Husky Energy REPORT

REPORT TITLE

Husky Energy Atlantic Region
Newfoundland and Labrador Offshore Area
Environmental Assessment Review for 2014

SUBMITTED TO

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Additional Comments

Revised based on C-NLOPB review comments.

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1.0 Introduction

Offshore oil and gas exploration and production programs generally encompass long periods of time and multiple, successive, operational steps. As a consequence, environmental assessments of these programs address a variety of activities undertaken over a number of years.

This document is the 7th annual review of the status and ongoing validity of the environmental assessments currently in place for Husky Energy's activities in the Newfoundland and Labrador Offshore Area. These reviews are to assist the C-NLOPB in fulfilling its responsibilities under the *Canadian Environmental Assessment Act* by ensuring that the scope of the assessment(s) and the mitigations committed to therein remain technically valid.

Table 1 lists Husky Energy's environmental assessments that have been approved by the C-NLOPB under which Husky may be conducting offshore operations during 2014.

Table 1 Current Environmental Assessment Approvals for Husky Energy

Screening Determination Reference	EA Report Title	Husky Document Number
CEAR No. 06-01-7410	Husky White Rose Development Project: New Drill Centre Construction and Operations Program Environmental Assessment & Addendum	WR-HSE-RP-4003 & WR-HSE-RP-0167
CEAR No. 07-01-28877	Husky Delineation/Exploration Drilling Program for Jeanne d'Arc Basin Area, 2008-2017	ED-HSE-RP-0016
CEAR No. 11-01-65302	Jeanne d'Arc Basin Flemish Pass Regional Seismic Program 2012-2020	AR-HSE-RP-0110

The following sections organized by specific, individual environmental assessments provide the necessary information to confirm the ongoing validity of the assessment in question or note any changes that need to be addressed.

2.0 Husky White Rose Development Project: New Drill Centre Construction and Operations Program Environmental Assessment

2.1 Project Description and Scope

2.1.1 Activities Covered

In 2007, Husky Energy proposed to develop up to five new drill centres within the White Rose field to 2015. Two of the five have been excavated to date, the North Amethyst Drill Centre and the South White Rose Extension. Additional drill centres contemplated in 2007 were the North White Rose Extension (NWRX) and the West White Rose Extension (WWRX). There were a total of 54 wells proposed for these five drill centres.

Construction activities proposed also include installation of drilling templates and other subsea equipment in the drill centres to support eventual production operations. Subsea flowlines would also be installed to connect new drill centres with existing ones which in turn connect to the *SeaRose FPSO*. Routine maintenance of drill centres may also be required.

The Project includes the use of mobile offshore drilling units, construction and diving vessels, marine support vessels, helicopter support and existing shore based facilities in St. John's Harbour.

Geohazard/well site surveys and vertical seismic profiling (VSP) using an airgun array may be required on an as-needed basis at any time of the year. Geotechnical surveys (i.e. core drilling) may also occur year round.

2.1.2 Geographic Scope

The geographic scope of the Drill Centre assessment is portrayed in the inset map in Figure 2-1. Planned activities for 2014 will occur throughout the Project Area.

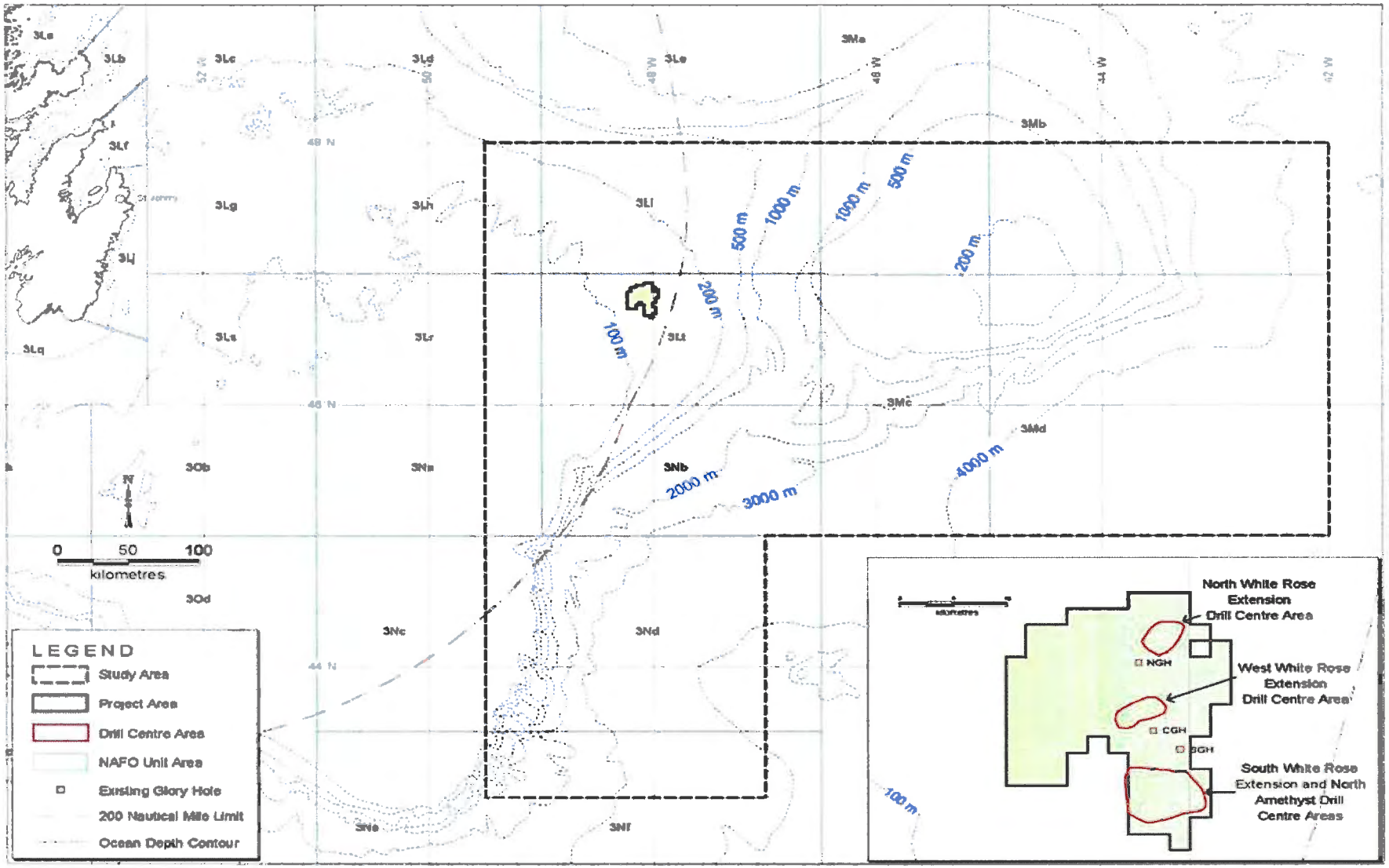

Figure 2-1 Geographic Scope of Project Area for CEAR No. 06-01-7410

2.1.3 Temporal Scope

The temporal scope of New Drill Centre construction activities is from 2007 to 2015. Production operations associated with these five new drill centres would occur between 2009 and 2020.

Drilling and construction related activities are scoped for year round operations, however placement of subsea equipment to support drilling and production operations and installation of flow lines in drill centres will most likely occur during the summer and fall weather windows.

To date, development drilling activities carried out under the scope of this environmental assessment involved drilling at the North Amethyst Drill Center (NADC) and South White Rose Extension (SWRX). A total of 11 of the 54 wells estimated for up to five potential drill centres scoped under this environmental assessment have been started or completed.

2.1.4 Planned Activities for 2014

The scope of work for the 2014 SWRX Installation Program consists of the installation of production equipment into the new SWRX drill center and installation of the flowlines to support SWRX operations. Four flowlines (production, production/test, water injection and gas lift) will be tied into the existing NADC flowlines using tee-module structures and also into the existing gas injection manifold structure in SWRX (Figure 2-2).

In addition, the 2014 production manifold will be tied in to the existing gas injection manifold using inter-connecting jumpers in the drill center shows the 2014 scope that will be implemented within the White Rose field (Figure 2-3).

The following work is planned to be completed:

NADC: Break existing lines at midline connection and install Tee-modules. Install and connect new flowlines to Tee-modules.

SWRX: Tie-in new flowlines into the existing Gas Injection Manifold. Install new production manifold support foundation and production manifold. Connect gas injection and production manifolds through inter-connecting jumpers.

SDC: Installation of Retrievable Electrical Distribution Units.

