



**Canadian Environmental
Assessment Agency**

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**Agence canadienne
d'évaluation environnementale**

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**CEAA File No.: 004554
MCWS File No.: 5550.00**

Mr. Darrell Ouimet
Environmental Approvals Branch
Manitoba Conservation and Water Stewardship
Suite 160, 123 Main Street
Winnipeg, MB R3C 1A5

**SUBJECT: Keeyask Generation Project
Review of Responses to Requests for Additional Information**

Dear Mr. Ouimet:

Federal Disposition on the Additional Environmental Impact Statement Information

The Canadian Environmental Assessment Agency (the Agency) has concluded the federal review of the "Responses to Requests for Additional Information" Keeyask Generation Project Environmental Impact Statement submitted by the Keeyask Hydro Power Limited Partnership (the Partnership). The Agency received comments from Fisheries and Oceans Canada, Transport Canada, Environment Canada, Health Canada and Natural Resources Canada. The federal comments provide feedback to the Partnership regarding the status of the initial federal Supplementary Information Requests (SIRs) and whether the Partnership's responses address the initial comments. The Agency has consolidated the federal comments received into the Excel spreadsheet developed during the initial EIS review. The status of each federal comment is noted in the "disposition" column.

The Agency understands that Manitoba Conservation and Water Stewardship will continue to provide direction to the Partnership with respect to preparing and communicating its response to the cooperative EIS review. In the interim, the Agency will forward a copy of the spreadsheet to directly to the Partnership for its consideration. The Agency requests that Manitoba Conservation and Water Stewardship direct the Partnership to respond to the second round of federal SIRs within the attached spreadsheet. If required, additional detailed information could be provided in a separate attachment. A response from the Partnership is required to facilitate the ongoing federal review and development of the comprehensive study report.

Federal Review Comments on the Keeyask Transmission Project Environmental Assessment Report submitted by Manitoba Hydro

As you are aware, the Environmental Assessment Report (EAR) for the Keeyask Transmission Project was submitted to the Agency in November, 2012. The federal review team was asked to provide technical review comments on the Keeyask Transmission Project EAR. The Agency has compiled those comments into a separate Excel spreadsheet for your consideration within the provincial review process. The Agency will also forward a copy of the federal comments directly to Manitoba Hydro for its consideration.

The Agency recognizes that Manitoba Conservation and Water Stewardship will also provide guidance to Manitoba Hydro with regard to organizing and communicating its response. The Agency requests that Manitoba Hydro responses to the federal comments be integrated into this spreadsheet to facilitate issues management. If required, any additional detailed information could be provided in a separate attachment or EAR addendum.

As environmental effects of the Keeyask Transmission Project are being considered within the federal environmental assessment of the Keeyask Generation Project, Manitoba Hydro's response is required to facilitate the ongoing federal review and development of the comprehensive study report.

Comments from Aboriginal Groups and the Public

On November 21, 2012, the Agency invited the public and Aboriginal groups to comment on the potential environmental effects of the Keeyask Generation Project and the proposed measures to prevent or mitigate those effects as described in an Environmental Effects Summary document. The Environmental Effects Summary document is based on the EIS for the Keeyask Generation Project submitted by the Partnership in July 2012 and the Environmental Assessment Report for the Keeyask Transmission Project submitted by Manitoba Hydro in November 2012.

The Agency received comments from Pimicikamik Okimawin and Peguis First Nation, which have been enclosed for your consideration. The Agency is reviewing the comments received in the context of the federal comprehensive study and considering whether additional information will be required. The Agency will provide the Partnership with additional direction related to these comments in early January.

If you have any questions concerning the federal review of the Keeyask Generation Project, please contact me at 204-983-7997 or by email at jim.morrell@ceaa-acee.gc.ca.

