

The Alder Institute

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Re: Additional Information Review, Hebron Public Review

The Alder Institute Inc. is a non-profit collective dedicated to representing an ecological point of view in public discourse, and to translating science into common language. Alder's mandate focuses on, but is not limited to, the natural history of Newfoundland and Labrador. Founded in 1998, Alder has participated in earlier environmental assessment reviews of offshore oil and gas projects in Newfoundland and Labrador (i.e. Terra Nova, White Rose) and on August 11, 2010 responded to the invitation for public comment on the draft *Comprehensive Study Report (CSR) for the Hebron Development Project*. The contact person for the purpose of the Hebron Public Review is Janet Russell.

The description of shore base support is vague on what areas other than St. John's are to be used. We request clarification on whether or not and to what extent the port of Bay Bulls may be used by the Hebron Project. Bay Bulls is of particular interest due to its proximity to the Witless Bay Ecological Reserve.

CSR Chapter 3. The presentation of the sea ice data is very difficult to interpret due to a perplexing use of summary statistics, even to the extent of using summary statistics of summary statistics i.e. *In Figure 3-45, the term “Central Value” is determined by averaging the minimum and maximum median concentrations of sea ice found below 49°N on each given week over the 30-year period between 1971 and 2000.* We request the inclusion of plots of the raw ice data or box plots of the distribution of that data or other more direct means of conveying the distribution of ice events. Ice risks to the project are highly variable. We request that the ice data be presented in a way that conveys that variability in a useful way.

CSR Chapter 4. With respect to the spatial boundaries of the project we request that information be provided for areas traversed by the product produced at Hebron when in transit between the production facility and the tanker’s destination.

We request more detailed discussion of how the definitions of “significant adverse residual environmental effect” were established for Fish and Marine Birds and Marine Mammals and Sea Turtles. In all cases a significant adverse residual environmental effect is defined as one that affects the Valued Ecosystem Component (VEC) by “causing a decline in abundance or change in distribution of a population(s) over more than one generation within the Nearshore and/or Offshore Study Area. Natural recruitment may not re-establish the population(s) to its original level within several generations or avoidance of the area becomes permanent.

CSR Chapter 9.

9.1.2 Administrative

Most migratory and many non-migratory bird species are protected under the federal Migratory Birds Convention Act, 1994. The Act states, in part, that “No person or vessel shall deposit a substance that is harmful to migratory birds, or permit such a substance to be deposited, in waters or an area

frequented by migratory birds or in a place from which the substance may enter such waters or such an area.”

We request more information on whether or not the Proponent plans to conform with the above, such discussion to include a comparison of how the Offshore Waste Treatment Guidelines conform to the standard set by the Migratory Birds Convention Act statement above.

Section 9.3.1 *Nearshore* only discusses Bull Arm. We request further information regarding the potential effect on marine birds posed by the transport of product in to Placentia Bay. We request the inclusion in the project area of the product transport route. We request confirmation that the Hebron Project will not be using the port of Bay Bulls for support activities. If it will use the port of Bay Bulls we request the inclusion in the project area of the Witless Bay Ecological Reserve.

Section 9.3.2.3 *Marine Bird Nesting Colonies Along Southeastern Newfoundland* states that “No marine bird nesting colonies are located within either the Nearshore or Offshore Study Areas, so these sites are not discussed within the Sensitive or Special Areas VEC”. We request further information, discussion and clarification on how the project manages to have such discontinuous spatial boundaries. What methods will be used to transport Hebron product to Whiffen Head without passing Cape St. Mary’s marine bird nesting colony?

The section entitled *Hydrobatidae (Storm-Petrels)* reports that “An average of less than one Leach’s Storm-Petrel per day was recorded from the drill platforms on the northeast Grand Banks 1999 to 2002 (Baillie et al.2005).” We request more detailed presentation and discussion of the data available.

