercial fisheries. In 2018, the First Nation opened Glooscap Landing, a 27-acre parcel of land along Highway 101 for retail purposes. Glooscap First Nation holds commercial communal licences for a variety of fish and marine species.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	The Project does not overlap with the traditional territory of the Mi'kmaq of NS, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	Glooscap First Nation's traditional activity is focused on harvesting marine species. The Mi'kmaq of NS harvest Atlantic salmon as part of their Aboriginal right to fish for FSC purposes. Salmon fishing creates opportunities for traditional knowledge sharing and expressing Mi'kmaq values of sharing catches with the community, and other uses specific to salmon that cannot be replaced by harvesting other species (UINR 2018). The Mi'kmaq of NS also harvest American eel within Aboriginal rights-based, treaty rights-based and commercial fisheries. In addition to a rich food source, American eel is also used for medicinal purposes.
Commercial Communal Fishing	Glooscap First Nation holds commercial communal licences for groundfish, lobster, mackerel, swordfish, crab, and marine worm (Licensing Services, DFO, pers. comm. 2019). Glooscap also hold commercial communal licences for bluefin tuna in the Gulf Region (Curry, DFO, pers. comm. 2019). Most of these licences are located inshore and offshore NS. Glooscap holds commercial communal licences for swordfish and tuna within NAFO Unit 3LMNOPs in offshore NL (MacDonald, DFO, pers. comm. 2019).

Table 7.18 Mi'kmaq of Nova Scotia Community Profiles

Community Indicator	Description
Food, Social, Ceremonial Fishing	Glooscap First Nation holds several FSC licences for cod, haddock, halibut, pollock, soft-shelled clams, striped bass, smallmouth bass, lobster, eel, shad, smelt, scallops, gaspereau, mackerel, mussels, white perch, yellow perch, brown bullhead, and chain pickerel (Newbould, DFO, pers. comm. 2019). In addition, Glooscap First Nation have an Aboriginal right to fish for Atlantic salmon for FSC purposes (Newbould, DFO, pers. comm. 2019). These include harvesting in the inland and tidal waters of NS and in NAFO units in and around NS. Other species harvested include flounder, lake whitefish, trout and white sucker fish.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'kmaq of Nova Scotia possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Membertou First Nation	
Location and Proximity to Project Area	Membertou First Nation is comprised of four reserves (i.e., Membertou 28B, Sydney 28A, Caribou Marsh 29, and Malagawatch 4) located in northeastern and southwestern Sydney. Membertou First Nation is 895 km from the Project Area.
General Overview	Membertou First Nation is represented by the ANSMC. The March 2018 registered population of Membertou First Nation was 1,534. Approximately 60% (920 individuals) live on-reserve (INAC 2018). The median age of the population (i.e., 26.9 years) is approximately 19% below that of NS in general, which was 45.5 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Membertou First Nation has a gas station, church, medical clinic, community centre, band office, boxing gym, a business park which includes the Membertou Trade and Convention Centre, Membertou Heritage Park and Petroglyphs Gift Shop, hotel, a restaurant, Membertou Entertainment Centre, and other private businesses. Membertou has a school, Maupeltuewey Kina'matno'kuom, for kindergarten to grade 6 and a Sport and Wellness Centre. Membertou First Nation owns and operates First Fishermen Seafoods. Membertou First Nation holds several commercial communal licences for a variety of fish and marine species.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	Membertou First Nation, formerly Kings Road Reserve, was originally located along the banks of Sydney Harbour. In 1926, it was moved to its present location. The Project does not overlap with the traditional territory of the Mi'kmaq of NS, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'kmaq of NS harvest Atlantic salmon as part of their Aboriginal right to fish for FSC purposes. Salmon fishing creates opportunities for traditional knowledge sharing and expressing Mi'kmaq values of sharing catches with the community, and other uses specific to salmon that cannot be replaced by harvesting other species (UINR 2018). The Mi'kmaq of NS also harvest American eel within Aboriginal rights-based, treaty rights-based and commercial fisheries. In addition to a rich food source, American eel is also used for medicinal purposes.
Commercial Communal Fishing	Membertou First Nation holds commercial communal licences for crab, groundfish, herring, lobster, sea scallop, sea urchins, shrimp, and tuna (Licensing Services, DFO, pers. comm. 2019). Most of these licences are located inshore and offshore NS and do not overlap with the Project Area.

Table 7.18 Mi'kmaq of Nova Scotia Community Profiles

Community Indicator	Description
Food, Social, Ceremonial Fishing	Membertou First Nation holds FSC fishing licences for clams (bar clams, quahaugs, razor clams, soft-shell clams), cod, crabs, eel, flounder, haddock, halibut, lobster, mackerel, mussels, oysters, pollock, smelt, and striped bass. These include harvesting in the tidal waters of Cape Breton and the Bras d'Or Lakes and NAFO units in and around NS. Membertou First Nation also has an Aboriginal right to fish for Atlantic salmon for FSC purposes (Newbould, DFO, pers. comm. 2019).
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'kmaq of Nova Scotia possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Paq'tnkek Mi'kmaw Nation	
Location and Proximity to Project Area	Paq'tnkek Mi'kmaw Nation is comprised of three reserves (i.e., Franklin Manor 22, Paq'tnkek-Niktuek 23, and Welnek 38) located southeast of Amherst and east of Antigonish. Paq'tnkek Mi'kmaw Nation is approximately 1,025 km from the Project Area.
General Overview	Paq'tnkek Mi'kmaw Nation is represented by the ANSMC. The March 2018 registered population of Paq'tnkek Mi'kmaw Nation was 595. Approximately 70% (421 individuals) live on-reserve (INAC 2018). The median age (i.e., 24.4 years) of the population is approximately 21% below that of NS in general, which was 45.5 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	The Paq'tnkek Pre-School has been in operation in Afton, NS since the early 1980s. The Paq'tnkek Health Centre, which opened in 2008, is a multi-purpose facility that delivers health programs to the community, as well as offering a boardroom, classrooms, and space for private functions. An Economic Development Department manages development including the Paq'tnkek Entertainment Centre. The First Nation holds commercial communal licences for a variety of fish and marine species, and Paq'tnkek Fisheries Enterprise employs 20 community members. On January 15, 2019 a new interchange on Highway 104 officially opened, providing safe access and economic opportunities for the Paqtnkek First Nation (Nova Scotia Government website 2019).
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	Paq'tnkek, meaning "by the bay", was established in March 1820 in Antigonish County, and (given its central location) has been a traditional stopping point for Mi'kmaq travelling to and from Unama'ki and a location where Chiefs would meet (Paq'tnkek Mi'kmaw Nation n.d.). Paq'tnkek community members engage in important cultural and traditional practices, such as harvesting eels, salmon, and rabbits. The Project does not overlap with the traditional territory of the Mi'kmaq of NS, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'kmaq of NS harvest Atlantic salmon as part of their Aboriginal right to fish for FSC purposes. Salmon fishing creates opportunities for traditional knowledge sharing and expressing Mi'kmaq values of sharing catches with the community, and other uses specific to salmon that cannot be replaced by harvesting other species (UINR 2018). The Mi'kmaq of NS also harvest American eel within Aboriginal rights-based, treaty rights-based and commercial fisheries. In addition to a rich food source, American eel is also used for medicinal purposes.
Commercial Communal Fishing	Paq'tnkek Mi'kmaw Nation holds commercial communal licences for rock crab, eel, groundfish, herring, lobster, mackerel, marine plant, oysters, sea scallop, smelts, snow crab, and squid for areas of inshore NS (Curry, DFO, pers. comm. 2019). Paq'tnkek holds commercial communal licences for swordfish within NAFO Unit 3LM in offshore NL (Curry, DFO, pers. comm. 2019).

Table 7.18 Mi'kmaq of Nova Scotia Community Profiles

Community Indicator	Description
Food, Social, Ceremonial Fishing	Paq'tnkek Mi'kmaw Nation members harvest marine fish and shellfish resources along the coast, including along the southern Chedabucto coastline where the waters generally do not freeze, offering unimpeded fishing during the winter months (Mi'kma'ki All Points Service 2013). Mackerel, herring, cod, haddock, urchins, mussels, oysters, clams are harvested on the Chedabucto coastline, and snow crab are fished in deeper waters (Mi'kma'ki All Points Service 2013). Freshwater species include salmon, trout, and eel (Mi'kma'ki All Points Service 2013). Paq'tnkek Mi'kmaw Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'kmaq of Nova Scotia possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Pictou Landing First Nation	
Location and Proximity to Project Area	Pictou Landing First Nation is located on the south shore of the Northumberland Strait in Pictou County. The reserves include Franklin Manor 22 (also affiliated with Paq'tnkek Mi'kmaw Nation), Fisher's Grant 24, Boat Harbour West 37, Fisher's Grant 24G, and Merigomish Harbour 31. Pictou Landing First Nation is approximately 1,090 km from the Project Area.
General Overview	Pictou Landing First Nation is represented by the ANSMC. The March 2018 registered population of Pictou Landing First Nation was 668. Approximately 73% of these (487 individuals) live on-reserve (INAC 2018). The median age (i.e., 28.4 years) of the population is approximately 17% below that of NS in general, which was 45.5 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	The community has a church, gas bar, health centre, and primary to Grade 6 elementary school, Pictou Landing First Nation School. Pictou Landing First Nation holds commercial communal licences for a variety of fish and marine species. Fishing is the main industry, and close to 100 people (full / part time) are employed each year in harvesting lobster, rock crab, snow crab, mackerel, herring and tuna. Pictou Landing is also involved in the forestry industry through Northern Pulp.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	Pictou Landing First Nation lived, on a seasonal basis, in and around a small tidal estuary connected by a narrow channel to the Northumberland Strait. The area provided a variety of resources including fish, eels, crustaceans, and shellfish as well as areas for harvesting and trapping near the shore. The Project does not overlap with the traditional territory of the Mi'kmaq of NS, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'kmaq of NS harvest Atlantic salmon as part of their Aboriginal right to fish for FSC purposes. Salmon fishing creates opportunities for traditional knowledge sharing and expressing Mi'kmaq values of sharing catches with the community, and other uses specific to salmon that cannot be replaced by harvesting other species (UINR 2018). The Mi'kmaq of NS also harvest American eel within Aboriginal rights-based, treaty rights-based and commercial fisheries. In addition to a rich food source, American eel is also used for medicinal purposes.
Commercial Communal Fishing	Pictou Landing First Nation holds commercial communal licences for alewives / gaspereau, clams, rock crab, spider / toad crab, eel, groundfish, herring, lobster, mackerel, marine plant, oysters, sea scallop, seal, smelts, snow crab, squid, swordfish, and bluefin tuna (Curry, DFO, pers. comm. 2019). Most of these licences are located inshore and offshore NS and NB, with licences for swordfish in NAFO Unit 3LM in offshore NL (Curry, DFO, pers. comm. 2019).

Table 7.18 Mi'kmaq of Nova Scotia Community Profiles

Community Indicator	Description
Food, Social, Ceremonial Fishing	Pictou Landing First Nation holds FSC licences for salmon, striped bass, eel, and trout (Curry, DFO, pers. comm. 2019). Pictou Landing First Nation also has an Aboriginal right to fish for Atlantic salmon for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'kmaq of Nova Scotia possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Potlotek First Nation	
Location and Proximity to Project Area	Potlotek First Nation is comprised of two reserves (Chapel Island 5 and Malagawatch 4) located southwest of Sydney. Potlotek First Nation is approximately 950 km from the Project Area.
General Overview	Potlotek First Nation is represented by the ANSMC. The March 2018 registered population of Potlotek First Nation was 739. Approximately 76% (562 individuals) live on-reserve (INAC 2018). The median age (i.e., 24.2 years) of the population is approximately 21% below that of NS in general, which was 45.5 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Potlotek First Nation has a day care, preschool program, and Mi'kmawey School. Other facilities include the Chapel Island Community Hall / Kateri Chapel, youth centre, RCMP building, medical centre, a store / gas bar and fire hall. Potlotek First Nation holds commercial communal licences for a variety of fish and marine species. Fisheries is a key industry, including oyster cultivation. Apaqtukewaq Fisheries Co-op was formed in 1995, with four members employed fulltime in the co-op and seven during the peak season. Apaqtukewaq also manages lobster, snow crab, and tuna fishing.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	Potlotek First Nation is a traditional spiritual meeting place for Mi'kmaq in the Maritimes and is one of the oldest reserves in Cape Breton. The Chapel Island Reserve, formerly Barra Head, became a reserve in 1834, following the receipt of a land grant and is an important cultural site for Indigenous peoples in the Atlantic region. The Project does not overlap with the traditional territory of the Mi'kmaq of NS, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'kmaq of NS harvest Atlantic salmon as part of their Aboriginal right to fish for FSC purposes. Salmon fishing creates opportunities for traditional knowledge sharing and expressing Mi'kmaq values of sharing catches with the community, and other uses specific to salmon that cannot be replaced by harvesting other species (UINR 2018). The Mi'kmaq of NS also harvest American eel within Aboriginal rights-based, treaty rights-based and commercial fisheries. In addition to a rich food source, American eel is also used for medicinal purposes.
Commercial Communal Fishing	Potlotek First Nation holds commercial communal licences for crab, groundfish, lobster, sea urchins and shrimp (Licensing Services, DFO, pers. comm. 2019). These licences are located inshore and offshore NS and do not overlap the Project Area.
Food, Social, Ceremonial Fishing	Potlotek First Nation holds FSC fishing licences for capelin, cod, eel, flounder, haddock, herring, lobster, mackerel, mussels, pollock, quahaug, scallop, shad, smelt, soft-shell clams, striped bass, and trout. These species are harvested in inland and tidal waters of mainland NS and Cape Breton in NAFO units in and around NS. Potlotek First Nation also has an Aboriginal right to fish for Atlantic salmon for FSC purposes (Newbould, DFO, pers. comm. 2019).
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'kmaq of Nova Scotia possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.

Table 7.18 Mi'kmaq of Nova Scotia Community Profiles

Community Indicator	Description
Wagmatcook First Nation	
Location and Proximity to Project Area	Wagmatcook First Nation is comprised of three reserves (Malagawatch 4, Margaree 25, and Wagmatcook 1) located within the Bras d'Or Lakes region of Cape Breton. Wagmatcook First Nation is approximately 950 km from the Project Area.
General Overview	Wagmatcook First Nation is represented by the ANSMC. The March 2018 registered population of Wagmatcook First Nation was 878. Approximately 74% (645 individuals) live on-reserve (INAC 2018). The median age (i.e., 25.6 years) of the population is approximately 20% below that of NS in general, which was 45.5 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Wagmatcook First Nation has a day care centre, kindergarten to Grade 12 First Nation school, and a fire hall. Community services and economic initiatives include a gas station, restaurant, grocery store, wharf and warehouse, Cultural and Heritage Centre, post office and community cable television network. Wagmatcook First Nation holds commercial communal licences for a variety of fish and marine species. The commercial fishery, established in 1990, is an important communally-owned industry that employs up to 41 people each season.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	The Project does not overlap with the traditional territory of the Mi'kmaq of NS, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'kmaq of NS harvest Atlantic salmon as part of their Aboriginal right to fish for FSC purposes. Salmon fishing creates opportunities for traditional knowledge sharing and expressing Mi'kmaq values of sharing catches with the community, and other uses specific to salmon that cannot be replaced by harvesting other species (UINR 2018). The Mi'kmaq of NS also harvest American eel within Aboriginal rights-based, treaty rights-based and commercial fisheries. In addition to a rich food source, American eel is also used for medicinal purposes.
Commercial Communal Fishing	Wagmatcook First Nation holds commercial communal licences for snow crab, groundfish, lobster, sea urchins, and swordfish (Licensing Services, DFO, pers. comm. 2019). Most of these licences are for inshore and offshore NS. Wagmatcook First Nation holds commercial communal licences for swordfish in NAFO Unit 3LMNOPs in offshore NL (MacDonald, DFO, pers. comm. 2019).
Food, Social, Ceremonial Fishing	Wagmatcook First Nation holds FSC fishing licences for cod, eel, flounder, haddock, herring, lobster, mackerel, mussels, pollock, scallop, shad, smelt, striped bass, trout, and clams within the tidal waters of Cape Breton. Wagmatcook First Nation holds licences to harvest lobster around Cape Breton in LFAs 27. Wagmatcook First Nation also has an Aboriginal right to fish for Atlantic salmon for FSC purposes (Newbould, DFO, pers. comm. 2019). Other species harvested include squid.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'kmaq of Nova Scotia possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
We'ko'kmaq (Waycobah) First Nation	
Location and Proximity to Project Area	We'ko'kmaq (Waycobah) First Nation is comprised of two reserves (Malagawatch 4 and Whycocomagh 2) located within the village of Whycocomagh in Cape Breton. Waycobah First Nation is approximately 970 km from the Project Area.

Table 7.18 Mi'kmaq of Nova Scotia Community Profiles

Community Indicator	Description
General Overview	We'ko'kmaq First Nation is represented by the ANSMC. The March 2018 registered population of We'ko'kmaq First Nation was 1,000. Approximately 89% (886 individuals) live on-reserve (INAC 2018). The median age (i.e., 23.1 years) of the population is approximately 22% below that of NS in general, which was 45.5 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Community infrastructure includes a primary-12 school, health centre, RCMP station, and volunteer fire department. Economic initiatives include a convenience store and gas bar, fitness centre, and a gaming centre. We'ko'kmaq First Nation holds commercial communal licences for lobster, shrimp, crab, groundfish, and elver (eel), as well as inactive licences for tuna, whelk, urchin, mackerel, and herring. In 2011, a trout farm, owned by Cold Water Fisheries, was re-established in We'ko'kmaq and most staff are We'ko'kmaq First Nation members.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	We'ko'kmaq First Nation (formerly Waycobah) was first established in the early 1800s. In the 1940s, the community experienced a decline in population with many members being relocated to the community of Eskasoni. The Project does not overlap with the traditional territory of the Mi'kmaq of NS, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'kmaq of NS harvest Atlantic salmon as part of their Aboriginal right to fish for FSC purposes. Salmon fishing creates opportunities for traditional knowledge sharing and expressing Mi'kmaq values of sharing catches with the community, and other uses specific to salmon that cannot be replaced by harvesting other species (UINR 2018). The Mi'kmaq of NS also harvest American eel within Aboriginal rights-based, treaty rights-based and commercial fisheries. In addition to a rich food source, American eel is also used for medicinal purposes.
Commercial Communal Fishing	We'ko'kmaq First Nation holds commercial communal licences for crab, groundfish, herring, lobster, sea urchin, shrimp, and swordfish. Most of these licences are located inshore and offshore NS, with swordfish licences in NAFO Unit 3LMNOPs in offshore NL (MacDonald, DFO, pers. comm. 2019).
Food, Social, Ceremonial Fishing	We'ko'kmaq First Nation holds FSC fishing licences for clams (bar clams, quahaugs, razor clams, soft-shell clams), cod, eel, flounder, haddock, herring, lobster, mackerel, mussels, pollock, scallop, shad, smelt, trout, and striped bass for the tidal waters of Cape Breton (Newbould, DFO, pers. comm. 2019). We'ko'kmaq First Nation also has an Aboriginal right to fish for Atlantic salmon for FSC purposes (Newbould, DFO, pers. comm. 2019).
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'kmaq of Nova Scotia possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Millbrook First Nation	
Location and Proximity to Project Area	Millbrook First Nation has seven reserves. Truro 27A, Truro 27B, Truro 27C and Millbrook 27 are near Truro, and Beaver Lake 17, Cole Harbour 30, and Sheet Harbour 36, near Halifax. Millbrook First Nation is approximately 1,150 km from the Project Area.
General Overview	Millbrook First Nation has its own independent consultation process and is not currently represented by the ANSMC. Millbrook First Nation asserts the same rights as other Mi'kmaq communities in NS. The March 2018 registered population of Millbrook First Nation was 1,868. Approximately 48% (894 individuals) live on-reserve (INAC 2018). The median age (i.e., 32.4 years) of the population is approximately 13% below that of NS in general, which was 45.5 years in 2016 (Statistics Canada 2017).