Sincerely,



Jim P. Morrell
Project Manager

Encl,

c.c.: Darryl Chudobiak, DFO
Krista Flood, EC
Rick Grabowecky, HC
Regent Dickey, MPMO

Jo-Anne Foy, TC
Lynne Quinnett-Abbott, EC
Sandra Slogan, HC
Kate Cavaliaro, NRCan

EAR Federal Review Comments

Keeyask Transmission Project

Comment Number	Department	Volume / Document	Line Number / Table Number / Figure Number	Page	Topic	Context / Preamble e.g., provide applicable background/rationale for providing the comment	Specific Department Comment / Request for Additional Information:	Issue Status
1	HC	Environmental Assessment Report	Section 2.7.2 and Section 7.2.3.1	p. 2-27 and p. 7-15 to 7-16	Noise (human health impacts)	Section 2.7.21 indicates that Manitoba Hydro spoues a design guideline maximum for audible noise of 50 dBA at the edge of the right of way, and that noise levels are estimated to be in the range of 39.2 to 41.00 dBA. Additionally, Section 7.2.3.1 indicates that audible noise emissions due to corona discharges from transmission lines are typical, and that noise levels near certain equipment (e.g. transformers) can be in the range of 45-53 dBA. Sufficient information has been provided in the EAR regarding the potential for noise impacts to human health. The EAR should include basic information regarding the location of permanent or seasonal dwellings along the right of way and expanded converter station. Human receptors in this relatively rural/remote would likely have a reasonable expectation of "peace and quiet". Additionally, it is unclear if the estimated noise levels apply to the expanded Radisson converter station, and how the estimated noise levels were derived.	HC advises that potential seasonal or permanent receptors be identified in the EAR. Should any receptors be identified in close proximity to the project features, a noise impact assessment (NIA) would be advised. NIAs typically include information on the sensitive receptors, baseline sounds levels, noise source identification, modeling, and as appropriate noise management and monitoring including complaint resolution. Please consult HC's guidance document entitled "Useful Information for Environmental Assessments" for additional information on the assessment of noise effects at http://www.hc-sc.gc.ca/ewh-scmtv/pubs/eval/environ_assess-aval/index-eng.php .	Additional information requested
1	EC	ATP - EA Report	2.5.3 - Access Roads and Construction Camps 2.5.4 - Transmission Line ROW Clearing and Transmission Line Construction 4.1.1 - Terrain and Soils 4.1.2 - Groundwater 7.2.1 - Terrain and Soils Appendix F 3.4.1 - Blasting and Exploding 3.5.2 - Borrow Pits and Quarries 5.4.2 - Blasting Plans	2-17 2-18 4-1 4-3 7-4	Borrow Materials	Throughout the report and Appendix F it is mentioned that borrow materials will be used in the construction of the access roads and other construction areas, however the report does not clarify whether the Proponent plans to characterize the blast rocks, quarry, and borrow pit materials to ensure they do not generate acid.	EC requests that the Proponent confirm that any material used for the construction of access roads, the construction of the foot print of the towers or any other use, does not have the potential to generate acid.	Additional information Required

