

**Ouimet, Darrell (CON)**

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**From:** Molod, Rommel (CON)  
**Sent:** September-21-12 3:11 PM  
**To:** Ouimet, Darrell (CON)  
**Subject:** Keeyask Hydropower Limited Partnership - Keeyask Generating Station (5550.00)

Darrell,

The proposal adequately discussed the potential emissions and noise to be generated during construction which are: dust, gaseous and particulate emissions from heavy equipment/vehicles/blasting, and noise from blasting. While mitigation measures are listed in the submission, it is expected that the details will be included in the Keeyask GS Environmental Protection Plan and implemented accordingly.

Thank you for the opportunity to review.

Rommel

**Rommel Molod**  
Manager, Air Quality Section  
Environmental Programs and Strategies Branch  
Manitoba Conservation and Water Stewardship  
Suite 160 123 Main Street  
Winnipeg MB R3C 1A5  
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C (204) 451-5081  
F (204) 945-1211

## **Ouimet, Darrell (CON)**

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**From:** Arnold, Ginger (CON)  
**Sent:** September-18-12 3:16 PM  
**To:** Ouimet, Darrell (CON)  
**Cc:** Missyabit, Ron (CON)  
**Subject:** Keeyask Hydro Power Limited-Keeyask Generation Project EIS  
**Attachments:** crown-aboriginal\_consultation\_initial\_assessment\_and\_record\_of\_conclusion.docx

Darrell,

Subsection 35(1) of the Constitution Act, 1982, provides that "the existing aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed. Subsection 35 (2) defines the aboriginal peoples of Canada as including the Indian (First Nation), Inuit and Métis peoples of Canada.

The Government of Manitoba recognizes it has a duty to consult in a meaningful way with First Nations, Métis communities and other Aboriginal communities when any proposed provincial law, regulation, decision or action may infringe upon or adversely affect the exercise of a treaty or aboriginal right of that First Nation, Métis community or other aboriginal community.

The Government of Manitoba has undertaken the following policy development and guiding principles to facilitate Crown - Aboriginal consultations and fulfill the Crown's Constitutional obligation to Aboriginal peoples: *Interim Provincial Policy and Guidelines for Crown Consultations with First Nations, Métis Communities and Other Aboriginal Communities.*

The Aboriginal Relations Branch has reviewed the Environmental Impact Statement for the Keeyask Generation Project. We recommend that a 'Crown Aboriginal Consultation Initial Assessment and Record of Conclusion' be filled out by the responsible department to determine if a full Crown Consultation process be undertaken before a license is issued for this project.

### **Ginger Arnold**

Senior Policy Analyst  
Aboriginal Relations Branch  
Corporate Policy Division  
Conservation and Water Stewardship  
200 Saulteaux Crescent  
Winnipeg MB, R3J 3W3  
[Ginger.Arnold@gov.mb.ca](mailto:Ginger.Arnold@gov.mb.ca)  
(204) 945-0807

**Ouimet, Darrell (CON)**

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**From:** Jones, Chuck (IEM)  
**Sent:** July-19-12 2:15 PM  
**To:** Ouimet, Darrell (CON)  
**Cc:** Miskimmin, Barb (IEM)  
**Subject:** Keyyask Hydropower Limited Partnership Keyyask Generating Station Environment Act Proposal

No concerns.

## **Ouimet, Darrell (CON)**

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**From:** Stibbard, James (MWS)  
**Sent:** September-18-12 11:00 AM  
**To:** Ouimet, Darrell (CON)  
**Subject:** Re: 5550.00 Manitoab Hydro Keeyask Generating Station EIS

Mr Ouimet,

On behalf of Office of Drinking Water (ODW), I reviewed the above noted EIS with respect to potential effects of the proposed development on public water systems. Nowhere in the entire document set was any specific mention made of potential adverse effects on public water systems upstream or downstream of the dam. ODW records indicate that there is one public water system downstream, the Town of Gillam, which uses water from Stephens Lake (the Nelson River). Records indicate there are no public water systems using groundwater as a water source anywhere around the development site.

The EIS notes changes in sediment levels, organic matter and similar substances will occur in the water quality in Stephens Lake will occur during and after construction of the dam, but notes these are anticipated to be minor and that the lake water quality should remain within the parameter set out in Manitoba's surface water quality guidelines. Based upon this, it is not possible to predict with any accuracy any effects the dam may have upon the water treatment system at the Gillam water treatment plant.

