

**DFO Comments: Husky Energy White Rose Extension Project  
Environmental Assessment (December 2012)**

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GENERAL COMMENTS

1	HPD	SL		<p>DFO has recently reviewed the post-construction survey for the South White Rose Extension. It has been determined that the authorized footprint for excavation of the South White Rose drill center and associated spoils disposal has been significantly exceeded.</p> <p>Throughout the document, Husky states there is sufficient capacity within the existing authorization for all works and undertakings proposed for the offshore component. DFO would like to highlight the fact that although Husky Energy has a valid authorization (Authorization No. 07-01-002) until December 31, 2015 for the White Rose Extension Project, an amendment may be required if Husky Energy plans to carry out any further excavation activities at the West White Rose other than that required for installation of the CGS and/or develop the North White Rose drill center as originally authorized.</p>
2	HPD	SL		<p>Based on recent ROV surveys of a nearby oil development, it appears that accumulation of drill cuttings in proximity to offshore oil drilling sites may be greater than predicted during the environmental assessment (EA). As such, DFO will be requesting that all oil developments (existing and future) conduct additional monitoring to determine the magnitude and extent of deposition of drill cuttings closer to the drill centers where current monitoring has not been carried out (i.e., within 250-500 m). This will require further discussions with DFO.</p>
3	HPD	SL		<p>There is no mention in the EA of subsea cables occurring within the nearshore dredging/excavation areas. The proponent should contact Canadian Hydrographic Service, NL Region to ensure that there are no cables or other impediments within the proposed route prior to commencement of dredging activities and CGS tow-out.</p>

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4	DFO (Sci.)			Species descriptions should include the most up-to-date, relevant information available. For example, many of the distribution maps, particularly those for marine fish and SAR, are based on data prior to 2001 and need to be updated accordingly. Significant changes have occurred over the past 10 to 20 years for many marine species, as well as the marine environment.

SPECIFIC COMMENTS

1	HPD	SL	2.4.1 White Rose Extension Project Design Criteria Table 2-4, P. 2-10	Please provide the correct dimensions of the CGS as the table reports the diameter in m <sup>2</sup> . The exact footprint of the CGS is not specifically reported, which is needed to confirm that the authorized area under the current <i>Fisheries Act</i> Authorization has not been exceeded.
2	HPD	SL	2.6.3.1 Excavation, P. 2-20	The proponent should ensure that the cut-off wall is constructed using appropriate mitigations, such as sedimentation and erosion control measures as outlined in DFO's <i>Guidelines for Protection of Freshwater Fish Habitat in Newfoundland and Labrador</i> . Please note that mitigation measures as described in this document are applicable in both the freshwater and marine environments. Also, please confirm that there will be no in-water works during construction of the cut-off wall.
3	DFO (Sci.)		Section 2.6.3.3, P. 2-25 to 2-29	Baseline data on the health of fish in Argentinia Harbour would be useful. Data is presented on levels of contaminants in sediment, but information on contaminant levels alone is of very limited value in assessing any potential risks to aquatic organisms. It is also noted that levels of contaminants in some sediment samples are above Canadian Council of the Ministers of the Environment (CCME) guidelines.
4	HPD	SL	2.6.4 The Pond, P. 2-30	During water withdrawal at The Pond, ensure adherence to DFO guidelines as described above, including the use of appropriately sized screens as described in DFO's <i>Freshwater Intake End-of-Pipe Fish Screen Guidelines (1995)</i> .
5	HPD	SL	P. 2-32	Please confirm that activities within The Pond will not compromise the integrity of the barasway/berm, which could result in a breach of the structure and a resultant release of sediment into the marine environment.
6	HPD	SL	2.7.2 Shoreline Dredging, P. 2-37	During shoreline dredging, please ensure appropriate mitigations are implemented, particularly erosion and sedimentation control measures. Dimensions of the graving dock entrance are unclear. Please clarify whether the excavated/dredged area will be 18-20 m deep across the entire 180 m channel.