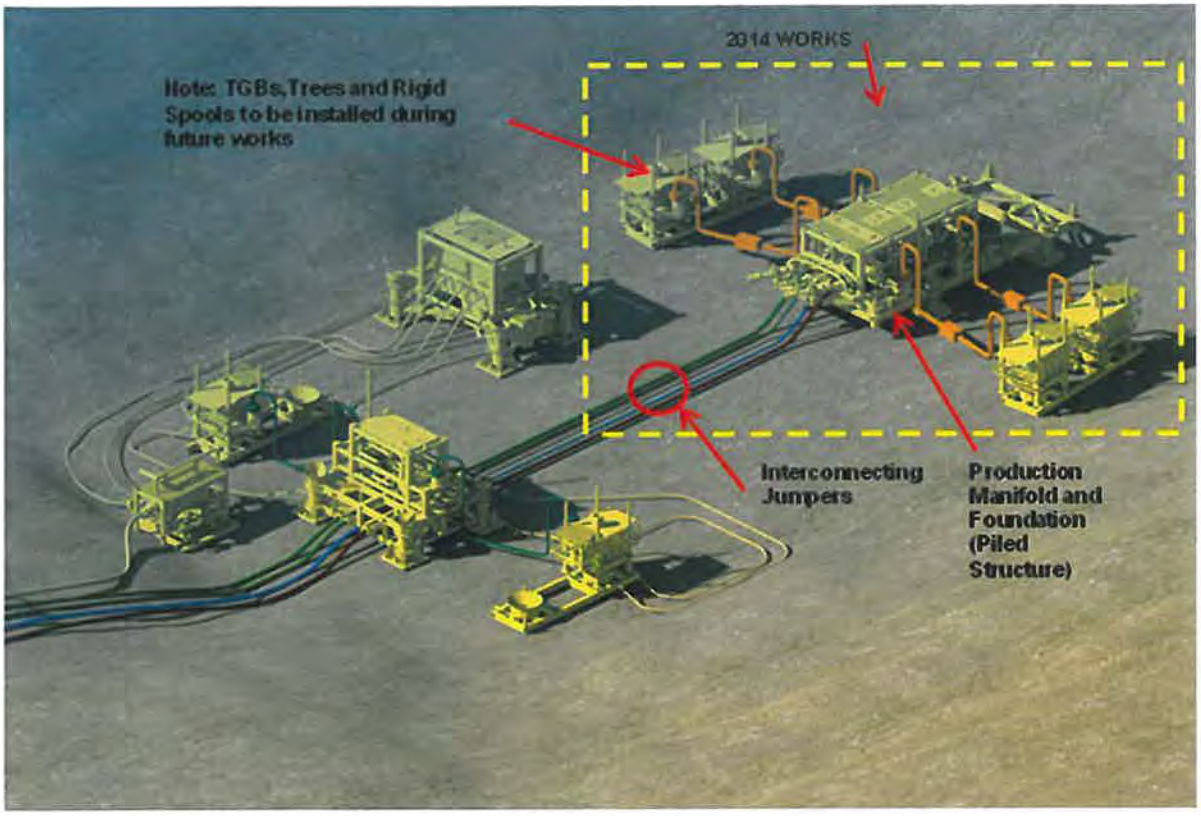

Figure 2-2 SWRX Drill Centre Layout

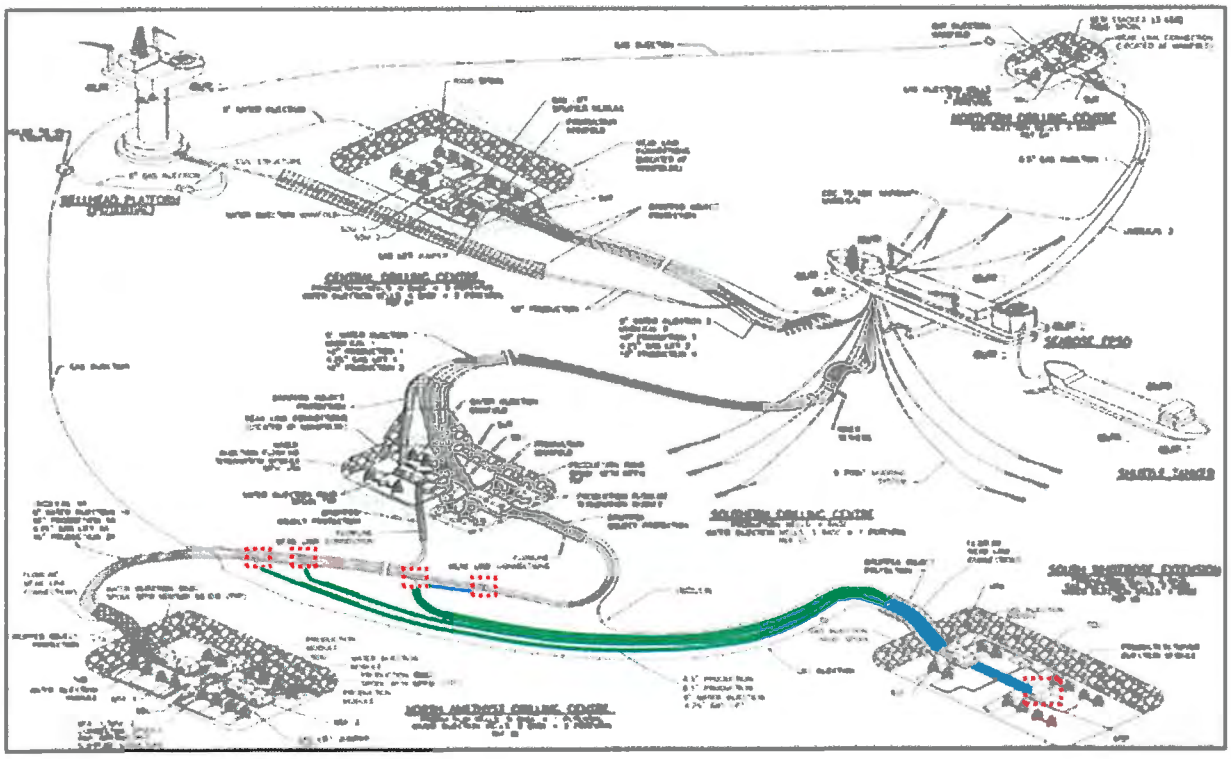

Figure 2-3 Installation within the White Rose Field

The *Apache II* will conduct the following scope:

- Installation of approximately 3 km of 8.5" flexible production flowline from midline tie-in point between NADC – SDC to SWRX;
- Installation of approximately 3 km of 8.5" flexible production test flowline from midline tie-in point between NADC – SDC to SWRX;
- Installation of approximately 2.3 km of 6" water injection flowline from midline tie-in point between NADC – SDC to SWRX;
- Installation of approximately 2.8 km of 4.25" gas lift flowline from midline tie-in point between NADC – SDC to SWRX;
- Other associated works as required for SWRX construction.

The *Apache II* will mobilize from the nominated Newfoundland port to the White Rose field for the pipelay and construction program. Estimated duration of infield operations for the pipelay scope is approximately 20 days, commencing early-July, 2014.

The *Wellservicer* will conduct the following scope:

- Breaking of NADC flowline flanges at midline connections;
- Installation of Tee-modules and tie-in to existing NADC flowlines;
- Tie-in new SXRW flowlines into T-modules;
- Installation of production manifold support foundation and manifold in SWRX;
- Piling of SWRX production manifold support foundation
- Installation and tie-in of inter-connecting jumpers in SWRX;
- Installation of new flowline weaklink tethers;
- Installation of retrievable electrical distribution units in SDC;
- Pre-commissioning operations.

The *Wellservicer* will mobilize from the nominated Newfoundland port to the White Rose field for the installation program. The estimated operation time including transits is approximately 75 days commencing mid-July, 2014.

A pilot well (Hibernia formation) from the North Amethyst Drill Centre (NADC) was suspended in February and is scheduled to be completed from approximately mid-June to mid-September. The next well at SWRX is as an infill producer scheduled to begin in December and continue for approximately 100 days.

SWRX will utilize well templates and wellhead systems similar to those used on the White Rose and North Amethyst developments, with the exception that a larger

conductor string may be used in future wells. White Rose and North Amethyst drilling practices employed to drill conductor and surface hole sections will be applied to SWRX wells to mitigate the impact of drill cuttings and cement spillage into the drill centre. Specifically, Guar gum sweeps, cuttings transport systems and reduced excess cement will be used. Synthetic-based muds will be used to drill the intermediate and production hole sections. Best available technology will continue to be used to minimize synthetic drill mud on cuttings. Advanced directional drilling tools and systems will continue to be used to drill the deviated and horizontal wells required to develop this region of the field. Existing White Rose and North Amethyst cementing practices will also be applied to SWRX. Conductor and surface casing strings will be cemented to the seafloor, and subsequent strings will be cemented in such a manner to ensure that the movement of formation fluids in the casing annulus is prevented and the reservoir zone is isolated.

SWRX well completions will be designed to maximize well productivity while maintaining the necessary standard of risk and well integrity. Detailed design of the drilling and completions program for the SWRX wells will be addressed in the individual Approval to Drill a Well (ADW) applications.

2.2 Environmental Aspects

2.2.1 Fisheries

Consultations specific to this EA update were held on February 11, 2014 with Fish Food and Allied Workers Union and One Ocean to discuss new activities planned for 2014. There is also ongoing liaison with the fishing industry through the regular meetings of the One Ocean Technical Working Group that involves representatives from the various operating oil and gas companies and fishing interests.

Figure 2-4 provides a map of fishing activity from 2005 to 2010 and Figure 2-5 and Figure 2-6 depicts fishing activity from 2011 and 2012, respectively. Fisheries data post-2010 cannot be compared with previous data due to changes in the information released by DFO. Fishing activities in the Study Area have not changed significantly since the initial environmental assessment. This compilation is derived from Fisheries and Oceans Canada (DFO) databases including research vessel and underutilized species information.

As noted in previous updates, a directed fishery for American Plaice and Atlantic Cod has not existed for some time and this has not changed as of 2014. If in the future, a directed fishery is authorized then previous fishing patterns for these species may be re-established in areas in and near the Jeanne d'Arc basin.

Husky understands that it is important to recognize that harvesters fish a resource, and not fixed points from year to year. Licenses are issued for large areas (e.g. NAFO subdivisions 3K or 3L) and fishing activity could take place anywhere within these areas and not just at the pattern of locations fished in recent years indicated by DFO data. Hence this requires that Husky continue to consult with the fishing industry on a regular basis to keep up to date with trends in fishing from year to year.

With regard to the conduct of its operations, Husky will continue to keep fishing interests informed of these activities during the operational planning phases. This will be done through the established One Ocean and FFAW contacts and others as deemed necessary or as advised.

Since the approval of the aforementioned environmental assessment, the fishing and oil and gas industries, through One Ocean, have completed two initiatives to help enhance communication and collaboration between the two industries. The first is a communication protocol that has been distributed to fishers and members of the petroleum industry. The protocol recommends communication procedures between fish harvesters and offshore installations and petroleum-related vessels during operational activities. The second is a risk-based decision matrix that defines the conditions under which oil and gas operators could employ either or both a Fisheries Liaison Officer or a guide vessel in support of certain oil and gas operations that have a potential to affect fisheries activities offshore.

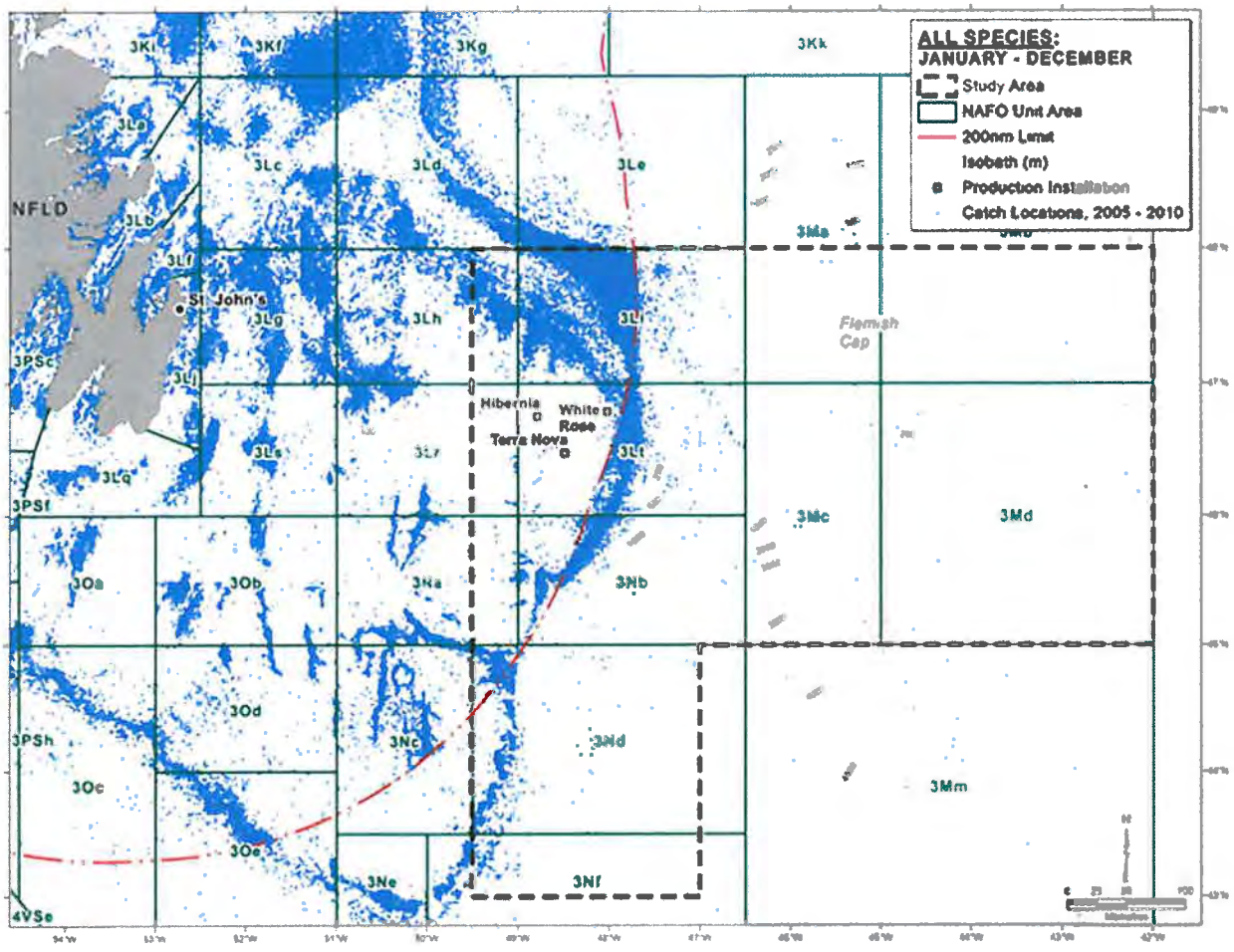

Figure 2-4 Cumulative Pattern of Fishing Activity from 2005 - 2010 in Relation to EA Study Area

