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File No.: 4194-10

Mr. Darren Hicks
Canada Newfoundland Offshore Petroleum Board
Fifth Floor, TD Place
140 Water Street
St. John's, NF A1C 6H6

Dear Mr. Hicks:

RE: White Rose Extension Project – Project Description and Scoping EAS 2012-121A Document

Thank you for your letter of June 7, 2012, requesting that Environment Canada (EC) identify its interests in this proposal in accordance with the Federal Coordination Regulations under the Canadian Environmental Assessment Act (CEAA). You also requested that we review the project description and draft scoping document attached to your letter. The following comments are in review of those documents.

The project description states that issues concerning marine birds using the study area will be considered in the environmental assessment (EA). EC-CWS possesses a significant amount of seabird data collected within the Jeanne d'Arc Basin and the White Rose Project boundary. Additionally, EC-CWS has updated census information concerning seabirds breeding at the Cape St. Mary's Ecological Reserve. This data should be presented in the EA and is available through EC-CWS.

Physical Environment

Section 5.3.1 Physical environment, First bullet should include climate change as follows:
“...including extreme conditions and climate change effects.”

Section 5.3.1 Physical Environment, second bullet should include ice islands as follows:
“Site specific sea ice, iceberg and ice island conditions, including iceberg scour of the seabed.”

Migratory Birds, Species at Risk and Wetlands

Section 5.3.6 Biological and Follow-up Monitoring. Third bullet: Monitoring and observation procedures for seabirds should be designed in consultation with EC-CWS.

The following comments are based on review of the project description and may be taken to provide more detailed direction to the Proponent in meeting the requirements of the Scoping Document.

Marine and/or migratory birds using the study area:

The issues concerning migratory birds to be considered in the environmental assessment should include:

- spatial and temporal species distributions;
- species habitat, feeding, breeding, and migratory characteristics of relevance to the environmental assessment;
- exposure to contaminants from accidental spills (e.g., fuel, oils) and operational discharges (e.g., deck drainage, grey water, black water);
- attraction of birds to vessel lighting, flares, potential effects and mitigations;
- noise disturbance from equipment including both direct effects (physiological), or indirect effects (foraging behaviour or prey species);
- physical displacement as a result of vessel presence (e.g. disruption of foraging activities);
- attraction of, and increase in, predator species as a result of waste disposal practices (i.e., sanitary and food waste);
- means by which potentially significant effects upon birds may be mitigated through design and/or operational procedures;
- procedures for handling birds that may become stranded on drill rigs or support vessels;
- means by which bird mortalities associated with Project operations may be documented and assessed. See the attached documents “Protocol for Collecting Dead Birds from Platforms” and “Oiled Bird Collection Protocol” for further guidance;
- cumulative effects as a result of other offshore oil and gas activities, and other factors such as hunting, fishing (long line by-catch), shipping, etc.

A list of regularly occurring avian species in the Jeanne d’Arc Basin should additionally be provided. EC-CWS recommends the following references to help characterize marine bird distribution at sea:

- Brown, R. G. B. 1986. Revised Atlas of Eastern Canadian Seabirds. Canadian Wildlife Service, Ottawa, ON.
- Fifield, D. A., Lewis, K. P., Gjerdrum, C., Robertson, G. J., and Wells, R. 2009. Offshore Seabird Monitoring Program. Environment Studies Research Funds Report no. 183. St. John’s. 68 p. Available at: <http://www.esrfunds.org/pdf/183.pdf>.
- Lock, A. R., Brown, R. G. B., and Gerriets, S. H. 1994. Gazetteer of Marine Birds in Atlantic Canada: An Atlas of Vulnerability to Oil Pollution. Canadian Wildlife Service, Atlantic Region.

Migratory birds, their eggs, nests, and young are protected under the **Migratory Birds Convention Act, 1994** (MBCA). Migratory birds protected by the MBCA generally include all seabirds except cormorants and pelicans, all waterfowl, all shorebirds, and most landbirds (birds with principally terrestrial life cycles). Most of these birds are specifically named in the Environment Canada (EC) publication, *Birds Protected in Canada under the Migratory Birds Convention Act*, Canadian Wildlife Service Occasional Paper No. 1.

Under Section 6 of the **Migratory Birds Regulations** (MBR), it is forbidden to disturb, destroy or take a nest or egg of a migratory bird; or to be in possession of a live migratory bird, or its carcass, skin, nest or egg, except under authority of a permit. It is important to note that under the current MBR, no permits can be issued for the incidental take of migratory birds caused by development projects or other economic activities.