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7	HPD	SL	2.7.3 Tow-out Channel Dredging, P. 2-38	The overall size of the dredging footprint appears to be different than that reported in the <i>Marine Habitat Characterization Report</i> , dated September 2012 (i.e., decreased from 223,800 to 215,000 m <sup>2</sup> ). Prior to the start of construction, a final estimate of the dredging footprint should be provided to DFO.
8	HPD	SL	2.7.6 Topsides Mating and Commissioning, P. 2-42	Please provide more detailed information on the proposed mooring systems, including anchor dimensions, water depth and substrate type at anchoring points, timing and duration of deployment, etc.
9	HPD	SL	2.8.1 Wellhead Platform, Figures 2-15 and 2-16, P. 2-45 & 2-48, respectively	The drill center SWRX should be included in the figures as it has been excavated and will be developed in 2013 with completion of the site prior to the offshore component of this project.
10	HPD	SL	2.8 White Rose Extension Project: Installation, Table 2-12, P. 2-46	The table indicates that rock berms could be installed offshore. It is DFO's understanding that there would not be extensive use of rock berms in the offshore. Please confirm in writing that concrete sleeves will be used instead of berms for flowline protection (phone conversation between S. Lewis and D. Pinsent, February 8, 2013), as this could have implications under s.35(2) of the <i>Fisheries Act</i> .
11	HPD	SL	2.8.2 Subsea Drill Centre, Table 2-13, P. 2-49	Maintenance of drill centers and flowlines, including the removal of excess drilling muds should be included in the list of activities as there could be implications under s. 35(2) of the <i>Fisheries Act</i> depending on the scale of activities required.
12	HPD	SL	2.9.1 Wellhead Platform Operation and Maintenance, P. 2-51	This section indicates that SBMs will be re-injected if a suitable formation can be found. Please provide a contingency plan if this is not possible.
13	HPD	SL	2.14 Decommissioning and Abandonment, P. 2-53	As part of the decommissioning plan for the graving dock, stabilization and erosion control measures should be implemented to ensure the conservation and protection of fish habitat. The long term plans of the graving dock should also be discussed with DFO to ensure whether there is any potential for fish habitat restoration measures.  It is important to note that during offshore decommissioning, any structures currently considered as fish habitat (i.e. existing rock berms) should not be removed without prior consultation and approval with DFO.

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14	HPD	SL	2.15 Potential Future Activities, P. 2-53	See comment G-1.
15	HPD	SL	3.4 Drill Cuttings Deposition, P. 3-39	Figures in this section should include finer scale images such as 0-1 km scale. As described in the general comment (G-2), based on recent ROV surveys at a nearby oil development, it appears that accumulation of drill cuttings in proximity to offshore oil drilling sites may be greater than predicted during the EA. As such, DFO may require Husky Energy, as well as operators of other existing and future oil developments, to provide additional monitoring adjacent to the drill centers in order to verify these predictions. It should be noted that in the past, DFO has recognized that drill cuttings deposition with thicknesses of greater than 10 cm are considered harmful to benthic organisms. Predictions provided in this section suggest that maximum thicknesses could reach approximately 8.6 cm within 100 m from the deposition area.
16	HPD	SL	3.5 Synthetic-based Whole Mud Spill Trajectory Modelling, P. 3-52	The EA indicates that the SBM would biodegrade over several weeks; however, the properties are unknown. Please provide references or evidence to support this claim.
17	HPD	SL	Tables 3-50 to 3-52, P. 3-62 to 3-63	Oil spill information presented in these tables is based on data from 1987 to 1997. Although, previous EAs have also used the same data, it may be useful to incorporate more recent information as available.
18	HPD	SL	5.2 Scope of Environmental Assessment, P. 5-2	See comment G-1.
19		DFO (Sci.)	5.3.1 Step 1 - Scoping Issues and Selecting Valued Environmental Components, P. 5-7	The EA states “ <i>Populations of marine mammals and some sea turtle species migrate to the Offshore Study Area primarily to forage for food</i> ”. It should be noted that some marine mammal species and the Leatherback Sea Turtle also migrate to the nearshore study area to feed in the summer and fall. The draft Critical Habitat for the Leatherback Sea Turtle may encompass part of the southern Placentia Bay area so this may require further mitigation and monitoring.
21		DFO (Sci.)	8.3.1.5 Fish and Shellfish – Capelin, P. 8-22	The statement: “...migrate to deeper waters to spawn offshore at depths up to 125 m (likely when conditions for beach spawning are not ideal)” is incorrect. Nakashima and Wheeler (2002) indicate that spawning occurs subtidally when water temperatures at the beach are too warm. Furthermore, this redirected spawning occurs in coastal waters generally at depths considerably less than 125m. Please adjust the statement appropriately.