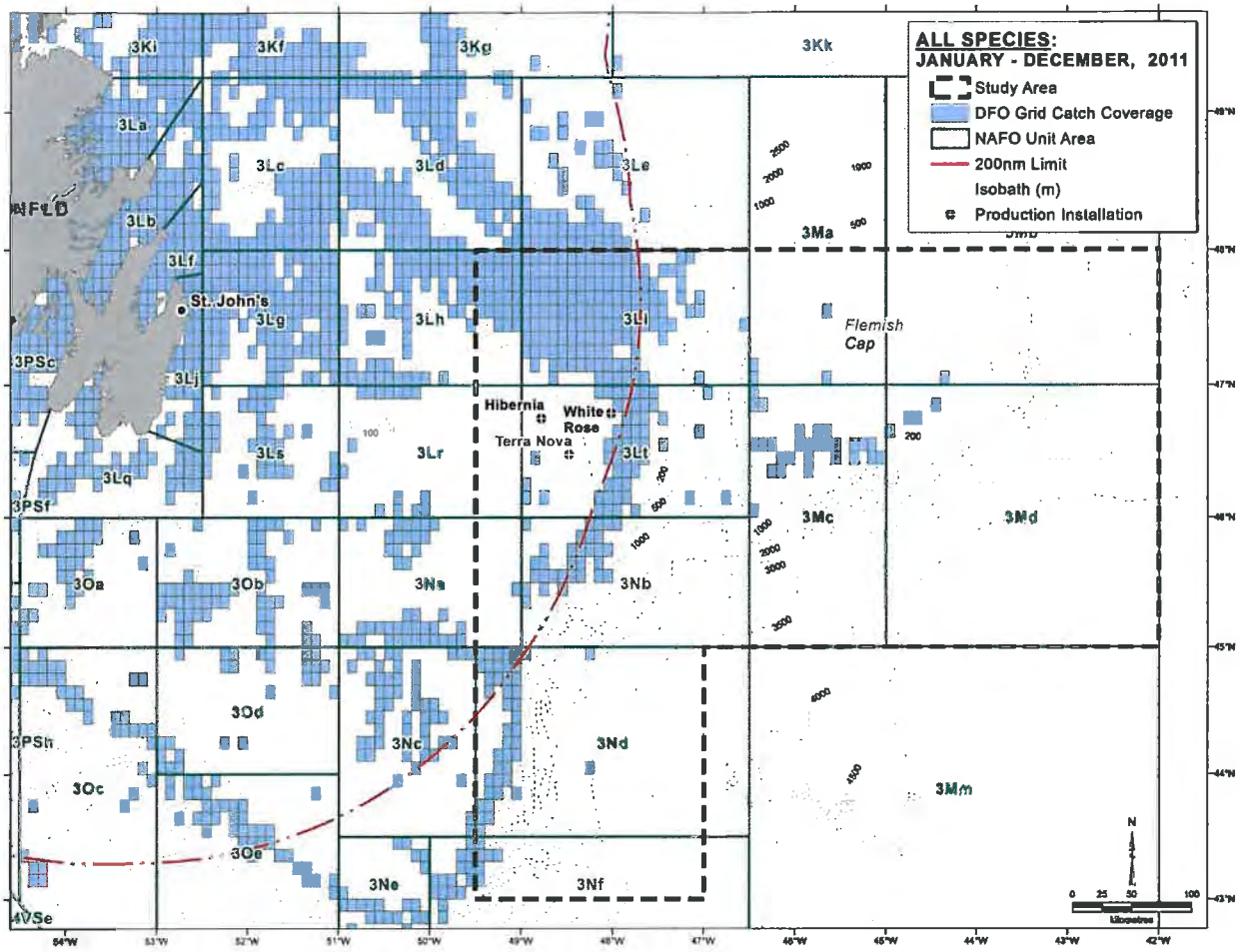

Figure 2-5 Pattern of Fishing Activity in 2011 in Relation to the EA Study Area

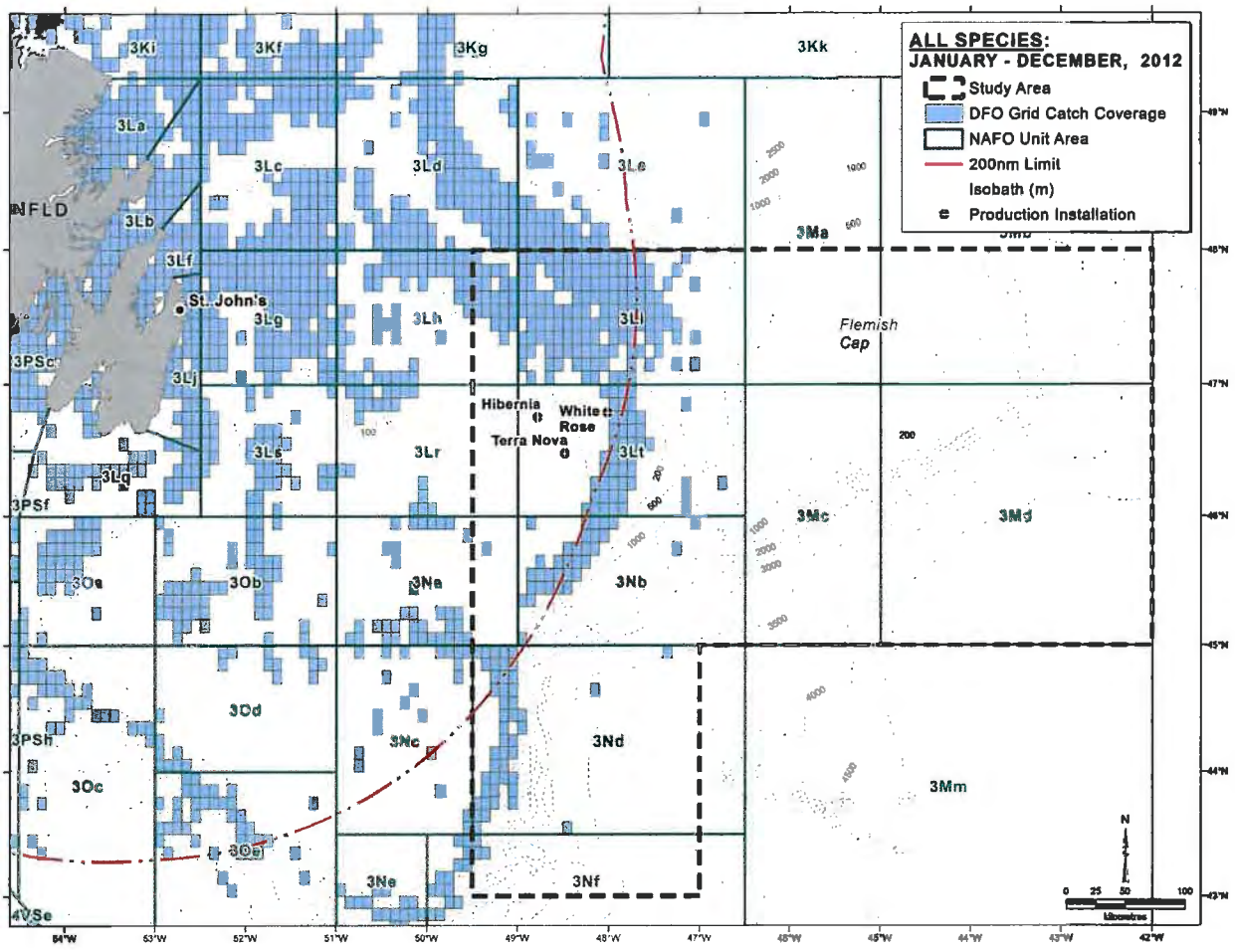

Figure 2-6 Pattern of Fishing Activity in 2012 in Relation to the EA Study Area

2.2.2 Species at Risk

An updated listing of SARA and COSEWIC[1] species for the Grand Banks area of relevance to this assessment is provided in Appendix 1. SARA listed species with final recovery strategies in place are noted. None of the SARA listed species relevant to the spatial scope of this assessment has an overlapping critical habitat description or an action plan in place. Appendix 1 also provides the COSEWIC candidate species under consideration.

There are two cetacean species (blue whale, and North Atlantic right whale), one sea turtle species (leatherback), one seabird species (Ivory Gull), and three fish species (white shark, northern wolffish and spotted wolffish) that are legally protected under SARA and have potential to occur in the Study Area. Atlantic wolfish, the Atlantic population of fin whales and Sowerby's beaked whale are designated as special concern on Schedule 1 of SARA.

[1] SARA: *Species At Risk Act*. COSEWIC: Committee on the Status of Endangered Wildlife in Canada

Final recovery strategies have been prepared for five species currently designated as either endangered or threatened under Schedule 1 and potentially occurring in the Study Area: the leatherback sea turtle, the spotted wolffish, the northern wolffish, the blue whale, and the North Atlantic right whale. The recovery plan for the Ivory Gull is currently proposed (Environment Canada 2013). A management plan has also been prepared for the Atlantic wolffish, currently designated as special concern on Schedule 1.

None of the recovery plans for SARA listed species in place materially change the mitigation measures currently committed by Husky for the scope of the operations addressed by the environmental assessment.

2.2.3 Mitigations

Husky regards the environmental predictions and consequent mitigations cited in the environmental assessment and subsequent significance determination that relates to CEAR No. 06-01-7410 as still valid and re-commits to implementing these mitigation measures for the activities to be carried out under the scope of this assessment this year.

The potential environmental effects of subsea equipment installation and drilling activities as described in Section 2.1.4 are assessed to be *not significant* when evaluated against the assessment definitions and criteria applied to the valued ecosystem components addressed in the original assessment.

3.0 Husky's Delineation/Exploration Drilling Program for Jeanne d'Arc Basin Area, 2008-2017

3.1 Project Description and Scope

3.1.1 Activities Covered

This environmental assessment addressed Husky Energy's proposal for drilling 18 delineation and/or exploration wells from semi-submersible or jack-up mobile drilling units or drill ships within any current or future Husky land holdings in the Jeanne d'Arc Basin area during 2008 to 2017. To date 9 of these 18 wells have been drilled as follows:

- White Rose K-03 - Delineation (Spud 21 Nov 2007 to Jan 2008)
- North Amethyst E-17 - Delineation (Spud 9 Aug, 2008)
- White Rose E-28 - Delineation (Spud 13 Oct 2008)
- Glenwood H-69 - Exploration (Spud 25 Jan 2010)
- North Amethyst H-14 - Delineation (Spud 21 Mar 2010)
- Searcher C-87 - Exploration (Spud 8 Aug 2012)
- White Rose H-70 - Delineation (Spud 19 Aug 2013)
- White Rose H-70Z – Sidetrack (Commence 26 Sep 2013)
- North Amethyst E-18 - Delineation (Spud 6 Dec 2013)

3.1.2 Geographic Scope

The geographic scope of the environmental assessment is depicted in Figure 3-1. The project area is depicted by the red rectangle.

3.1.3 Temporal Scope

Exploration and delineation drilling activities including vertical seismic profiles associated with the drilling program as outlined above may be carried out year round from 2008 through 2017.

