Fisheries and Oceans Canada | Pêches et Océans Canada

Habitat Protection & Sustainable Development
Oceans & Habitat Branch
Maritimes Region
1 Challenger Drive
P.O. Box 1006
Dartmouth, N.S.
B2Y 4A2

Your file *Votre référence*

21 December 2006

Our file *Notre référence*
04-FCR-033

Ms. Kimberly A. Coady
Environmental Assessment Officer
Canada-Newfoundland Offshore Petroleum Board
5th Floor, TD Place
140 Water Street
St. John's. NL
A1C 1B6

Dear Ms. Coady
:

Subject: ConocoPhillips: Laurentian Subbasin Exploratory Drilling Program EA document.

Fisheries and Oceans Canada (DFO) Maritimes Region has reviewed the document titled "Laurentian Sub-basin Exploration Drilling Program Environmental Assessment, 17 October 2006". The following comments and recommendations are offered for your consideration:

Species-at-Risk

The following discusses aspects of the Laurention Sub-Basin Exploratory Drilling EA related to Species at Risk. It outlines deficiencies and discrepancies that should be addressed by the proponent.

Section 4.1 (Species at Risk) states that "Species are listed under *SARA* on Schedules 1 to 3 with only those listed as endangered or threatened on Schedule 1 having immediate legal implications." This statement is inaccurate. Although the General Prohibitions of SARA only apply to listed extirpated, endangered, and threatened species, there are immediate legal implications for all species listed on Schedule 1. Of particular relevance to this document is Section 79 of SARA, which sets out Project Review (i.e., environmental assessment) requirements for listed species. These requirements apply to all listed species and should be discussed and addressed in the EIS.

Table 4.1 lists *SARA* and COSEWIC designated species "potentially occurring in the study area." The table includes shortnose sturgeon. In Canada, the shortnose sturgeon is found only in the St. John River system. They are considered freshwater amphidromous and are generally restricted to brackish and freshwater areas. The probability of encountering this species in the study area is infinitesimal.

Table 4.1 lists fin whale as special concern under *SARA* Schedule 3. The fin whale was recently added to Schedule 1. The table should be updated. Similarly, in section 4.9, the EIS states that "The fin whale is presently being considered for addition to Schedule 1 of *SARA* as a 'Special Concern' species." This statement should also be revised.

Section 4.6.2.2 includes a sub-section entitled "**COSEWIC-Listed Species Not Presently Under SARA**" which describes cusk, porbeagle shark, and winter skate. There are several other COSEWIC listed fish species that, according to table 4.1, potentially occur in the study area (e.g., white shark, short fin mako, blue shark, and American eel). These species should be described in this sub-section.

The **Atlantic Salmon** subsection in Section 4.6.2.2 should be titled "**Inner Bay of Fundy (iBoF)Atlantic salmon"** since this is the only stock that is currently listed under *SARA.* Doing this would allow the discussion to be limited to iBoF Atlantic salmon specifically and that they "probably do not migrate through the Project Area" as stated on page 134 of the document.

According to Section 4.9 "Scattered sightings of right whales off Newfoundland and in the Gulf of St. Lawrence have been made in recent years, *but these are not important summering areas for these whales* (Gaskin 1991)" (emphasis added). Observations over the past decade suggest that there may be a summer aggregation area for right whales near the Gaspe Peninsula in the Gulf of St. Lawrence (N. Cadet, J.F. Blouin pers. comm., referenced in the draft Proposed Recovery Strategy for Right Whales, u*npublished*). Whether this is an important summering area has yet to be determined. Nonetheless, the conclusion that right whales are likely to be rare in the project area is reasonable.

Section 5.1.11 defines a significant effect as "Having a high magnitude or medium magnitude for a duration of greater than one year and over a geographic extent greater than 100 km2". This definition does not seem appropriate for species at risk. In some instances, even highly localized effects on at-risk species could jeopardize their survival or recovery. It is best practice to define specific criteria for determining the significance of effects to species-at-risk that reflect a higher degree of precaution than would be applied for other species and that relate to recovery goals or objectives. The proponent should refer to the Canadian Wildlife Service's *Environmental Assessment Best Practice Guide for Wildlife at Risk in Canada* for guidance.

Section 5.7.1 states that "Marine mammals would most likely avoid the immediate area around the drilling rig or drillship due to underwater sound generated by the rig or drillship and attendant vessels." Some species of marine mammals are attracted to sound generated by vessels (see for example, Garrison et al, 2002, or NURC, 2006).