Furthermore, Section 5.1 of the MBCA describes prohibitions related to deposit of substances harmful to migratory birds:

“5.1 (1) 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.

(2) No person or vessel shall deposit a substance or permit a substance to be deposited in any place if the substance, in combination with one or more substances, results in a substance — in waters or an area frequented by migratory birds or in a place from which it may enter such waters or such an area — that is harmful to migratory birds.”

It is the responsibility of the proponent to ensure that activities are managed so as to ensure compliance with the MBCA and associated regulations.

Species at Risk (SAR):

The issues concerning species at risk to be considered in the environmental assessment should include:

- provide a description of species at risk as listed in Schedule 1 of the **Species at Risk Act** (SARA), and those under consideration by COSEWIC in the study area;
- means by which adverse effects upon SAR and their critical habitat may be mitigated through design, scheduling, and/or operational procedures;
- monitoring and mitigation, consistent with recovery strategies/action plans (endangered/threatened) and management plans (special concern);
- assessment of effects (adverse and significant) on species and critical habitat, including cumulative effects;
- a summary statement stating whether project effects are expected to contravene the prohibitions of SARA (Sections 32 (1), 33, 58(1)).

The Responsible Authority should be reminded that SARA amends the definition of “environmental effect” in subsection 2(1) of the Canadian Environmental Assessment Act (CEAA) to clarify, for greater certainty, that environmental assessments must always consider impacts on a listed wildlife species, its critical habitat or the residences of individuals of that species.

SARA also requires that the person responsible for a federal environmental assessment must, without delay, notify the competent minister(s) in writing if the project being assessed is likely to affect a listed wildlife species or its critical habitat. Notification is required for all effects, including adverse and beneficial effects, and the requirement to notify is independent of the significance of the likely effect. The person must also identify adverse effects of the project on listed species and their critical habitat. And if the project is implemented, the person must ensure that measures are taken to avoid or lessen adverse effects and that effects are monitored. Mitigation measures must be consistent with recovery strategies and action plans for the species.

The complete text of SARA, including prohibitions, is available at www.sararegistry.gc.ca. For guidance on SARA and Environmental Assessments, the proponent may wish to make use of the *Environmental Assessment Best Practice Guide for Wildlife at Risk in Canada* available at: http://www.sararegistry.gc.ca/virtual_sara/files/policies/EA%20Best%20Practices%202004.pdf

The Ivory Gull and Piping Plover are listed as Endangered on SARA’s Schedule 1. These species may be found in the project area, and should be considered in the environmental assessment.

Oil Releases - Offshore

Oil releases of all sizes have the potential to impact birds. Even small spills can have major impacts if several individuals to a large number of birds are in the affected area. Oiling is currently a serious cumulative threat to marine bird species. Impacts on the pelagic seabird community could be among the most significant consequences of oil releases, and therefore should be a focus of the EA effort. Strategies to minimize or prevent accidental or chronic releases should be emphasized in a mitigation program. This is particularly important given that responding to such releases, should they occur, is difficult and costly, and may be of limited value.

In demonstrating a preparedness to respond to accidents and malfunctions involving the release of oil, the EA should identify provisions for ensuring measures are implemented as rapidly as possible to eliminate or minimize resulting sheens or slicks. In any given spill event, practical

constraints and other environmental sensitivities will influence the selection and implementation of appropriate response measures. Therefore, spill response planning requires attention to the circumstances under which a given response option will be enacted and the steps that must be taken if the option is to be as effective as possible. The following considerations should be factored into the development of a response plan that would help reduce impacts on seabirds:

- measures for containing and cleaning up spills (of various sizes) either at the drill site or during transport;
- equipment that would be available to contain spills;
- specific measures for the management of large and small spills (e.g., breaking up sheens);
- whether birds would be kept away from oil, and if so, how this would be achieved;
- what would be done if birds were oiled and/or sensitive habitat were contaminated (i.e., if birds were oiled, would the operator do nothing, or capture and euthanize the birds, or capture and clean the birds?); and
- the type and extent of monitoring that would be conducted in relation to various spill events.

See the attached document “Bird and Oil – CWS Response Plan Guidance” for further information.