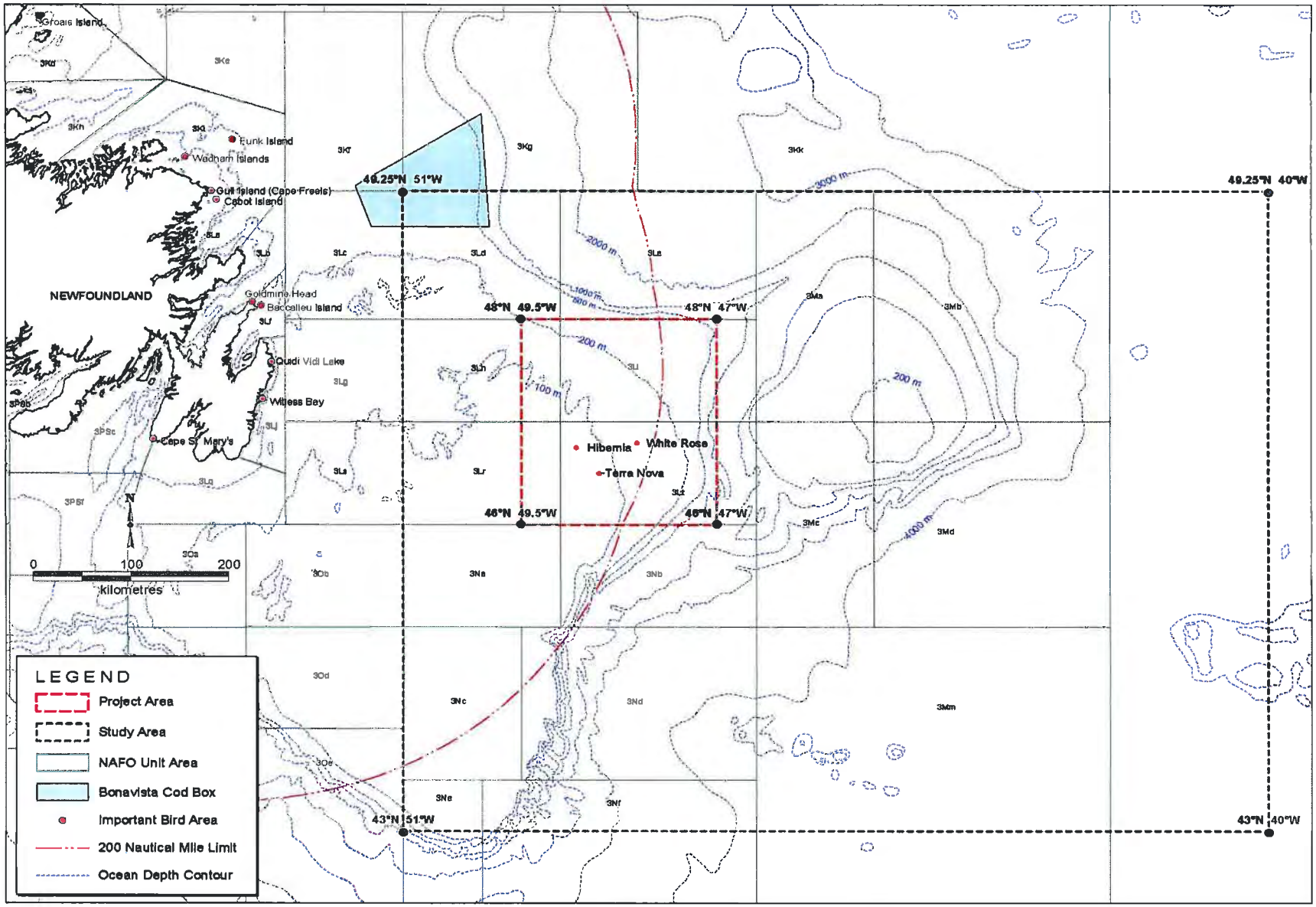

Figure 3-1 Geographic Scope of Project Area CEAR No. 07-01-28877

3.1.4 Planned Activities for 2014

An exploratory well is planned for EL 1090R (Glenwood) from approimately mid-September to late-December 2014. A single exploration well is also scheduled for EL 1110, in the Flemish Pass from October 2014 to January 2015 (see Figure 3-2). On some occasions, the wells may be suspended for future re-entry. This is similar to the abandonment process but the wellhead is not removed. A suspension cap is installed to protect the wellhead connector. Proper notification via Notices to Shipping will be made if the well is to be suspended instead of abandoned.

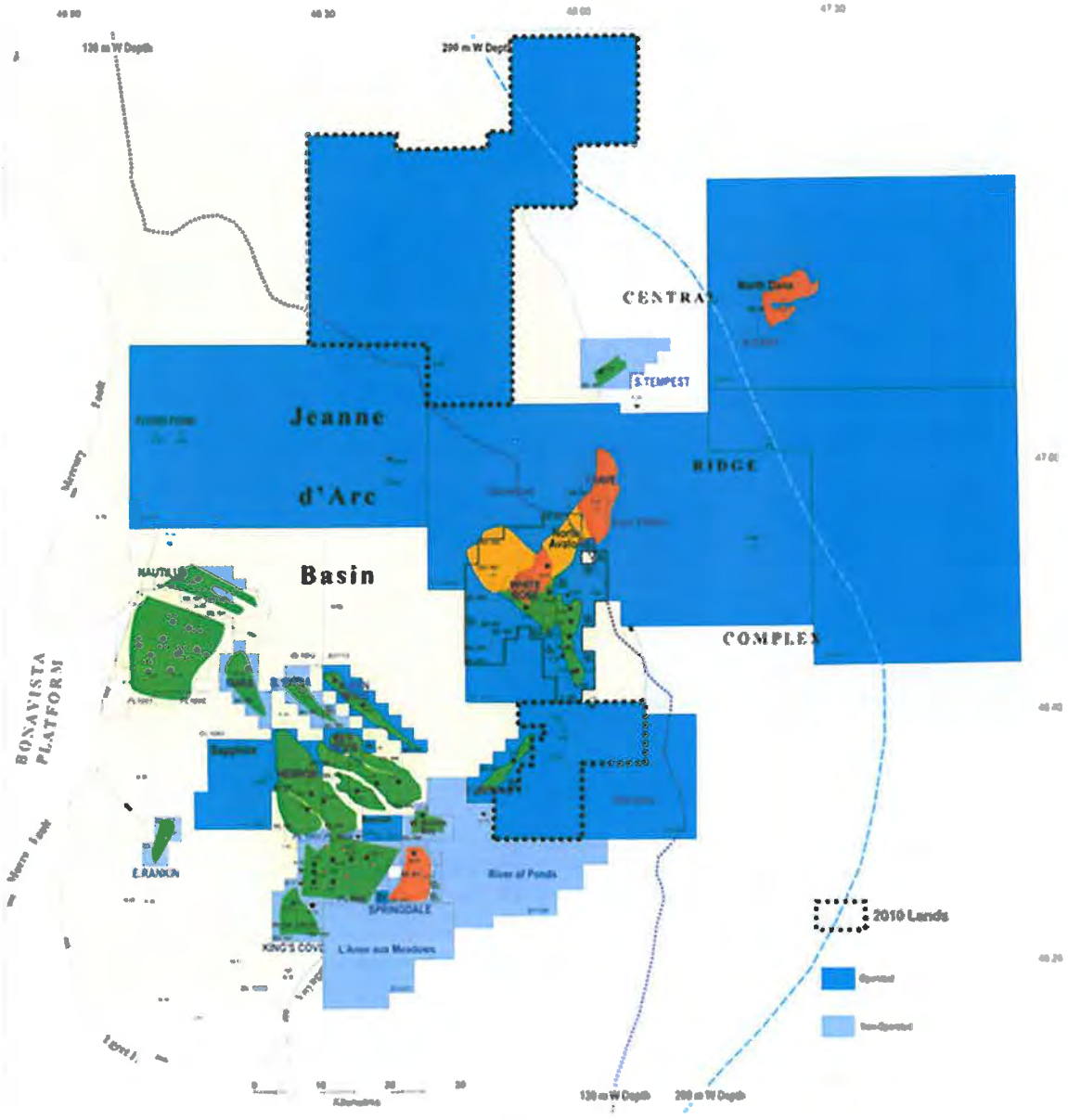

Figure 3-2 Husky Licence Areas

3.2 Environmental Aspects

3.2.1 Fisheries

Consultations specific to this EA update were held on February 11, 2014 with Fish Food and Allied Workers Union and One Ocean to discuss new activities planned for 2014. There is also ongoing liaison with the fishing industry through the regular meetings of the One Ocean Technical Working Group that involves representatives from the various operating oil and gas companies and fishing interests.

Figure 3-3 provides a map of fishing activity from 2005 to 2010 and Figures 3-4 and 3-5 depict fishing activity from 2011 and 2012, respectively. Fisheries data post-2010 cannot be compared with previous data due to changes in the information released by DFO. Fishing activities in the Study Area have not changed significantly since the initial environmental assessment. This compilation is derived from Fisheries and Oceans Canada (DFO) databases including research vessel and underutilized species information.

As noted in previous updates, a directed fishery for American Plaice and Atlantic Cod has not existed for some time and this has not changed as of 2014. If in the future, a directed fishery is authorized then previous fishing patterns for these species may be re-established in areas in and near the Jeanne d'Arc basin.

Husky understands that it is important to recognize that harvesters fish a resource, and not fixed points from year to year. Licenses are issued for large areas (e.g. NAFO subdivisions 3K or 3L) and fishing activity could take place anywhere within these areas and not just at the pattern of locations fished in recent years indicated by DFO data. Hence this requires that Husky continue to consult with the fishing industry on a regular basis to keep up to date with trends in fishing from year to year.

With regard to the conduct of its operations, Husky will continue to keep fishing interests informed of these activities during the operational planning phases. This will be done through the established One Ocean and FFAW contacts and others as deemed necessary or as advised.

Since the approval of the aforementioned environmental assessment, the fishing and oil and gas industries, through One Ocean, have completed two initiatives to help enhance communication and collaboration between the two industries. The first is a communication protocol that has been distributed to fishers and members of the petroleum industry. The protocol recommends communication procedures between fish harvesters and offshore installations and petroleum-related vessels during operational activities. The second is a risk-based decision matrix that defines the conditions under which oil and gas operators could employ either or both a Fisheries Liaison Officer or a guide vessel in support of certain oil and gas operations that have a potential to affect fisheries activities offshore.