Table 7.18 Mi'kmaq of Nova Scotia Community Profiles

Community Indicator	Description
Health and Socioeconomic Conditions	Facilities and services include the band office, community hall, ballfield, gym, early education centre, health centre, senior's centre and a church. Economic initiatives include the fishing industry, apartment buildings, a gaming centre, and a retail park. Millbrook also has a reserve in Sheet Harbour with a fishing wharf, and a reserve in Cole Harbour with a number of administrative buildings, housing and retail businesses. Millbrook First Nation holds commercial communal licences for a variety of fish and marine species. Millbrook Fisheries is an important part of the local economy, with eight vessels, 52 commercial communal licences province-wide, and more than 40 employees throughout the year.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	During the late 1700s and the early 1800s, the Mi'kmaq near Truro settled along the banks of the Salmon River and were later relocated to their current reserve at Millbrook. The Project does not overlap with the traditional territory of the Mi'kmaq of NS, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'kmaq of NS harvest Atlantic salmon as part of their Aboriginal right to fish for FSC purposes. Salmon fishing creates opportunities for traditional knowledge sharing and expressing Mi'kmaq values of sharing catches with the community, and other uses specific to salmon that cannot be replaced by harvesting other species (UINR 2018). The Mi'kmaq of NS also harvest American eel within Aboriginal rights-based, treaty rights-based and commercial fisheries. In addition to a rich food source, American eel is also used for medicinal purposes.
Commercial Communal Fishing	Millbrook First Nation holds commercial communal licences for snow and Jonah crab, groundfish, hagfish, herring, lobster, scallop, clams and sea urchins. Most of these licences are for inshore and offshore NS (Licensing Services, DFO, pers. comm. 2019). Millbrook First Nation also hold commercial communal licences for tuna and swordfish within NAFO Unit 3LMNOPs in offshore NL (MacDonald, DFO, pers. comm. 2019).
Food, Social, Ceremonial Fishing	Millbrook First Nation holds FSC fishing licences for chain pickerel, eel, lobster, quahaug, oysters, scallop, smallmouth bass, smelt, clams, and striped bass in inland and tidal waters of NS, including the tidal water of the Bay of Fundy and in NAFO units in and around NS. Millbrook First Nation also has an Aboriginal right to fish for Atlantic salmon for FSC purposes. Other species harvested include herring, mackerel, brown trout, grey trout, lake trout, speckled trout and rainbow trout.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'kmaq of Nova Scotia possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Sipekne'katik First Nation	
Location and Proximity to Project Area	Sipekne'katik First Nation (also known as Indian Brook or Shubenacadie) is comprised of five reserves (Indian Brook 14, Wallace Hills 14A, Shubenacadie 13A, Pennal 19, and New Ross 20) in Hants County, near Shubenacadie. Sipekne'katik First Nation is approximately 1,170 km from the Project Area.
General Overview	Sipekne'katik First Nation has its own independent consultation process and is not currently represented by the ANSMC. The First Nation asserts the same rights as other Mi'kmaq communities in NS. The March 2018 registered population of Sipekne'katik First Nation was 2,692. Approximately 48% live on-reserve (INAC 2018). The median age (i.e., 27.7 years) of the population is approximately 21% below that of NS in general, which was 45.5 years in 2016 (Statistics Canada 2017).

Table 7.18 Mi'kmaq of Nova Scotia Community Profiles

Community Indicator	Description
Health and Socioeconomic Conditions	Sipekne'katik First Nation has a primary-12 school, a gas bar, tobacco shop, gaming room and convenience store, a multi-purpose centre, the Sipekne'katik Entertainment Centre and the Sipekne'katik Health Centre. The fishery is an important industry for the community, and Sipekne'katik First Nation holds 33 commercial communal licences for a variety of fish and marine species.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	In 1820, Sipekne'katik First Nation was officially established as a reserve and given the name 'Indian Brook'. According to Mi'kmaq oral history, this area has been used for centuries as a sacred site to prepare for ceremonies and for harvesting and fishing trips. In 1752, one of the most important Peace and Friendship Treaties was signed at Shubenacadie District (Sipekn'katik First Nation 2016). The Project does not overlap with the traditional territory of the Mi'kmaq of NS, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'kmaq of NS harvest Atlantic salmon as part of their Aboriginal right to fish for FSC purposes. Salmon fishing creates opportunities for traditional knowledge sharing and expressing Mi'kmaq values of sharing catches with the community, and other uses specific to salmon that cannot be replaced by harvesting other species (UINR 2018). The Mi'kmaq of NS also harvest American eel within Aboriginal rights-based, treaty rights-based and commercial fisheries. In addition to a rich food source, American eel is also used for medicinal purposes.
Commercial Communal Fishing	Sipekne'katik First Nation holds commercial communal licences for crab, groundfish, lobster, sea scallop, sea urchins, swordfish, tuna and clams (Licensing Services, DFO, pers. comm. 2019). Most of these licences are located inshore and offshore NS. Sipekne'katik's commercial communal licences for swordfish and tuna are within NAFO Unit 3LMNOPs in offshore NL (MacDonald, DFO, pers. comm. 2019).
Food, Social, Ceremonial Fishing	Sipekne'katik First Nation holds FSC fishing licences for bar clams, crab (other than snow crab), eel, gaspereau, herring, landlocked salmon, lobster, mackerel, mussels, quahaugs, razor clams, seals, shad, smallmouth bass, smelt, soft-shell clams, striped bass, and unspecified groundfish (Newbould, DFO, pers. comm. 2019). Harvesting occurs in inland and tidal waters of NS and in NAFO units in and around NS. Sipekne'katik First Nation also has an Aboriginal right to fish for Atlantic salmon for FSC purposes (Newbould, DFO, pers. comm. 2019). Other species harvested include trout and scallop.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'kmaq of Nova Scotia possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.

7.4.4 Mi'kmaq of Prince Edward Island

Abegweit and Lennox Island First Nations are the two Mi'kmaq communities located in PEI, represented by the L'Nuey Mi'kmaq Rights Initiative, a newly-established organization (September 2019).

The land and waters around PEI are occupied and used by the PEI Mi'kmaq, including use for travel corridors, land harvesting, and fishing for traditional purposes. Project components and activities will be located at a considerable distance from the Indigenous groups and associated communities, and the Project Area does not overlap with the traditional territory of the PEI Mi'kmaq. Activities in the marine environment and species of interest that may migrate through the marine environment, are the focus for the discussion of current use of lands and resources for traditional purposes due to the Project being located in an offshore

marine environment. The current use of lands and resources section therefore includes a discussion of PEI Mi'kmaq FSC and commercial communal fishing activities in nearshore and offshore areas.

Table 7.19 provides community profiles for each Indigenous group. The locations of Mi'kmaq communities in PEI are illustrated in Figure 7-58.

Table 7.19 Mi'kmaq of Prince Edward Island Community Profiles

Community Indicator	Description
Abegweit First Nation	
Location and Proximity to Project Area	Abegweit First Nation is comprised of three reserves (Morell Rear Reserve 2; Rocky Pont Reserve 3; and Scotchfort Reserve 4), on the eastern portion of PEI, approximately 1,085 km from the Project Area.
General Overview	Abegweit First Nation is governed by an elected Chief and two Councillors and represented by L'Nuey in consultation and engagement. The March 2018 registered population of Abegweit First Nation was 381. Approximately 57% (218 individuals) live on-reserve (INAC 2018). The median age of the population of the three reserves ranges from 27.0 to 32.2 years, approximately 15% below that of PEI in general, which was 44.5 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Abegweit First Nation plays a substantial role in education from Kindergarten to Grade 12. The Mi'kmaq Wellness Centre has an interdisciplinary team consisting of a registered nurse, licenced practical nurse, registered dietician, alcohol and drug addiction counselor, and community health representative. Abegweit First Nation operates several businesses and community initiatives including Epekwit Gas Bar, Redstone Truck and Marine, commercial fisheries, Epekwit Gardens and Preserves, Abegweit Biodiversity and Enhancement Hatchery, Stream Enhancement, and Forestry. Abegweit First Nation holds commercial communal licences for a variety of fish and marine species.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	Abegweit First Nation was created following the separation of PEI Mi'kmaq bands in 1972. The first election for the Abegweit First Nation occurred in May 1972. The Project does not overlap with the traditional territory of the Mi'kmaq of PEI, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'kmaq of PEI are known to occupy and use the land and waters around PEI, including use for travel corridors, land-based harvesting and fishing for traditional purposes. Refer below for details on FSC fishing practices.
Commercial Communal Fishing	Abegweit First Nation holds commercial communal licences for clams, rock crab, spider / toad crab, eel, groundfish, herring, lobster, mackerel, mussels, oysters, sea scallop, seal, silverside, smelts, squid, swordfish, and bluefin tuna (Curry, DFO, pers. comm. 2019). Most licences are located inshore and offshore PEI. Abegweit holds commercial communal licences for swordfish within NAFO Unit 3LM in offshore NL (Curry, DFO, pers. comm. 2019).
Food, Social, Ceremonial Fishing	Abegweit First Nation holds FSC licences for clams, eel, gaspereau, herring, lobster, mackerel, mussels, oysters, quahaug, rock crab, salmon, scallops, seals, silversides, smelts, striped bass, toad crab, and trout (Curry, DFO, pers. comm. 2019). Abegweit First Nation has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.

Table 7.19 Mi'kmaq of Prince Edward Island Community Profiles

Community Indicator	Description
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'kmaq of Prince Edward Island (PEI) possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Lennox Island First Nation	
Location and Proximity to Project Area	Lennox Island First Nation has one reserve, on the northwestern portion of PEI, facing the Gulf of St. Lawrence approximately 1,150 km from the Project Area.
General Overview	Lennox Island First Nation is represented in consultation and engagement by L'Nuey. The March 2018 registered population of Lennox Island First Nation was 967. Approximately 41% (393 individuals) live on-reserve (INAC 2018). The median age (i.e., 29.9 years) of the population is approximately 15% below that of PEI in general, which was 44.5 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Lennox Island First Nation has an elementary school, health centre, and fire department. The Lennox Island Development Corporation was established to further economic development and expansion of community businesses and resources. Lennox Island First Nation holds commercial communal licences for a variety of fish and marine species. Fisherman's Pride Inc. harvests and sells inshore seafood. Minigoo Fisheries, established in 2010, processes lobster for international markets.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	The Project does not overlap with the traditional territory of the Mi'kmaq of PEI, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'kmaq of PEI are known to occupy and use the land and waters around PEI, including use for travel corridors, land harvesting and fishing for traditional purposes. Refer below for details on FSC fishing practices.
Commercial Communal Fishing	Lennox Island First Nation holds commercial communal licences for clams, rock crab, eel, groundfish, herring, lobster, mackerel, mussels, quahaug, oysters, sea scallop, seal, shark, silverside, smelts, snow crab, squid, swordfish, bluefin tuna, and whelks (Curry, DFO, pers. comm. 2019). Most of these licences are located inshore and offshore PEI. Lennox Island First Nation also holds commercial communal licences for swordfish within NAFO Unit 3LM in offshore NL (Curry, DFO, pers. comm. 2019).
Food, Social, Ceremonial Fishing	Lennox Island First Nation holds FSC licences for shellfish, clams, eel, gaspereau, groundfish, herring, lobster, mackerel, mussels, oysters, quahaug, rock crab, salmon, seals, smelt, and trout (Curry, DFO, pers. comm. 2019). The First Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'kmaq of Prince Edward Island (PEI) possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.

7.4.5 Indigenous Peoples of New Brunswick

The Mi'gmaq, Wolastoqiyik, and Peskotomuhkati Nation at Skutik (Passamaquoddy) are the three Indigenous Nations in NB. As described in Section 7.4.2, the first European contact with the Mi'gmaq occurred in the 16th and 17th centuries and several Peace and Friendship Treaties were signed by the

Mi'gmaq, Maliseet (Wolastoqiyik), and Passamaquoddy, and the British Crown between 1725 and 1779.Rights to hunt, fish and gather throughout the region to pursue a moderate livelihood are guaranteed by the treaties (INAC 2017).

7.4.5.1 Mi'kmaq of New Brunswick

The nine Mi'gmaq First Nations of NB are listed below:

- Elsipogtog First Nation
- Amalamgog (Fort Folly) First Nation
- Natoaganeg (Eel Ground) First Nation
- Oinpegitjoig (Pabineau) First Nation
- Esgenoôpetitj (Burnt Church) First Nation
- L'nui Menikuk (Indian Island) First Nation
- Ugpi'ganjig (Eel River Bar) First Nation
- Metepenagiag (Red Bank) Mi'gmaq Nation
- Tjipõgtõtjg (Buctouche) First Nation

To provide guidance towards the conclusion of a Framework Agreement on Aboriginal Treaty Rights, as well as self-government and consultation, the Governments of Canada, NB and the Mi'gmaq and Wolastoqiyik Nations of New Brunswick signed the Mi'gmaq, Wolastoqiyik / NB / Canada Umbrella Agreement in 2011. In 2014, to facilitate consultation activities undertaken by governments with the signatory Mi'gmaq and Wolastoqiyik First Nations, the Mi'gmaq, Wolastoqiyik / NB / Canada Interim Consultation Protocol was signed. Currently the parties are finalizing a Framework Agreement (INAC 2017).

The Mi'gmawe'l Tplu'taqn Incorporated (MTI) was formed in late 2015, to promote and support the recognition, affirmation, exercise and implementation of the Aboriginal and treaty rights of its members. It is a not-for-profit organization established to manage consultation for the member First Nations in NB. Eight of the nine Mi'gmaq communities in NB (the exception is Elsipogtog First Nation) are represented by MTI. Elsipogtog First Nation conducts its own consultation and engagement, and in 2016 launched an Aboriginal title claim to the southeastern third of the province.

In 1987, the North Shore MicMac District Council (of which seven of these First Nations are members of) was established to provide advisory and technical assistance to member First Nations. Initially the assistance included finance, capital works (i.e., water and sewer), economic development and Band governance; and was later expanded to include post-secondary education, child and family services, housing inspection, human resources, Indigenous fisheries, and other services. Elsipogtog, Esgenoôpetitj, and Tobique are members of the Mawiw Tribal Council, which provides services in education, health care and healing to member communities (INAC 2017).

The land and waters around NB are known to be occupied and used for travel corridors, harvesting, and fishing by the Mi'gmaq of NB, under treaty or for traditional purposes. The traditional territory does not overlap with the Project Area, but several NB First Nations hold commercial communal fishing licences in NAFO divisions in offshore NL that overlap with the Project Area. The discussion of current use of lands and resources for traditional purposes is focused on activities in the marine environment, and species of

interest that may migrate through the marine environment because the Project components and activities will be located offshore, at a considerable distance from the Indigenous groups and associated communities. The current use of lands and resources section therefore includes a discussion of FSC and commercial communal harvesting.

The locations of Mi'gmaq communities in NB are illustrated in Figure 7-58. The following sections provide community profiles for each Indigenous group (Table 7.20).

Table 7.20 Mi'gmaq of New Brunswick Community Profiles

Community Indicator	Description
Elsipogtog First Nation	
Location and Proximity to Project Area	Elsipogtog First Nation has two reserves (Richibucto and Soegao) located near Rexton and Moncton. Elsipogtog First Nation is approximately 1,230 km from the Project Area.
General Overview	Elsipogtog First Nation is affiliated with the Mawiw Council (the governing body for Elsipogtog, Tobique and Esgenoôpetitj) (Energy East Pipeline Ltd. 2016). Elsipogtog First Nation represents itself in consultation and engagement. The March 2018 registered population of Elsipogtog First Nation was 3,365. Approximately 77% (2,576 individuals) live on-reserve (INAC 2018). The median age (i.e., 29.9 years) of the population is approximately 16% below that of NB in general, which was 45.7 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Richibucto Reserve has a school for Kindergarten to Grade 8, a police detachment, and fire hall. The two primary economic development initiatives are a supermarket and pharmacy.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	The Project does not overlap with the traditional territory of the Mi'gmaq of NB, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'gmaq of NB are known to occupy and use the land and waters around NB primarily for travel corridors, harvesting and fishing for traditional purposes. Salmon and American eel have been identified as species of particular importance to the Mi'gmaq of NB. Refer below for information on FSC fishing practices.
Commercial Communal Fishing	Elsipogtog First Nation holds commercial communal licences for alewives / gaspereau, bar clams, rock crab, eel, groundfish, herring, lobster, mackerel, marine plant, mussels, oysters, quahaugs, sea scallop, seal, smelts, snow crab, soft shell clams, and bluefin tuna (Curry, DFO, pers. comm. 2019). These licences are issued for inshore and offshore NS and NB and do not overlap the Project Area.
Food, Social, Ceremonial Fishing	Elsipogtog First Nation holds FSC licences for clams, eel, gaspereau, herring, lobster, mackerel, mussels, oysters, quahaug, rock crab, salmon, scallops, seals, shad, smelts, striped bass, and trout (Curry, DFO, pers. comm. 2019). The First Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'gmaq of New Brunswick possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.

Table 7.20 Mi'gmaq of New Brunswick Community Profiles

Community Indicator	Description
Amlamgog (Fort Folly) First Nation	
Location and Proximity to Project Area	Fort Folly First Nation has one reserve, located near Dorchester in Westmorland County, approximately 1,220 km from the Project Area.
General Overview	Fort Folly First Nation is affiliated with the North Shore MicMac District Council and is represented in consultation and engagement by MTI. The March 2018 registered population of Fort Folly First Nation was 131. Approximately 27% (35 individuals) live on-reserve (INAC 2018). The median age (i.e., 46.0 years) of the population is similar to that of NB in general, which was 45.7 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Fort Folly First Nation has a school offering a head start and kindergarten program. Fort Folly First Nation holds commercial communal licences for a variety of fish and marine species. The First Nation supports economic development in the fishing industry, with two lobster boats, one of which also carries a scallop licence.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	In 1918, community members from the Fort Folly lands were relocated to the Robinson land outside of Richibucto. The Project does not overlap with the traditional territory of the Mi'gmaq of NB, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'gmaq of NB are known to occupy and use the land and waters around NB primarily for travel corridors, harvesting and fishing for traditional purposes. Salmon and American eel have been identified as species of particular importance to the Mi'gmaq of NB. Refer below for information on FSC fishing practices.
Commercial Communal Fishing	Fort Folly First Nation holds commercial communal licences for groundfish, lobster, sea scallop, swordfish, and tuna (Licensing Services, DFO, pers. comm. 2019). Most of these licences are located inshore and offshore NS and NB. Fort Folly holds commercial communal licences for swordfish and tuna in NAFO Unit 3LMNOPs in offshore NL.
Food, Social, Ceremonial Fishing	Fort Folly First Nation holds FSC fishing licences for LFA 35 (Bay of Fundy) for lobster (Newbould, DFO, pers. comm. 2019). Fort Folly First Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'gmaq of New Brunswick possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Natoaganeg (Eel Ground) First Nation	
Location and Proximity to Project Area	Eel Ground First Nation has three reserves (Big Hole Tract 8, Eel Ground 2, and Renous 12) located along the Miramichi River near Newcastle. Eel Ground First Nation is approximately 1,275 km from the Project Area.
General Overview	Eel Ground First Nation is affiliated with the North Shore MicMac District Council and represented in consultation and engagement by MTI. The March 2018 registered population of Eel Ground First Nation was 1,062. Approximately 54% (577 individuals) live on-reserve (INAC 2018). The median age (i.e., 31.0 years) of the population is approximately 15% below that of NB in general, which was 45.7 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Eel Ground First Nation has a band hall, community development centre, group home and health centre. In 2015, the First Nation built a school to accommodate students from kindergarten to grade 8 (Eel Ground First Nation n.d).

