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General Delivery, Tors Cove, Newfoundland and Labrador, Canada A0A 4A0

January 9, 2018

Canada-Newfoundland and Labrador Offshore Petroleum Board
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140 Water Street
St. John's, NL
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c/o Environmental Analyst

Response to : *Environmental Assessment Amendment of the Husky Delineation/Exploration Drilling Program for Jeanne d'Arc Basin Area, 2008–2017, December 2017* prepared by LGL Environmental Research Associates and Husky Energy; as part of **CEAR No. 07-01-28877**

In late December, 2017 Husky Energy submitted responses to comments on their EA amendment, and a revised EA Amendment, to extend the temporal scope of their Delineation/Exploration Drilling Program for Jeanne d'Arc Basin Area.

The following Table lists our original comments from June 9, 2017 accompanied by the initial Husky Oil Response, our December 5 Comment, Husky Oil's December 21 Response and Alder's current January 9, 2018 Comment.

No .	Alder June 9, 2017 Comment	Husky Oil Response	Alder Dec 5 Comment	Husky Oil Dec 21 Response	Alder Jan 9 , 2018 Comment
1.	In 2007 an initial EA was tabled for a delineation/exploration drilling program for the Jeanne D'Arc Basin area (LGL 2007). Husky Oil is now proposing an extension of three years for this program based on extending approval for the original 2007 EA. The 2007 EA states				

	clearly that “Seabirds are unequivocally the marine biota most at risk from accidental events resulting in releases of hydrocarbons.” and acknowledges the importance of the Grand Banks to seabirds. Our comments will focus on the risks for seabirds posed by the proposed amendment.				
2.	Approval of the 2007 EA ten years ago was provided in a context in which assumptions of negligible or low environmental effects on seabirds off Newfoundland and Labrador from offshore oil and gas extraction had been supported through decades by sustaining uncertainty (Fraser & Russell 2016). A state of cultured ignorance if you will.		Concerns remain.		Concerns remain.
3.	For example, the unsubstantiated assumption that chronic sheens around rigs resulting from routine operations do not pose serious risks to marine birds has been based for decades on the absence of data to prove otherwise.	See Subsection 3.1.2 -Sheens and 3.1.3 -Mitigation and Monitoring	3.1.2 Morandin and O’Hara’s research is now referenced. See discussion below.	Husky meets and strives to exceed regulatory requirements, reflecting its commitment to	Husky has not provided a direct and complete response to our comments here. Their mention of changes to the light fixtures is appreciated and partially addresses preventing attraction to

	<p>Since the 2007 EA new research has shown that this assumption is no longer tenable. Morandin and O’Hara (2016) found that ocean disposal of operational discharges, including produced water meeting the Waste Treatment Guidelines, produces sheens around offshore oil platforms in Atlantic Canada that kill marine birds.</p>		<p>3.1.3. No discussion of reducing operational discharges of potentially sheen forming materials.</p> <p>No discussion of preventing the attraction of marine birds to offshore platforms.</p>	<p>continuous improvement across all of its operations . The lighting fixture replacement program is expected to reduce the attraction of marine birds.</p>	<p>lighting but there is no comment here on the other operational wastes we have asked about particularly those potentially causing sheens.</p> <p>Unsatisfactory.</p>
<p>4.</p>	<p>Despite overturning the shocking assumption that operational discharge sheens in the waters around oil rigs do not pose serious risks to marine birds Morandin and O’Hara were not able to estimate the frequency and extent of occurrence of these sheens due to the monitoring practices in place. Monitoring practices have failed to collect the data required to properly assess this risk. This failure contributes to sustaining uncertainty.</p>	<p>Husky has initiated a review of seabird research and monitoring options. We intend to discuss these options with ECCC in 2018.</p>	<p>This is encouraging. It should be part of any final EA revision. As stated it is an intention only and therefore not reviewable.</p> <p>We request that their review be provided to us when completed and that the EA extension not be granted until it can be fully reviewed.</p>	<p>The Husky review of seabird research and monitoring options is intended to inform the discussion with ECCC.</p>	<p>Husky’s discussions with ECCC are not a reviewable part of this Screening Document. This item remains Incomplete and Unsatisfactory.</p> <p>See discussion below for suggested additional references of critical importance to this subject.</p>