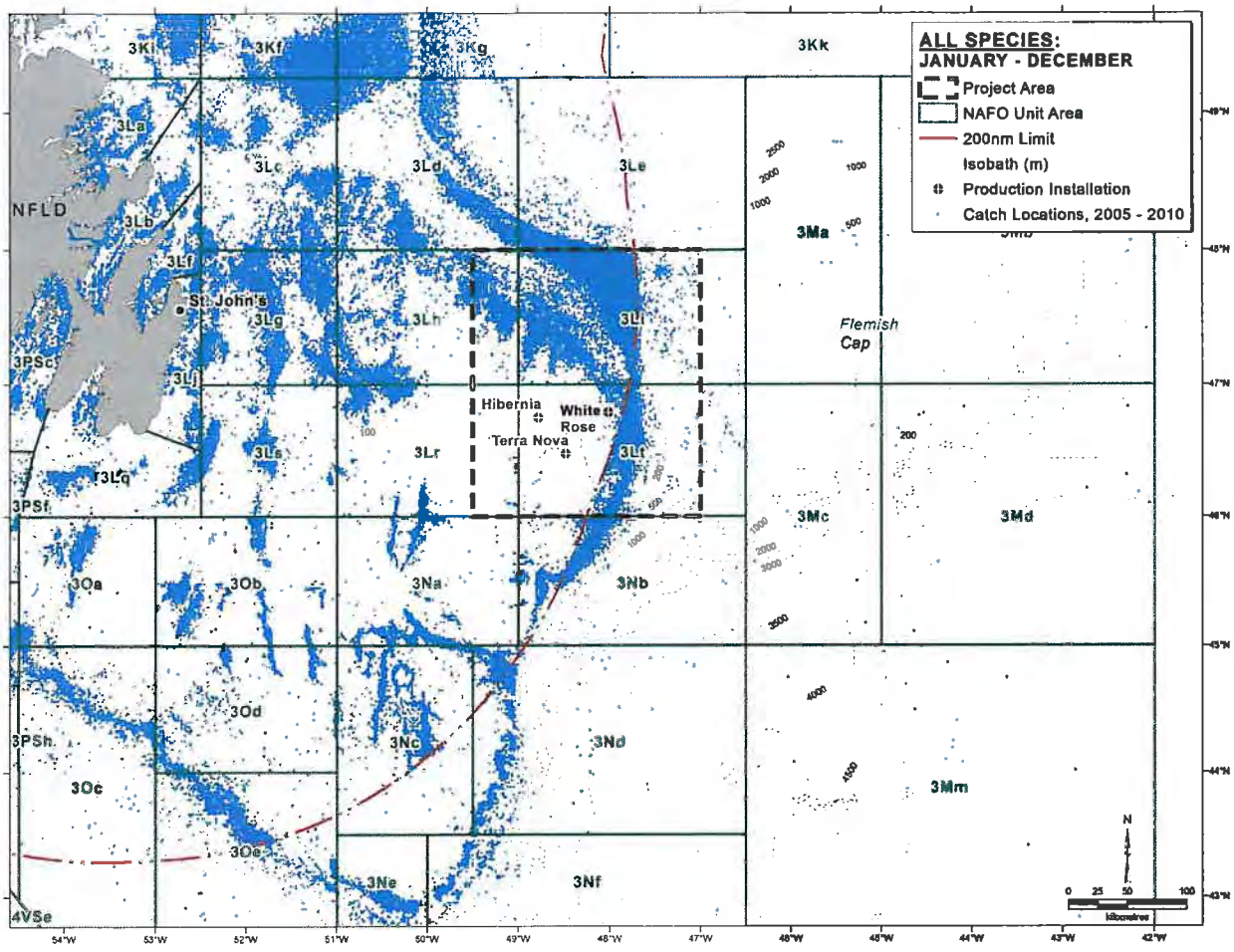

Figure 3-3 Cumulative Pattern of Fishing Activity to 2005 - 2010 in Relation the EA Project Area

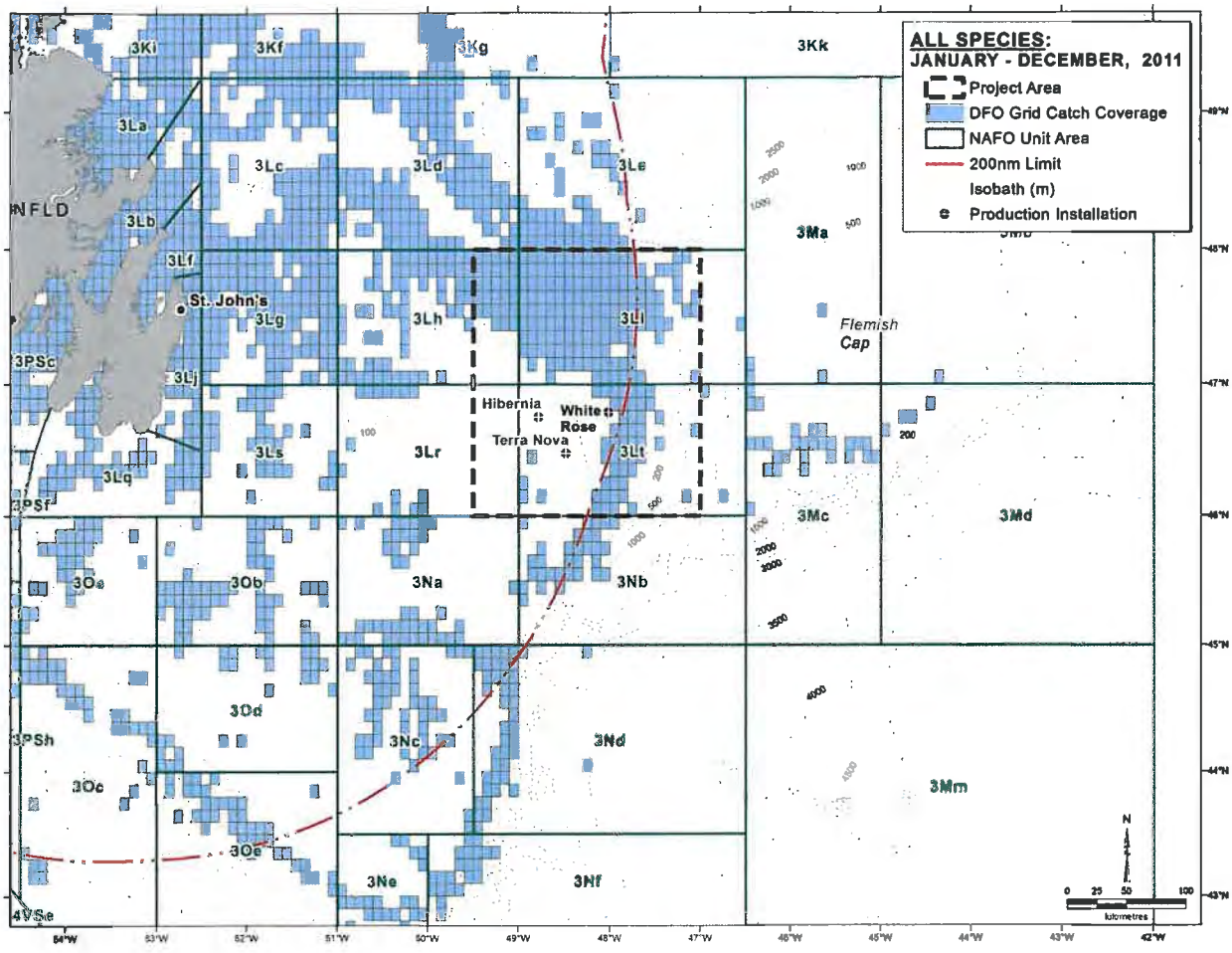

Figure 3-4 Pattern of Fishing Activity in 2011 in Relation the EA Project Area

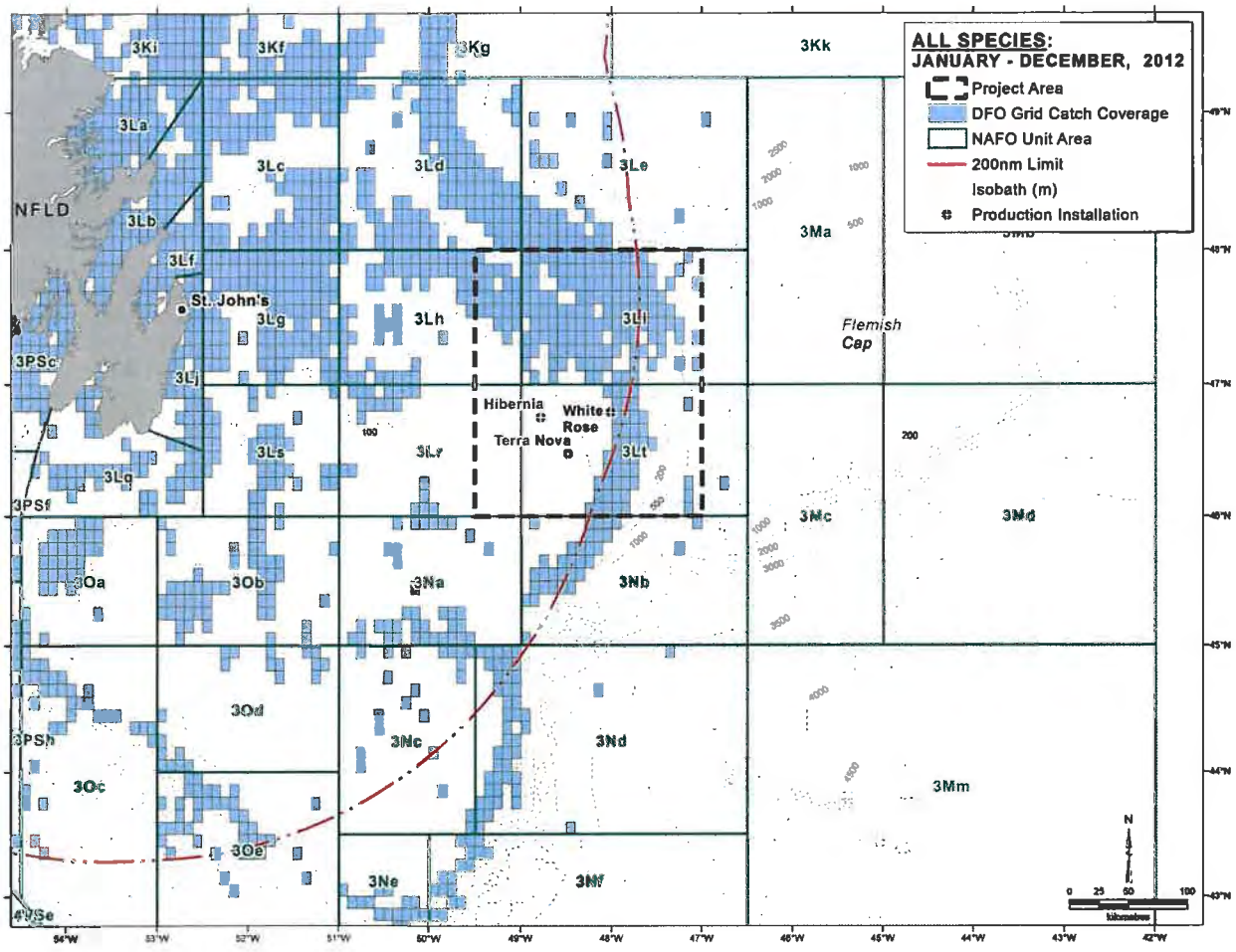

Figure 3-5 Pattern of Fishing Activity in 2012 in Relation the EA Project Area

3.2.2 Species at Risk

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None of the recovery plans for SARA listed species in place materially change the mitigation measures currently committed by Husky for the scope of the operations addressed by the environmental assessment.

3.2.3 Mitigations

Husky regards the environmental predictions and consequent mitigations cited in the environmental assessment and subsequent significance determination that relates to CEAR No. 07-01-28877 as still valid and re-commits to implementing these mitigation measures for the activities to be carried out under the scope of this assessment this year.

The potential environmental effects of drilling activities as described in Section 3.1.4 are assessed to be *not significant* when evaluated against the assessment definitions and criteria applied to the valued ecosystem components addressed in the original assessment.

4.0 Environmental Assessment of Husky's Jeanne d'Arc Basin/Flemish Pass Regional Seismic Program, 2012-2020

4.1 Project Description and Scope

4.1.1 Activities Covered

In the Environmental Assessment of Husky's Jeanne d'Arc Basin/Flemish Pass Regional Seismic Program, Husky Energy proposed seismic surveys offshore Newfoundland in the region of the Jeanne d'Arc Basin and Flemish Pass (Figure 4-1). Husky's application included 2-D, 3-D or 4-D seismic surveys, well site geohazard surveys, and vertical seismic profiling (VSP) surveys in one or more years within the 2012-2020 timeframe.