Table 7.20 Mi'gmaq of New Brunswick Community Profiles

Community Indicator	Description
	Economic initiatives include a lumber production business. Eel Ground First Nation holds commercial communal licences for a variety of fish and marine species.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	The Project does not overlap with the traditional territory of the Mi'gmaq of NB, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'gmaq of NB are known to occupy and use the land and waters around NB primarily for travel corridors, harvesting and fishing for traditional purposes. Salmon and American eel have been identified as species of particular importance to the Mi'gmaq of NB. Refer below for information on FSC fishing practices.
Commercial Communal Fishing	Eel Ground First Nation holds commercial communal licences for alewives / gaspereau, groundfish, herring, lobster, mackerel, marine plant, oysters, sea urchins, snow crab, striped bass, and soft-shell clams (Curry, DFO, pers. comm. 2019). These licences are located inshore and offshore NS and NB and thus not near the Project Area.
Food, Social, Ceremonial Fishing	Eel Ground First Nation holds FSC licences for clams, mussels, eel, gaspereau, herring, mackerel, oysters, quahaug, salmon, shad, smelts, striped bass, and brook trout (Curry, DFO, pers. comm. 2019). Eel Ground First Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'gmaq of New Brunswick possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Oinpegitjoig (Pabineau) First Nation	
Location and Proximity to Project Area	Pabineau First Nation has one reserve, located south of Bathurst approximately 1,265 km from the Project Area.
General Overview	Pabineau First Nation is affiliated with the North Shore MicMac District Council (Energy East Pipeline Ltd. 2016) and represented in consultation and engagement by MTI. The March 2018 registered population of Pabineau First Nation was 318. Approximately 33% (104 individuals) live on-reserve (INAC 2018). The median age (i.e., 35.5 years) of the population is approximately 10% below that of NB in general, which was 45.7 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Pabineau First Nation has a police detachment. An Economic Development Officer works to increase local employment. Pabineau First Nation owns and operates a seafood restaurant and a smoke shop and gas bar. Pabineau First Nation holds commercial communal licences for a variety of fish and marine species.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	The Project does not overlap with the traditional territory of the Mi'gmaq of NB, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'gmaq of NB are known to occupy and use the land and waters around NB primarily for travel corridors, harvesting and fishing for traditional purposes. Salmon and American eel have been identified as species of particular importance to the Mi'gmaq of NB. Refer below for information on FSC fishing practices.

Table 7.20 Mi'gmaq of New Brunswick Community Profiles

Community Indicator	Description
Commercial Communal Fishing	Pabineau First Nation holds commercial communal licences for rock crab, groundfish, herring, lobster, mackerel, oysters, sea scallop, snow crab, and bluefin tuna (Curry, DFO, pers. comm. 2019). These licences are for inshore and offshore NS and NB and do not overlap the Project Area.
Food, Social, Ceremonial Fishing	Pabineau First Nation holds FSC licences including for clams, quahaug, herring, mackerel, mussels, oysters, salmon, striped bass, and trout (Curry, DFO, pers. comm. 2019). Pabineau First Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'gmaq of New Brunswick possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Esgenoôpetitj (Burnt Church) First Nation	
Location and Proximity to Project Area	Esgenoôpetitj First Nation has three reserves (Esgenoôpetitj Indian Reserve 14, Pokemouche 13, and Tabusintac 9), located southwest of the village of Neguac in Kent County. Esgenoôpetitj is approximately 1,230 km from the Project Area.
General Overview	Esgenoôpetitj First Nation is affiliated with the Mawiw Council (Energy East Pipeline Ltd. 2016) and represented in consultation and engagement by MTI. The March 2018 registered population of Esgenoôpetitj First Nation was 1,927. Approximately 69% (1,337 individuals) live on-reserve (INAC 2018). The median age (i.e., 30.6 years) of the population is approximately 15% below that of NB in general, which was 45.7 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Esgenoôpetitj First Nation has a school for Kindergarten to Grade 8 and a fire hall. Esgenoôpetitj First Nation holds commercial communal licences for a variety of fish and marine species.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	The Project does not overlap with the traditional territory of the Mi'gmaq of NB, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'gmaq of NB are known to occupy and use the land and waters around NB primarily for travel corridors, harvesting and fishing for traditional purposes. Salmon and American eel have been identified as species of particular importance to the Mi'gmaq of NB. Refer below for information on FSC fishing practices.
Commercial Communal Fishing	Esgenoôpetitj First Nation holds commercial communal licences for bar clams, rock crab, spider / toad crab, eel, groundfish, herring, lobster, mackerel, marine plant, mussels, oysters, quahaug, smelts, snow crab, soft shell clams, and bluefin tuna for inshore and offshore NS and NB and these do not overlap the Project Area (Curry, DFO, pers. comm. 2019).
Food, Social, Ceremonial Fishing	Esgenoôpetitj First Nation holds FSC licences for clams, quahaug, eel, herring, mackerel, mussels, oysters, salmon, smelts, striped bass, and trout (Curry, DFO, pers. comm. 2019). Esgenoôpetitj First Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'gmaq of New Brunswick possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.

Table 7.20 Mi'gmaq of New Brunswick Community Profiles

Community Indicator	Description
Tjipõgtõtjg (Bouctuche) First Nation	
Location and Proximity to Project Area	Buctouche First Nation has two reserves (Buctouche 16 and Buctouche Micmac Band Extension) located near the town of Buctouche. Buctouche First Nation is approximately 1,225 km from the Project Area.
General Overview	Buctouche First Nation is affiliated with the North Shore MicMac District Council (Energy East Pipeline Ltd. 2016) and is represented in consultation and engagement by MTI. The March 2018 registered population of Buctouche First Nation was 124. Approximately 65% (80 individuals) live on-reserve (INAC 2018). The median age (i.e., 28.2 years) of the population is approximately 18% below that of NB in general, which was 45.7 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Buctouche First Nation has a kindergarten, pre-school, and a fire hall. The Buctouche MicMac Band Forestry Department administers the distribution of the royalties that are received from the Band's annual allocation by the province of NB. Buctouche First Nation also owns and operates a gas bar. Buctouche First Nation holds commercial communal licences for a variety of fish and marine species.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	Buctouche First Nation was established in 1810. It was abandoned in 1924 until a family moved back to the reserve in 1958. Traditional fishing, trapping, and harvesting territories extended to the western portion of PEI, through the coast of NB from the Miramichi Bay along the Northumberland Strait, southeast between NS on the Bay of Fundy to Maine. In the winter, the traditional territory also encompassed inland areas around Fredericton, Grand Lake, Moncton and Miramichi (Buctouche First Nation n.d.). The Project does not overlap with the traditional territory of the Mi'gmaq of NB, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'gmaq of NB are known to occupy and use the land and waters around NB primarily for travel corridors, harvesting and fishing for traditional purposes. Salmon and American eel have been identified as species of particular importance to the Mi'gmaq of NB. Refer below for information on FSC fishing practices.
Commercial Communal Fishing	Buctouche First Nation holds commercial communal licences for alewives / gaspereau, bar clams, rock crab, spider / toad crab, groundfish, herring, lobster, mackerel, oysters, sea scallop, seal, shark, smelts, snow crab, soft shell clams, and bluefin tuna (Curry, DFO, pers. comm. 2019). These licences are located inshore and offshore NS and NB and do not overlap the Project Area.
Food, Social, Ceremonial Fishing	Buctouche First Nation holds FSC licences for clams, eel, mackerel, oysters, salmon, striped bass, and brook trout (Curry, DFO, pers. comm. 2019). Buctouche First Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'gmaq of New Brunswick possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
L'nui Menikuk (Indian Island) First Nation	
Location and Proximity to Project Area	Indian Island First Nation has one reserve located near Miramichi Bay on the eastern coast of NB. Indian Island First Nation is approximately 1,220 km from the Project Area.

Table 7.20 Mi'gmaq of New Brunswick Community Profiles

Community Indicator	Description
General Overview	Indian Island First Nation is affiliated with the North Shore MicMac District Council (Energy East Pipeline Ltd. 2016) and is represented in consultation and engagement by the MTI. The March 2018 registered population of Indian Island First Nation was 200. Approximately 54% (108 individuals) live on-reserve (INAC 2018). The median age (i.e., 29.0 years) of the population is approximately 16% below that of NB in general, which was 45.7 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	The Indian Island Aquaculture Development Corporation has been producing oysters since 2007 and currently has approximately 2.6 million oysters on-site in various stages of growth. The Development Corporation employs five seasonal employees with additional students in the summer; employees are community members. Indian Island First Nation holds commercial communal licences for a variety of fish and marine species.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	The Project does not overlap with the traditional territory of the Mi'gmaq of NB, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'gmaq of NB are known to occupy and use the land and waters around NB primarily for travel corridors, harvesting and fishing for traditional purposes. Salmon and American eel have been identified as species of particular importance to the Mi'gmaq of NB. Refer below for information on FSC fishing practices.
Commercial Communal Fishing	Indian Island First Nation holds commercial communal licences for alewives / gaspereau, rock crab, eel, groundfish, herring, lobster, mackerel, oysters, sea scallop, smelts, snow crab, soft shell clams, and bluefin tuna (Curry, DFO, pers. comm. 2019). These licences are located inshore and offshore NS and NB and do not overlap the Project Area.
Food, Social, Ceremonial Fishing	Indian Island First Nation holds FSC licences for clams, mussels, eels, gaspereau, herring, lobster, mackerel, oysters, bay quahaug, salmon, smelts, striped bass, and trout (Curry, DFO, pers. comm. 2019). Indian Island First Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'gmaq of New Brunswick possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Ugpi'ganjig (Eel River Bar) First Nation	
Location and Proximity to Project Area	Eel River Bar First Nation is comprised of three reserves (Eel River 3, Indian Ranch, and Moose Meadows 4) located near Dalhousie. Eel River Bar First Nation is approximately 1,305 km from the Project Area.
General Overview	Eel River Bar First Nation is affiliated with the North Shore MicMac District Council (Energy East Pipeline Ltd. 2016) and is represented in consultation and engagement by the MTI. The March 2018 registered population of Eel River Bar First Nation was 747. Approximately 47% (348 individuals) live on- reserve (INAC 2018). The median age of the population of the reserves ranges from 33.1 to 33.7 years, approximately 12% below that of NB in general, which was 45.7 years in 2016 (Statistics Canada 2017).

Table 7.20 Mi'gmaq of New Brunswick Community Profiles

Community Indicator	Description
Health and Socioeconomic Conditions	Eel River Bar First Nation operates a pre-school. The community continues to make a living from traditional resource-based industries, such as fishing and forestry, and non-traditional sectors such as local government, housing construction, trades, small business, and band-based business operations. Eel River Bar First Nation holds commercial communal licences for a variety of fish and marine species.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	The area around the Benjamin and Eel Rivers was traditionally used by Mi'gmaq families as a summer encampment for completing their annual migration. The Benjamin River was a rich farming area and the Eel River provided a variety of fish. The area provided access to Heron Island, where it is thought that traditional burials took place. Historically, Eel River Bar First Nation would harvest resources of the land, ocean, lakes and rivers which provided a variety of fish, seals, shellfish, moose, deer, bear, small animals, and birds. The community would fish in the waters of the Bay of Chaleur and dig for clams on the shores of Eel River Bar. In 1963, due to the construction of a dam, flooding resulted in the loss of fishing and clam harvesting along Eel River (Eel River Bar First Nation 2018). The Project does not overlap with the traditional territory of the Mi'gmaq of NB, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'gmaq of NB are known to occupy and use the land and waters around NB primarily for travel corridors, harvesting and fishing for traditional purposes. Salmon and American eel have been identified as species of particular importance to the Mi'gmaq of NB. Refer below for information on FSC fishing practices.
Commercial Communal Fishing	Eel River Bar First Nation holds commercial communal licences for rock crab, groundfish, herring, lobster, mackerel, mussels, oysters, sea scallop, sea urchins, shrimp, smelts, snow crab, soft shell clams, and bluefin tuna (Curry, DFO, pers. comm. 2019). These licences are for inshore and offshore NS and NB and do not overlap the Project Area.
Food, Social, Ceremonial Fishing	Eel River Bar First Nation holds FSC licences for soft-shell clams, herring, salmon, and striped bass (Curry, DFO, pers. comm. 2019). Eel River Bar First Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'gmaq of New Brunswick possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Metepenagiag Mi'kmaq Nation (Red Bank)	
Location and Proximity to Project Area	Metepenagiag Mi'kmaq Nation has six reserves. These include Big Hole Tract 8 (North Half), Indian Point 1, Red Bank 4, Red Bank 7, Metepenagiag Urban Reserve 8, and Metepenagiag Uta'nk, on the Miramichi River near / in Newcastle. Metepngiag First Nation is approximately 1,290 km from the Project Area.
General Overview	Metepenagiag Mi'kmaq Nation is affiliated with the North Shore Micmac District Council (Energy East Pipeline Ltd. 2016) and is represented in consultation and engagement by MTI. The March 2018 registered population of Metepenagiag Mi'kmaq Nation was 690. Approximately 64% (444 individuals) live on-reserve (INAC 2018). The median age of the population of these reserves ranges from 36.9 to 37.2 years, approximately 9% below that of NB in general, which was 45.7 years in 2016 (Statistics Canada 2017).

Table 7.20 Mi'gmaq of New Brunswick Community Profiles

Community Indicator	Description
Health and Socioeconomic Conditions	Metepenagiag School serves students from kindergarten to Grade 6. Metepenagiag Mi'kmaq Nation holds commercial communal licences for a variety of fish and marine species.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	Traditionally, the Miramichi River served as a travel route and meeting place for the Mi'kmaq people in NB (MMFN n.d.). Metepenagiag Mi'kmaq Nation has developed a heritage park, which contains two important Indigenous heritage archeological sites: the Augustine Mound National Historic Site and Oxbow National Historic Site. Archeological findings at these sites prove that this location has been continuously inhabited by the Mi'gmaq people for over 3,000 years. The Project does not overlap with the traditional territory of the Mi'gmaq of NB, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Mi'gmaq of NB are known to occupy and use the land and waters around NB primarily for travel corridors, harvesting and fishing for traditional purposes. Salmon and American eel have been identified as species of particular importance to the Mi'gmaq of NB. Refer below for information on FSC fishing practices.
Commercial Communal Fishing	Metepenagiag Mi'kmaq Nation holds 18 commercial communal licences for alewives / gaspereau, rock crab, herring, lobster, mackerel, oysters, scallops, shrimp, and snow crabs. Lobster is licenced for LFA 25 (Curry, DFO, pers. comm. 2019).
Food, Social, Ceremonial Fishing	Metepenagiag Mi'kmaq Nation holds FSC licences for eel, salmon, shad, striped bass, and brook trout (Curry, DFO, pers. comm. 2019). Metepenagiag Mi'kmaq Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Mi'gmaq of New Brunswick possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.

7.4.5.2 Wolastoqiyik of New Brunswick (Maliseet)

The Wolastoqiyik Nation is comprised of six Indigenous groups located in the Saint John River Valley (Wolastoq) and along its tributaries. The six Wolastoqiyik First Nations are:

- Pilick (Kingsclear) First Nation
- Matawaskiye (Madawaska Maliseet) Nation
- Welamukotuk (Oromocto) First Nation
- Neqotkuk (Tobique) First Nation
- Sitansisk (St. Mary's) First Nation
- Wotstak (Woodstock) First Nation

Two additional Wolastoqey communities, located outside NB are Maliseet Viger First Nation, in QC (Maliseet Viger First Nation n.d.) and Houlton Band of Maliseet Indians, in the State of Maine, United States of America (US) (Houlton Band of Maliseet Indians n.d.). For the purposes of this Project, the IAAC guidelines refer only to Indigenous communities within Canada.

According to archaeological evidence from across Wolastoqey territory in NB, Maine, and QC, the Wolastoqey homeland has been inhabited for millennia. A recently discovered archaeological site near St. Mary's First Nation indicates that the region was inhabited for 12,600 to 12,700 years (CBC News 2017a). The scope of this EIS does not include a comprehensive review of archaeological discoveries in Wolastoqey territory. Refer to Blair (2003, 2004) and Burke (2009) for additional information on archaeological research in the Wolastoqey territory.

During the 16th and 17th centuries, around the time of first contact with Europeans, the Wolastoqiyik activities included hunting, fishing, horticulture, and gathering for livelihood. They also traded with other Indigenous nations (Erickson 1978; Bourque 1994; Hall 2015; McFeat 2018).

Terms intended to establish peace and trade relations were included in the Peace and Friendship Treaties that the Mi'gmaq, the Wolastoqiyik, and the Peskotomuhkati signed with British authorities between 1725 and 1779 (Aboriginal Affairs and Northern Development Canada 2013). Rights to hunt, fish and gather throughout the region to pursue a moderate livelihood are guaranteed by these treaties, as affirmed by Supreme Court of Canada decisions.

To provide guidance towards the conclusion of a Framework Agreement on Aboriginal Treaty Rights, as well as self-government and consultation, the Governments of Canada, NB and the Mi'gmaq and Wolastoqiyik Nations of New Brunswick signed the Mi'gmaq, Wolastoqiyik / NB / Canada Umbrella Agreement in 2011. In 2014, to facilitate consultation activities undertaken by governments with the signatory Mi'gmaq and Wolastoqiyik First Nations, the Mi'gmaq, Wolastoqiyik / NB / Canada Interim Consultation Protocol was signed. Currently the parties are finalizing a Framework Agreement (INAC 2017).

All six Wolastoqey communities are members of the Wolastoqey Nation in New Brunswick (WNNB). The WNNB was established in 2016 to provide technical support and advice on consultation and engagement to individual communities through their Resource Development Consultation Coordinators (RDCCs).

For many centuries the land and waters in NB, PQ and adjacent areas in Maine have been occupied by the Wolastoqiyik for travel corridors, harvesting, gathering, wood harvesting, and fishing for traditional purposes (Maliseet First Nations 2016). They are deeply connected with the waterscapes and landscapes of their homeland, and animals and plants they interact with, both spiritually and culturally. For instance, analysis of Wolastoqey traditional stories indicate that Wolastoqiyik considered the Atlantic Ocean to be an important cultural waterscape that was modified for their benefit by Klouskap, their cultural hero (WNNB, pers. comm. 2018).