Since the dam will be upstream from the Gillam WTP, any spill of hazardous or deleterious materials into the Nelson River from the dam site, either during or after construction, has the potential to effect the treatment process at the water plant. As such, ODW recommends that the contact information for the Gillam water plant operator be included in emergency/contingency plans for the dam, both during construction and in subsequent operation with instructions that, in the event of any spill from the dam site, the Gillam water treatment plant operator should be informed. Other than this point, ODW does not see any other cause for concern with the proposed development.

I trust this is satisfactory, but if you have any questions, please call.

Regards,

**James Stibbard P. Eng.**

Approvals Engineer

Office of Drinking Water

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Winnipeg MB R3H 0W4

phone: (204) 945-5949

fax: (204) 945-1365

email: [James.Stibbard@gov.mb.ca](mailto:James.Stibbard@gov.mb.ca)

website: [www.manitoba.ca/drinkingwater](http://www.manitoba.ca/drinkingwater)

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September 19, 2012

Tracey Braun, M. Sc.  
Director, Environmental Approvals Branch  
Manitoba Conservation and Water Stewardship  
123 Main St., Suite 180, Winnipeg, MB R3C 1A5

RE: Keeyask Hydropower Limited Partnership – Keeyask Generation Project – EIS  
Client File No 5550.00

Dear Ms. Braun:

MIT has reviewed The Environment Act Proposal noted above and we do not have any concern with the development as proposed.

Thank you very much for providing us the opportunity to review the proposal.

Sincerely,

Ryan Coultter, M. Sc., P. Eng.  
Manager of Environmental Services

## **Ouimet, Darrell (CON)**

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**From:** Elliott, Jessica (CON)  
**Sent:** August-08-12 9:50 AM  
**To:** Ouimet, Darrell (CON)  
**Subject:** Keeyask Hydropower Limited Partnership - Keeyask Generation Project EIS (File 5550.00)

Parks and Natural Areas Branch has reviewed the proposal filed pursuant to the Environment Act for the Keeyask Hydropower Limited Partnership - Keeyask Generation Project EIS (File 5550.00). The Branch has no comments to offer.

Jessica

Jessica Elliott, M.E.Des.  
Head, Park System Planning and Ecology  
Parks and Natural Areas Branch  
Conservation and Water Stewardship  
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## Memorandum

**Date:** September 20, 2012

**To:** Darrell Ouimet

Climate Change and Environmental  
Protection Division

Environmental Approvals Branch

123 Main Street, Suite 160

Winnipeg MB R3C 1A5

**From:** Kevin Jacobs

Water Quality Management Section

Manitoba Conservation and Water

Stewardship

123 Main Street, Suite 160

Winnipeg MB R3C 1A5

<http://www.gov.mb.ca>

**Subject:** EAP 5555.00 KEEYASK  
GENERATION PROJECT

**Telephone:** 204-945-4304

**Facsimile:** 204-948-2357

**E-Mail:** Kevin.Jacobs@gov.mb.ca

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Hello Darrell, please find below comments regarding the EAP file number 5555.00 Keeyask Generation Project.

Due to the large scope of the project comments are limited to those pertaining to water quality and components of the aquatic ecosystem.

The proposed hydroelectric reservoir, generation facility, and transmission project is large in scope that will alter the aquatic environment of the area significantly for the foreseeable future. While effects relating to construction and for example the management of the potential for fuel spills, etc can likely be addressed as license conditions, many of the other effects are predicted to be not mitigable and long lasting. In particular, the proposed reservoir construction will change this reach of the Nelson River from a riverine to a lacustrine environment. The flooding and long term alteration of the aquatic environment will be the primary focus of these comments.

The environmental assessment documents appeared to be comprehensive in the predictions of expected environmental effects. These are largely based on the experience of other hydroelectric facilities in the region but represent best guesses of what might happen. It is often unforeseen unintended consequences which can be the most difficult to mitigate and can contribute to significant long term adverse effects.