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				The statement that eggs “...remain in the sediment for 14 to 52 days...” is not supported by Scott and Scott (1988) as indicated in the document. Scott and Scott (1988) indicate that eggs hatched in the beach from 9 to 24 days depending on where they were in the intertidal zone. If this statement is in reference to demersal spawning on the Southeast Shoal where water temperatures are much cooler, 52 days may be acceptable.
22		DFO (Sci.)	8.3.1.5 Fish and Shellfish – Capelin, P. 8-23	The statement that juvenile Capelin in the nearshore prefer eelgrass habitat should be supported with a reference. Most juvenile Capelin are found offshore where eelgrass does not occur. The following statement “...except in autumn, when they have a reverse vertical migration (migrate to the surface during the day)” that is attributed to Mowbray (2002) is incorrect.
23		DFO (Sci.)	8.3.1.5 Fish and Shellfish – Herring, P. 8-23	The description for Herring should be updated using DFO (2012).
24	HPD	SL	8.4.1.2 Concrete Gravity Structure Construction and Installation, P. 8-41	The EA states that a gated structure could be installed at the entrance of the graving dock post-flooding. Installation of the gate should be included in the assessment as an activity resulting in potential impacts to fish and fish habitat.
25	EAMP	LN	8.4.4 Summary of Potential Environmental Effects, Table 8-5, P. 8-43	<ul style="list-style-type: none"> <li>i. Under Subsea Drill Center Installation, installation of subsea equipment: “x/+” should be depicted under <i>Change in Habitat Quantity</i>, as habitat is being lost as a result of the placement of equipment on the seafloor.</li> <li>ii. Under Potential Future Activities, excavation of drill centers: “-“ should be depicted under <i>Potential Mortality</i>, as there will likely be loss of benthic organisms as a result of the excavation and disposal of dredge spoils.</li> <li>ii. Under Wellhead Platform Installation/Commissioning, Dredging and disposal of dredge material should have “X” for <i>Potential Mortality</i></li> <li>iv. Under Potential Future Activities, Installation of Pipeline(s) and Testing from Drill Centres to FPSO, including Flowline Protection should have an “X” for <i>Potential Mortality</i>.</li> </ul>
26	HPD	SL	8.5.1.1 Graving Dock Construction, P. 8-46	<p>As discussed in the EA, The Pond will be drained prior to disposal of the graving dock and dredge spoils. However, given the permeable nature of the berm/barasway, please provide justification/evidence to illustrate that there will be no contamination or sedimentation from The Pond into the marine environment.</p> <p>Also, it should be noted that appropriately sized screens should be employed during the draining of The Pond as noted above (S-4).</p>