Given that the Project activities will be located offshore at a considerable distance from Wolastoqey traditional territory, the discussion of current use of lands and resources for traditional purposes is focused on activities in the marine environment, and species of interest to NB Indigenous groups that may migrate and feed throughout the marine environment. The current use of lands and resources section therefore includes a discussion of FSC and commercial communal harvesting. The species, abundance or management regimes traditionally harvested by the Wolastoqiyik are not represented by the current FSC and commercial communal harvesting schemes (WNNB, pers. comm. 2018).

Brief community profiles are provided for each Indigenous group in the following sections (Table 7.21). The locations of Wolastoqey communities in NB are illustrated in Figure 7-58.

Table 7.21 Wolastoqiyik of New Brunswick Community Profiles

Community Indicator	Description
Pilick (Kingsclear) First Nation	
Location and Proximity to Project Area	Kingsclear First Nation is comprised of two reserves - The Brothers 18 [also affiliated with Woodstock First Nation, Tobique First Nation, and Madawaska First Nation], as well as Kingsclear 6 which is located in York County along the Saint John River directly downstream of the Mactaquac Dam. The Brothers 18 is a Wolastoqey reserve composed of 2 small islands situated above the Reversing Falls inside the city limits of Saint John, NB. This reserve is located in tidal waters at the mouth of the Kennebecasis River in close proximity to the Bay of Fundy (Maliseet First Nations, 2016). Kingsclear First Nation is approximately 1,390 km from the Project Area.
General Overview	Kingsclear is affiliated with the Wolastoqey Tribal Council. Kingsclear is represented in consultation through their RDCC, although WNNB offers technical advice on consultation (WNNB, pers. comm. 2018). The March 2018 registered population of Kingsclear First Nation was 1,046. Approximately 70% (735 individuals) live on-reserve (INAC 2018). The median age (i.e., 31.8 years) of the population is approximately 14% below that of NB in general, which was 45.7 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Kingsclear has a health centre, fire department, convenience store and band-operated school. Kingsclear First Nation is engaged in the forestry industry, and the allocation is generally cut by contractors under agreement with the First Nation. Kingsclear First Nation holds commercial communal licences for a variety of fish and marine species. Kingsclear has been exploring opportunities to expand the fishing industry, whale watching tourism, and guided tours along the Saint John River (Kingsclear First Nation 2014).
Physical and Cultural Heritage (including archaeological, paleontological, historical orarchitectural sites)	The community of Kingsclear was officially founded in 1795 (Nicholas 2005). However, the history of the Wolastoqiyik in this area goes back thousands of years as evidenced by the discovery of a fluted point approximately 11,000 years old (Kingsclear First Nation 2014). Before settling at the current location, many Wolastoqiyik in this region lived in a village called Ekwpahak, located a few miles downriver from Kingsclear. Wolastoqiyik lived here during the late spring and summer when they speared salmon, bass, and sturgeon; planted and tended maize fields; and gathered foods such as fiddleheads, berries, butternuts, and grapes (Nicholas, 2005). The Project does not overlap with the traditional territory of the Wolastoqiyik, therefore there are no known physical, cultural or heritage sites in or near the Project Area aside from the Atlantic Ocean itself which the Wolastoqiyik consider to be an important cultural waterscape (see above discussion). The important array of physical and cultural heritage associated with Kingsclear First Nation is beyond the scope of this summary description (WNNB, pers. comm. 2018).
Current Use of Lands and Resources for Traditional Purposes	The Wolastoqiyik were known to be traditional hunters, trappers, horticulturalists, gatherers, and fishers who travelled throughout the Saint John River valley and adjacent interior and coastal regions depending on the season to find sustenance, shelter, and to trade with Europeans and other Indigenous nations (WNNB, pers. comm. 2018). Wolastoqey First Nations have traditionally, and continue to harvest, hunt and consume traditional foods including moose, deer, fish, fiddleheads and berries, and use resources from the local landscape for medicinal and ceremonial purposes. Salmon is historically and culturally important to the Wolastoqey Nation. Refer below for information on FSC fishing.
Commercial Communal Fishing	Kingsclear First Nation holds commercial communal licences for crab, groundfish, herring, lobster, sea scallop, and sea urchins (Licensing Services, DFO, pers. comm. 2019). These licences are located inshore and offshore NS and NB and do not overlap the Project Area.

Table 7.21 Wolastoqiyik of New Brunswick Community Profiles

Community Indicator	Description
Food, Social, Ceremonial Fishing	Kingsclear First Nation holds FSC fishing licences for striped bass and lobster (Newbould, DFO, pers. comm. 2019). Harvesting of striped bass is limited to the portion of the Saint John River from head of the tide at McKinley Ferry to the Mactaquac Dam. Lobster harvesting occurs in LFA 36 and 38, located along the NB coastal area. Kingsclear First Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Wolastoqiyik in New Brunswick possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Matawaskiye (Madawaska) First Nation	
Location and Proximity to Project Area	Madawaska First Nation is comprised of two reserves - The Brothers 18 [a reserve also affiliated with Kingsclear First Nation, Tobique First Nation, and Woodstock First Nation] as well as St. Basile 10 which is located along the Saint John River near the mouth of the Madawaska River (WNNB, pers. comm. 2018). Madawaska First Nation is located approximately 1,465 km from the Project Area.
General Overview	Madawaska is affiliated with the Wolastoqey Tribal Council and represented in consultation through their RDCC and supported by the WNNB. The March 2018 registered population of Madawaska Maliseet First Nation was 375. Approximately 41% (154 individuals) live on-reserve (INAC 2018). The median age (i.e., 45.6 years) of the population is similar to that of NB in general, which was 45.7 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	The community has a Health Centre, which is staffed by a doctor and a nurse (WNNB, pers. comm. 2018). The Madawaska Maliseet Economic Development Corporation is focused on business development. Businesses include Grey Rock Power Centre (along the Trans-Canada Highway), which has gas stations, restaurants, car dealerships, and the Grey Rock Casino (WNNB, pers. comm. 2018). Madawaska Maliseet First Nation holds commercial communal licences for a variety of fish and marine species.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	Historic writings record Wolastoqiyik at the mouth of the Madawaska as early as the 1690s, and oral traditions indicate a much longer Wolastoqey tenure in the region (WNNB, pers. comm. 2018). The Project does not overlap with the traditional territory of the Wolastoqiyik, therefore there are no known physical, cultural or heritage sites in or near the Project Area aside from the Atlantic Ocean itself which the Wolastoqiyik consider to be an important cultural waterscape (see above discussion). The important array of physical and cultural heritage associated with Madawaska Maliseet First Nation is beyond the scope of this document (WNNB, pers. comm. 2018).
Current Use of Lands and Resources for Traditional Purposes	The Wolastoqiyik were known to be traditional hunters, trappers, horticulturalists, gatherers, and fishermen / fisherwomen who travelled throughout the Saint John River valley and adjacent interior and coastal regions depending on the season to find sustenance, shelter, and to trade with Europeans and other Indigenous nations (WNNB, pers. comm. 2018). Wolastoqey First Nations have traditionally harvested, and continue to harvest, hunt and consume traditional foods including moose, deer, fish, fiddleheads and berries, and to use resources from the local landscape for medicinal and ceremonial purposes. Refer below for information on FSC fishing.
Commercial Communal Fishing	Madawaska Maliseet First Nation holds commercial communal licences for rock crab, groundfish, herring, lobster, mackerel, and sea scallop for inshore and offshore areas of NS and NB (Curry, DFO, pers. comm. 2019).

Table 7.21 Wolastoqiyik of New Brunswick Community Profiles

Community Indicator	Description
Food, Social, Ceremonial Fishing	Madawaska Maliseet First Nation holds FSC licences for lobster, salmon, brook trout and lake trout (Curry, DFO, pers. comm. 2019). Madawaska First Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Wolastoqiyik in New Brunswick possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Oromocto First Nation	
Location and Proximity to Project Area	Oromocto First Nation has one reserve (Oromocto 26) located in Sunbury County near the mouth of the Oromocto River (WNNB, pers. comm. 2018). It is approximately 1,365 km from the Project Area.
General Overview	Oromocto First Nation is affiliated with the Wolastoqey Tribal Council, represented in consultation through their RDCC. The WNNB supports Oromocto First Nation with technical advice on consultation files. The March 2018 registered population of Oromocto First Nation was 707. Approximately 45% (321 individuals) live on-reserve (INAC 2018). The median age (i.e., 29.2 years) of the population is approximately 16% below that of NB in general, which was 45.7 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Oromocto First Nation has a health centre and a pre-school. Oromocto has fisheries and forestry departments and also holds commercial communal licences for a variety of fish and marine species.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	Although land at Oromocto was not set aside as a reserve until 1895, there had been a Wolastoqey settlement in the area since at least 1835 (Pawling, 2017). Moreover, a Wolastoqey burial site in the community that was unearthed and looted by non-Indigenous road construction workers circa 1842 contained remains and burial items from the early contact period (circa 16th or 17th century) (Gesner, 1842). The Project does not overlap with the traditional territory of the Wolastoqiyik, therefore there are no known physical, cultural or heritage sites in or near the Project Area aside from the Atlantic Ocean itself which the Wolastoqiyik consider to be an important cultural waterscape (see above discussion).
Current Use of Lands and Resources for Traditional Purposes	The Wolastoqiyik were known to be traditional hunters, trappers, horticulturalists, gatherers, and fishermen / fisherwomen who travelled throughout the Saint John River valley and adjacent regions depending on the season to find sustenance, shelter, and to trade with Europeans and other Indigenous nations (WNNB, pers. comm. 2018). Wolastoqey First Nations have traditionally, and continue to harvest, hunt and consume traditional foods including moose, deer, fish, fiddleheads and berries, and use resources from the local landscape for medicinal and ceremonial purposes. Refer below for information on FSC fishing.
Commercial Communal Fishing	Oromocto First Nation holds commercial communal licences for groundfish, herring, lobster, sea scallop, and sea urchins (Licensing Services, DFO, pers. comm. 2019). These licences are located inshore and offshore NS and NB and do not overlap the Project Area.

Table 7.21 Wolastoqiyik of New Brunswick Community Profiles

Community Indicator	Description
Food, Social, Ceremonial Fishing	Oromocto First Nation holds FSC fishing licences for burbot, catfish, eel, gaspereau, lobster, perch (white and yellow), chain pickerel, shad, smelt, striped bass, sturgeon, and trout, (Newbould, DFO, pers. comm. 2019). Most of these species are harvested within inland and tidal areas in NB. Lobster are harvested in LFA 36, in the Inner Bay of Fundy. Oromocto First Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes. Other species harvested include chub, lamprey, muskellunge, pike, striped bass, sucker fish, sunfish and whitefish.
Asserted or Established Aboriginal and / or Treaty Rights	The Wolastoqiyik in New Brunswick possess Aboriginal and Treaty rights, including a right to fish for a “moderate livelihood” which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Tobique First Nation	
Location and Proximity to Project Area	Tobique First Nation is comprised of two reserves - the Brothers 18 near Saint John, and Tobique 20 in Victoria County at the mouth of the Tobique River. Tobique First Nation is approximately 1,435 km from the Project Area.
General Overview	Tobique First Nation is affiliated with Mawiw Council (Energy East Pipeline Ltd. 2016). Tobique is represented in consultation through their RDCC, and WNNB offers technical advice on consultation files. The March 2018 registered population of Tobique First Nation was 2,469. Approximately 63% (1,552 individuals) live on-reserve (INAC 2018). The median age (i.e., 31.9 years) of the population is approximately 14% below that of NB in general, which was 45.7 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Tobique First Nation has a wellness centre and a school for students from kindergarten to Grade 5. Community-owned enterprises include a gaming centre, bingo hall, restaurants, youth centre and a convenience store and gas bar. There are several other community businesses, including tobacco shops, take-out restaurants, and convenience stores. Tobique First Nation holds commercial communal licences for a variety of fish and marine species.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	The Wolastoqiyik were known to be traditional hunters, trappers, horticulturalists, gatherers, and fishermen / fisherwomen who travelled throughout the Saint John River valley and adjacent interior and coastal regions depending on the season to find sustenance, shelter, and to trade with Europeans and other Indigenous nations. Lands were initially set aside for the Wolastoqiyik along the Wolastoq at the mouth of the Tobique River by the NB government in the early 19th century. The Tobique reserve is now much smaller than the initial lands set aside by the colonial government as non-Indigenous squatters unlawfully took ownership of a large portion of reserve lands in the 19th century, and hydroelectric dams flooded additional lands in the 20th century (Cuthbertson 2015; Maliseet First Nations 2016). The Project does not overlap with the traditional territory of the Wolastoqiyik, therefore there are no known physical, cultural or heritage sites in or near the Project Area aside from the Atlantic Ocean itself which the Wolastoqiyik consider to be an important cultural waterscape (see above discussion).
Current Use of Lands and Resources for Traditional Purposes	Wolastoqey First Nations have traditionally, and continue to harvest, hunt and consume traditional foods including moose, deer, fish, fiddleheads and berries, and use local natural resources for medicinal and ceremonial purposes. Refer below for information on FSC fishing.

Table 7.21 Wolastoqiyik of New Brunswick Community Profiles

Community Indicator	Description
Commercial Communal Fishing	Tobique First Nation holds commercial communal licences for crab, groundfish, herring, lobster, sea scallop, and sea urchin (Licensing Services, DFO, pers. comm. 2019). Tobique First Nation also holds commercial communal licences for bluefin tuna in the Gulf Region (Curry, DFO, pers. comm. 2019). These licences are located inshore and offshore NS and NB and do not overlap the Project Area. Other species harvested have included quahaug and mackerel.
Food, Social, Ceremonial Fishing	Tobique First Nation holds FSC licences for smallmouth bass and brook trout (Curry, DFO, pers. comm. 2019). Tobique First Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Wolastoqiyik in New Brunswick possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
St. Mary's First Nation	
Location and Proximity to Project Area	St. Mary's First Nation has two reserves (Devon and St. Mary's 24) in the Saint John River Valley near Fredericton, approximately 1,375 km from the Project Area.
General Overview	St. Mary's First Nation is affiliated with the Saint John River Valley Tribal Council (Energy East Pipeline Ltd. 2016). St. Mary's is represented in consultation through their RDCC, and WNNB provides technical advice on consultation issues. The March 2018 registered population of St. Mary's First Nation was 1,928. Approximately 46% (881 individuals) live on-reserve (INAC 2018). The median age (i.e., 27.9 years) of the population is approximately 18% below that of NB in general, which was 45.7 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	The Chief Harold Sappier Memorial Elementary School provides education for students from kindergarten to Grade 5. Businesses include the St. Mary's Entertainment Centre, St. Mary's Retail Sales and St. Mary's Tree Service. St. Mary's started a logging program in 1998. The program is self-sufficient and has sustained itself on the royalties that the program generates. St. Mary's First Nation holds commercial communal licences for a variety of fish and marine species. St. Mary's First Nation currently owns six active commercial fishing vessels.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	The Wolastoqiyik were known to be traditional hunters, trappers, horticulturalists, gatherers, and fishermen / fisherwomen who travelled throughout the Saint John River valley and adjacent interior and coastal regions depending on the season to find sustenance, shelter, and to trade with Europeans and other Indigenous nations (WNNB, pers. comm. 2018). Although the St. Mary's community was not officially recognized by the colonial government until 1867, the first painting of a wigwam on the site was dated 1818. The site was thought to be of regular use as a campground since the 1800s. Many of the Wolastoqiyik settled at St. Mary's maintained the migratory aspects of their traditional lifestyle by hunting, fishing and trapping when they could, and by traveling each summer to other areas within and beyond the St. John River Valley to make and sell their wares (Nicholas, 2005). The Project does not overlap with the traditional territory of the Wolastoqiyik, therefore there are no known physical, cultural or heritage sites in or near the Project Area aside from the Atlantic Ocean itself which the Wolastoqiyik consider to be an important cultural waterscape (WNNB, pers. comm. 2018).

Table 7.21 Wolastoqiyik of New Brunswick Community Profiles

Community Indicator	Description
Current Use of Lands and Resources for Traditional Purposes	Wolastoqey First Nations have traditionally, and continue to harvest, hunt and consume traditional foods including moose, deer, fish, fiddleheads and berries, and use resources from the local landscape for medicinal and ceremonial purposes. Refer below for information on FSC fishing.
Commercial Communal Fishing	St. Mary's First Nation holds commercial communal licences for herring, lobster, sea scallop, sea urchin, shrimp, and swordfish (Licensing Services, DFO, pers. comm. 2019). Most of these licences are located inshore and offshore NS and NB. St. Mary's holds commercial communal licences for swordfish and tuna within NAFO Unit 3LMNOPs in offshore NL (MacDonald, DFO, pers. comm. 2019).
Food, Social, Ceremonial Fishing	St. Mary's First Nation holds FSC fishing licences for eels, gaspereau, groundfish, lobster, scallop, shad, smallmouth bass, soft-shell clams, striped bass, and trout (Newbould, DFO, pers. comm. 2019). St. Mary's First Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Wolastoqiyik in New Brunswick possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.
Woodstock First Nation	
Location and Proximity to Project Area	Woodstock First Nation has two reserves (The Brothers 18 [also affiliated with Kingsclear, Tobique, and Madawaska Maliseet First Nation communities] and Woodstock 23), located on the Saint John River near Woodstock approximately 1,440 km from the Project Area.
General Overview	Woodstock First Nation is affiliated with the Saint John River Valley Tribal Council (Energy East Pipeline Ltd. 2016). Woodstock represents itself in consultation and engagement. The March 2018 registered population of Woodstock First Nation was 1,072. Approximately 27% (291 individuals) live on-reserve (INAC 2018). The median age (i.e., 36.9 years) of the population is approximately 9% below that of NB in general, which was 45.7 years in 2016 (Statistics Canada 2017).
Health and Socioeconomic Conditions	Woodstock First Nation has a pre-school. Economic enterprises include three gas stations / convenience stores, Eagle's Nest Gaming Palace, and Woodstock First Nation Logging. Woodstock First Nation holds commercial communal licences for a variety of fish and marine species. The fishing industry has been an important source of revenue and employment for the First Nation. The fishing enterprise harvests scallop, lobster, sea urchins, swordfish, and tuna.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	The people of Woodstock First Nation are descendants of the Wulustukwiak people who have traditionally occupied southwestern NB along the Saint John River to Kittery, Maine, US. The Project does not overlap with the traditional territory of the Wolastoqiyik; therefore, there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	Wolastoqey First Nations have traditionally, and continue to harvest, and consume traditional foods including moose, deer, fish, fiddleheads and berries, and use resources from the local landscape for medicinal and ceremonial purposes. Refer below for information on FSC fishing.