4.1.2 Geographic Scope

In terms of spatial boundaries, the Project Area (Figure 4-1) includes areas of interest plus a 10-km buffer area to accommodate the ships' turning radii. The Study Area includes the Project Area plus a 20-km buffer area around the Project Area to account for the propagation of seismic survey sound that could potentially affect marine biota. The coordinates of the project area are as follows:

47°40' North and 49°15' West;

47°40' North and 46°30' West;

46° 10' North and 49°15' West; and,

46° 10' North and 46°30' West.

4.1.3 Temporal Scope

Seismic surveying during the 2012-2020 timeframe may occur anytime between 1 May and 30 November while well site and geohazard surveys may occur anytime between 1 March and 30 November. Vertical seismic profiling surveys may be conducted at any time of the year during the 2012-2020 timeframe.

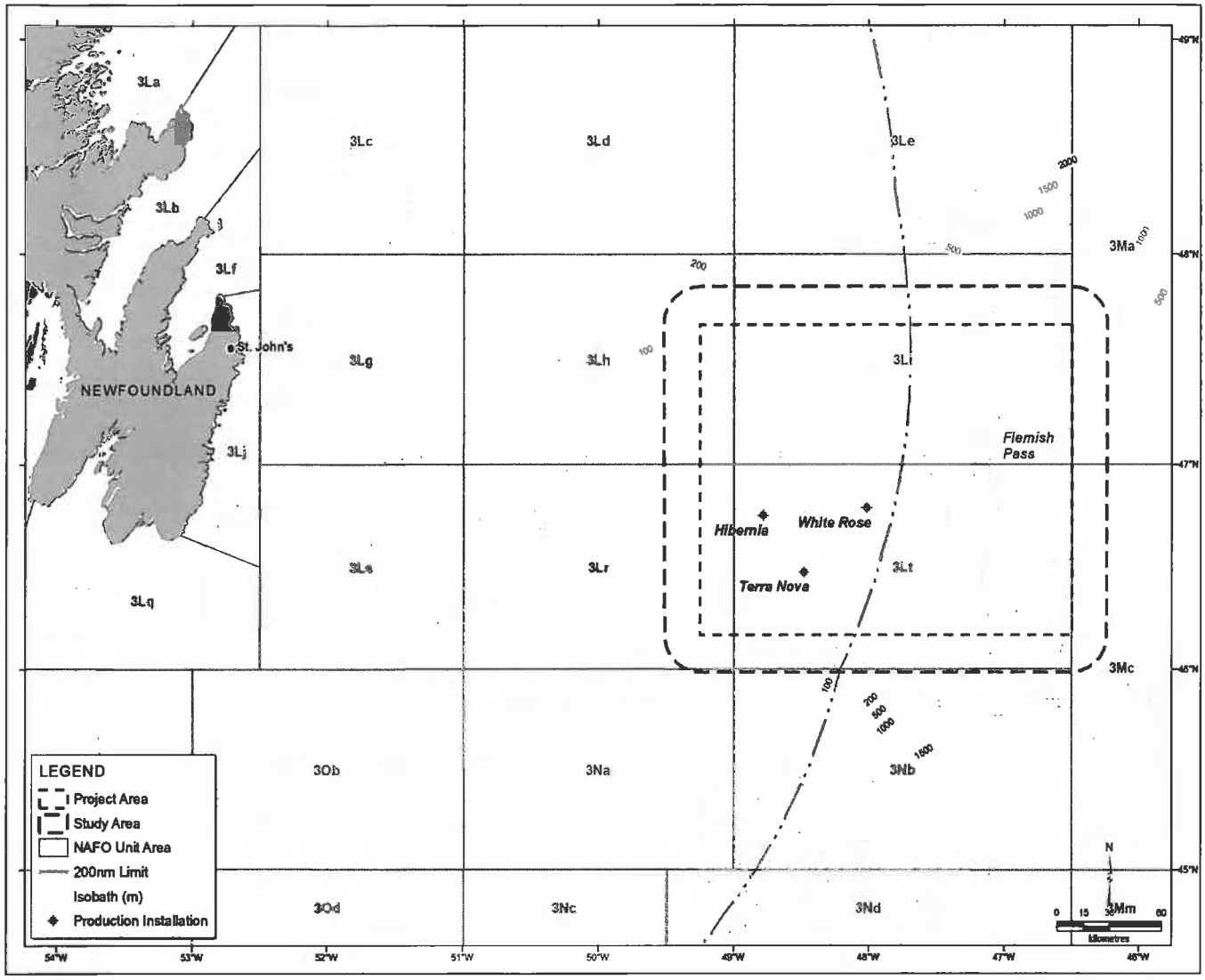

Figure 4-1 Jeanne d'Arc Basin/Flemish Pass Regional Seismic Project Area and Study Area

4.1.4 Planned Activities for 2014

Well site surveys may involve the acquisition of high resolution 2D seismic, side-scan sonar, sub-bottom profiler, multi-beam bathymetric and ground truth data (i.e., camera/grab samples). Well site surveys in 2014 are planned to cover portions of SDL 1025, SDL 1023, SDL 1020, and SDL 1019, approximately 5 km west of the White Rose Field, within NAFO Unit Area 3Lt. The potential well site survey location can be found on Figure 4-2. The well site survey will take approximately 5 to 7 days to complete, depending on weather. The survey is planned between July and August, 2014.

The C-NLOPB's Geophysical, Geological, Environmental and Geotechnical Program Guidelines (C-NLOPB 2011) will be used as the basis for the marine mammal monitoring and mitigation program for the well site surveys. Dedicated marine mammal observers (MMOs) will monitor for marine mammals (and sea turtles if present) and implement mitigation measures as appropriate. The airgun array will be ramped up, and ramp ups will be delayed if a marine mammal is detected within the appropriate safety zone (minimum of 500 m as noted in Fisheries and Oceans Canada Statement of Canadian Practice). The airgun array will be shut down any time an Endangered or Threatened (as listed on Schedule 1 of SARA) marine mammal (or sea turtle) is detected within the safety zone. These measures are designed to minimize disturbance to marine life, particularly marine mammals and species considered at risk under the SARA. In addition, the MMOs will conduct a monitoring and release program for seabirds which may strand on board the seismic vessel. The One Ocean *Risk Management Matrix Guideline for the utilization of Fisheries Liaison Officers and Fisheries Guideline Vessels* will be used to define the conditions under which a Fisheries Liaison Officer (FLO) could be used.

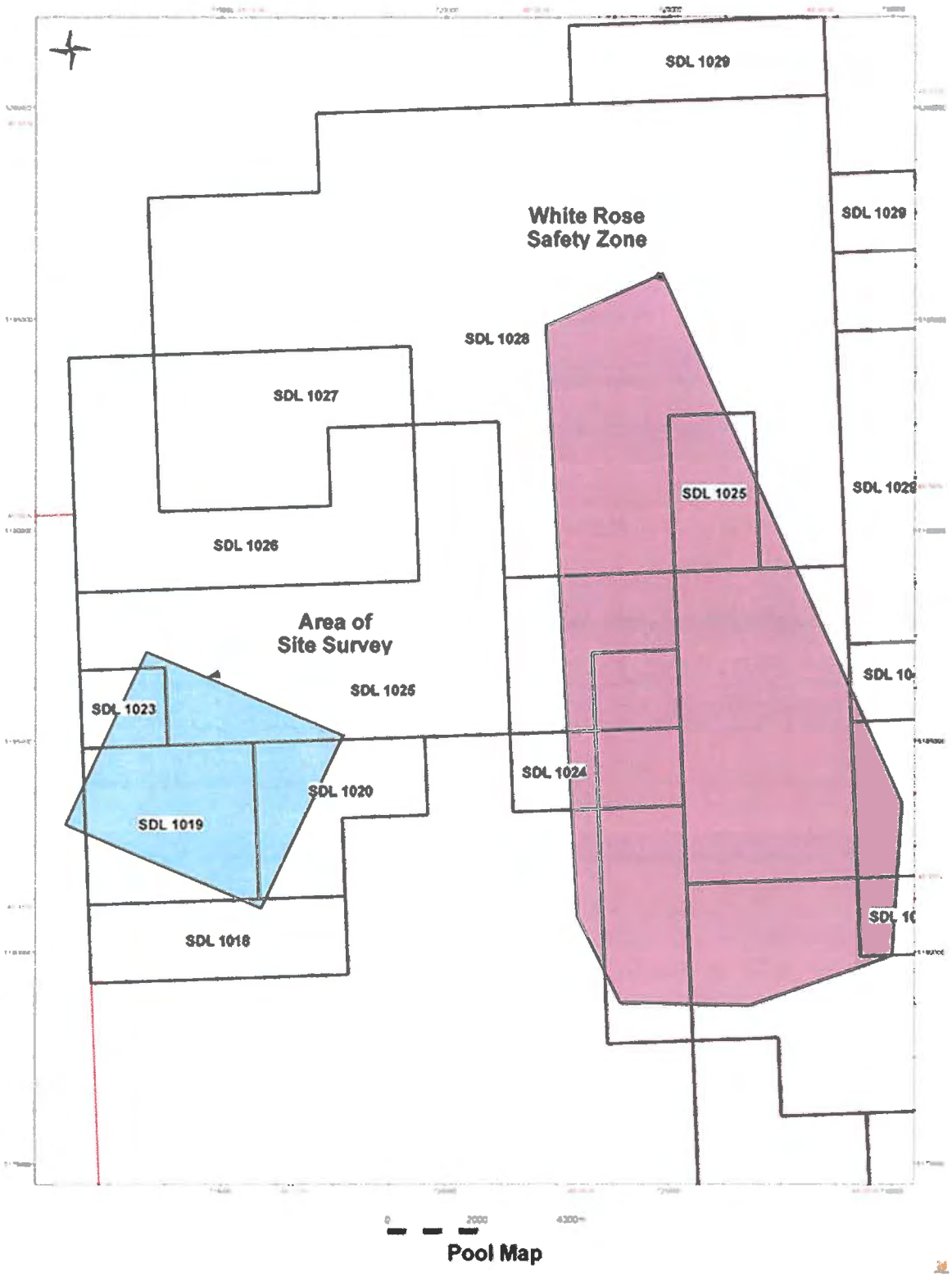

Figure 4-2 Potential Well Site Survey Location in 2014

4.2 Environmental Aspects

4.2.1 Fisheries

Consultations specific to this EA update were held on May 14, 2014 with Fish Food and Allied Workers Union to discuss new activities planned for 2014. There is also ongoing liaison with the fishing industry through the regular meetings of the One Ocean Technical Working Group that involves representatives from the various operating oil and gas companies and fishing interests.

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With regard to the conduct of its operations, Husky will continue to keep fishing interests informed of these activities during the operational planning phases. This will be done through the established One Ocean and FFAW contacts and others as deemed necessary or as advised.

Since the approval of the aforementioned environmental assessment, the fishing and oil and gas industries, through One Ocean, have completed two initiatives to help enhance communication and collaboration between the two industries. The first is a communication protocol that has been distributed to fishers and members of the petroleum industry. The protocol recommends communication procedures between fish harvesters and offshore installations and petroleum-related vessels during operational activities. The second is a risk-based decision matrix that defines the conditions under which oil and gas operators could employ either or both a Fisheries Liaison Officer or a guide vessel in support of certain oil and gas operations that have a potential to affect fisheries activities offshore.