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27	HPD	SL	8.5.1.2 Concrete Graving Structure Construction and Installation, P. 8-50	<p>The proposed Dredging Area nearshore was originally proposed to be 24,150 m<sup>2</sup> (as stated in the <i>Marine Habitat Characterization Report, 2012</i>), whereas the EA indicates that a significantly smaller area will be dredged/excavated (55 m x 200 m). Please confirm the actual amount of habitat that will be potentially affected. Also, depending on the final design of the graving dock entrance (i.e. gated or left open), additional habitat protection measures may be required. Measures to offset the impacts to fish habitat as a result of dredging/excavation of eelgrass beds and other productive nearshore habitats should be included. The EA should demonstrate that there are sufficient mitigation measures in place to ensure there are no significant adverse environmental effects.</p> <p>As discussed above (S-8), please confirm there will be no change in the quantity of fish habitat at the deep-water mooring points.</p>
28	EAMP	LN	8.5.1.2 Concrete Graving Structure Construction and Installation Table 8-6 / P 8-52	The Ecological/Social/Cultural/Economic Significance should be rated “2 (Evidence of existing adverse activity)”.
29	HPD	SL	8.5.1.3 Accidental Events in the Nearshore, P. 8-54	The potential collapse of the settling pond at The Pond and a breach at the berm/barasway resulting in a sedimentation event in the marine environment are potential accidental events that should be included in this section.
30	EAMP	LN	8.5.1.3 Accidental Events in the Nearshore P 8-59	In the nearshore, another accidental event that could potentially have an adverse effect on fish and fish habitat is a oil spill near a capelin spawning beach during a sensitive time of the year.
31	EAMP	LN	8.5.2.2 Production/Operation and Maintenance Table 8-8 / P. 8-64	<p>i) The Ecological/Socio/Cultural/Economic Significance should be given a lower rating of 2 = evidence of existing adverse activity. In fact, this would apply for any of the potential effects assessment summary tables.</p> <p>ii) The change in habitat quantity for flowline rock berms is Negative as well as Positive.</p>
32	HPD	SL	8.5.2.2 Production/Operation and Maintenance, P. 8-67	It is important to note that even though Husky Energy has already been previously authorized for the footprint of the CGS, this will cause a change in fish habitat quantity and therefore should be included. Although a “reef effect” may occur at the installation site, it is temporary in nature as the CGS will be removed during decommissioning.
33	HPD	SL	8.5.2.3 Offshore Decommissioning and Abandonment, P. 8-69, 8-	As stated above (S-10), the removal of rock berms and flowlines which were approved as compensation for fish habitat loss may constitute a harmful destruction of fish habitat and as such could require a <i>Fisheries Act</i> Authorization.

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34	HPD	SL	8.5.2.4 Potential Future Activities, P. 8-72	Future maintenance of drill centers could result in further harmful alteration and/or destruction of fish habitat depending on the magnitude and extent of operations. For large-scale maintenance projects and extensive installations of new equipment, Husky is advised to consult DFO to determine whether there are any <i>Fisheries Act</i> implications.
35	EAMP	LN	8.5.2.4 Potential Future Activities Table 8-11 / P 8-74	<ul style="list-style-type: none"> <li>i) The intentions surrounding the potential future activities should be clarified as the potential effects associated with activities or components outside of the current project description would be subject to regulatory view and may require additional EA.</li> <li>ii) The Ecological/Socio/Cultural/Economic Significance should be given a lower rating of 2 = evidence of existing adverse activity.</li> <li>iii) Please provide clarification on the mitigation measure referring to s.32 <i>Fisheries Act</i> Authorization. The issuance of a s.35(2) <i>Fisheries Act</i> Authorization is more accurate.</li> </ul>
36	HPD	SL	8.5.3.1 Nearshore, P. 8-80	As described in the general comments (S-4), submarine cables and other obstacles may be present in the coastal environment which could pose a risk during dredging activities.
37	HPD	SL	8.5.5 Follow-up and Monitoring, P. 8-83	Fish habitat compensation monitoring will be required as a condition of the s. 35(2) <i>Fisheries Act</i> Authorization to be issued for the harmful alteration or destruction of fish habitat associated with the dredging/excavation activities within the immediate vicinity of the graving dock.
38	EAMP	LN	11.4.4 Summary Table 11-9 / Pg 11-57  12.4.1.5 Summary Table 12-4 / Pg 12-61	<ul style="list-style-type: none"> <li>i) Avoidance should be considered a Change in Habitat Quantity associated with seismic activities.</li> <li>ii) Collisions should be considered as Potential Mortality associated with Cumulative Effects.</li> </ul>
39	EAMP	LN	11.5.1.1 Graving Dock Construction, Table 11-10, P. 11-61	Avoiding mammal concentrations, maintaining a steady course and safe speed (identify limit, i.e., less than 26 km/hr) should be mandatory rather than “when possible”, otherwise, conditions not likely to implement a safe speed should be identified.
40	EAMP	LN	11.5.2.5 Accidental Events, P. 11-87	Please provide additional rationale why the Killer Whale population-level effects conclude “no population-level effects.”