Table 7.21 Wolastoqiyik of New Brunswick Community Profiles

Community Indicator	Description
Commercial Communal Fishing	Woodstock First Nation holds commercial communal licences for groundfish, lobster, sea scallop, sea urchins, swordfish and tuna (Licensing Services, DFO, pers. comm. 2019). Most of these licences are located inshore and offshore NS and NB, with licences for swordfish and tuna in NAFO Unit 3LMNOPs in offshore NL (MacDonald, DFO, pers. comm. 2019). They have also held licences for herring in the past.
Food, Social, Ceremonial Fishing	Woodstock First Nation holds FSC fishing licences for eels, landlocked salmon, chain pickerel, gaspereau, lobster, scallop, smallmouth bass, smelt, striped bass, and trout (Newbould, DFO, pers. comm. 2019). These include FSC licences for inland and tidal areas of NB. Woodstock First Nation holds an FSC licence to fish for other species such as lobster and scallop in NAFO units in and around NB. Woodstock First Nation also has an Aboriginal right to fish for Atlantic salmon (outer Bay of Fundy population) for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Wolastoqiyik in New Brunswick possess Aboriginal and Treaty rights, including a right to fish for a “moderate livelihood” which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.

7.4.5.3 Peskotomuhkati Nation (Passamaquoddy)

All lands and waters of the St. Croix River watershed, Machias River watershed and the Magaguadavic River watershed, draining into the Bay of Fundy and Gulf of Maine, are included in the traditional territory of the Peskotomuhkati Nation (Passamaquoddy) (Bassett 2014, in MGS and UINR 2016). The territory was bordered by the Wolastoqiyik traditional territory (i.e., all lands and waters draining the Saint John River watershed) on the northeast and by the Penobscot traditional territory (Penobscot River watershed and Union River watershed in Maine, US) on the west (MGS and UINR 2016).

The Peskotomuhkati Nation asserts title to territories along the Maine and NB border, with most of the members currently living on the US side. The Passamaquoddy have submitted a land claim to the federal government which has currently been accepted for review.

The community profile for Peskotomuhkati Nation at Skutik is provided in the following sections (Table 7.22). The Peskotomuhkati Nation community is located in NB (Figure 7-58).

Table 7.22 Peskotomuhkati of New Brunswick Community Profile

Community Indicator	Description
Peskotomuhkati Nation at Skutik (Passamaquoddy)	
Location and Proximity to Project Area	Peskotomuhkati Nation at Skutik is located in St. Andrews approximately 1,435 km from the Project Area.
General Overview	The homeland of the Peskotomuhkati people is located along the Passamaquoddy Bay, with drainage area of the Schoodic (St. Croix) River and the Fundy Islands (RSF n.d.). In 2013, it was estimated that the Schoodic Band numbered 300 members in NB. At least three Peskotomuhkati Reserves were established in Charlotte County, NB in the 19th and early 20th centuries, including the Schoodic Reserve, located in present day Milltown, NB. This community was established in 1785 on land adjacent to the Schoodic Falls, which was an important fishing place and tribal burial ground.

Table 7.22 Peskotomuhkati of New Brunswick Community Profile

Community Indicator	Description
	The Canoose Reserve was established in 1851 at the confluence of the Canoose and Schoodic Rivers. The St. Croix Reserve was created in 1881 on the St. Croix River, near the outlet to the Chiputneticook Lakes. At least two other tracts of land, located at Qonasqamkuk (St. Andrews) and Grand Manan Island, known to be Peskotomuhkati gathering places, were the subject of various petitions for reserve status, but were never formalized as reserve lands (RSF n.d.). Reserve lands became occupied by British Loyalist settlers while the Peskotomuhkati were absent during seasonal harvesting and fishing migrations (RSF n.d.). A claim submitted to the Canadian government has currently been accepted for review (INAC 2017). No census information is available specifically for Peskotomuhkati Nation in NB.
Health and Socioeconomic Conditions	Limited information is available on the health and socioeconomic conditions of the Peskotomuhkati as a group because they do not live on a reserve or in a separate community.
Physical and Cultural Heritage (including archaeological, paleontological, historical or architectural sites)	Evidence shows that the ancestors of the Peskotomuhkati have inhabited their traditional territory for the last 13,000 years from Machias, Maine to Point Lepreau, NB (RSF n.d.). The point of land jutting into Passamaquoddy Bay (now occupied by the Town of St. Andrews, NB), was an important meeting place where sacred ceremonies, burial of chiefs and other activities occurred. The Project does not overlap with the traditional territory of Peskotomuhkati, therefore there are no known physical, cultural or heritage sites in or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	Seasonal journeys within their traditional territory extended inland north along the Schoodic River to the Chipputnecook Lakes, and typically involved harvesting various natural resources at different times of the year. In the spring, many Peskotomuhkati people occupied a field at Salmon Falls on the Schoodic River, taking advantage of the runs up-river by salmon, eels, and alewives. Much of the harvest was processed/dried for the following winter. Passamaquoddy Bay was also important for its abundance of pollock (RSF n.d.).
Commercial Communal Fishing	Peskotomuhkati Nation has no commercial communal licences.
Food, Social, Ceremonial Fishing	Peskotomuhkati Nation holds FSC licences for striped bass, smallmouth bass, eel, gaspereau, white perch, yellow perch, shad, rainbow smelt, sturgeon, brook trout, brown trout, rainbow trout, lake trout, burbot, whitefish, landlocked salmon, and chain pickerel (Newbould, DFO, pers. comm. 2019). Peskotomuhkati Nation also has an Aboriginal right to fish Atlantic salmon for FSC purposes.
Asserted or Established Aboriginal and / or Treaty Rights	The Peskotomuhkati's claim has been accepted for review by the Canadian government (INAC 2017). The Peskotomuhkati have a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties and an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area.

7.4.6 Mi'kmaq First Nations of Québec

Three Mi'gmaq First Nation groups in QC were identified in the EIS Guidelines for engagement and inclusion in the EIS:

- Micmacs de Gesgapegiag (Micmacs of Gesgapegiag)
- La Nation Micmac de Gespeg
- Listuguj Mi'gmaq Government

Mi'gmawei Mawiomi Secretariat (MMS) represent these three Indigenous groups in the negotiation with the Governments of Canada and Québec. In 2007, the MMS formally submitted a statement of claim to the federal and provincial governments. A framework agreement (2008) and a consultation agreement (2012) was signed by the Mi'kmaq, Québec, and Canada as a formal agreement to pursue land claims negotiations. The three parties are currently negotiating an Agreement-in-Principle (AIP) that should eventually lead to a final land claim agreement (INAC 2014, 2016; MMS 2018).

The primary land claim area includes, but is not limited to, all the territory of Gesgapegiag. It covers the entire Gaspé Peninsula and extends westward along the St. Lawrence River past Rimouski, Québec. Also included in the primary land claim is Anticosti Island and an area north and north-east of Edmundston, NB. A potential secondary claim has been identified but is not presently being pursued (MMS 2018).

In keeping with treaty requirements and Supreme Court decisions regarding FSC and commercial communal fishing rights, enhancement of the participation of these communities in the fisheries is an ongoing initiative between DFO and Indigenous groups in QC. This includes Mi'kmaq First Nations on the Gaspé Peninsula and Innu First Nations on the Lower North Shore. Agreements to increase Indigenous involvement in resource management and to develop skills and capacity to engage in commercial fisheries and management of fishery-based businesses are being negotiated by DFO and the Indigenous groups (DFO 2019).

Community profiles for each QC Indigenous group identified in the EIS Guidelines are provided in the following sections (Table 7.23). The locations of these Indigenous groups in QC are provided in Figure 7- 58.

Table 7.23 Mi'kmaw Nations in Québec Community Profiles

Community Indicator	Description
Micmacs de Gesgapegiag	
Location and Proximity to Project Area	Micmacs de Gesgapegiag is comprised of one reserve, located on the south shore of the Gaspé Peninsula, at the intersection of the Gesgapegiag River estuary and the Baie des Chaleurs (Figure 7-58). The reserve is approximately 1,270 km from the Project Area.

Table 7.23 Mi'kmaw Nations in Québec Community Profiles

Community Indicator	Description
General Overview	The Micmacs de Gesgapegiag has a Chief and eight Councillors and is represented by the MMS in land claims negotiations and consultation and engagement. The March 2018 population of Micmacs de Gesgapegiag was 1,538 (INAC 2018). Approximately 45% live on-reserve. The population of the Gesgapegiag community decreased between 2011 and 2016, which may be attributed to lower birth rates or possibly out-migration as approximately half of the registered population live off-reserve (Nexen 2018). The on-reserve population is younger than that of the QC population, as a whole (Statistics Canada 2017; INAC 2018; MOG 2018).
Health and Socioeconomic Conditions	The Micmacs de Gesgapegiag Band Council and other agencies provide services and infrastructure to the community in education, health care, social services, public security (fire and police), public works, economic development (e.g., forestry and commercial fisheries), addictions treatment and employment. Identified health issues include healing, diabetes, mental health and addictions. The Wejgwapniag School provides primary and secondary education. Established in 1996, the Gesgapegiag Health and Community Services provides programs and services through a medical centre, healing lodge, and youth centre (MOG 2018). There is also a treatment centre in Gesgapegiag, the Mawiomi Treatment Centre, which specializes in the treatment of substance, drug, and alcohol abuse (Statoil 2017). The Walgwan Treatment Centre is one of a network of nine First Nation treatment centres in Canada that provide culturally-based treatment services for dependence on solvents and other substances as well as addictive behavior to First Nations and Inuit youth (Statoil 2017). The Micmacs de Gesgapegiag are active in the forestry industry through a Forest Management Agreement with the provincial government to harvest 15,000 cubic meters of softwood to be sold to a local sawmill (MOG 2018). The Band's forestry industry employs 25 to 30 individuals on a seasonal basis. Other economic activities include construction, tourism, handicraft production and outfitting services for sport fishing and hunting (Commission des droits de la personne et des droits de la jeunesse [CDPDJ] 2009). In 2011, the largest employer was Public Administration, employing approximately 42% of the workforce. As described in more detail below, the Micmacs de Gesgapegiag have an agreement with the provincial government for communal fishing which occurs primarily in the Cascapedia River mouth as well as in the Petite riviere Cascapedia and its mouth (MMAFMA 2017). Established in 2012, the Mi'gmaq Maliseet Aboriginal Fisheries Management Association (MMAFMA), in partnership with the QC School of Fisheries and Aquaculture, assists the Micmacs de Gesgapegiag in commercial fishing initiatives. The MMAFMA has a commercial fishing vessel and administers training programs for fishing mackerel, herring and bluefin tuna, pelagic species for which it holds commercial communal licences. The boat is also used for training programs in groundfish (Atlantic halibut, Greenland halibut, redfish) fisheries through a program with QC School of Fisheries and Aquaculture. The Micmacs de Gesgapegiag are also engaged in a joint aquaculture initiative to grow and process kelp products. The Micmacs de Gesgapegiag co-manage sport salmon fishing in the Cascapedia River through Société Cascapedia inc. (MOG 2018; Saumon Quebec 2017). The Gesgapegiag Fisheries Department (GFD) manages the Band's participation in commercial seafood harvesting. The GFD provides seasonal employment to 48 Indigenous and nine non-Indigenous people in the fishing industry. Fishers harvest lobster, shrimp, and crab off the coast of the Gaspe Peninsula.

Table 7.23 Mi'kmaw Nations in Québec Community Profiles

Community Indicator	Description
Physical and Cultural Heritage (including archaeological, paleontological, historical, or architectural sites)	Traditionally, the Mi'gmaq lived by hunting, fishing, and gathering throughout their territory which included the southeastern portion of the Gaspe Peninsula, NS, PEI, most of NB and southern NL. As fishers, hunters and gatherers, the people used their intimate knowledge of the land and seasonal cycles of vegetation, animals and fish to meet their physical and spiritual needs. Mi'gmaq hunters and fishers were also known to travel to Anticosti Island and the shore of the North Coast and the Magdalen Islands (CDPDJ 2009). Traditional camps of the QC Mi'kmaq were located along the shores of the St. Lawrence River. There are no known physical, cultural or heritage sites within or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	Historically, the Mi'gmaq of the Gulf of St. Lawrence region harvested various fish species through the seasons. The fishing season began in the spring with the break-up of shore and river ice when the Mi'gmaq moved to coastal areas and river mouths such as the estuaries of the Restigouche and Cascapédia Rivers that flow into the Baie des Chaleurs. Fishing began with shallow water fish species exposed by the melting ice, the most important of which was winter flounder. The next fishing period included spawning runs of fish that were migrating from fresh water to the sea or the reverse. These species included smelt in March, alewife in April and sturgeon in May. Typically, salmon were harvested in May as well as July and August, eel in September, and Atlantic tomcod as late as December (Conseil des Innu de Ekuanitshit [CIE] 2014). Fish spawning seasons were accompanied by the spring migration of seabird species that nested in the same areas. Seabird eggs were also collected from offshore islands in spring and seabird harvesting took place in early fall during the southern migration. During spring and summer, the Mi'gmaq harvested marine shellfish including oysters, scallops, quahogs, clams, American lobster, and northern crab. Oysters harvested from the southern Gulf of St. Lawrence were used for food and the shells were used for wampum (currency). During whelping season, the Mi'kmaq also harvested marine mammals such as walrus and seal on the Gaspe Peninsula (CIE 2014). The Micmacs de Gesgapegiag traditionally used Atlantic salmon for barter, spiritual or ceremonial practices, bait (salmon skin), and crafts. Salmon fishing methods evolved from harpoons to gill nets and cages for communal fishing and fly-fishing rods for recreational fishing. Fishing occurred from late May to early November. Members of Gesgapegiag have caught salmon in the mouth of the Cascapédia River and upstream, as well as in neighbouring rivers (Petite rivière Cascapédia, Bonaventure, Nouvelle and Hall) (MMAFMA 2017). Annual subsistence harvests of salmon by the Micmacs de Gesgapegiag in the Cascapédia River were reported for the 1984-2008 period. Gesgapegiag has not taken salmon in the Cascapédia River since 2009 pursuant to an agreement with the Government of QC to cease fishing salmon in return for monetary compensation (MMAFMA 2017). Eel harvesting is a traditional Mi'gmaq activity, beginning in May and ending when the ice cover forms. According to members of the Micmacs de Gesgapegiag, eel is mostly taken in the mouth and estuary of the Cascapédia River. Harvesting sites extend along the coast from Carleton to Bonaventure, including the Nouvelle area (MMAFMA 2017). Cod fishing is also considered important to the economic and cultural landscape of the Gaspé Peninsula but is now restricted because of low cod stocks. Members of the Micmacs de Gesgapegiag have also reported that striped bass is mostly captured as bycatch in the Cascapédia River estuary and along the shoreline near Carleton and New Richmond. Striped bass is generally harvested between May and October and consumed or used as bait to catch smelt. The marine area of the Banc des Américains is of economic, ecological and cultural importance for the Mi'kmaq communities. The area and its periphery are used to harvest crab, lobster, mackerel, herring, cod, and waterfowl (MMAFMA 2017).

Table 7.23 Mi'kmaw Nations in Québec Community Profiles

Community Indicator	Description
Commercial Communal Fishing	The Micmacs de Gesgapegiag holds commercial communal licences for bait, lobster, mackerel, herring, groundfish, rock crab, whelk, snow crab, sea cucumber, shrimp, and seal (Statistics division, QC, DFO, pers. comm. 2019). Other species harvested have included cod, turbot, halibut and winter flounder (Morrison 2018).
Food, Social, Ceremonial Fishing	The Micmacs de Gesgapegiag participate in fishing for FSC purposes. The First Nation has an agreement with the provincial government for communal fishing, which occurs principally in the Cascapedia River mouth as well as the Petite riviere Cascapedia and its mouth (MMAFMA 2017).
Asserted or Established Aboriginal and / or Treaty Rights	Mi'gmaq First Nations in Quebec possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area. The MMS signed a Framework Agreement for a comprehensive claim with Canada (2012) that includes the Gaspe Peninsula and westward down the St. Lawrence River as well as Anticosti Island.
La Nation Micmac de Gespeg	
Location and Proximity to Project Area	La Nation Micmac de Gespeg has no land base; members live throughout the Gaspe Peninsula and in other areas (Figure 7-58). La Nation Micmac de Gespeg is approximately 1,165 km from the Project Area.
General Overview	La Nation Micmac de Gespeg is governed by a Chief and eight Councillors and is also represented by the MMS in matters relating to land claims negotiations, and consultation and engagement (INAC 2015; INAC 2018). The March 2018 population of La Nation Micmac de Gespeg was 829, living throughout the Gaspé Peninsula and in other areas. No additional census information is available specifically for La Nation Micmac de Gespeg.
Health and Socioeconomic Conditions	Publicly available information of the health and socioeconomic conditions of La Nation Micmac de Gespeg could not be found. As described in more detail below, La Nation Micmac de Gespeg is active in commercial fisheries through the MMAFMA. The MMAFMA has a commercial fishing vessel and administers training programs for fishing mackerel, herring and bluefin tuna, pelagic species for which it holds commercial communal licences. The boat is also used for training programs in groundfish (Atlantic halibut, Greenland halibut, redfish) fisheries through a program with QC School of Fisheries and Aquaculture. La Nation Micmac de Gespeg is also engaged in a joint aquaculture initiative to grow and process kelp products.
Physical and Cultural Heritage (including archaeological, paleontological, historical, or architectural sites)	Traditionally, the Mi'gmaq lived by hunting, fishing, and gathering throughout their territory which included the southeastern portion of the Gaspe Peninsula, NS, PEI, most of NB and southern NL. As fishers, hunters and gatherers, the people used their intimate knowledge of the land and seasonal cycles of vegetation, animals and fish to meet their physical and spiritual needs. Mi'gmaq hunters and fishers were also known to travel to Anticosti Island and the shore of the North Coast and the Magdalen Islands (CDPDJ 2009). Traditional camps of the QC Mi'gmaq were located along the shores of the St. Lawrence River. There are no known physical, cultural or heritage sites within or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	Traditionally, various fish species have been fished by the Mi'gmaq in the Gulf of St. Lawrence through the seasons. The fishing season began in the spring with the break-up of shore and river ice when the Mi'gmaq moved to coastal areas and river mouths such as the estuaries of the Restigouche and Cascapédia Rivers that flow into the Baie des Chaleurs. Fishing began with shallow water fish species exposed by the melting ice, the most important of which was winter flounder. The next fishing period included spawning runs of fish that were migrating from fresh water to the sea or the reverse. These species included smelt in March, alewife in April and sturgeon in May.