EC	EC Report	7.2.3 Birds	7-9- Migration Birds - Breeding Season		
1			<p>In this section the proponent indicates that project activities will be restricted from April 1 to July 31, to reduce the risk of nest destruction and sensory disturbance; that searches for nests will be undertaken prior to spring or summer construction if the timing of construction activity overlaps with sensitive time periods; and that a 30m setback distance would be applied for the nests of non-species at risk migratory birds, if the timing of construction activity overlaps with sensitive time periods for breeding (p. 7-59). The proponent has also indicated that vegetation management activities will be limited from April to August 31 in areas where common nighthawk and other rare bird species have the potential to occur (p. 7-61). EC's mandate includes the protection of migratory birds and their habitat.</p> <p>EC reminds the proponent of the federal <i>Migratory Birds Convention Act</i> (MBCA) which protects migratory birds and their eggs and nests. Section 5(1) of the Regulations prohibits the hunting of a migratory bird except under authority of a permit. "Hunt" means chase, pursue, worry, follow after or on the trail of, lie in wait for, attempt in any manner to capture, kill, injure or harass a migratory bird, whether or not the migratory bird is captured, killed or injured. Section 6 of the regulations prohibits the disturbance, destruction, or taking of a nest, egg or nest shelter of a migratory bird. Possession of a migratory bird, nest or egg without lawful excuse is also prohibited. Section 5.1 of the MBCA prohibits the deposition of substances harmful to migratory birds in waters or areas frequented by migratory birds, or in a place from which the substances may enter such waters or such an area.</p> <p>EC's website on Incidental Take (http://www.ec.gc.ca/iaom-irmb/default.asp?lang=En&nav=FAAACA736-1) contains additional information as well as a link to the MBCA and Regulations.</p> <p>EC Cont...</p> <p>EC provides the following recommendations as general guidelines for industry to protect the great majority of migratory birds while realizing the practicalities of development activities on the landscape. However the onus remains with the proponent to comply with the legislation.</p> <p>*to minimize disturbance to breeding migratory birds in the boreal ecotones of Manitoba, in areas where migratory birds may be nesting, EC recommends that habitat destruction activities (e.g. vegetation clearing and management, blasting, herbicide use, tower installation, etc.) for project areas greater than 50 hectares (such as this project) avoid at minimum the period between April 1 and August 31, to minimize population level effects to breeding birds.</p> <p>*if limited habitat destruction (e.g. vegetation clearing and management, herbicide use, etc.) must proceed during the migratory bird breeding season (despite EC's recommendations for avoidance), the area to be cleared/destroyed should not exceed one hectare in size, as the effectiveness of finding nests is compromised in forested habitats. The lands to be cleared/destroyed should be surveyed for active nests by an avian biologist or naturalist with experience with migratory birds and migratory bird behaviours indicative of nesting (e.g. carrying fecal sacs, nesting material or food, aggressive territorial behaviour, or distraction behaviour, etc.) within 7 days of destruction/clearing. Nest surveys should follow widely-accepted protocols and be thorough and defensible. Some nest search protocols may require a permit, therefore the proponent is advised to contact the regional permitting officer John Dunlop, at john.dunlop@ec.gc.ca or at (306) 975-4090). Any nests found should be protected with a species appropriate buffer until the young have fledged and left the area.</p>		<p>EC requests that the Proponent confirm that they will include the month of August in the habitat and wetland clearing/destruction avoidance period and to confirm that no greater than one hectare in size will be cleared/destroyed/limited habitat destruction must proceed during migratory bird breeding season.</p>