5.	Issues surrounding the risks from flaring to marine birds attracted by lights remain outstanding.	See Subsection 3.1.1 -Artificial Lighting and 3.1.3 -Mitigation and Monitoring.	Is there a public file recording all flaring activity? Where is the discussion to back up the implied significance of LED lighting for marine bird attraction?	Husky does submit records of flaring activity to the C-NLOPB. ECCC has encouraged the use of LED lighting during this EA review citing reduced light trespass (i.e. are better at directing light where it needs to be, and do not bleed light into the surrounding area), thereby reducing the incidence of migratory bird attraction.	We request that the Proponent's historical records / data on flaring be presented as part of this EA.
6.	What are the probabilities of various species of marine birds encountering		Concerns remain outstanding.		Concerns remain outstanding.

	<p>operational sheens? What are the probabilities of various species of marine birds encountering flares? After over sixty-five years of oil and gas activity on the Grand Banks we still don't know the answer to these questions.</p>				
7.	<p>The un-quantified attraction of marine birds and other fauna to offshore platforms continues to be encouraged by marine discharges of sanitary and domestic wastes. The nutrient enrichment of platform environments in turn leads to un-quantified increased risks of predation and encounters with hazardous waste and flaring.</p>		<p>Concerns remain outstanding. See discussion below.</p>		<p>Concerns remain outstanding. See discussion below</p>
8.	<p>Section 3.5.3 Shorebase Facilities of the 2007 EA and the 2017 EA Amendment make no mention of Bay Bulls Harbour, adjacent to the Witless Bay Ecological Reserve. Neither is this reserve, a globally important seabird breeding area, included in the Project Area. On the contrary it is pointed out how far away it is. However, in April/May of this year a</p>	<p>Husky has no association with this activity.</p>	<p>To clarify, "this activity" is the presence of a lighted oil rig in Bay Bulls during the seabird breeding season. The example we provided is the <i>West Aquarius</i> in 2017. The West</p>	<p>While under direct contract to Husky, we can ensure drilling rigs have the appropriate permits in place.</p> <p>Husky has used the Bay Bulls Marine Terminal as a laydown area and loading</p>	<p>We request that the Project Area include areas nearshore that are vital to the Project i.e. the use of Conception Bay and Bay Bulls for the anchoring or standing by of Drill Rigs and Support Vessels which while there may or may not be under direct contract to Husky but either have been or will be in the foreseeable</p>

	<p>drill rig used in Newfoundland’s offshore was parked for weeks outside Bay Bulls Harbour in plain site of globally important nesting concentrations of Leach’s Storm-Petrels and other marine birds during the breeding season. The lights of the rig were clearly observed at night from Tors Cove.</p>		<p>Aquarius is normally drilling for Hibernia of which Husky is not a partner.</p> <p>However, in 2016 the example of “this activity” was the <i>West Hercules</i> which had just finished 18 months of drilling for Statoil and its partners which include Husky.</p> <p>In addition, the Bay Bulls Marine Terminal website lists Husky Oil as one of its clients.</p> <p>Husky’s answer that they have “no association with “this activity” is not correct.</p>	<p>dock.</p>	<p>future.</p> <p>N.B. Both of these areas are in proximity to the main breeding colonies of Leach’s Storm-Petrels which have suffered significant , unexplained declines in recent years</p> <p>See discussion below.</p>
<p>9.</p>	<p>The 2017 Amendment acknowledges recent</p>	<p>See Subsections</p>	<p>Concerns outstanding,</p>	<p>Our review of</p>	<p>This is an evasive and</p>

	<p>declines in Leach’s Storm-petrel populations in Newfoundland but only refers to risks to these populations from accidental events, not operational discharges that would include flaring and increased rates of predation due to attraction to the platforms. The detectability of these incidental potential mortalities remains unknown. The 2017 Amendment provides no new discussion of the seabird literature as it pertains to the risks they encounter from offshore oil and gas activity. There is no discussion of the work by Morandin and O’Hara confirming that operational discharges are permitted which kill marine birds in direct contravention of the Migratory Bird Convention Act. There is no review of or presentation of data or research on the risks to Leach’s Storm-Petrels and other birds attracted by light of flaring.</p>	<p>2.2.2 -Seabirds, 3.1.1- Artificial Lighting, 3. 1.3 -Mitigation and Monitoring , 3.2.2 -Seabirds and Accidental Events/Mal functions, and 3.2.3- Mitigation and Monitoring .</p>	<p>despite the inclusion of a limited and misleading discussion of the work of Morandin and O’Hara.</p>	<p>the literature is an earnest interpretation of the relevant information as it applies to the environmental assessment of this Project.</p>	<p>unsatisfactory response. The Proponent is making unsubstantiated claims in direct contravention of what a reading of Morandin and O’Hara would suggest. See discussion below.</p>
<p>10.</p>	<p>There is a striking absence of modeling efforts applied to support EA predictions</p>		<p>Concerns remain outstanding.</p>		<p>Concerns remain outstanding.</p>