Table 7.23 Mi'kmaw Nations in Québec Community Profiles

Community Indicator	Description
	Typically, salmon were harvested in May as well as July and August, eel in September, and Atlantic tomcod as late as December (CIE 2014). Fish spawning seasons were accompanied by the spring migration of seabird species that nested in the same areas. Seabird eggs were also collected from offshore islands in spring and seabird harvesting took place in early fall during the southern migration. During spring and summer, the Mi'kmaq harvested marine shellfish including oysters, scallops, quahogs, clams, American lobster, and northern crab. Oysters harvested from the southern Gulf of St. Lawrence were used for food and the shells were used for wampum (currency). During whelping season, the Mi'kmaq also harvested marine mammals such as walrus and seal (CIE 2014). La Nation Micmac de Gespeg traditionally used Atlantic salmon for barter, spiritual or ceremonial practices, bait (salmon skin), and crafts. Salmon fishing methods have evolved from harpoons to gill nets and cages for communal fishing and fly-fishing rods for recreational fishing. Fishing occurred from late May to early November. Members of La Nation Micmac de Gespeg took salmon in the Saint-Jean, Dartmouth, York, and Malbaie Rivers, and in the mouth of the Dartmouth River (MMAFMA 2017). Eel harvesting is a traditional Mi'gmaq activity, beginning in May and ending when the ice cover forms. Eel harvesting sites reported by La Nation Micmac de Gespeg include the shoreline between Gaspé and Percé. Cod fishing is also considered important to the economic and cultural landscape of the Gaspé Peninsula but is now restricted because of low cod stocks. According to some members of La Nation Micmac de Gespeg, cod is often taken in the Gaspé Bay, at the northern extremity, as well as along the southern part, along the Sandy Beach pier. Other fishing areas identified by La Nation Mimac de Gespeg include Rivière-au-Renard, the Malbaie River estuary, Percé and the Banc des Américains. Members of La Nation Micmac de Gespeg harvest striped bass at locations between Gaspé and the Malbaie River estuary generally between May and October. Other fishing areas identified by La Nation Micmac de Gespeg include Rivière-au-Renard, the Malbaie River estuary, Percé and the Banc des Américains.
Commercial Communal Fishing	The MMAFMA holds several commercial communal licences for mackerel, herring, shrimp, lobster, snow crab, sea cucumber, rock crab, bait, groundfish (Statistics division, QC, DFO, pers. comm. 2019), and bluefin tuna (Nexen 2018). Commercial harvesting of groundfish (e.g., Atlantic halibut, Greenland halibut, redfish) is planned.
Food, Social, Ceremonial Fishing	La Nation Micmac de Gespeg participate in fishing for FSC purposes. The First Nation has an agreement with the provincial government for harvesting salmon on the Saint-Jean, Dartmouth, and York Rivers. Most of the salmon harvested is distributed to elders. Eel harvesting sites reported by La Nation Micmac de Gespeg include the shoreline between Gaspé and Percé.
Asserted or Established Aboriginal and / or Treaty Rights	The MMS signed a Framework Agreement for a comprehensive claim with Canada (2012) that includes the Gaspe Peninsula and westward down the St. Lawrence River as well as Anticosti Island. Mi'gmaq First Nations have a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties and an Aboriginal right to fish for FSC purposes. The asserted or established Aboriginal and treaty rights of the Mi'gmaq do not extend to lands or waters in or near the Project Area.
Listuguj	
Location and Proximity to Project Area	Listuguj is comprised of one reserve, located at the mouth of the Restigouche River in the southwestern area of the Gaspé Peninsula (Figure 7-58) (INAC 2018). Listuguj is approximately 1,330 km from the Project Area.

Table 7.23 Mi'kmaw Nations in Québec Community Profiles

Community Indicator	Description
General Overview	Listuguj is governed by a Chief and eight Councillors and is also represented by MMS in matters relating to land claims negotiations, and consultation and engagement (INAC 2015; INAC 2018). The Listuguj reserve was established in 1853. The March 2018, Listuguj population was 4,061. Approximately 50% live on-reserve. The population of Listuguj decreased from 2011 to 2016, which may be a result of out-migration because half of the registered population live off-reserve. The population of the Listuguj is younger than that of QC population, as a whole (Statistics Canada 2017; INAC 2018).
Health and Socioeconomic Conditions	Listuguj Mi'gmaq Government (LMG) and other agencies provide community members with facilities and programs in housing, education, community and social services, health, community health, women's shelter, long-term care facility for the elderly, a youth group home, fire safety, policing, restorative justice, drinking water, wastewater management, solid waste management, roads and natural resource management. The Alaqsite'w Gitpu School, established in 1997, accommodates 250 students from nursery to grade 8 (LMG 2017). The Band Council provides additional educational support through the Post-Secondary Student Support Program and Mi'kmaq language and culture programs (LMG 2017). The community also has a variety of community health services, provided by the Listuguj Community Health Services, including the Listuguj Health Centre, women's shelter, a long-term care facility for the elderly and a youth group home (LMG 2016). Identified health and social issues include chronic illness, mental health and addictions, diabetes, foster care, care of the elderly, physical inactivity and family issues. The LMG is actively involved in the forestry industry, with community members being employed in the LMG silviculture and forestry operations and as independent loggers (LMG 2016). In 2011, the largest employer in the Listuguj community was Public Administration, employing approximately 31% of the workforce. As described in more detail below, Listugui holds commercial communal fishing licences for a variety of fish and marine species. Listuguj Fisheries directly employs community members and owns 13 fishing vessels (Listuguj Fisheries 2014). Listuguj Fisheries is also involved in fisheries training and policy development (Listuguj Fisheries 2014).
Physical and Cultural Heritage (including archaeological, paleontological, historical, or architectural sites)	Traditionally, the Mi'gmaq lived by hunting, fishing, and gathering throughout their territory which included the southeastern portion of the Gaspe Peninsula, NS, PEI, most of NB and southern NL. As fishers, hunters and gatherers, the people used their intimate knowledge of the land and seasonal cycles of vegetation, animals and fish to meet their physical and spiritual needs. Mi'gmaq harvesters and fishers were also known to travel to Anticosti Island and the shore of the North Coast and the Magdalen Islands (CDPDJ 2009). Traditional camps of the QC Mi'gmaq were located along the shores of the St. Lawrence River. No known physical, cultural or heritage sites are within or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	Traditionally, various fish species have been fished by the Mi'gmaq in the Gulf of St. Lawrence through the seasons. The fishing season began in the spring with the break-up of shore and river ice when the Mi'gmaq moved to coastal areas and river mouths such as the estuaries of the Restigouche and Cascapédia Rivers that flow into the Baie des Chaleurs. Fishing began with shallow water fish species exposed by the melting ice, the most important of which was winter flounder. The next fishing period included spawning runs of fish that were migrating from fresh water to the sea or the reverse. These species included smelt in March, alewife in April and sturgeon in May. Typically, salmon were harvested in May as well as July and August, eel in September, and Atlantic tomcod as late as December (CIE 2014). Fish spawning seasons were accompanied by the spring migration of seabird species that nested in the same areas. Seabird eggs were also collected from offshore islands in spring and

Table 7.23 Mi'kmaw Nations in Québec Community Profiles

Community Indicator	Description
	seabird harvesting took place in early fall during the southern migration. During spring and summer, the Mi'gmaq harvested marine shellfish including oysters, scallops, quahogs, clams, American lobster, and northern crab. Oysters harvested from the southern Gulf of St. Lawrence were used for food and the shells were used for wampum (currency). During whelping season, the Mi'gmaq also harvested marine mammals such as walrus and seal (CIE 2014). Since 1984, Listuguj has taken approximately 1,000 salmon annually in the Restigouche River for subsistence purposes. Eel harvesting is a traditional Mi'gmaq activity that begins in May and ends when the ice cover forms (MMAFMA 2017).
Commercial Communal Fishing	Listuguj holds commercial fishing licences for snow crab, lobster, rock crab, shrimp, herring, groundfish, and bait (Statistics division, QC, DFO, pers. comm. 2019). Other species harvested have included cod, turbot and halibut (Morrison 2018).
Food, Social, Ceremonial Fishing	Listuguj participates in communal fishing for FSC purposes with licences to harvest salmon and lobster (Statistics division, QC, DFO, pers. comm. 2019; Statoil 2017).
Asserted or Established Aboriginal and / or Treaty Rights	Mi'gmaq First Nations in Quebec possess Aboriginal and Treaty rights, including a right to fish for a "moderate livelihood" which flows from the Peace and Friendship Treaties; and, an Aboriginal right to fish for FSC purposes. These rights do not extend to lands or waters in or near the Project Area. The MMS signed a Framework Agreement for a comprehensive claim with Canada (2012) that includes the Gaspe Peninsula and westward down the St. Lawrence River as well as Anticosti Island.

7.4.7 Innu First Nations of Quebec

Two QC Innu communities were identified in the EIS Guidelines for engagement and inclusion in the EIS:

- Les Innus de Ekuanitshit
- Première Nation des Innus de Nutashkuan

The Innu people were traditionally nomadic, and their ancestral territory covers the region from Québec City extending north of Schefferville, and the southern part of Labrador. They depended on the products of hunting (mainly barren-ground caribou, moose and small game), fishing (including Atlantic salmon) and gathering activities (e.g., eggs, berries) for subsistence. At the end of the 19th century, participation in the fur trade, settlement, the expansion of the forestry and mining industries, and interventions by the Canadian and QC Governments led to establishment of permanent Innu communities, mainly in the south of their territory. The settlement process began in the 20th century in northern parts of the territory, and in many cases not until after 1950 (CDPDJ 2009). The occupation of the ancestral territory of Nitassinan and traditional Innu Aitun practices such as hunting and fishing still continue today.

The Atikamekw and Montagnais Council was established in 1975 to represent the nine QC Innu Nations and the three Atikamekw Nations, but due to differences of opinion, mainly with respect to recognition of Indigenous rights and certainty, the Atikamekw and Montagnais Council was dissolved. Before that they initiated a QC Innu land claim in 1979, and negotiations were finalized in 2004 by the Mamuitun mak Nutashkuan Tribal Council on behalf of the Innu First Nation communities of Essipit, Mashteuiatsh, Nutashkuan and Pessamit. The Mamuitun mak Nutashkuan Tribal Council also signed an Agreement-in-Principle of General Nature (APGN) with the governments of QC and Canada (Tremblay 2011), which was important in that the Innu First Nations would not surrender title over their traditional territory and would no

longer be subject to the Indian Act (National Post 2016). Instead, a form of self-government would be determined. The Mamuitun mak Nutashkuan Tribal Council (renamed to Regroupement Petapan Inc. in 2010) has continued to represent the other three First Nations, including the Innus de Nutashkuan (Regroupement Petapan 2017). Negotiations towards a final agreement in the form of a treaty are well advanced (INAC 2016).

In 1982, an advisory body was formed, called the Regroupement Mamit Innuat Tribal Council (MICT), to create a common development structure for the four "Montagnais" Innu First Nations of the Lower North Shore (i.e., Ekuanitshit, Nutashkuan, Unamen Shipu and Pakua Shipu). The MICT represents the interests of the First Nations in public, provincial, national and international initiatives. In 1994, the Mamu Pakatatau Mamit Assembly was created to represent the Innu communities of Ekuanitshit, Unamen Shipu and Pakua Shipi in land claims negotiations, which took place from 1995 to 2007 with Canada and Québec. In 2008, however, the three member-communities ceased the negotiation process in favour of a litigation approach (INAC 2016).

Information on land and resource use activities of the Innu groups is mainly based on a 1983 study by the Conseil des Atikamekws et des Montagnais (CAM). Information from Hydro-Quebec Production's (HQP) environmental impact study for the Complexe de la Romaine Project was also accessed. Additional sources of information include a publication on Indigenous fisheries in eastern QC, an overview of salmon fishing in QC in 2016 (MMAFMA 2017) and the technical report by the Agence Mamu Innu Kaikusseth (AMIK) called "NUTASHKUAN. Portrait-diagnostic de la pêche et de la gestion du saumon atlantique".

Community profiles for Nutashkuan and Ekuanitshit are provided in the following sections (Table 7.24). The locations of these Indigenous groups are provided in Figure 7-58.

Table 7.24 Québec Indigenous Groups Community Profiles

Community Indicator	Description
Les Innus de Ekuanitshit	
Location and Proximity to Project Area	Les Innus de Ekuanitshit is comprised of one reserve, at the confluence of the Mingan River and the Gulf of St. Lawrence (Figure 7-58). Ekuanitshit community is approximately 1,115 km from the Project Area.
General Overview	Les Innus de Ekuanitshit is governed by a Band Council with a Chief and four Councillors and is represented by the MICT. The Mingan reserve was established in 1963 for the Innus de Ekuanitshit and settled mainly by Innu families who traditionally travelled the Magpie, Saint-Jean, and Romaine Rivers (Musée régional de la Côte-Nord [MRCN] 2010; INAC 2018). The September 2018 population of Les Innus de Ekuanitshit was 655. Approximately 92% live on reserve. The population of the Mingan Reserve has increased since the 2011 census. The median age is at least 10 years younger than the median age of the QC population (Statistics Canada 2017; INAC 2018). The percentage of population under 15 years of age is also higher than that of the general QC population (Statistics Canada 2017; INAC 2018).
Health and Socioeconomic Conditions	The Conseil des Innus de Ekuanitshit and other agencies provide community members with social development, finance and administration, patient services, social services, technical services, advisory services and health care. Ecole Teueikan accommodates students from pre-kindergarten to grade 4. A health centre provides emergency and preventive care and community health services. Five nurses are available on-reserve, and a nutritionist, psychologist and dentist visit regularly. The

Table 7.24 Québec Indigenous Groups Community Profiles

Community Indicator	Description
	Conseil des Innus de Ekuanitshit is responsible for the provision of health services to community members, after this responsibility was transferred by Health Canada. The Innu Mukutan Economic Development Corporation is responsible for economic development for Innu communities under its jurisdiction, including Les Innus de Ekuanitshit. The main economic activities include arts and handicrafts, commercial fishing, outfitting (fishing for salmon, ouananiche, and brook trout), tourism, trapping and service businesses. In 2011, the largest employer for community members was Public Administration, employing approximately 31% of the workforce. As described in more detail below, economic activity includes commercial fishing. Les Innus de Ekuanitshit operate six boats and its commercial fishing activities employ approximately 40 persons on a full- or part-time basis (Nexen 2018). Les Innus de Ekuanitshit commercially harvest scallops, crab, halibut, sea cucumber and whelk.
Physical and Cultural Heritage (including archaeological, paleontological, historical, or architectural sites)	Innu culture and heritage are based on their relationship with game and fish and the seasonal migrations and locations of various species, including caribou and salmon. The Innu people traditionally travelled over a vast territory encompassing the entire St. Lawrence catchment area between the Saguenay-Lac-Saint-Jean and Labrador. Families also occasionally crossed the St. Lawrence Estuary to hunt in the Bas-du-Fleuve area (MRCN 2010; Verreault et al. 2013). Les Innus de Ekuanitshit participate in a spring harvest of migratory birds, seal and Atlantic salmon (Englobe 2018). Numerous coastal sites exist dating from approximately a thousand years ago demonstrate intensive spring harvesting of migratory bird species, including the Canada Goose and common eider (Englobe 2018). Of the approximately 8,000 archaeological sites discovered in QC, over 1,600 are in traditional Innu territory. Two important Innu sites have been discovered. The first is approximately 60 km from the coast, on the northern shore of Lake Jourdain, and was used as a staging area for lengthy portages. The second site, on the shore of the Jean-Pierre River, demonstrates Innu relationships with groups to the West, North-West and North (MRCN 2010). These archaeological sites are located along the shores of lakes and rivers that were used as encampment areas and travel routes for the Innu. No known physical, cultural or heritage sites are within or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	Traditional hunting, fishing and gathering activities continue to support the domestic economy as well as local traditions for the Innus de Ekuanitshit (Englobe 2018). The Innu continue to use the resources of the St. Lawrence River for food and communal purposes. Activities include fishing for Atlantic salmon, herring, and brook trout; collecting goose eggs in the peat bogs between the River and its tributaries; collecting eggs of other bird species on the islands; hunting waterfowl (e.g., goose and black guillemot); gathering edible plants (e.g., black crowberry and small cranberries) that grow along the River banks and in the peat bogs; fishing for lobster and scallops with harpoons; and collecting other shellfish along the coast (CIE 2014; AMIK 2016).
	Fishing, mainly for Atlantic salmon, traditionally played and continues to play, an important role in Innu life on the North Shore of the St. Lawrence River and estuary. The Innus de Ekuanitshit have identified 35 harvesting areas and 21 camps for salmon fishing along the Romaine River and its main tributary, the Puyjalon River. The Innus de Ekuanitshit also harvest salmon in the Jupitagon, Magpie, Saint-Jean, Mingan and Manitou Rivers. Harpoons and fishing rods are used to take salmon in the Manitou River, while nets were used in the Romaine River. Salmon fishing (subsistence and sport) in the Romaine River is now closed because of the scarcity of the population (HQP 2007; Charest et al. 2012; ministère des Forêts, de la Faune et des Parcs 2017). Salmon fishing appears to be more valued by the Innus de Ekuanitshit for social and cultural reasons than economic ones, although the latter should not be under-estimated because salmon remains an important source of high-quality food. A 2013 study of fishing and community management of salmon by the Innus of Ekuanitshit concluded that, for those who took part, the most important

Table 7.24 Québec Indigenous Groups Community Profiles

Community Indicator	Description
	values were sharing and respect, shown through conservation and avoiding waste (HQP 2007; CIE 2014). On the Romaine River, immediately downstream of Grande Chute, hunting is practiced by the Innus de Ekuanitshit in a long corridor using motorized canoe and snowmobile. Trapping focuses on beaver and certain other furbearers (e.g., otter, muskrat). Canada geese, small game, and salmon are also harvested. Various species of ducks are harvested in areas such as Grande Hermine Bay, west of Baie-Johan-Beetto z, and in the mouths of the Romaine and Mingan Rivers (HQP 2007).
Commercial Communal Fishing	Les Innus de Ekuanitshit have commercial communal licences in its own name, as a member of the Agence Mamu Innu Kaikusseht, and through the Pecheries Shipek fishing company (Ekuanitshit Innu Council, pers. comm. 2018). These three entities have commercial communal fishing licences for bait, whelk, mackerel, and scallop (Statistics division, QC, DFO, pers. comm. 2019).
Food, Social, Ceremonial Fishing	Les Innus de Ekuanitshit has FSC licences. The fisheries cover several areas and species including cod, Atlantic halibut, Greenland halibut, flounder, lumpfish, mackerel, herring, whelk, capelin, soft-shell clams, lobster, seal and redfish (Statistics division, QC, DFO, pers. comm. 2019). Other important species for FSC purposes include Atlantic salmon, herring, brook trout, lobster, scallop and other shellfish.
Asserted or Established Aboriginal and / or Treaty Rights	Les Innus de Ekuanitshit assert Aboriginal rights, including the right to hunt, fish, and gather throughout its traditional territory. Les Innus de Ekuanitshit claim a territory that extends over parts of Labrador and QC, including Anticosti Island in the Gulf of St. Lawrence. The asserted or established Aboriginal and treaty rights do not extend to lands or waters in or near the Project Area.
Première Nation des Innus de Nutashkuan	
Location and Proximity to Project Area	The Première Nation des Innus de Nutashkuan has one reserve, located at the mouth of the Natashquan River in the Gulf of St. Lawrence. The Nutashkuan reserve is approximately 955 km from the Project Area.
General Overview	The Première Nation des Innus de Nutashkuan is governed by a Chief and four Councillors and is represented by MICT (INAC 2018). The Nutashkuan reserve was established in 1952. The March 2018 population of the Première Nation des Innus de Nutashkuan was 1,168. Approximately 91% lived on-reserve. The on-reserve population declined slightly in 2016. In 2016, the median age of the on-reserve population was approximately 10 years younger than the median age of the QC population (Statistics Canada 2017). The percentage of the population under 15 years of age was also higher than that of the general QC population (Statistics Canada 2017).
Health and Socioeconomic Conditions	The Band Council and other agencies provide community members with education, medical care, fire protection, social development, finance and administration, patient services, social services, technical services and advisory services. Ecole Uauitshitun accommodates students from kindergarten to secondary V (grade 11). A health centre provides front-line, emergency, and preventive health services as well as community health services. Patients requiring hospitalization are transferred to regional centres. Five nurses are available on-reserve, and a nutritionist, psychologist and dentist visit regularly. The Première Nation des Innus de Nutashkuan has managed health services since this responsibility was transferred by Health Canada. Identified health issues include type 2 diabetes, obesity, and addictions. The Première Nation des Innus de Nutashkuan has established an Economic Development Office. Economic initiatives include handicraft production, trapping, tourism, construction, transportation, outfitting and forestry. In 2011, the largest employer for community members was Public Administration, employing approximately 31% of the workforce.