1	EC	KTP - EA Report	7.2.10 Birds	7.20	Lighting	<p>1.2) Cont...</p> <p>If an individual has a prior knowledge of an active nest, at any time during the year, it must be protected with a suitable species-appropriate buffer until the young have fledged. With respect to setback distances from the nests of non-species-at-risk Migratory Birds, EC recommends a minimum of 30 m for songbirds, and 100m for waterbirds and waterfowl in the boreal ecotones.</p> <p>Wetlands attractive to breeding migratory birds (e.g. those containing water) should not be cleared/destroyed at minimum between April 1 and August 31. Canada geese and hawks may nest early and broods of waterfowl and waterbird species are dependent upon wetlands throughout August and beyond.</p> <p>The proponent has indicated that there will be permanent lighting at station sites.</p> <p>With respect to any necessary security lighting on facilities and equipment, EC recommends that this lighting is as minimal as possible, and be down-shielded to keep light within the boundaries of the site. Consideration could also be given to turning these lights off at night during migration, and during bad weather.</p>	<p>EC requests that the Proponent discuss plans regarding lighting management on station sites and other facilities.</p>	Additional Information Required
1	EC	KTP - EA Report	4.1.7 Amphibians and Reptiles; 4.1.8 Birds; 7.2.10 Birds	4.13 4-24 7-56 7-59	Species at Risk	<p>The SIS lists the Common Nighthawk, Olive-sided Flycatcher, Rusty Blackbird, Short-eared Owl, Northern Leopard Frog, Little Brown Myotis, and Wolverine as species that have been identified in the project area. In addition EC notes that Yellow Rail, and Horned Grebe also have the potential to occur within the project area. In b. 7.59, the proponent indicates that they will apply a setback distance of 300m for olive-sided flycatcher, 200m for common nighthawk, and 100m for rusty blackbirds.</p> <p>The Federal Species at Risk Act (SARA) is directed towards preventing wildlife species from becoming extinct or at risk from the wild, helping in the recovery of species that are at risk as a result of human activities, and promoting stewardship. The Act prohibits the killing, harming or harassing of listed species, the damage and destruction of their residences; and the destruction of critical habitat.</p>	<p>EC requests that the Proponent confirm whether they intend to have an environmental monitor on site during construction activities and the setbacks and timing restrictions that will be used to avoid the nests of species at risk in the project area.</p>	Additional Information Required
4.1						<p>4 Cont...</p> <p>EC recommends that an Environmental Monitor, knowledgeable in the identification of all species at risk that may occur in the project area, is present on site during project construction activities.</p> <p>In the event that species at risk are expected or encountered, the primary mitigation measure should be avoidance. EC refers the proponent to the Petroleum Industry Activity Guidelines for Wildlife Species at Risk in the Prairie and Northern Region (attached). This document includes species-specific timing restrictions, setback distances and best management practices. Please note the following amendments not reflected in the document:</p> <ul style="list-style-type: none"> • Common nighthawk May 1 to August 31 200m • Horned Grebe April 1 to August 31 100m from the high water mark of the wetland or waterbody containing the nest • Olive-sided Flycatcher May 1 to August 31 300m • Rusty Blackbird May 1 to July 31 300m 		

1	EC	17- EA Report	7.11 Mammals	7.70 Caribou		
				<p>The EIS describes three groupings of caribou for the Project Study area:</p> <ol style="list-style-type: none"> 1) Barren-ground caribou from the Qamanuq herd; 2) Coastal caribou from the Pen Islands herd; and 3) Summer resident caribou. <p>There are 6 geographically distinct populations of the forest-dwelling Wood and Caribou in Canada: Northern Mountain population, Southern Mountain population, boreal population, forest-inn population, Atlantic Boreal population, and the insular Newfoundland population. With the exception of the barren-ground caribou, EC considers the caribou in the project area to be part of the "forest-tundra" population, which are not SARA-listed and have not been assessed.</p> <p>EC notes that the project will result in the loss and alteration of caribou winter habitat, and that while no calving and rearing stands are directly affected by the project footprint, three stands occur within 2 km of the 4-year Switching Station footprint (p. 7-73). Additionally, sensory disturbances associated with construction are expected to result in additional loss of effective winter habitat (p. 7-70), and a small loss of effective habitat in calving and rearing complexes near the Construction Power Transmission Line, Unit Transmission Line, and the Generation Outlet Transmission Lines, including those in Stephens Lake (p. 7-71). Furthermore, the creation of cleared linear corridors (transmission line rights-of-way) are expected to increase both hunter and predator access to the project area (p. 7-71).</p> <p>EC encourages the proponent to consult with Manitoba Conservation to identify any plans to manage or disturb caribou habitat in the project area.</p>	<p>EC requests that the Proponent discuss any plans to implement additional mitigation measures (e.g., mitigation of noise, light, smells, vibrations, reduction of vehicle speeds, etc.) to minimize harassment of caribou in the project area, particularly from late winter to late spring and early summer.</p> <p>EC requests that the Proponent discuss any plans to reduce light lines along access trails and discuss restoration plans for project-related cleared areas, temporary transmission right-of-ways, trails, etc.</p> <p>EC also requests the Proponent discuss their plans to consult with the province.</p>	
1				<p>5 Cont...</p> <p>EC acknowledges the proponent plans to implement mitigation measures including:</p> <ul style="list-style-type: none"> • winter construction on transmission line (outside calving period) (p. 7-72); • siting borrow areas to avoid calving and rearing complexes and reduce habitat loss (p. 7-72); • routing access trails to avoid calving and rearing complexes and reduce effective habitat loss (p. 7-72); • developing an Access Management Plan to reduce the effects on caribou mortality from increased access and harvest in the Project Area (p. 7-72); • decommissioning right-of-way access trails, unless required for ongoing maintenance, to minimize access-related effects of harvest and predation (p. 7-76); • avoiding the use of helicopters for maintenance activities on transmission lines near calving habitat from May 15 to July 30, to reduce effects of sensory disturbance on calving females and their young (p. 7-76); and • monitoring of habitat alteration, use of calving and rearing islands, movement of caribou across the widest rights-of-way, and harvest and predation effects associated with access (p. 7-80). <p>In addition to these measures, EC recommends the reduction of light lines along the access trails, and the continual restoration of project-related cleared areas, temporary transmission right-of-ways, trails, etc. as they are no longer in use. EC also recommends that the proponent consider additional mitigation measures (e.g., mitigation of noise, light, smells, vibrations, reduction of vehicle speeds, etc.) to minimize harassment of caribou in the project area, particularly from late winter to late spring and early summer, as this will be a stressful period for all of the caribou in the project area.</p>		