	on the interactions between seabirds and oil industry activity in this region.				
11.	Throughout 65 years of oil exploration and development off the coast of NL seabirds have been a prominent VEC of concern. A series of high profile megaproject EAs have consistently concluded that the negative environmental effects on seabirds of these projects are negligible or low. Important questions raised repeatedly with respect to offshore oil and gas activities and the risks to marine birds over the decades remain unanswered (i.e. Wiese et al 2001).		Concerns remain outstanding.		Concerns remain outstanding.
12.	The CNLOPB continues to be saddled with a mandate that puts it in a conflict of interest with respect to regulating offshore oil and gas environmental protection and environmental effects and compliance monitoring. This is not a scientifically defensible nor wise situation to be in.		Concern remains outstanding.		Concern remains outstanding

<p>13.</p>	<p>Proceeding in the face of uncertainty is a form of risk taking. Offshore oil development in Canada is subject to a resource management regime claiming to be science based and guided by the Precautionary Principle serving a population that claims to value environmental health. Presently there is a concerning array and extent of environmental change and a concerning decline specifically in populations of Leach’s Storm-Petrels. In such a context it is worthy to note that Canada’s claims to rely on science to inform its resource management decisions while being guided by the Precautionary Principle. Allowing the status quo to continue i.e. allowing the proposed Amendment based on the 2007 EA, flies in the face of these claims.</p>		<p>Concern remains outstanding.</p>		<p>Concern remains outstanding.</p>
<p>14.</p>	<p>A revamped methodology to oversee, assess and monitor the risks of future oil and gas activity on the Grand Banks is required. We ask that the 2017</p>		<p>Concern remains outstanding.</p>		<p>Concern remains outstanding.</p>

	Husky EA Amendment proposal be used as an opportunity to start this process.				
15.	We request detailed information on what use, if any, rigs contracted by Husky for this project make of Bay Bulls Harbour and if so, that Bay Bulls and the Witless Bay Ecological Reserve be included in the Project Area.	Husky does not anticipate a rig in Bay Bulls being under contract to Husky and therefore the rig owner would be responsible for regulatory compliance .	This is not a satisfactory response.	To elaborate, any drilling rig under contract to Husky would be included within Husky's application for seabird handling and salvage permits, in compliance with the provisions of the Migratory Birds Convention Act (MBCA) and Regulations. Once the contract with Husky has ended, the rig owner would be responsible to apply for any permits required under the MBCA. Anchorage locations are determined by Transport Canada.	<p>What are Husky's responsibilities to ensure that the contractors it uses do not pose risks to the environment, and health and safety of workers in Newfoundland and Labrador?</p> <p>We request that supply chain integrity be substantiated such that the needs of the Project do not pose risks that are not covered by the environmental assessment process.</p> <p>Please provide the evidence that environmental risks of the Bay Bulls Marine Terminal on which the Project depends have been properly assessed.</p> <p>We have not found any such evidence on record.</p>

3.1.1 Artificial Lighting

“The effects of flaring and electrical lighting on marine birds, taking into account mitigation there are not likely to be significant adverse environmental effects on seabirds due to the flaring and electrical lighting with the Project.”

There is no evidence presented on which to base the above claims. We ask that such statements be accompanied by discussion and evidence that would corroborate the conclusion made or that it be rejected outright.

We request that Husky reference and respond to Wiese et al (2001), Burke et al (2012) and Ronconi et al (2015).