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41	EAMP	LN	12.2 Definition of Significance, P. 12-2	The qualifying statement, "...if a population is vulnerable to extinction" should be removed from the definition.  This also applies to inclusion of "vulnerable to extinction" in the summary on page 12-71.
42	DFO (Sci.)		12.3 Existing Environment, Table 12-3, P. 12-5	For Smooth Skate, Table 12-3 should also state " <i>Southern NF population has moderate potential for occurrence in Nearshore Study Area</i> ". This addition also applies to <b>Page 12-25 (para. 4)</b> .  The second most common skate species caught in the inshore NF/Subdiv. 3Ps skate fishery is Smooth Skate ( <i>Malacoraja senta</i> ), all discarded at sea; albeit <i>not</i> SAR population of the Funk Island Deep DU.
43	DFO (Sci.)		12.3 Existing Environment, Table 12-3, P. 12-6	For Blue Shark, Table 12-3 should read " <i>Prionace glauca</i> "; not " <i>Priomace glauca</i> ". Also should read " <i>Cape Hatteras</i> "; not " <i>Cape Hattaras</i> " for Spiny Dogfish ( <i>Squalus acanthias</i> ) and elsewhere.  The EA statement, " <i>Most abundant along the coast of Nova Scotia and offshore Scotian Shelf</i> " is irrelevant to this Newfoundland EA study; however, Blue Sharks ( <i>Prionace glauca</i> ) are an abundant regular seasonal visitor to Newfoundland waters.
44	DFO (Sci.)		12.3 Existing Environment, Table 12-3, P. 12-7	For Basking Shark, Table 12-3 should read " <i>Low to moderate potential for occurrence in Nearshore Study Area during summer</i> "; not " <i>Low</i> ". Also, the table should read " <i>Usually present in surface waters of Newfoundland bays feeding on plankton from May to September.</i> " This correction also applies to <b>Page 12-40 (para. 2)</b> .
45	DFO (Sci.)		12.3 Existing Environment, Table 12-3, P. 12-7	For Thorny Skate, Table 12-3 should read " <i>Moderate to high potential for occurrence in Nearshore Study Area</i> "; not " <i>Moderate</i> " as suggested. This correction also applies to <b>Page 12-44 (para. 2)</b> .
46	DFO (Sci.)		12.3.1.2 Wolffish, P. 12-9	Regarding the following statement, " <i>No wolffish were observed during the nearshore ROV habitat survey of Argentia and area</i> ", any conclusions are dependent upon the date(s), time of day, survey depth(s), and remotely operated vehicle (ROV) proximity to bottom topographic features. The ROV survey was conducted "outside" of the Atlantic Wolffish ( <i>Anarhichas lupus</i> ) spawning/nesting season; therefore, it is not unexpected to find <i>low/no</i> observations of adults "near shore". If this ROV survey was conducted "within" the wolffish spawning/nesting season, this conclusion may change. Therefore, the specifics of the ROV survey are crucial for the validation of conclusions in regard to wolffish in the proposed Argentia Peninsula (i.e., Nearshore) development.