2	EC	<P> - EA Report	2.3 Invasives and Reptiles: Appendix F Table 28	7-50 7-55	Wetlands	<p>The proponent has indicated that they will retain a vegetated buffer around wetlands and streams (7.15 and 7.20 m), (p. 7-50) and, in Appendix F, Table 28, the proponent has also indicated that project activities will avoid wetland areas to the extent possible.</p> <p>Wetlands provide important habitat for both migratory birds and species at risk. EC promotes the maintenance of the functions and values derived from wetlands throughout Canada, enhancement and rehabilitation of wetlands in areas where continuing loss or degradation of wetlands have reduced critical levels, no net loss of wetland functions for federal lands and waters, the recognition of wetland functions in resource planning and economic decisions, and utilization of wetlands in a manner that enhances prospects for their sustained and productive use by future generations.</p> <p>EC recommends that the proponent take all reasonable measures to avoid wetlands, where feasible, irrespective of whether they are wet or dry, and that buffers or setbacks or grates from the one in one hundred year high water mark. One hundred metre setbacks should be utilized from the edge of the proposed development or associated feature (e.g., access route) where feasible.</p> <p>EC refers the Proponent to 'The Federal Policy on Wetland Conservation' which promotes the wise use of wetlands and elevates concerns for wetland conservation to a national level. EC recommends that the Proponent review this document to provide further guidance on reducing impacts to wetlands.</p>	<p>EC requests that the Proponent confirm the use of appropriate setbacks from wetlands and discuss, for those wetlands where avoidance is not possible, what mitigation and compensation measures will be implemented.</p>	Section 31 Information Required
7	EC	<P> - EA Report	4.1.5.1 Invasive Plants: 7.2.5 Terrestrial Habitat	7-16 7-41	Invasive Species	<p>Invasive species spread readily along disturbance corridors and once established are virtually impossible to eradicate. Section 4.1.5.4 mentions that field studies detected all of the 19 invasive plants known to occur in the region (p. 4-16).</p> <p>The construction and operation of the project may provide additional opportunities for invasive species to establish and spread (through dispersal of weed seeds on equipment and vehicles, or in reclamation materials brought to the site, etc.), disrupting native plant communities.</p> <p>EC acknowledges the proponent's commitment on page 7-41 and 7-42 to 1) clean construction equipment and machinery recently used more than 150km from the project area prior to transport to the project area; 2) educate personnel working on the project about the importance of cleaning their vehicles, equipment and clothes before travelling to the areas; 3) monitor the project area to confirm avoidance of spread of invasive plants; and 4) implement containment, eradication and/or control programs if monitoring identifies problems with invasive plants.</p> <p>In addition to the proponent's commitments above, EC recommends:</p> <ul style="list-style-type: none"> • that all vehicles and equipment are cleaned prior to entering the project area; • that any areas containing noxious weeds be clearly marked, so that equipment operators can easily recognize when passing through weed infested areas, and so that the spread of species from these areas can be monitored; • that equipment and vehicles are thoroughly cleaned after passing through any such areas in order to avoid transporting seed to other areas; and • that any seed mixtures used contain only native species and/or non-invasive introduced plant species. 	<p>EC requests that the Proponent discuss:</p> <ul style="list-style-type: none"> • if all vehicles and equipment will be cleaned prior to entering the project area; • if areas containing noxious weeds will be clearly marked, so that equipment operators can easily recognize when passing through weed infested areas; • if vehicles and equipment will be cleaned after passing through areas containing noxious weeds; and • if seed mixtures to be used contain only native species and/or non-invasive introduced plant species. 	Section 31 Information Required