3.1.2 Sheens

“The potential for sheen formation due to approved operational discharges during routine exploration drilling activity is low. The occurrence of sheens is most likely due to a spill or unauthorized discharge. “

The revised document continues to make the above claim. There is no evidence presented on which to base the above two claims. In contrast to the above claims Morandin and O'Hara, 2016 suggest that sheens around rigs may be common and present historical reports of sheens from Newfoundland's offshore that clearly show operational discharges as accounting for the majority of sheens reported. They conclude the opposite of the claims made by Husky i.e. that “Thin sheens of oil and drilling fluids form around offshore petroleum production structures from currently permissible operational discharges of hydrocarbons.”

Husky concludes :

“Given that the effects of a sheen, if present, are localized, of low magnitude, and reversible, sheens resulting from routine operation and maintenance drilling activities are not likely to have significant adverse environmental effects on populations of marine birds within the Study Area. “

One has to wonder how they reach such a conclusion. We ask the question, how did they? In the second iteration of their EA Husky at least acknowledged the studies by Morandin and O'Hara however they misrepresented the authors work. Their response to our comment on this completely evades the issue.

3.1.3 Mitigation and Monitoring

There is no evidence that Husky plans to mitigate potential environmental effects by embracing the Precautionary Principle or adhering to the Migratory Bird Act. While ECCC requested an update of their discussions to reflect new literature since the original EA was approved ten years prior ECCC appear to stop short of enforcing the Migratory Bird Act. ECCC is not requiring a stop to the routine use of waters frequented by migratory birds as a waste treatment facility. Nor is it requiring Husky to stop activities that lure migratory birds to aggregate around oil and gas platforms.

We repeat our earlier request that in the absence of enforcement by the Regulator that Husky raise the bar itself and stop disposing of their operational waste in the ocean. This would eliminate much of the costs associated on many fronts with the EA process and possibly bring industry cost saving over their residency in our waters.

Table Item No. 7

The Waste Treatment Guidelines on the CNLOPB's website have not been updated since 2010. The Board's schedule of reviewing and updating the Guidelines every five years is overdue. Many of our concerns could be addressed through revisions to and compliance with The Waste Treatment Guidelines. The un-quantified attraction of marine birds to offshore platforms could be reduced by changes in the waste treatment regimes of the platforms.

We repeat our request that Husky volunteer to lead by example and not simply meet the minimum requirements suggested by the Waste Treatment Guidelines. We would like to see a review of global Best Practices being achieved elsewhere and a commitment by Husky to aim for zero discharges with a plan on how they plan to get there, starting with the treatment of all sewage and food waste on their platforms.

Table Item No. 15

There have been drill rigs in Bay Bulls that have been used by Husky. I assume that what Husky means is that at no time when they have a given rig under contract would the rig be present in Bay Bulls. They are stating that they take no responsibility for rigs when not under contract.

This appears to be a loop-hole in the Chain of Responsibility. We repeat our request for further detail and clarification on the history of Husky's Drill Rig Contracts i.e. a list of rigs contracted by Husky and the time frames of those contracts to substantiate that at no time was a rig concurrently, recently or about to be under contract to Husky and present near shore. We would also like further detail on the requirements Husky makes of its suppliers to ensure the protection of the

Newfoundland and Labrador environment from rigs when not directly under contract.

To comply with their claim, we repeat our request for confirmation from Husky that no part of the project being reviewed here will be contracting oil rigs which have been present in Bay Bulls during the marine bird breeding season.

We request that if the CNLOPB is going to sanction the continuation of this project that they make it a requirement of the license that the project not utilize rigs that have utilized Bay Bulls.

Section 3.1.1 Artificial Lighting

“the probability of individual storm-petrels stranding on individual oil platforms cannot yet be estimated with any degree of confidence.”

Despite stating the above Husky has no problem concluding the following:

“The effects of flaring and electrical lighting on marine birds, taking into account mitigation measures, are mostly localized (1–10 km²), of low magnitude, and reversible. Therefore, there are not likely to be significant adverse environmental effects on seabirds due to the flaring and electrical lighting with the Project.”

There are no empirical studies cited on which to base estimates of the numbers of birds attracted to the lights or flares. There are no empirical studies cited on which to base estimates of the numbers attracted that suffer immediate or later mortality. There are no empirical studies cited on which to base estimates of the mortality that goes undetected. Essentially there is nothing on which to base the above conclusion other than a tradition within the oil and gas EA industry that this is the conclusion always reached. This tradition is made possible by another one upheld by the Governments of Canada and Newfoundland and Labrador in which the Proponent gets to pay directly for and oversee the writing of their own EA and be regulated by Boards operating under the burden of a conflict of interest mandate.