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Section 5.7.5 (Effects of Ships and Boats) discusses possible effects of discharges from ships, but does not discuss the possibility of ship strikes to marine mammals. Ship strikes are an identified threat for several at-risk marine mammal species.

Section 5.7.7.2 concludes that effects on marine mammals from noise associated with drill ships will be *not significant*, and that the level of scientific certain associated with this conclusion is *high*. Given the paucity of data on the hearing abilities of baleen whales (acknowledged in the EIS), it seems debatable whether there can be a high degree of scientific certainty around the effects prediction.

Section 5.7.7.5 states that "During surveying, the airgun(s) will be shut down if an endangered marine mammal is sighted within 500 m of the airgun (s)." It would be preferable to shut down the array if any at-risk marine mammal species is sighted within 500m of the airgun (s).

According to section 5.8.2, ramp-up will be stopped if a sea turtle is observed within 500m of the airgun. However, there is no commitment to *shut down* the airgun if an endangered leatherback turtle is sighted within 500m during surveying. A shut down requirement for leatherback turtles would be consistent with the draft *Statement of Canadian Practice for Mitigation of Seismic Noise in the Marine Environment.*

The EIS does not discuss the mitigation measures that will be used for VSP during low visibility, when it will be difficult or impossible to monitor a safety zone visually. The draft *Statement of Canadian Practice for Mitigation of Seismic Noise in the Marine Environment* strongly encourages passive acoustic monitoring when conducting geophysical surveys during periods of low visibility.

According to Section 5.9, "eight marine animal species that potentially occur in the Study Area are listed as either endangered or threatened on Schedule 1 of *SARA* (i.e., officially 'at risk' according to Canadian law)." Under *SARA*, 'Species at Risk' means "an extirpated, endangered or threatened species or a species of special concern." In accordance with this definition, species of special concern are considered officially at risk under Canadian law. As noted above, as per Section 79 of SARA, all at-risk species, including species of special concern are subject to special project review requirements. It would be appropriate to include species of special concern as part of the Species at Risk VEC discussed in Sections 5.9 and 6.6.7.

Section 5.9, which assesses effects on at-risk species, simply concludes that the general effects predictions for marine mammals, sea turtles, and fish also apply to at-risk species in these categories, without any detailed analysis. This is not consistent with best practice. Because of their vulnerability, impacts to species-at-risk may be considered more significant than equivalent impacts to species that are not at risk. As discussed above, the EA should define specific criteria for determining the significance of effects to species-at-risk. This also applies to section 6.6.7.

Given the evidence presented in section 6.6.6, the conclusion that effects on sea turtles from an offshore oil release "could range from negligible to low magnitude" seems questionable, especially for at-risk turtle species. There is some indication, based on studies cited in the EIS (e.g., Hall et al., 1993), that exposure to oil may increase sea turtle mortality. This conclusion is supported by the research of Lutcavage et al. (1995) who conclude that

> *Experiments on the physiologic and clinicopathologic effects of oil showed that major body systems in marine turtles are adversely affected by short exposure to weathered oil. The laboratory oil slicks simulated conditions occurring during contact with weathered oil, but freshly spilled oil could prove to be considerably more harmful. Additionally, sea turtles pursue and swallow tar balls, and there is no firm evidence that they are able to detect and avoid oil (Odell and MacMurray 1986). Sea turtles are among the endangered or threatened marine species that may be most at risk in the event of an oil spill. For turtles such as the Kemp's ridley, which is barely holding on to survival, a serious encounter with oil could threaten survival of the species.*

The final comment relates to **6.6 Potential Effects of Accidental Spills.** Although the Study Area does not contain the Gully Marine Protected Area, Haldimand or Shortland Canyons, it is recommended that that the Environmental Assessment identify these areas as Sensitive/Special Areas. These areas are adjacent to and downstream from the Study Area, based on the predominant shelf current. All three areas are important for the endangered Scotian Shelf population of northern bottlenose whales. Given the regulatory protection afforded these areas through the MPA designation and SARA prohibitions, the EA should clarify the likelihood of effects on each area as part of the overall assessment for these species.

If you have any questions concerning these comments please feel free to contact me by e-mail at zamorap@mar.dfo-mpo.gc.ca or by phone (902) 426-4692.

Thank you for the opportunity to comment on this environmental assessment document.

Sincerely,

Phil Zamora
Habitat Assessment Biologist

cc. S. Kuehnemund
D. McDonald

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