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47	DFO (Sci.)		12.3.1.2 Wolffish, P. 12-11	The following statement, “ <i>Females guard the nests</i> ”, is incorrect and the cited references do not support those statements. For all three wolffish species, the adult male of each mated pair guards and aerates the resultant egg mass (i.e., “nest”) until hatching.
48	DFO (Sci.)		12.3.1 Marine Fish Species at Risk, Figures 12-1 to 12-7, 12-9 to 12-12, 12-14 to 12-16, and 12-18	Please update the figures as more recent data is available.
49	DFO (Sci.)		12.3.1.3 Atlantic Cod, P. 12-15	The distribution plots for Atlantic Cod (and other species using Kulka et al. 2003) are based on data from 2000 and should be updated, particularly in relation to baseline information for the project.
50	DFO (Sci.)		12.3.1.5 Porbeagle Shark, P. 12-22	The statement, “ <i>Porbeagle are also caught as bycatch in other fisheries...of the 57 mt of discards annually</i> ” (based on Campana et al. 2011), underestimates fishing bycatch mortality for this species. A more realistic estimate/fisheries overview can be obtained from Benjamins et al. (2010). This paper also considers several other SAR shark species including Shortfin Mako, Spiny Dogfish, Blue Shark, and Basking Shark.
51	DFO (Sci.)		12.3.1.8 Redfish, Figure 12-9, P. 12-27	The distribution plots for redfish indicate very low relative abundance except for an occasional hot spot. This was not expected and should be reviewed for accuracy. In addition, the low abundance of the distribution plots for redfish appear to contradict the results of the DFO RV survey in Div. 3L for 2010 and 2011 where Deepwater Redfish ( <i>Sebastes mentella</i> ) is the dominant species by weight both years ( <b>Page 8-34</b> ).
52	DFO (Sci.)		12.3.1.12 Atlantic Salmon, P. 12.32	For the south coast of Newfoundland, Atlantic salmon ( <i>Salmo salar</i> ) remain in the river until <u>age three or four</u> , not “ <i>age two</i> ”. The species is no longer valued as “commercial fisheries” (also delete sentence 2 of <b>para. 6</b> ). The third sentence of para. 2 should be revised because salmon breed in other areas besides the southeast tip. In <b>para. 5</b> , the last sentence should state “ <i>20 percent for small salmon and by 11 percent for large salmon.</i> ” Note that the small salmon are adults. In Figure 12-13, “ <i>post-smelt</i> ” should be <u>post-smolt</u> .
53	DFO (Sci.)		12.3.1.18 Thorny Skate, P. 12-44	The statement, “ <i>Simon and Frank (2000) found that in the skate fishery on the eastern Scotian Shelf...majority was Winter Skate</i> ”, is irrelevant to this EA study. Instead, scientific papers reporting on the annual Newfoundland skate fishery - in which 95% of the skate catch is Thorny Skate ( <i>Amblyraja radiata</i> ) - should have been used. This fact, “ <u>95% of the skate catch is Thorny Skate</u> ”, also applies to the skate fishery in <u>Placentia Bay</u> ; rather than the