Table 7.24 Québec Indigenous Groups Community Profiles

Community Indicator	Description
	The First Nation has commercial fishing enterprises, with several fishing licences. The Première Nation des Innus de Nutashkuan fish crab, clams, lobster and groundfish commercially and owns two fishing vessels (Nexen 2018). Pêcheries Commerciales Nutashkuan, which was established by the Band Council in 1994, employs between six and 25 individuals (First Nations of Québec and Labrador Economic Development Commission 2010).
Physical and Cultural Heritage (including archaeological, paleontological, historical, or architectural sites)	Innu culture and heritage are based on their relationship with game and fish and the seasonal migrations and locations of various species, including caribou and salmon. The Innu people traditionally travelled over a vast territory encompassing the entire St. Lawrence catchment area between the Saguenay-Lac-Saint-Jean and part of Labrador. Families also occasionally crossed the St. Lawrence Estuary to hunt in the Bas-du-Fleuve area (MRCN 2010; Verreault et al. 2013). The spring harvest for migratory birds, seal harvesting, and fishing for Atlantic salmon has been practiced by the Innus de Nutashkuan for several thousand years. Numerous coastal sites exist dating from approximately a thousand years ago demonstrating intensive spring harvesting of migratory bird species, including the Canada Goose and common eider (Englobe 2018). Of the approximately 8,000 archaeological sites discovered in QC, over 1,600 are in the traditional territory of the Innus de Nutashkuan. Two important Innu sites have been discovered, including one on an island located in the western part of the Nitassinan of Nutashkuan. No known physical, cultural or heritage sites are within or near the Project Area.
Current Use of Lands and Resources for Traditional Purposes	The Innus de Nutashkuan continue to use the resources of the St. Lawrence River for food and communal purposes. Activities include fishing for Atlantic salmon, herring, and brook trout; collecting goose eggs in the peat bogs between the River and its tributaries; collecting eggs of other bird species on the islands; hunting waterfowl (e.g., goose and black guillemot); gathering edible plants (e.g., black crowberry, small cranberries, red berries and cloudberries) that grow along the River banks and in the peat bogs; fishing for lobster and scallops with harpoons; and collecting other shellfish along the coast (AMIK 2016; CIE 2014). Fishing, including fishing for Atlantic salmon, played and continues to play an important role in Innu life on the North Shore of the St. Lawrence River, estuary, and Gulf. The waterways contemporarily used by the Première Nation des Innus de Nutashkuan, in addition to the Gulf of St. Lawrence, include the Natashquan, Romaine, De la Corneille, Piashti, Quetachou, Nabisipi and Aguanish Rivers. The southern portion of the land use area extends from the coast to Wakeham, Forgues, Pauline and Métivier Lakes. Trapping and small game hunting in that area is facilitated by good transportation routes (Route 138 and many snowmobile trails) and even terrain. Along the shore, west of Baie-Johan-Beetz, harvesting activities occur up to the Havre-Saint-Pierre region. Lobster and scallops are taken from Nickerson Bay. Canada geese and eider are harvested from the shoreline or by motorized boat, and waterfowl are harvested along the shore. Many harvesting areas and encampments are located at the Grande Hermine and Nickerson Bays, as well as on the coastal plain of the Romaine River, on either side of Route 138. Beaver trapping and gathering of small fruit occur on the Romaine coastal plain. Porcupine is often harvested near the shore along Route 138 and other roads leading north. The contemporary land use model of the Première Nation des Innus de Nutashkuan is similar to that of the Innus de Ekuanitshit. Members from both communities at times harvest together or rely one another (HQP 2007). The Première Nation des Innus de Nutashkuan has continued to be mobile and still cover a large territory but travels are not as expansive as they have been historically.

Table 7.24 Québec Indigenous Groups Community Profiles

Community Indicator	Description
Commercial Communal Fishing	The Première Nation des Innus de Nutashkuan has commercial communal licences. The fisheries cover several areas and species including snow crab, lobster, groundfish, herring, bait, clam, mackerel, scallop, and seal (Statistics division, QC, DFO, pers. comm. 2019).
Food, Social, Ceremonial Fishing	FSC fisheries cover several areas and species including cod, Atlantic halibut, Greenland halibut, flounder, lumpfish, mackerel, herring, whelk, soft-shell clam, blue mussel, lobster, sculpins, and seal (Statistics division, QC, DFO, pers. comm. 2019). Additionally, Atlantic salmon, brook trout, fluke, groundfish, arctic surf clam, crab, scallops, and other shellfish are understood to be important species for the Innu (Innu First Nation of Nutashkuan, pers. comm. 2018).
Asserted or Established Aboriginal and / or Treaty Rights	The Première Nation des Innus de Nutashkuan asserts Aboriginal rights, including the right to hunt, fish, and gather throughout its Nitassinan. The Première Nation des Innus de Nutashkuan claim a territory that extends over parts of Labrador and QC, including part of Anticosti Island and Jacques Cartier Strait in the Gulf of St. Lawrence. The asserted or established Aboriginal and treaty rights do not extend to lands or waters in or near the Project Area.

7.4.8 Harvested Species

Located 350 km from St. John's, the Project is approximately 450 km from the nearest Indigenous community. Project interactions with species of cultural or commercial importance for Indigenous peoples (either migrating through, or resident within the Regional Assessment Area (RAA)) would mainly be limited to adverse effects in the unlikely event of a major spill, due to the offshore location and distance from Indigenous communities. Section 15.4 provides additional information on the fate and behaviour of spills and likelihood and locations of potential shoreline interactions.

7.4.8.1 Commercial Communal Fisheries

Several different species that are commercially fished occur within the waters of offshore Newfoundland and Labrador, and within the Project Area and the RAA, including species that Indigenous groups may hold commercial communal licences to harvest. Sections 7.4.1 to 7.4.7 summarize commercial communal fishing activity and licences for Indigenous groups. Commercial communal licences held by the Indigenous groups in Newfoundland and Labrador, within the RAA are outlined in Table 7.25. Species harvested for commercial communal purposes within the RAA include capelin, groundfish, herring, mackerel, seal, shrimp, snow crab, tuna, and whelk.

Shrimp, snow crab, and groundfish are key species commercially fished in and near the Project Area, while species such as capelin, herring, and mackerel are generally harvested in coastal areas. Commercial fishing gear is typically species dependent in offshore Newfoundland and Labrador, except for groundfish, which is often fished using a combination of stern otter trawls, mobile or fixed gillnets, or longlines (e.g., baited hooks). Crab pots are used for snow crab and shrimp trawls are used for northern shrimp. Some activity occurs year-round, but the majority of harvesting occurs between April and August (refer to Section 7.2.6.1).

Table 7.25 Commercial Communal Fishing Licences Issued to Newfoundland and Labrador Indigenous Groups for Fishing in the RAA

Indigenous Group	Commercial Communal Fishing Licence								
	Capelin	Groundfish	Herring	Mackerel	Seal	Shrimp	Snow Crab	Tuna	Whelk
	Capelin Fishing Area	NAFO Unit	Herring Fishing Area	Mackerel Fishing Area	Sealing Area	Shrimp Management Area	Crab Fishing Area	NAFO Unit	NAFO Unit
Innu Nation	1, 2, 3, 4, **5, 6, 7,** 8, 9, 10	2H, 2J, 3K, **3L,** 3M, 3N, 3O, 3Ps	-	1, 2, 3, 4, **5, 6, 7**, 8, 9, 10	-	5, 6, **7**	-	-	-
Nunatsiavut Government	-	2H, 2J, 3K, **3L**, 3M, 3N, 3O, 3Ps	-	-	4, 5, **6, 7,** 8, 33	5, 6	1, 2, 2H[B]	-	-
NunatuKavut Community Council	2	2H, 2J, 3K, **3L**	1	-	4, 5, **6, 7**, 8, 33	5, 6	2	-	2J
Miawpukek First Nation (MFN)	1, 2, 3, 4, **5, 6, 7,** 8, 9, 10	2H, 2J, 3K, **3L,** 3N, 3Ps	-	1, 2, 3, 4, **5, 6, 7,** 8, 9, 10	4, 5, **6, 7**, 8, 33	-	10	**3L,** 3NOPs	3Ps
Qalipu Mi'kmaq First Nation Band (QMFNB)	1, 2, 3, 4, **5, 6, 7,** 8, 9, 10	2H, 2J, 3K, **3L**	3, 4, **5, 6, 7**, 8	1, 2, 3, 4, **5, 6, 7**, 8, 9, 10	-	6	3B, 4	-	3K
Mi'kmaq Alsumk Mowimsikik Koqoey Association[A]	10	2H, 2J, 3K, **3L,** 3Ps	10	-	-	-	10	-	3Ps

NOTES:
[A] formed by MFN and QMFN Band under DFO's Aboriginal and Aquatic Resources Management Program
[B] Exploration Licence
Bolded text indicates areas within the Project Area.
Data provided by D. Ball, DFO, 2019, pers. comm.

Harp, grey, hooded, and ringed seals are harvested by Newfoundland and Labrador Indigenous groups between late March and mid-May, however this can vary by species, and environmental and biological conditions (DFO 2011a). Inuit primarily harvest ringed seal (DFO 2011b), while in Greenland the harp seal is commonly harvested. The harvest in Greenland commercial harvest has surpassed the Canadian commercial harvest in recent years because Inuit harvesters tend to harvest older animals, unavailable in the Canadian commercial harvest (DFO 2011a). Hooded seals are also harvested by subsistence harvesters in Greenland, particularly the Inuit along the east coast (DFO 2011a). Around the Gulf of St. Lawrence and coastal areas of Nova Scotia, grey seals are generally harvested. In addition to the commercial communal fishery, Indigenous groups can harvest seals throughout the year for FSC purposes.

Commercial communal licences within the RAA are also held by Indigenous groups within the Maritime provinces. This includes commercial communal licences for swordfish and tuna. Table 7.26 provides a summary of Indigenous groups in the Maritime provinces that hold commercial communal licences in the RAA. Details for each of these species are provided following Table 7.26.

Table 7.26 Commercial Communal Fishing Licences Issued to Maritime Indigenous Groups for Fishing in the Regional Assessment Area

Indigenous Group	Swordfish	Tuna
	NAFO Unit	NAFO Unit
Glooscap First Nation	**3L**MNOPs, 4Vs	**3L**MNOPs, 4Vs
Membertou Band Council	-	4Vs
Millbrook First Nation	**3L**MNOPs, 4Vs	**3L**MNOPs, 4Vs
Mime'j Seafoods Ltd (NCNS)	**3L**MNOPs, 4Vs	**3L**MNOPs, 4Vs + Gulf Region*
Paqtnkek First Nation	**3L**MNOPs, 4Vs	-
Pictou Landing First Nation	**3L**MNOPs, 4Vs	Gulf Region*
Sipekne'katik First Nation	**3L**MNOPs, 4Vs	**3L**MNOPs, 4Vs
Wagmatcook First Nation	**3L**MNOPs, 4Vs	Gulf Region*
Waycobah First Nation	**3L**MNOPs, 4Vs	Gulf Region*
Abegweit Band	**3L**MNOPs, 4Vs	Gulf Region*
Acadia First Nation	**3L**MNOPs, 4Vs	**3L**MNOPs, 4Vs
Lennox Island First Nation	**3L**MNOPs, 4Vs	Gulf Region*
Native Council of PEI	**3L**MNOPs, 4Vs	Gulf Region*
Bouctouche Micmac Band	-	Gulf Region*
Eel River Bar First Nation	-	Gulf Region*
Elsipogtog First Nation	-	Gulf Region*
Esgenoopetitj First Nation	-	Gulf Region*
Fort Folly First Nation	**3L**MNOPs, 4Vs	**3L**MNOPs, 4Vs
Indian Island First Nation	-	Gulf Region*
Pabineau First Nation	-	Gulf Region*
St. Mary's First Nation	**3L**MNOPs, 4Vs	**3L**MNOPs, 4Vs
Tobique First Nation	-	Gulf Region*

Table 7.26 Commercial Communal Fishing Licences Issued to Maritime Indigenous Groups for Fishing in the Regional Assessment Area

Indigenous Group	Swordfish	Tuna
	NAFO Unit	NAFO Unit
Woodstock First Nation	**3L**MNOPs, 4Vs	**3L**MNOPs, 4Vs
Bear River First Nation	-	4Vs

Notes:
Bolded text indicates areas within the Project Area.
* Data for bluefin tuna licences in the Gulf Region did not include fishing area details
Data provided by DFO (Licensing Services, DFO, pers. comm. 2019; S. Curry, pers. comm. 2019; C. MacDonald, pers. comm. 2019)

Swordfish

Swordfish are a migratory species that are distributed widely throughout the Atlantic Ocean, and sometimes occur in offshore NL waters. Several Indigenous groups hold commercial communal fishing licences for swordfish in NAFO Areas that overlap with the Project Area and the RAA, including NAFO subdivisions 3LMNO (Table 7.26). Project activities, therefore, have the potential to interact with swordfish harvesting activities. NAFO subdivisions 3O and 3N, outside of the Project Area, are the primary commercial landing locations for swordfish, between 2013 and 2017, including those landings fished under a commercial communal licence (Figure 7-59). While commercial landings for swordfish are an indication of swordfish distribution, the species has a wide range and can be found along the edge of the continental shelf. The potential for swordfish occurrence within the Project Area is considered low, as, based on DFO research surveys, swordfish have not been found in the Project Area. However, during certain times of the year, there is some potential for swordfish to move throughout the Project Area.

Tuna

Commercial communal licences to harvest species of tuna are also held by Indigenous groups within Atlantic Canada. Most offshore NL commercial landings for tuna species, like swordfish, have typically been concentrated within NAFO Area 3O, which is outside of the Project Area, and within the southwest portion of the RAA, as illustrated by Figures 7-60 to 7-62. Given that tuna are a highly migratory species and have been found in the offshore waters of Newfoundland and Labrador, there is potential that they could migrate through the Project Area in search of prey species. Tuna species have not been observed in the Project Area during DFO RV surveys (refer to Section 6.1.7); therefore, DFO noted that the potential for occurrence within the Project Area was low.