Fuel Releases - Onshore

The proponent should ensure that all precautions are taken by the contractors to prevent fuel leaks from equipment, and that a contingency plan in case of oil spills is prepared. Furthermore, the proponent should ensure that contractors are aware that under the *Migratory Birds Regulations*, “no person shall deposit or permit to be deposited oil, oil wastes or any other substance harmful to migratory birds in any waters or any area frequented by migratory birds.” Biodegradable alternatives to hydraulic fluid for heavy machinery are commonly available from major manufacturers. Such biodegradable fluids should be considered for use in place of petroleum products whenever possible, as a standard for best practice. Fuelling and servicing of equipment should not take place within 30 meters of environmentally sensitive areas, including shorelines and wetlands.

Lights and Flares

In Atlantic Canada, night-flying seabirds are most at risk of attraction to- (and subsequent collision with) lights, and attraction to (and subsequent incineration in) flares. Attraction to lights and flares may result in collision with and subsequent stranding on the platform/vessel, incineration in flares, and in nocturnal circulation of platforms and the use of energy reserves.

Storm-petrels are highly pelagic species, common to shelf areas during the summer months. In the winter months, Dovekies may be attracted to flares under certain environmental conditions. Many species of land birds undertaking over-sea migrations have also been attracted to lights and flares. In summary, particularly sensitive times for impacts include (1) migration periods, (2) during the fall exodus of young Leach's Storm-Petrel and their parents from breeding colonies, and (3) under specific meteorological conditions such as fog at night. Occasionally, conditions may be such that large numbers (i.e., hundreds or thousands) of birds are attracted to offshore lights.

In assessing the impacts of lights and flares, a focus should be placed on the most vulnerable species and the occurrence of infrequent, but potential large-scale, stochastic events (e.g., associated with weather, migratory seasons). Mitigation should be presented as applicable. Mitigation measures could include extinguishing non-essential lights, down-shading and focusing essential lights on work areas, or changing the colour of lights. Impacts may also be mitigated by avoiding well tests that involve flaring during select times when migratory birds are particularly vulnerable to impacts (e.g., when it is foggy at night, when flocks fly by facilities).

EC-CWS recommends monitoring the attraction of seabirds to illumination produced on offshore structures using the results and/or mitigation procedures generated by on-going research being conducted in Atlantic Canada and elsewhere in the world.

Should storm-petrels or other species become stranded on vessels, the proponent is expected to adhere to the protocol described in Williams and Chardine's brochure entitled, *The Leach's Storm-Petrel: General Information and Handling Instructions* (attached). A permit is required to implement the Williams and Chardine protocol. The proponent should be advised that it is required to complete a permit application form prior to proposed activities. This form is available from the EC-CWS by emailing Permi.atl@ec.gc.ca.

Data Collection

EC-CWS has developed a pelagic seabird monitoring protocol that we are recommending for all offshore projects. Attached is a version of the protocol for experienced observers. This protocol is a work in progress and we would appreciate feedback from the observers using it in the field. A guide sheet to the pelagic seabirds of Atlantic Canada has also been attached to this response, for assistance in identifying pelagic seabirds in the area.

A report of the seabird monitoring program, together with any recommended changes, is to be submitted to CWS on a yearly basis. In an effort to expedite the process of data exchange, EC-CWS would appreciate that the data (as it relate to migratory birds or species at risk) collected from the monitoring program be forwarded in digital format to our office following completion of the study. These data will be centralized for our internal use to help ensure that the best possible natural resource management decisions are made for these species in Newfoundland and Labrador. Metadata will be retained to identify source of data and will not be used for the purpose of publication. The Canadian Wildlife Service will not copy, distribute, loan, lease, sell, or use of this data as part of a value added product or otherwise make the data available to any other party without the prior express written consent.

Vegetation Clearing and Site Excavation

The Migratory Bird Regulations under the Migratory Birds Convention Act, 1994, prohibits the harming of migratory birds and the disturbance or destruction of migratory bird nests and eggs. Removal of vegetation during site development will cause disturbance to migratory birds and inadvertently cause the destruction of their nests and eggs (<http://www.ec.gc.ca/paom-itmb/default.asp?lang=En&n=FA4AC736-1>). Many species use trees, as well as brush, deadfalls and other low-lying vegetation for nesting, feeding, shelter and cover. This would apply to songbirds throughout the region, as well as waterfowl in wetland areas. Disturbance of this nature would be most critical during the nesting period. The breeding season for most birds within the project area occurs between May 1st and August 31st, though some species protected under the MBCA do nest outside of this time period.