3	EC	ATP - EA Report	7.1.3 Terrestrial Habitat	7.30	Restoration	<p>This section notes on page 7-30 that "except for organic material removed from temporarily cleared areas, will be placed to encourage re-growth of native vegetation". That "right-of-way access trails will be decommissioned where not required for maintenance activities", and also that "the portion of the construction dewater right-of-way allocated for the temporary dewater line will be left to regenerate to a natural condition after removal of temporary infrastructure". Finally, "it was cautiously assumed that approximately one half of the area would recover to the habitat types present before construction".</p> <p>EC recommends:</p> <ul style="list-style-type: none"> • that any disturbed areas that are no longer in use are restored as quickly as possible; • that disturbed areas are restored to mimic native vegetation communities in the surrounding area, and to provide similar habitat to pre-construction conditions; • that the restoration materials be of local provenance, and be certified and inspected to be free of both invasive and noxious weed materials; and • that long-term monitoring and adaptive management to ensure restoration. 	<p>EC requests that the Proponent:</p> <ul style="list-style-type: none"> • confirm that disturbed areas that are no longer in use will be restored as quickly as possible; • confirm that disturbed areas will be restored to mimic native vegetation communities in the surrounding area, and provide similar habitat to pre-construction conditions; • discuss whether the restoration materials will be of local provenance, and be certified and inspected to be free of both invasive and noxious weed materials; and • discuss any long-term monitoring and adaptive management plans to ensure restoration. 	Additional Information Required
2	EC	ATP - EA Report	7.2.10.3 Birds, Follow-up; 7.2.11 Mammals, Follow-up	7.32 7.65 7.70 7.14	Monitoring and Follow-up Plans	<p>EC notes the proponent's plans to implement monitoring and follow-up plans regarding the effects of the project on birds, including monitoring of species at risk populations and an assessment of bird-wire collisions, raptor, and invasive species.</p> <p>EC recommends also monitoring for the effects of the project on all other Species at Risk in the project area, and the monitoring of wetlands impacted by the project.</p> <p>EC has a particular interest in project effects on migratory birds, species at risk, and wetlands, the progress of reclamation with native species in the project area, and the success in preventing the recursion of invasive species.</p>	<p>EC requests that the Proponent discuss their plans to monitor for all other Species at Risk and wetlands impacted by the project.</p> <p>EC also requests confirmation from the Proponent that the monitoring reports collected will be shared with EC.</p>	Additional Information Required
1	DFO	Chapter 7	Table 7-30	7-139	Fish Habitat	<p>VEC - Fish Habitat - Residual Adverse Effects</p>	<p>Details are required for water crossings proposed in the Keeyask Transmission Project. Unclear as to what in water works are required. Proponent concludes impacts to fish and fish habitat, but does not provide details of impacts or extent.</p>	Additional Information Required