The report indicates the creation of the reservoir will flood significant areas of land. This in turn will result in the erosion of newly expanded shorelands which will impact water quality through erosion, suspension of sediments, and release of chemical constituents from the soils in the flooded lands to the water column. In addition to decreased water clarity, the report also notes that certain areas may experience low dissolved oxygen concentrations during the winter due to decomposition of flooded vegetation. Low dissolved oxygen concentrations are expected to persist in areas of the reservoir under certain conditions, (ice cover, or warm periods with little wind), and may be well below water quality objectives resulting in potential lethal conditions for aquatic life. Other notable effects include nutrient enrichment, increases to organic carbon, turbidity, and potentially metals.

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The reservoir area is in an area of permafrost. How might the rates of shoreline erosion change under various climatic regimes and how might these relate to observed water quality conditions under the least and greatest annual temperature predicted by global climate change models for this region? Much of the reservoir area is underlain by peat, how does the proportion of peat and wetland area compare to other reservoirs in Northern Manitoba? For example proportion of wetland area is often attributed to elevated concentrations of mercury in reservoirs.

Of particular concern is the impact of reservoir creation on the release of mercury, and biomagnification at higher trophic levels. The environmental assessment documents show that methyl mercury concentrations in predatory fish such as walleye and northern pike are expected to increase beyond tissue concentrations that would be considered safe for unrestricted human consumption. Fish mercury concentration increases are predicted for both Stephens Lake and the proposed Keeyask Reservoir. High mercury concentrations in fish are expected to persist for up to 35 years before eventually stabilizing near a baseline concentration. Much of the information on mercury concentrations in fish tissue with time after reservoir creation is based on case studies of existing reservoirs. It is understood that fish mercury concentrations recover at different rates. Are there any reservoirs in northern Manitoba where mercury concentrations in fish have not recovered? The proponent is asked to comment on the factors that affect recovery time and why some reservoirs may not recover as fast as others?

While having provision for Keeyask Cree Nations Members to be able to eat fish from 'off-system' unaffected lakes through the Keeyask Cree Nations' Adverse Effects Agreements Offsetting Programs will help mitigate the potential for adverse effects to human health, this will not be of benefit to mitigating the impacts on wildlife consumers of fish or the fish themselves. A number of studies have attempted to quantify the impacts of elevated mercury concentrations of behavior and survival. In particular, maternal transfer of MeHg to fish larvae may be a source of mortality. This raises the question if the potential mercury concentrations in the Keeyask Reservoir be high enough to contribute to mortality of larval fish such as Lake Sturgeon, Walleye of Northern Pike? Other studies have document adverse effects on behavior of fish and wildlife that were experimentally exposed to mercury. How will mercury concentrations in wildlife be monitored and potential impacts on behavior of fish and wildlife documented?

While much study has occurred in the areas directly downstream of hydroelectric developments, and off system reference lakes, comparatively little seems to be known about the any cumulative impact on the ecosystem of Hudson Bay. For example, would the flooding of lands within the Nelson River watershed have any potential impact on the water quality, or metal concentrations in aquatic wildlife within Nelson River Estuary?

While the impacts to fish and fish habitat are best referred to Manitoba Fisheries Branch, the potential creation of artificial spawning grounds implies that much is known about how fish choose spawning areas and that fish would choose these constructed spawning areas. While we cannot directly ask fish about where they would like to spawn or direct them to a newly created habitat, some comment on the relative success and failure of artificially created spawning habitat would be appreciated from the proponent as it is understood these projects are not always successful.

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Other comments:

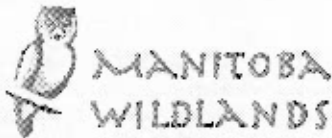
In general, the proponent relies considerably on adaptive management. Monitoring and documenting potential effects is essential to implementing an adaptive management strategy. Should this development proceed a license recommendation would include the proponent maintaining a comprehensive aquatic monitoring program including, water, sediment, invertebrate, phytoplankton, fish community, and fish tissue monitoring. The specifics of which would be determined in part with consultation with the department and the scientific community.

Thank you for the opportunity to provide comments. Should you have any questions, please do not hesitate to contact me at the above telephone number.