Husky’s conclusion quoted above has no basis in fact, theory or the reasonable speculation of someone telling the truth. We do not condone the acceptance of a null hypothesis in the absence of any empirical evidence to test it. We challenge Husky to provide a scientifically defensible case to support their conclusion. In the interim we request reliance on the Precautionary Principle. In other words assume the worst and take precautionary measures to prevent it. If this is not feasible ask the honest question:

Do we accept the killing of un-estimated and untold numbers of International Migratory Birds as a cost of exploiting fossil fuels off our coasts?

Project Area

The geographic extent of the Project still does not include the coast of insular Newfoundland e.g. Conception Bay, St. John's Harbour and Bay Bulls where support vessels and drill rigs are often present and pose risks to marine birds, particularly during the breeding season when their large brightly lit superstructures are often visible from the major breeding colonies of Baccalieu Island and the Witless Bay Ecological Reserve. Unless activities required by the project can be sustained within the Project Area as they have described it we do not accept their delineation of the Project Area. It is a disingenuous description.

A revamped methodology to oversee, assess and monitor the risks of future oil and gas activity on the Grand Banks is required. We ask that the 2017 Husky EA Amendment proposal and all other current requests to initiate or extend drilling activity off Newfoundland and Labrador be denied and the hiatus used as an opportunity to start this process.

Husky's current request is made in the context of a much larger industry with many proposals before the Board. Exploration is expanding. In fairness to Husky they should not have to bear the burden of making up for 65 years of cultured ignorance by themselves.

Until outstanding concerns around the attraction of marine birds to oil platforms and the risks they encounter once attracted are addressed we request a moratorium on offshore oil and gas activity off Newfoundland and Labrador. The current proposal by Husky is as good a place to trigger this move as any.

Our concerns about the risks to seabirds posed by this Project have not been adequately addressed. It appears that vital components of the EA which are outstanding relating to seabirds are being deflected by the Proponent through reference to planned discussions with ECC in the future. We ask that this deferral and deflection from the public environmental assessment process not be tolerated.

Sincerely,

Janet Russell

cc. CEAA

References

- Burke, C.M., Montevecchi, W.A., and Wiese, F.K. 2012. Inadequate environmental monitoring around offshore oil and gas platforms on the Grand Bank of Eastern Canada: are risks to marine birds known? *Journal of Environmental Management* 104: 121-126.
- Fraser, G.S., Russell, J. & Von Zharem, W.M. 2006. Produced water from offshore oil and gas installations on the Grand Banks, Newfoundland and Labrador: are the potential effects to seabirds sufficiently known? *Marine Ornithology* 34: 147–156.
- Fraser, G.S., & Russell, J. 2016. Following-Up on Uncertain Environmental Assessment Predictions: The Case of Offshore Oil Projects and Seabirds Off Newfoundland and Labrador. *Journal of Environmental Assessment Policy and Management* Vol. 18, No. 1.
- LGL Limited and Husky Energy. 2017. Environmental Assessment Amendment of the Husky Delineation/Exploration Drilling Program for Jeanne d'Arc Basin Area, 2008–2017. LGL Rep. FA0122-1. Rep. by LGL Limited, St. John's, NL and Husky Energy, St. John's, NL. 35 p. + appendix.
- LGL Limited. 2017. Amendment of the Husky Delineation/Exploration Drilling Program for Jeanne d'Arc Basin Area, 2008-2017, Environmental Assessment. LGL Rep. FA0122. Rep. by LGL Limited, St. John's, NL for Husky Energy, St. John's, NL. 13 p. + Appendix
- 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.
- Morandin, L.A. & O'Hara, P. D. 2016. Offshore oil and gas, and operational sheen occurrence: is there potential harm to marine birds? *Environmental Reviews*, 2016, Vol. 24, No. 3 : pp. 285-318
- Ronconi, R.A., Allard K.A. and Taylor P.D. 2015. Bird interactions with offshore oil and gas platforms: review of impacts and monitoring techniques. *Journal of Environmental Management*, 147:34-45
- Wiese, FK, WA Montevecchi, GK Davoren, F Huettmann, AW Diamond and J Linke 2001. Seabirds at risk around offshore oil platforms in the north-west Atlantic. *Marine Pollution Bulletin*, 42, 1285– 1290.