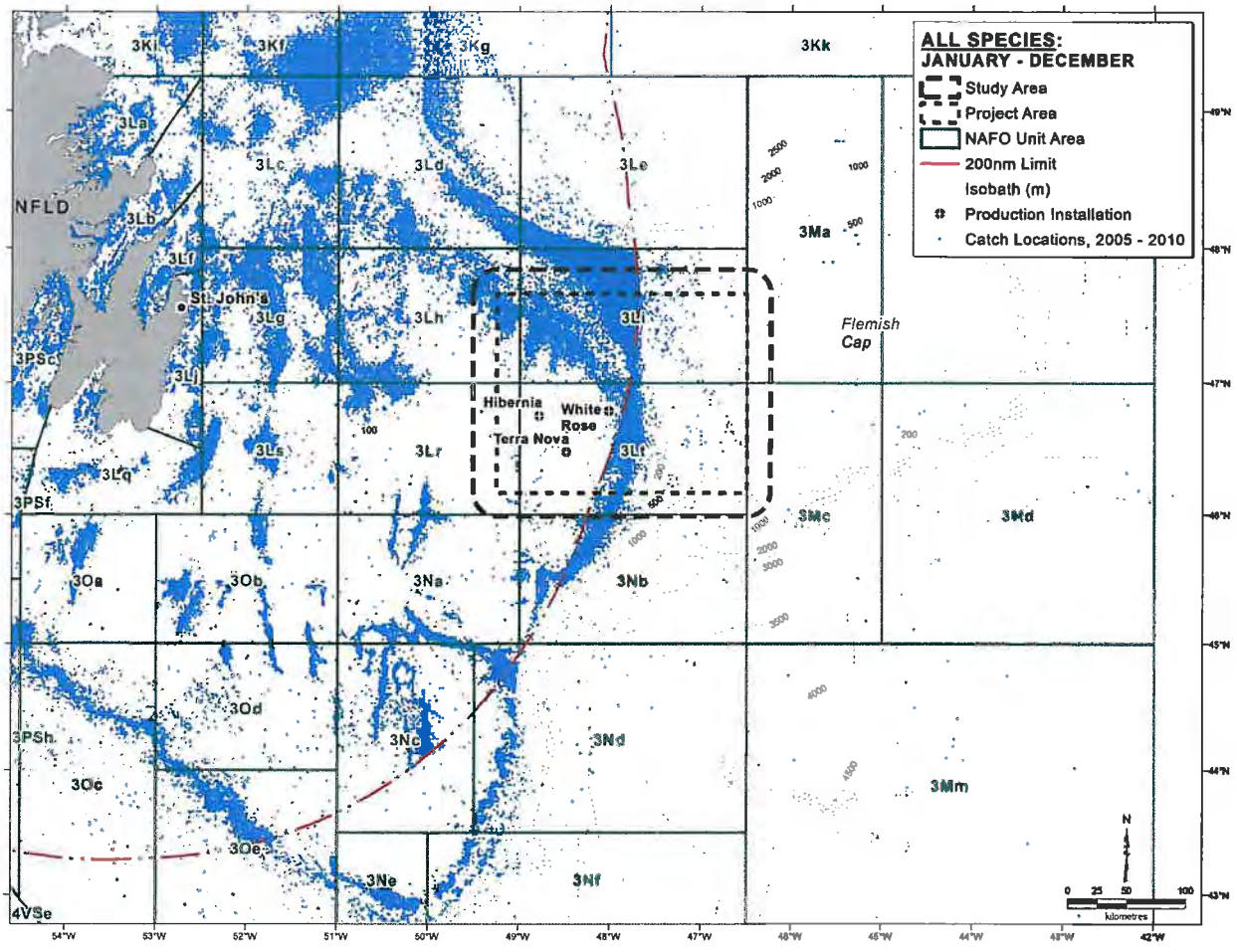

Figure 4-3 Cumulative Pattern of Fishing Activity to 2005 - 2010 in Relation the EA Project Area

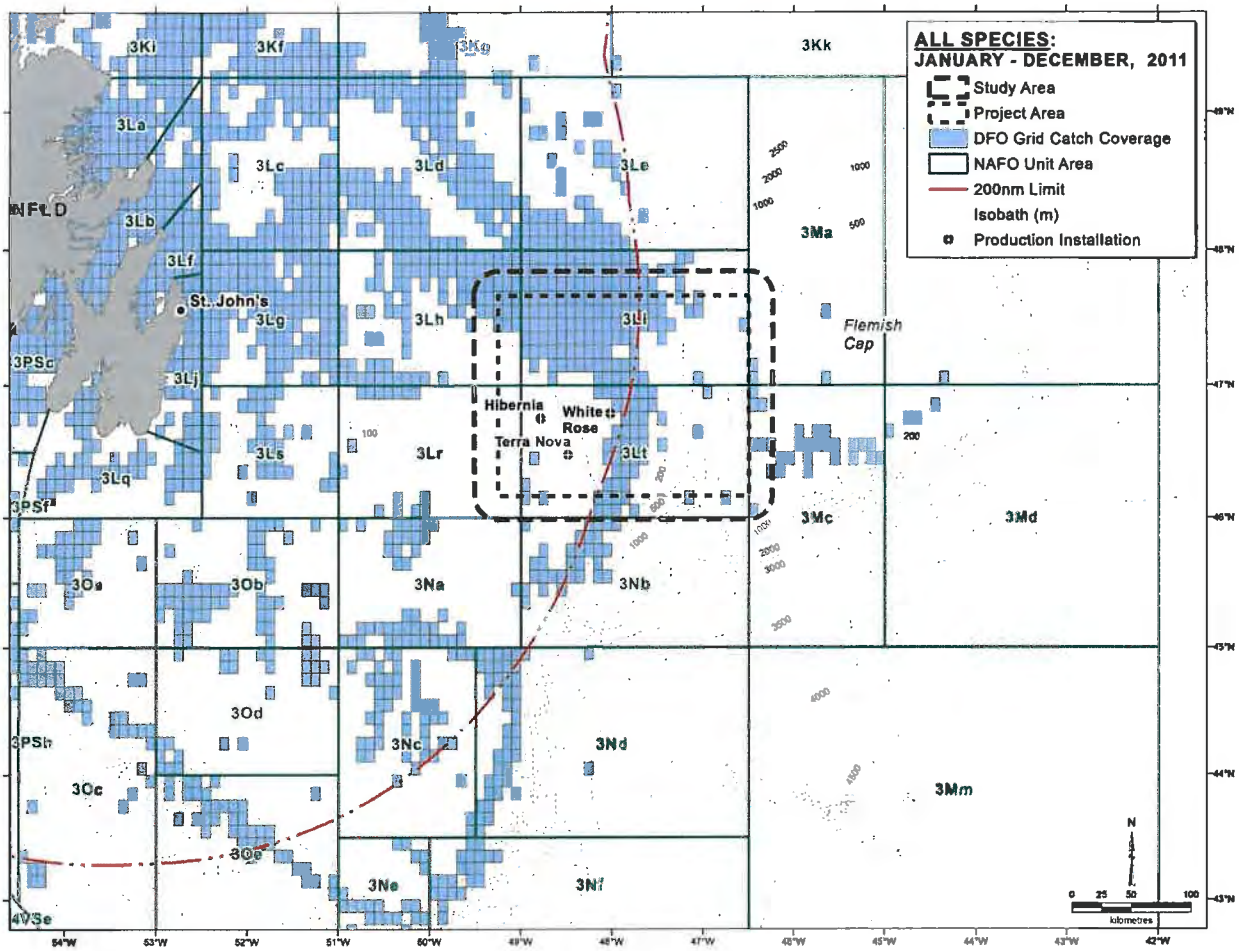

Figure 4-4 Pattern of Fishing Activity in 2011 in Relation the EA Project Area

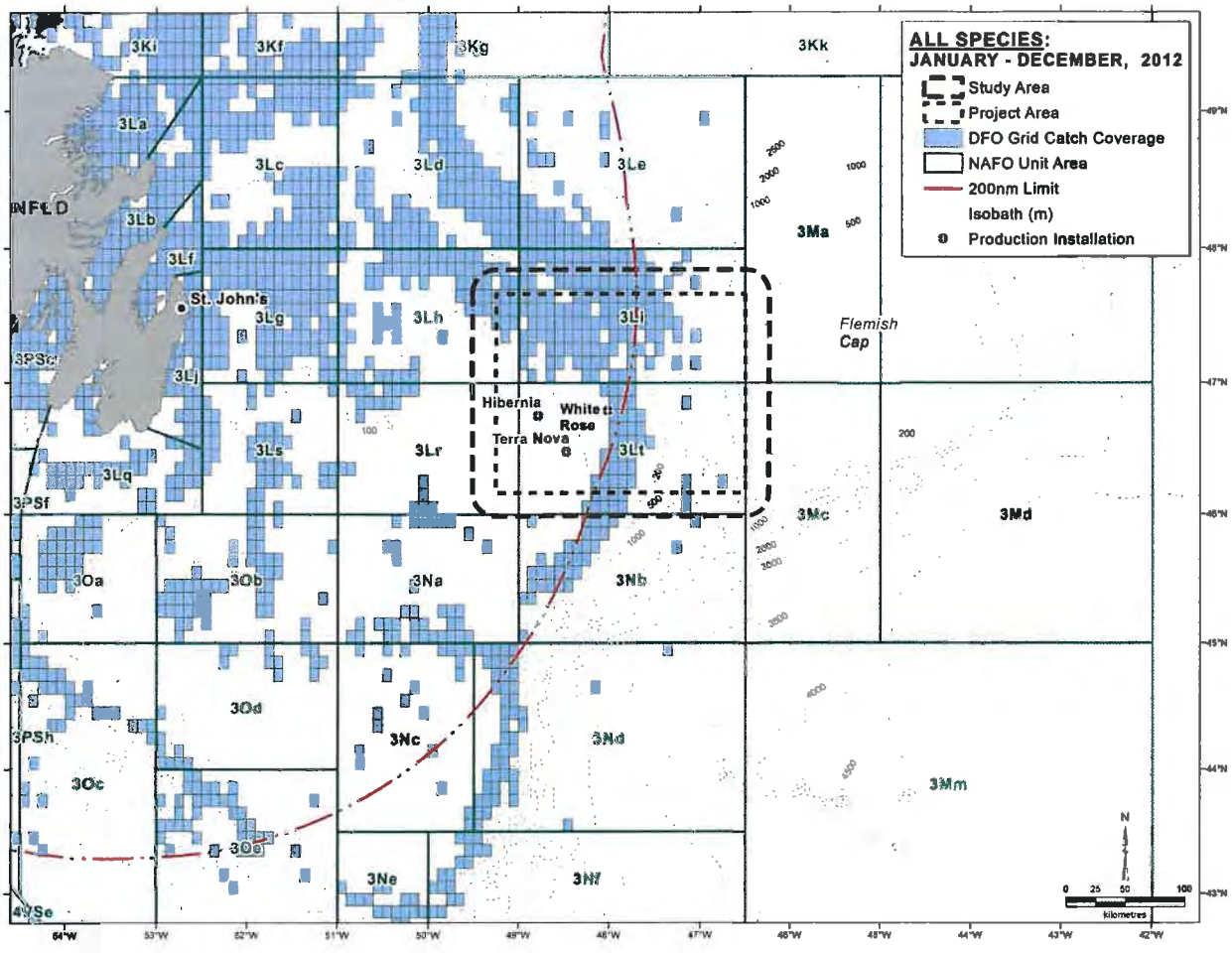

Figure 4-5 Pattern of Fishing Activity in 2012 in Relation the EA Project Area

4.2.2 Species at Risk

An updated listing of SARA and COSEWIC species for the Grand Banks area of relevance to this assessment is provided in Appendix 1. SARA listed species with final recovery strategies in place are noted. None of the SARA listed species relevant to the spatial scope of this assessment has an overlapping critical habitat description or an action in place. Appendix 1 also provides the COSEWIC candidate species under consideration.