Additionally, Killdeer are specifically known to nest in this area, and are associated with bare, gravelly ground similar to that of the graving dock site. Excavation of the graving dock (Project Description, Section 3.1.1.6) during the nesting season may cause disturbance to Killdeer and inadvertently cause the destruction of their nests and eggs. Killdeer nest between May 1st and July 31st, and are a noisy and highly visual species during nesting.

Environment Canada provides the following recommendations:

1. to avoid engaging in potentially destructive activities such as vegetation removal or excavation during key periods in order to reduce the risk of nest destruction, ie. avoid clearing between the most critical period, May 1st and July 31st, to accommodate the breeding season.
2. to develop and implement a management plan that includes appropriate preventive measures to minimize the risk of impacts (Planning ahead to reduce risks to migratory bird nests (PDF): <http://www.ec.gc.ca/Publications/default.asp?lang=En&xml=50C4FE11-801E-4FE3-8019-B2D8537D76CF>).

It is the responsibility of the individual or company undertaking the activities to determine these measures. For guidance on how to avoid the incidental take of migratory birds nests and eggs, please refer to the Avoidance Guidelines (Website: <http://www.ec.gc.ca/paom-itmb/default.asp?lang=En&n=AB36A082-1>).

Dredging

If beach placement is being considered for dredge disposal, the proponent should be aware that EC-CWS has concerns about the disposal of dredge material on beaches. Should the proponent decide to proceed with beach placement of dredge spoils, EC-CWS recommends that dredging happen outside of the shorebird breeding period (May 1st to July 31st in this area). The proponent should be advised that dredge spoils have been known to attract migratory birds such as Piping Plovers and other species of ground nesting birds such as terns or Killdeer.

Work Conducted on Shorelines

EC-CWS recommends the following beneficial management practices for working on shorelines:

- project staff should not approach concentrations of seabirds, sea ducks or shorebirds;
- project staff should use the main navigation channels to get to and from the site; and should have well muffled vessels and machinery;
- project staff should undertake any measures that may minimize or eliminate discharge of oily waste into the marine environment;
- food scraps and other garbage left on beaches and other coastal habitats can artificially enhance the populations of avian and mammalian predators of eggs and chicks. The proponent should ensure that no litter (including food wastes) is left in coastal areas by their staff and/or contractors.

The proposed project will likely result in an increase in vessel traffic in the area, leading to an increase in the probability of oil spill events. These can occur during vessel fueling, through other accidentals events, and through illegal bilge pumping. The harmful effects of chronic oil pollution on seabirds are well documented.

If there is any noticeable change in seabird numbers or distribution at the location during operations, EC-CWS should be notified.

Wetlands – Eel Grass Beds

The proponent should be aware that as part of its commitment to wetlands conservation, the Federal Government has adopted *The Federal Policy on Wetland Conservation* (FPWC) with its objective to “promote the conservation of Canada’s wetlands to sustain their ecological and socio-economic functions, now and in the future.” In support of this objective, the Federal Government strives for the goal of No Net Loss of wetland function on federal lands or when federal funding is provided. EC-CWS therefore recommends that the goals of the policy be considered in wetland areas, and EC-CWS recommends that that the hierarchical sequence of mitigation alternatives (avoidance, minimization, and as a last resort, compensation) recommended in FPWC is followed. Avoidance refers to elimination of adverse effects on wetland functions, by altering the siting or modifying the design of a project, and is the preferred option. In the event that avoidance is not possible, the reasons why elimination of adverse effects on wetland functions were not possible should be clearly demonstrated in environmental assessment documents, and EC-CWS should be contacted for advice on next steps to follow for compliance with the FPWC.

A copy of the FPWC can be found at: <http://dsp-psd.communication.gc.ca/Collection/CW66-116-1991E.pdf>

EC-CWS recommends using a 30m buffer from the high water mark of any water body (1:100 year Flood Zone) in order to maintain movement corridors for migratory birds.

In order to promote wetland conservation, EC-CWS recommends the following:

- developments on wetlands should be avoided;
 - where development does occur in the vicinity of wetlands, a minimum vegetation buffer zone of 30 m should be maintained around existing wetland areas;
 - hydrologic function of the wetland should be maintained;
- runoff from development should be directed away from wetlands.

I trust that this information will be of assistance in your review of this proposal. If you wish to discuss these comments or have further questions, please do not hesitate to contact me at your convenience.

Yours truly,

Original Signed by Glenn Troke

Glenn Troke
Environmental Assessment Coordinator
Environmental Protection Operations Directorate/NL

cc Michael Hingston