For the marine bird section in general we request a more detailed discussion of the gaps in the data available and caveats required to interpret the data that do exist. Data that do

exist should be more fully presented for the immediate project area and a discussion of the attraction effect that the project has on birds should be included when comparing project site expectations to at sea (non platform related) data.

We request that *Section 9.4.1.1 Nearshore Project Activities* include additional information regarding tanker transport of Hebron product.

9.4.2.2 Operations / Maintenance and 9.5.1.2. Change in Habitat Quality

We request that the reference to flaring include mention of possible bird mortality by incineration. We request additional information on the chronic sheens observed around offshore platforms and the vulnerability to death by hypothermia that marine birds contacting oil or oil like substances are subject to. In addition a discussion of the attractant effect the platform's lighting, flaring, waste disposal and evolving "reef ecology" has for marine birds and their prey. We request more detailed discussion of Flaring as a habitat alteration causing marine bird mortality. We request detailed consideration of the knowledge gaps surrounding this subject and the implications for environmental effects predictions of this lack of understanding. What independent studies exist on this topic? What independent studies have been done in the offshore? If there is essentially no level of scientific understanding or certainty on this issue why is the assumption one of no significant effect? What would be the grounds for such an assessment? In the absence of data what role does the precautionary approach play? We request a discussion of this topic.

The statement is made that "Routine Platform discharges are not expected to produce sheens." We request more information to support this statement.

The statement is made that "Some marine birds, particularly gulls, may be attracted to sewage particles, but the small amount discharged below the surface is unlikely to increase the abundance of marine birds in the Offshore Study Area." We request that this

statement be substantiated and at the scale of the Project Area rather than Offshore Study Area.

The statement is made that “To minimize the possibility of fouling marine bird feathers, fluids will be discharged below the water’s surface whenever possible. It is predicted that the residual environmental effect of fluid / solid storage or discharge on the habitat quality of marine birds in the Offshore Study Area will affect a limited area and be of low magnitude.” We request more information, detail and discussion to support this statement. What independent observations and/or studies have been made of the spatial and temporal extent of sheens surrounding offshore oil platforms in our waters? What independent observations and/or studies have been made of the encounter rate by birds of such sheens? What quantitative modeling has been undertaken to estimate the “low magnitude” environmental effects concluded by the Hebron proponent?

9.5.2.3 Change in Habitat Use

The statement is made that “The physical structure of the platform and support vessels could affect marine birds by attracting them. Additionally, it is possible that the artificial reef affected, created by stationary structures will affect marine bird prey. Shearwaters, Northern Fulmars, and gulls are the species most likely to be attracted to the platform and may rest on the water nearby.” The nature of this statement is surprisingly speculative. What data has been collected on this subject during the history of offshore oil development? What is known that would inform our expectations here to a degree of certainty greater than that suggested by the above statement? We request a more detailed discussion of what we know of this attractant risk including a discussion of data gaps if they exist. What studies have been undertaken or are being planned related to this topic?

9.5.2.4 *Potential Mortality*

Possible incineration of storm petrels by flaring is mentioned concluding with the statements that “It is unknown which seabird species, if any, are susceptible to mortality from flaring. There is currently no known mitigation for the potential environmental

effects from flaring, but flaring is expected to have minimal effect on marine birds over the duration of the Project.” We request more information to substantiate the conclusion of minimal effect.

Table 9-11 Environmental Effects Assessment: Operations and Maintenance

The key to Table 9-11 includes the following definition under Magnitude:

N = Negligible: There may be some environmental effect but it is not considered to be measurable

We request a discussion to substantiate a methodology that equates nonmeasurability with negligible effects. We request that the key include more information by adding under each heading a category for “unknown”. Following this addition we request that the assessment of effects be reconsidered and a discussion of the effect of unknowns on the level of risk being taken be provided in conjunction with a consideration of what role if any the Precautionary Principle has in the environmental assessment of offshore oil and gas projects.

We thank-you for this opportunity for input.

Sincerely,

Janet Russell

Director