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				ambiguous EA statement, “ <i>is thought to be Thorny Skate</i> ”. (Simpson and Miri, 2012).
54	DFO (Sci.)		12.5.1.1 Nearshore, P. 12-97 and 12-98	Previous published studies of the possible effects of pile driving are discussed, but not in relation to the pile driving activities proposed in the EA. In addition, there is no mention of sound output into the marine environment from pile driving in <b>Section 17.2.1</b> .
55	DFO (Sci.)		12.5.1.1 Nearshore, P. 12-120	The EA states that “ <i>Although effects of the Exxon Valdez oil spill were substantial on killer whales, killer whales are uncommon in Placentia Bay, and no population-level effects would be expected.</i> ” This conclusion may be incorrect based on the apparent small size of the Northwest (NW) Atlantic Killer Whale population. Even if the number of known individuals reaches 100, loss of one or two animals would represent a “ <i>population-level effect</i> ”.
56			12.5.2.2 Offshore, P. 12-126	Please specify a “ <i>safe speed</i> ” for project vessels. To ensure no mortality to listed marine mammals or sea turtles the safe speed would be (an unrealistic) zero knots. And it is unlikely that vessels transiting in night, fog, or high wave height conditions will be able to detect, much less, avoid a sea turtle or beaked whale.
57	DFO Oceans		13.0 Sensitive Areas, P. 13-1	The definition for sensitive areas quoted from the Scoping Document differs from the sensitive areas definition that has been used for other recent strategic and project based EAs (ex. Western Newfoundland SEA Update). In addition, in some assessments, sensitive areas are grouped with “special areas” (Western Newfoundland SEA), referred to as “potentially sensitive areas” (Southern Newfoundland SEA) or simply referred to as “special areas” (Laurentian Sub-Basin SEA). In the interest of clarity and consistency, it is suggested that the C-NLOPB identify a common, comprehensive definition and use common terminology for all SEAs and project based EAs when referring to special and sensitive areas.
58	DFO Oceans		13.3 Existing Environment, P. 13-5	Please provide consistency in reference to the CPAWS Special Marine Areas. There are three areas not two areas, as specified in the EA. These three Special Marine Areas should be depicted on a map as they are currently not shown in the document.
59	DFO Oceans		13.3.1 Nearshore, P. 13-6	The EA states: “ <i>...The Placentia Bay Extension EBSA (which includes all of Placentia Bay) is ranked second by DFO (2007b) in priority among the 11 identified EBSAs within the PBGB LOMA as candidate sites for designation as an MPA...</i> ”. The Placentia Bay Extension EBSA was not ranked second in relation to priority for Marine Protected Area designation. The area scored second out of the 11 EBSAs in relation to the criteria evaluated to

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				<p>determine the ecological or biological significance of the areas examined by DFO Science. The EA document refers to these criteria on p.13-16 in Section 13.3.2.1. The identification of EBSAs is not restricted to considerations for MPA designation. While portions of EBSAs may be potentially considered for MPA designation, there are a suite of potential management measures that may be established for EBSAs, not just strict protection. It is suggested that the proponent refer to Appendix 1 of the Southern Newfoundland Strategic Environmental Assessment <a href="http://www.cnlopb.nl.ca/pdfs/snsea/snseaapp1.pdf">http://www.cnlopb.nl.ca/pdfs/snsea/snseaapp1.pdf</a> where DFO submitted a clarification of the purpose for identifying EBSAs.</p> <p>References framing EBSAs solely in the context of MPA designation should be corrected (ex. P. 13-6 and third paragraph P. 13-16).</p>
60	DFO Oceans		13.3.1.2 Eelgrass Beds, P. 13-10	The location of eelgrass beds should be depicted in a map as per the statement “... <i>Extensive eelgrass beds have been identified in Placentia Bay (Catto et al. 1999; CPAWS 2009)...</i> ”.
61	HPD	SL	13.5.1 Nearshore Pre-construction and Construction, Table 13-4, P. 13-24	The reversibility eelgrass bed destruction is not accurate as presented in the table. The cut-off wall will be excavated to 18-20 m depth making it too deep for eelgrass re-colonization. Therefore, the effects would be irreversible. Please clarify.
62	HPD	SL	15.1 Existing White Rose Offshore Environmental Effects Monitoring Program, P. 15.1	While it is acknowledged that the WHP requires inclusion into the existing EEM, DFO has not reviewed any plans for the insertion of the SWRX into the EEM design. Prior to the commencement of the next iteration of the EEM program (2014), it is advised that the proposed design be submitted to DFO for review.
63	HPD	SL	15.1.2 Environment Effects Monitoring Sampling Design, P. 15-3	Additional sampling will likely be required to verify predictions made during the EA regarding dispersion and subsequent accumulation of drill cuttings and therefore should be included in the monitoring program.
64	HPD	SL	15.2.1 Nearshore Environmental Compliance Monitoring, P. 15-4	The proponent should also specify that a Section 35(2) <i>Fisheries Act</i> Authorization will likely be required for the nearshore dredging component.
65	HPD	SL	15.2.2 Offshore Environmental Compliance Monitoring, P. 15-5	See comment G-1.