There are two cetacean species (blue whale, and North Atlantic right whale), one sea turtle species (leatherback), one seabird species (Ivory Gull), and three fish species (white shark, northern wolffish and spotted wolffish) that are legally protected under SARA and have potential to occur in the Study Area. Atlantic wolfish, the Atlantic population of fin whales and Sowerby's beaked whale are designated as special concern on Schedule 1 of SARA.

Final recovery strategies have been prepared for five species currently designated as either endangered or threatened under Schedule 1 and potentially occurring in the Study Area: the leatherback sea turtle, the spotted wolffish, the northern wolffish, the blue whale, and the North Atlantic right whale. The recovery plan for the Ivory Gull is currently proposed (Environment Canada 2013). A management plan has also been prepared for the Atlantic wolffish, currently designated as special concern on Schedule 1.

None of the recovery plans for SARA listed species in place materially change the mitigation measures currently committed by Husky for the scope of the operations addressed by the environmental assessment.

4.2.3 Mitigations

Husky regards the environmental predictions and consequent mitigations cited in the environmental assessment and subsequent significance determination that relates to CEAR No. 07-01-28877 as still valid and re-commits to implementing these mitigation measures for the activities to be carried out under the scope of this assessment this year.

The potential environmental effects of well site survey activities as described in Section 4.1.4 are assessed to be *not significant* when evaluated against the assessment definitions and criteria applied to the valued ecosystem components addressed in the original assessment.

5.0 Concluding Statement

The activities Husky plan to carry out in 2014 have been reviewed and assessed to be within the spatial and temporal scope of the environmental assessments referenced herein.

The environmental effects predicted in the currently valid assessments are still valid. Husky reaffirms its commitment to implement the mitigation measures proposed in these assessments and in the Screening Decisions made by the C-NLOPB.

6.0 References

6.1 Original Husky Environmental Assessments

1. LGL Limited. 2012. Environmental Assessment of Husky's Jeanne d'Arc Basin/Flemish Pass Regional Seismic Program, 2012-2020. LGL Rep. SA1144. Prepared by LGL Limited in association with Canning & Pitt Associates Inc., St. John's, NL, and Oceans Ltd., St. John's, NL, for Husky Energy, St. John's, NL. 320 p. + appendices.

2. LGL Limited. 2006c. Husky White Rose Development Project: New Drill Centre Construction & Operations Program Environmental Assessment. LGL Rep. SA883. Rep. by LGL Limited, St. John's, NL, for Husky Energy Inc., Calgary, AB. 299 p. + App.

3. LGL Limited. 2007. Husky White Rose Development Project: New Drill Centre Construction & Operations Program Environmental Assessment Addendum. LGL Rep. SA883a. Rep. by LGL Limited, St. John's, NL, for Husky Energy Inc., Calgary, AB. 126 p. + App.

4. LGL Limited. 2007. Husky Delineation/Exploration Drilling Program for Jeanne d'Arc Basin Area, 2008-2017, Environmental Assessment. LGL Rep. SA935. Prepared by LGL, St. John's, NL, in association with Canning & Pitt Associates, Inc., Oceans Ltd., and PAL Environmental Services. Prepared for Husky Energy Inc., Calgary, AB. 231 p. + Appendices.

5. Husky Energy. 2012. Husky Energy East Coast Operations Newfoundland & Labrador Offshore Area Environmental Assessment Review for 2010. Doc. No. WR-HSE-RP-1886.

6.2 Recent & Relevant Environmental Assessments by Others

1. LGL Limited. 2008. Environmental Assessment of StatoilHydro Canada Ltd. Exploration and Appraisal/Delineation Drilling Program for Offshore Newfoundland, 2008-2016. LGL Rep. SA947b. Rep. by LGL Limited, Canning & Pitt Associates Inc., and Oceans Ltd., St. John's, NL, for StatoilHydro Canada Ltd., St. John's, NL. 292 p. + appendices.

2. Christian, John R. 2008. Environmental Assessment of Petro-Canada Jeanne d'Arc Basin Exploration Drilling Program, 2009-2017. LGL Rep. SA993. Prepared by LGL, St. John's, NL prepared for Petro-Canada, St. John's, NL 258 p. + Appendix.

3. Christian, John R. 2009. Environmental Assessment of Petro-Canada Jeanne d'Arc Basin Exploration Drilling Program, 2009-2017 Addendum. LGL Rep. SA993. Prepared by LGL, St. John's, NL prepared for Petro-Canada, St. John's, NL 22 p.

4. Stantec. 2010. Hebron Project Comprehensive Study Report. Prepared by Stantec Ltd. on behalf of ExxonMobil Canada Properties

5. Suncor 2011, Suncor I&O East Coast Operations Newfoundland & Labrador Offshore Area Environmental Assessment Review for 2011. Doc. No. TN-PE-EC15-X00-155.

6. LGL Limited. 2011. Environmental assessment of Statoil's Geophysical Program for Jeanne d'Arc and Central Ridge/Flemish Pass Basins, 2011-2019. LGL Rep. SA1121. Rep. by LGL Limited, in association with Canning & Pitt Associates Inc., and Oceans Ltd., St. John's, NL, for Statoil Canada Ltd., St. John's, NL. 227 p. + appendices.

6.3 Species at Risk Recovery Strategies

- DFO 2012. Assessment of Leatherback Turtle (*Dermochelys coriacea*) Fishery and Non-fishery Interactions in Atlantic Canadian Waters. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2012/041.

- Environment Canada. 2013. Recovery Strategy for the Ivory Gull (*Pagophila eburnea*) in Canada [Proposed]. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. iv+ 22 pp.

- Kulka, D., C. Hood and J. Huntington. 2007. Recovery Strategy for Northern Wolffish (*Anarhichas denticulatus*) and Spotted Wolffish (*Anarhichas minor*), and Management Plan for Atlantic Wolffish (*Anarhichas lupus*) in Canada. Fisheries and Oceans Canada: Newfoundland and Labrador Region. St. John's, NL. x + 103 pp.

- DFO 2008. Recovery Strategy for the Atlantic walrus (*Odobenus rosmarus rosmarus*), Northwest Atlantic population, in Canada. Species at Risk Act Recovery Strategy Series. Fisheries and Oceans Canada, Ottawa, ON. x + 11 pp.

- Beauchamp, J., Bouchard, H., de Margerie, P., Otis, N., Savaria, J.-Y., 2009. Recovery Strategy for the blue whale (*Balaenoptera musculus*), Northwest Atlantic population, in Canada [FINAL]. Species at Risk Act Recovery Strategy Series. Fisheries and Oceans Canada, Ottawa. 62 pp.

- Brown, M.W., Fenton, D., Smedbol, K., Merriman, C., Robichaud-Leblanc, K., and Conway, J.D. 2009. Recovery Strategy for the North Atlantic Right Whale (*Eubalaena glacialis*) in Atlantic Canadian Waters [Final]. Species at Risk Act Recovery Strategy Series. Fisheries and Oceans Canada. vi + 66p.

7.0 Appendices

Appendix 1 - Current Listing of SARA and COSEWIC Listed Species in the Husky Project Areas.

Appendix 1: Current[2] SARA Listed and COSEWIC Assessed Species in the Husky Project Areas[3]

Species		New Since Last Update			SARA Status noted as Schedules 1,2 or 3			COSEWIC Status			
Common Name	Scientific Name	Drill Centres	Exp Drilling	Seismic	Endangered	Threatened	Special Concern	Endangered	Threatened	Special Concern	Candidate[4]
Birds											
Ivory Gull	*Pagophila eburnean*				1			X			
Marine Fish											
Northern wolffish	*Anarhichas denticulatus*					1			X		
Spotted wolffish	*Anarhichas minor*					1			X		
Atlantic wolffish	*Anarhichas lupus*						1			X	
Atlantic cod	*Gadus morhua*						3				
Atlantic cod (NL population)	*Gadus morhua*							X			
Atlantic Salmon (southern NL pop)	*Salmo salar*								X		
Porbeagle shark	*Lamna nasus*							X			
White shark	*Carcharodon carcharias*				1			X			
Roundnose Grenadier	*Coryphaenoides rupestris*							X			
Cusk	*Brosme brosme*							X			
American Shad	*Alosa sapidissima*										MPC
Alewife	*Alosa pseudoharengus*										MPC
Capelin	*Mallotus villosus*										MPC
Haddock	*Melanogrammus aeglefinus*										MPC

[2] *January 2014*

[3] *Green Shade means a final Recovery Strategy is in place but no Critical Habitat has been identified nor have Action or Management plans been finalized for these species with the exception of the North Atlantic Right Whale (see footnote 7). Note that two other species that have recovery strategies, the Atlantic Walrus and Grey Whale, have been extirpated from Eastern Canadian waters and therefore are not listed in the above table.*

[4] *Candidate COSEWIC species are classified as High (H), Medium (M) or Low (L) Priority Candidate (PC) species*

Species		New Since Last Update			SARA Status noted as Schedules 1,2 or 3			COSEWIC Status			
		Drill Centres	Exp Drilling	Seismic							
Common Name	Scientific Name				Endangered	Threatened	Special Concern	Endangered	Threatened	Special Concern	Candidate[4]
Shortfin mako shark	*Isurus oxyrinchus*								X		
Blue shark	*Prionace glauca*									X	
American Eel	*Anguilla rostrata*								X		
Roughhead grenadier	*Macrourus bersgla*									X	
Bluefin Tuna	*Thunnus thynnus*							X			
Spiny eel	*Notacanthus chemnitzi*										MPC
Pollock	*Pollachius virens*										MPC
Spinytail Skate	*Bathyraja spinicauda*										MPC
Smooth Skate	*Malacoraja senta*									X	
Thorny Skate	*Amblyraja radiata*									X	
Ocean pout	*Zoarces americanus*										MPC
American Plaice (NL pop.)	*Hippoglossoides platessoides*								X		
Acadian Redfish *(Atlantic pop.)*	*Sebastes fasciatus*								X		
Deepwater Redfish *(Northern*	*Sebastes mentella*								X		
Spiny Dogfish	*Squalus acanthias*									X	
Basking Shark	*Cetorihinus maximus*									X	
White Hake	*Urophycis tenuis*	X	X	X					X		
Marine Mammals											
Blue whale	*Balaenoptera musculus*				1			X			
Humpbacked whale	*Megaptea movaeanglia*						3				
North Atlantic right whale[5]	*Eubalaena glacialis*				1			X			

[5] *A critical habitat statement exists for this species however it is rare in the study area considered in this assessment with one sighting of two individuals recorded in the DFO cetacean database.*

Species		New Since Last Update									
		Drill Centres	Exp Drilling	Seismic	SARA Status noted as Schedules 1,2 or 3			COSEWIC Status			
Common Name	Scientific Name				Endangered	Threatened	Special Concern	Endangered	Threatened	Special Concern	Candidate[4]
Fin whale (Atlantic pop.)	*Balaenoptera physalus*						1			X	
Killer Whale (NW Atl./East Arctic population)	*Orcinus orca*									X	
Sperm whale	*Physeter macrocephalus*										LPC
Cuvier's Beaked Whale	*Ziphius cavirostris*										MPC
Northern Bottlenose whale[6] (Davis Strait/Baffin Bay/Labrador Sea)	*Hyperoodon ampullatus*									X	
Sowerby's beaked whale	*Mesoplodon bidens*						1			X	
Harbour porpoise	*Phocoena phocoena*					2				X	
Hooded seal	*Cystophora cristata*										LPC
Harp seal	*Phoca groenlandica*										LPC
Ringed Seal	*Pusa hispida*										LPC
Reptiles											
Leatherback sea turtle	*Dermochelys coriacea*				1			X			
Loggerhead sea turtle	*Caretta caretta*							X			