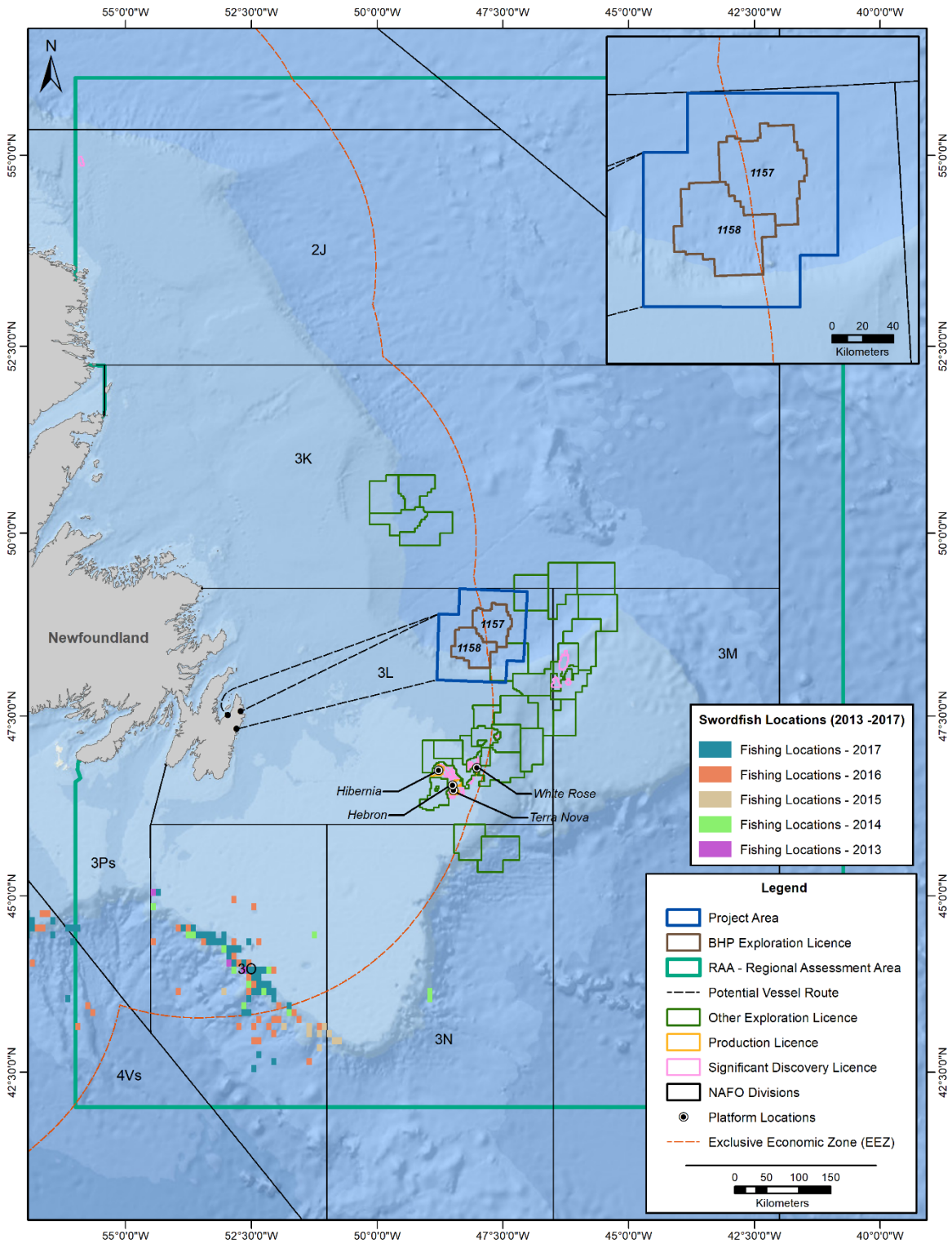

Figure 7-59 Domestic Harvesting Locations, Swordfish, 2013-2017

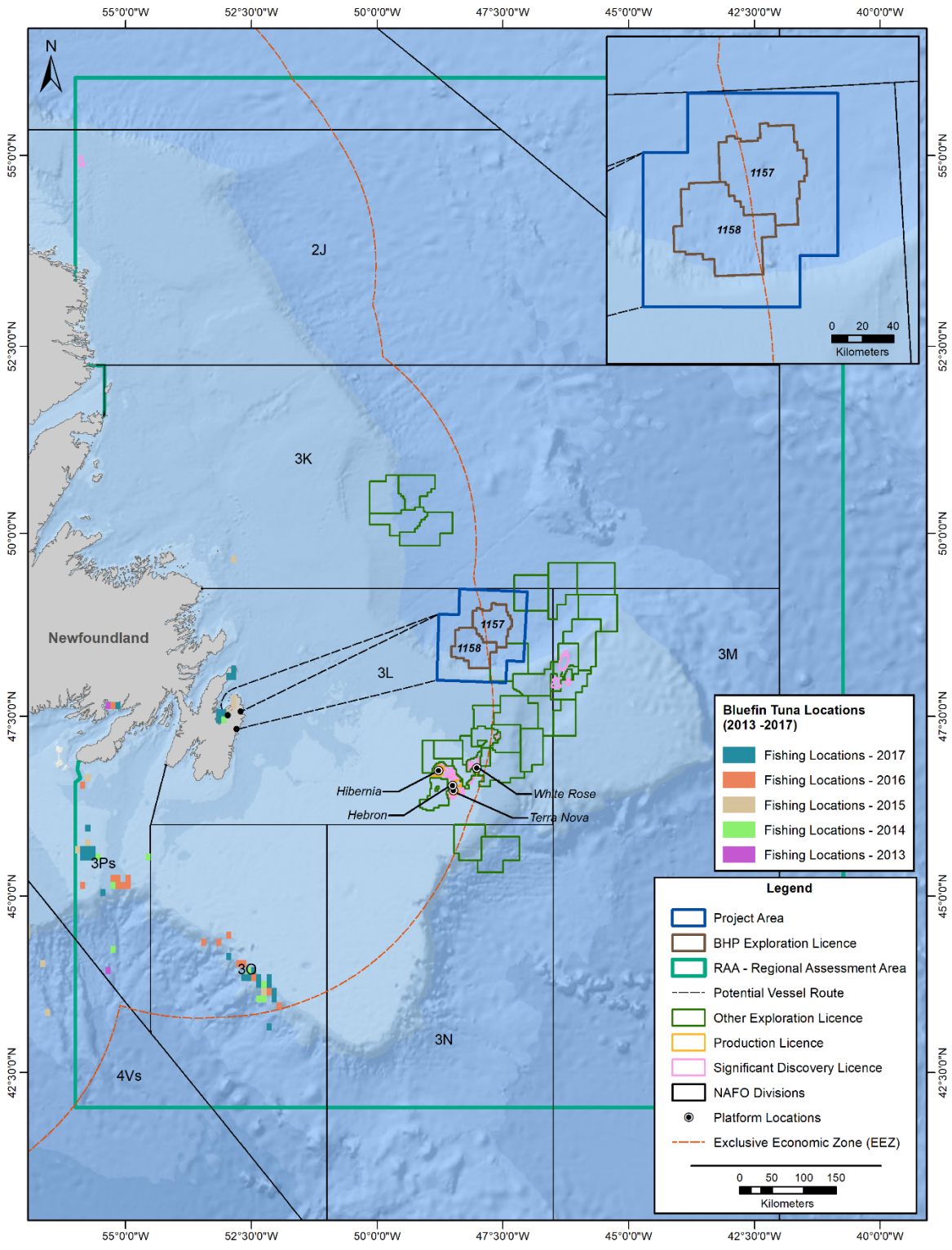

Figure 7-60 Domestic Harvesting Locations, Bluefin Tuna, 2013-2017

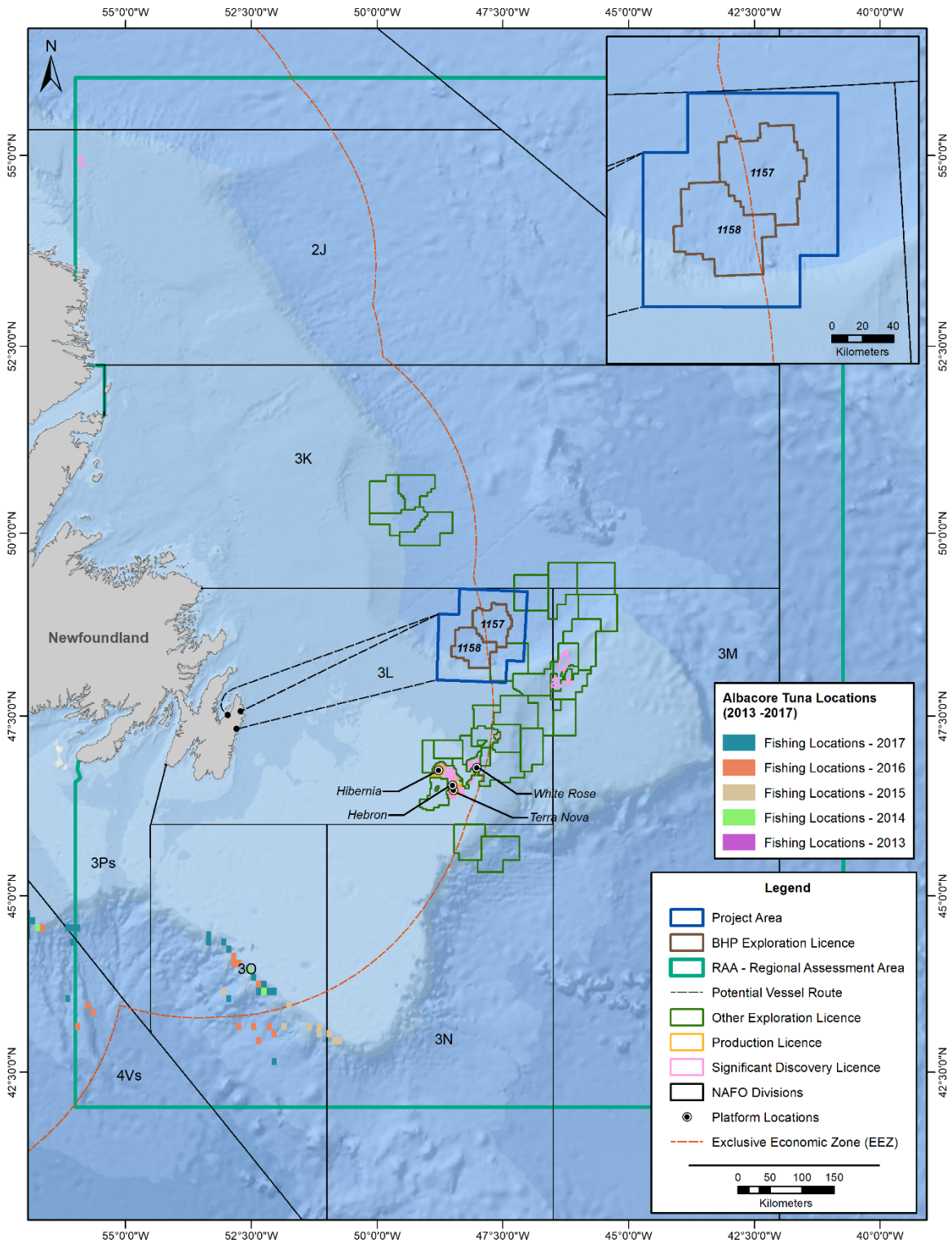

Figure 7-61 Domestic Harvesting Locations, Albacore Tuna, 2013-2017

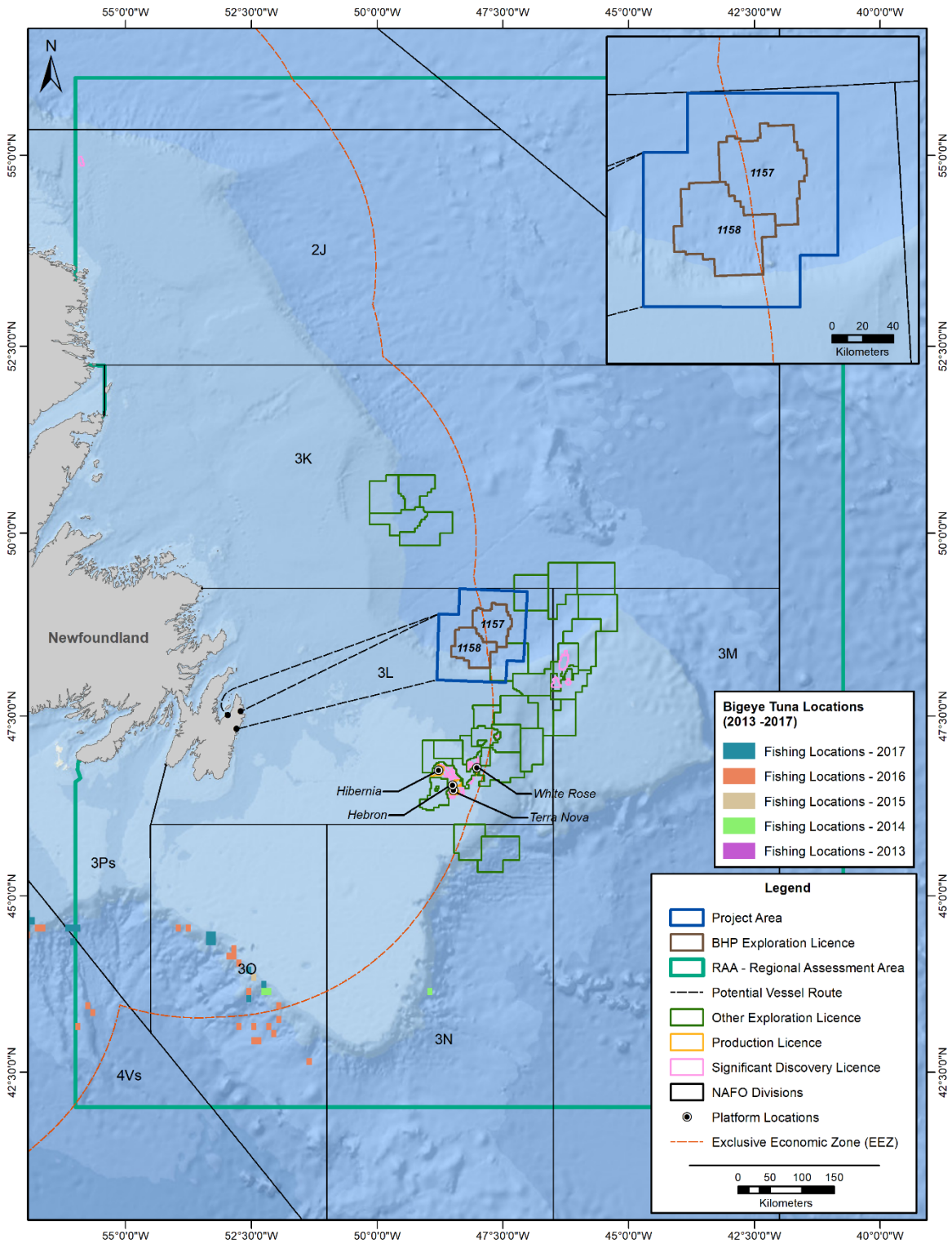

Figure 7-62 Domestic Harvesting Locations, Bigeye Tuna, 2013 to 2017

7.4.8.2 Food, Social, Ceremonial Fisheries

FSC fishing activity is outlined in Sections 7.4.1 to 7.4.7, which lists the various species harvested for FSC purposes by Indigenous groups. Typical species for FSC fisheries include gaspereau, trout, Atlantic salmon, bass, mackerel, eel, shad, groundfish (e.g., flounder, halibut, pollock), Arctic char, smelt, blue shark, herring, mussel, clams, periwinkle, soft-shell clams, squid, tomcod, quahaug, razor clams, lobster, crab and scallops. It is not be expected that Project activities will interact with FSC fisheries as it typically occurs near shore and/or in freshwater systems. However, some anadromous species, such as salmon, could potentially migrate through the RAA and/or Project Area. Indigenous groups expressed concern during Indigenous engagement regarding the potential interaction of Project activities and the migration of two migratory fish species, the American eel and Atlantic salmon. The significance of these species to Indigenous peoples and their potential for occurrence in the RAA, is described below.

American Eel

The catadromous (i.e., migrating down rivers to the sea to spawn) American eel (Katew) is found primarily in freshwater, coastal marine waters and estuaries. It has a geographic range spanning from Venezuela to Greenland and Iceland in the Northwest Atlantic Ocean (COSEWIC 2012). There was no American eel identified in the most recent DFO RV survey sets for 2016 / 2017, therefore, the potential for occurrence within the Project Area is considered low (see Section 6.1.7). The specific migration patterns of American eel is not well known, and if American eel were to occur within the Project Area, movement towards Greenland, Iceland, or NL is expected to be partially driven by currents.

With medicinal properties and spiritual significance, Katew is an important traditional food source to the Mi'kmaq, Wolastoqiyik and Passamaquoddy (Prosper and Paulette 2002; UINR 2015a; Parks Canada 2017). Various fishing gear and tools are used to fish Katew, including stone eel weirs and different types of spears, depending on the season (Prosper and Paulette 2002). Traditionally, the Mi'kmaq practiced "take what is needed" ethics and never over-exploited or wasted eel parts, using the entirety of the eel (Denny 2014). For example, eel skin is used as boot/moccasin soles, ties, and bindings and used to wrap sprains and provide relief from cramps, rheumatism, headaches, and lameness (Prosper and Paulette 2002; UINR 2015a; Parks Canada 2017). Eel skin is also used to create decorative ornaments (Parks Canada 2017). Tails are used as bait and oils from larger eels were used to treat ear infections and loosen ear wax (UINR 2015a). Eel was often the main source of food during the winter because it is available year-round, and remains a dependable, important food source, often consumed three times a day for days to weeks (Denny 2014).

COSEWIC has designated the American eel as threatened, based on extreme declines in portions of its distribution (COSEWIC 2012). Habitat loss, dams, overfishing, disease, and possibly global warming are examples of the contributing factors to the declining populations of the American eel (COSEWIC 2012; UNIR 2015a; Parks Canada 2017). A relatively new threat that has been identified as having a potential adverse effect on the eel is an exotic swim bladder nematode parasite (COSEWIC 2012; Parks Canada 2017). Mi'kmaq eel fishers have observed declines in traditional fishing areas, evident from the increase in time that it takes them to get enough eels to feed their families and provide for cultural events (Wagner et al. 2004, in Denny and Kavanagh 2018; Denny et al. 2012, in Denny and Kavanagh 2018).

Atlantic Salmon

North American Atlantic salmon have a geographical range throughout Atlantic Canada, eastern Québec, and the northeastern seaboard of the United States. They breed and spend the early part of their life cycle and majority of their lives in freshwater systems such as brooks and rivers, with a rocky bottom (UINR 2015b). Salmon are typically fished using rods, spear, snare, seines, or weirs. Salmon (or Plamu as it is known to the Mi'kmaq) were historically a staple, dependable and predicable food source and remain important for the Mi'kmaq (Denny and Fanning 2016). Rivers were often fished on a rotational basis and were shared among families, and sometimes other tribes (Ladner 2005, Marshall 2014, in Denny and Fanning 2016). To conserve the salmon populations, they are now generally reserved for special occasions such as feasts, powwows, and other celebrations where the serving of a large fish like salmon is preferred (UINR 2015b; Denny and Fanning 2016). Mi'kmaq grew up harvesting Plamu with family, learning the harvesting practices and about sustainability, making the overall experience of harvesting salmon an important part of the Mi'kmaq culture (UINR 2015b). Mi'kmaq waste little to no salmon when harvesting, and unusable parts would be buried so that the spirit and body of the salmon would be recycled (UINR 2015b; Denny and Fanning 2016). "Netukulimk" is the traditional Mi'kmaq concept of conservation and is known as continues to be the guiding principle to harvesting salmon, with fishers governing themselves in accordance with their interactions and relationships with their environment (Giles et al. 2016, in Denny and Fanning 2016). As shown in Table 6.8, Atlantic salmon is designated under COSEWIC, including several populations designated as endangered.

7.4.8.3 Hunting and Gathering

Hunting and gathering on land, including hunting for birds, seals, rabbits, caribou and moose, and trapping, is a key component of Indigenous groups harvest (Nalcor 2011). The cultural, social, and nutritional qualities of country food are an integral part of the Inuit lifestyle, making it irreplaceable. For this reason, market criteria cannot be the only measure of the value of country food. Species that are hunted onshore but have potential to migrate through the Project Area, such as migratory bird species, are the focus of this section, given the offshore location of the Project. Migratory birds represent an important component of the overall subsistence harvest (Natcher et al. 2010) and have long been an important source of food in traditional diets (AMEC 2014). Bird hunting is permitted in Canada under the *Migratory Birds Hunting Regulations* and several migratory bird species, such as species of waterfowl and murres, are hunted in marine and inland areas.

Migratory birds that are traditionally harvested by Indigenous groups include murres (also referred to as turrs), mergansers, and scoters (SEM 2008); while some species are harvested year-round, when available, such as goose, ducks, loons, and seagulls (Nalcor 2011). Murres have the potential to migrate through the RAA, particularly the thick-billed murre which is harvested off the coast of Labrador, north of Groswater Bay. The Labrador coast, where harvesting activities occur, is a migration route used by the murres to migrate to or from their breeding grounds in the Arctic. There is an estimated 1,080,000 breeding thick-billed murres in the Canadian Arctic, with a migration of 16.5%, that may be over-wintering in the Grand Banks area (Frederiksen et al. 2016).

The Nunatsiavut Government undertook an initiative to determine the Inuit domestic harvest level, following the *Labrador Inuit Land Claims Agreement Act*, which came into effect in 2005. Between 2006 and 2007, a

survey was conducted of the migratory bird species commonly harvested by the Inuit. The Nunatsiavut migratory bird harvest reported 5,468 birds, with common eiders representing 30%, followed by Canada geese (20%) and black ducks (19%) (Natcher et al. 2010). Approximately 75% of the migratory bird harvest occurs in the fall. In 2007, a survey was conducted to understand the harvest of migratory bird eggs and a total of 9,346 eggs were reported as being harvested, of which 36% were common eider eggs, 32% gulls, 20% terns, and 12% common guillemot (Natcher et al. 2012).

Other harvesting activities include berry and plant harvesting. Berry harvesting typically occurs in the mid- to late-summer throughout Labrador, along access routes and river valleys and generally includes bakeapples, partridge berries and blueberries (Nalcor 2011). Plants and plant components harvested for medicinal purposes include the inner and outer bark of trees, herbs, flowers, berries, mosses, and lichens, are also harvested (Nalcor 2011).

Indigenous groups also harvest seals throughout the year for FSC purposes. Recent estimates have the Northwest Atlantic harp seal population at approximately 7.4 million, which has levelled off since 2008 (95% Confidence Interval: 6,475,800 to 8,273,600; Hammill et al. 2015). Harp seals may be forced to use whelping areas farther north due to climate change associated declines in sea ice (Stenson and Hammill 2014). Inuit in Labrador, Arctic Canada, and Greenland hunt this population of harp seals both for subsistence purposes and commercially (in their whelping locations). The majority of the approximately 80,000 subsistence animals are harvested in Greenland. Hooded seals are likely to be common in the Project Area as those outfitted with satellite relay data loggers showed movements near the Project Area during spring and late fall / winter of 2004-2008 (Andersen et al. 2012, 2013, 2014). Andersen et al. (2012) suggested that off the coast of Newfoundland and Labrador, hooded seals prefer areas with topographic and oceanographic conditions that produce good feeding conditions.

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7.5.1.1 Personal Communications for Commercial Fisheries and Other Ocean Uses

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7.5.2 Indigenous Communities and Activities

7.5.2.1 Personal Communications for Indigenous Communities and Activities

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