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66	HPD	SL	15.3 Other Required Programs, P. 15-5	It is important to note that although there will be upcoming changes to the <i>Fisheries Act</i> , the current requirements of the <i>Fisheries Act</i> and DFO's <i>Policy for the Management of Fish Habitat</i> (1986) are still in effect for on-going projects.
67	DFO (Sci.)		15.3	Dynamic positioned rigs and vessels will produce significant and long-duration underwater noise through propeller cavitation and thruster operations displacing marine mammals, or in the case of Northern Bottlenose Whales ( <i>Hyperoodon ampullatus</i> ), may attract them to such operations. Regular monitoring before, during, and after the onset of such activities would help to determine if there were distributional or behaviour responses to such noise sources.
68	HPD	SL	17.4 Summary of Monitoring and Follow-up, P. 17-11	There is an indication that the EEM will be updated to incorporate the West White Rose development; however, the SWRX also needs to be included into the existing EEM program as described above (S-62).
69	Oceans		17.5 Conclusions, Table 17-2, P. 17-12	Please be consistent in referring to "Special Areas" or "Sensitive Areas" throughout the EA.

**DFO Comments: Husky Energy White Rose Extension Project  
Drill Cuttings and WBM Operational Release Modelling**

No.	Sector	Reviewer Initial	Section / Page No.	Comment / Information Request
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GENERAL COMMENTS

1	HPD	SL	Executive Summary, P. ii	The statement " <i>Nor is account made of the possibility of cuttings near the cuttings deposits directly about the excavated drill centre(s) being cleared by a seafloor cutting transportation system and moved to another seafloor location</i> " is concerning to DFO. The transportation of drill cuttings outside the authorized area could have <i>Fisheries Act</i> implications and therefore DFO should be contacted prior to the relocation of drill cuttings.
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No.	Sector	Reviewer Initial	Section / Page No.	Comment / Information Request
2	HPD	SL	2.0 Drilling Program, P. 2	The document suggests there could be three additional subsea drill centers at the White Rose field as well as the WHP. This is inconsistent with the EA and other documentation. Regardless, as stated in DFO's comment G-1 of the EA, the post-construction survey results from the SWRX have indicated Husky Energy may require amendments to existing authorizations to enable the excavation of anymore drill centers beyond the installation of the WHP.
3	HPD	SL	Figure 2-1, P. 3	The drill center SWRX is not depicted on the figure. Similar to S-9, please include it in the figure.
4	HPD	SL	3.3.2 Synthetic Based Muds, P. 31	As discussed above, relocation of drill cuttings could have implications to fish and fish habitat, therefore contact DFO prior to the undertaking such activities.
5	HPD	SL	4.0 Drilling Mud Properties and Discharge Characteristics, P. 38	It should be noted that another environmental effect of released WBM is the smothering of benthic organisms that should be included.

**DFO Comments: Husky Energy White Rose Extension Project  
Underwater Sound Propagation**

No.	Sector	Reviewer Initial	Section / Page No.	Comment / Information Request
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GENERAL COMMENTS

1	DFO (Sci.)		Table 1-2, P. 4	While the injury criteria in Southall et al. (2007) are accepted by many reviewers, the behavioural criteria are not generally accepted. For some cetaceans, reactions to sound appear to be highly dependent on context and their behavioural state. Based on the modelled sound propagation the area ensounded to a level that would result in behavioural reactions by cetaceans could be quite large.
2	DFO (Sci.)		Table 2-2, Section 2.2.2 and elsewhere	Given that sounds from propeller cavitation and dynamic positioning using thrusters can be substantial – it would have been useful to review these models separately as they might be significant.

No.	Sector	Reviewer Initial	Section / Page No.	Comment / Information Request
3	DFO (Sci.)		Section 3.0	Provide a rationale for the exclusion of 5% of the furthest distance values to a given sound level; it does not seem useful to present this reduced dataset.

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