Kevin Jacobs  
Water Quality Management Section

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September 20, 2012

Honourable Gord Mackintosh  
Minister of Conservation and Water Stewardship  
330 Legislative Building  
450 Broadway Avenue  
Winnipeg, MB R3C 0V8

Tracey Braun, Director of Environmental Assessment & Licensing  
Manitoba Conservation and Water Stewardship  
Suite 160, 123 Main Street  
Winnipeg, MB R3C 1A5

**Re: Keeyask Generation Project - Environmental Impact Statement – Public  
Registry #5550.00**

Dear Minister Mackintosh & Director Braun,

Please have this letter placed in public registry file #5550.00 regarding the Environmental Impact Statement (EIS) for the proposed Manitoba Hydro/Keeyask Limited Partnership Keeyask Generation Project (Public Registry file #5550.00).

Our comments are provided in the public interest, and are intended to assist the proponents, Manitoba Hydro and Keeyask Limited Partnership, Manitoba Conservation & Water Stewardship Environmental Approvals Branch (EAB), and the Canadian Environmental Assessment Agency (CEAA) to increase the certainty, quality of assessment and decision making, and improve public and/or First Nation consultations.

We take these steps because major public works projects impacting significant areas of Manitoba's lands and waters, that also spend or borrow significant amounts of public funds must have the highest quality of planning, access to information, environmental effects assessment, public reviews, and licensing processes.

In the present case government is in essence licensing itself through a Crown Corporation and setting its own licensing and environmental assessment standards. We therefore expect an outside critique of the EIS materials is not only needed, but welcomed by the proponent and licensing authorities. While the Cree Nation Partnership is the proponent, we consider Manitoba Hydro to be the proponent in the sense that Manitoba Hydro would build this project, would finance it with public funds, would sign any export agreements regarding the energy generated, etc.

## 1. Inadequate Timeframe, Review Period & Access to EIS Reports

Unfortunately our efforts to provide adequate review have been hampered by inadequate timelines for review, inadequate or non-existent access to supporting reports, and overlapping hydro projects undergoing review.

Notice of the EIS was advertised in the Winnipeg Free Press on July 14<sup>th</sup>, 2012. Initial EIS materials were not available till late July. This original EIS material (about one-third of the materials provided thus far) carried no indication of the full volume of information involved, and no indication that only some of it was included in the initial filing, available on paper, or when the rest would be available. Any person going to a public registry (including those set up especially for the Keeyask *Environment Act* process and reviews) would assume that the material available in July was the entire EIS. Even looking at the CDs inside the binders would not provide a full picture of what would be involved in reading and reviewing the full EIS, or what other materials would be part of the EIS, or when these materials would be available.

Further technical reports were made available on paper in late August. The public therefore has been given at most 5 weeks (over the summer holidays it should be added), and less than a month in most cases, to review 13 voluminous binders of information. It is not clear how long it took for the EIS materials made available in late August to arrive at public registries.

Moreover, Manitoba Wildlands inquiries have revealed that the following information, and possibly other EIS contents, will be released after the comments deadline:

- Information from plant workshops with Keeyask Cree Nations;
- A final human health assessment;
- The Fox Lake Environmental Assessment Report (Scheduled for release February/March 2013);
- Additional information about monitoring and protection plans;
- And additional information expected to be filed before public hearings.

The title of the EIS "Response to EIS Guidelines" binder is also unclear, and there is no single enumeration for the 13 volumes of information. Manitoba Hydro has also not provided a guide or all in table of contents for the 13 volumes. *The volumes are also not numbered.* An ordinary Manitoban looking at the 13 binders would have great difficulty in determining where to start.

In short, the public has not been provided with the information, on a timely basis, to conduct an adequate review. The public registry under the *Environment Act* is the paper registry, with complete files at the Public Registry, 123 Main Street, Winnipeg.

**RECOMMENDATION:** *We urge you to extend the comments deadline for Keeyask until 90 days from when the EIS materials and binders were made available to be reviewed in late August.*

**RECOMMENDATION:** *EALB require Manitoba Hydro to file as much of the outstanding material in October as possible, including it in the public review of the supplemental filing, which EALB will be requesting.*

To this end we would note that the public was given 90 days to review the Bipole II EIS. Class 3 developments need to have an EIS review standard so those affected, and the interested public know what to expect in terms of *Environment Act* proceedings.

## 2. Need for NFAAT to Proceed

The need for a project needs to be considered in a modern environmental effects assessment, and review of the proponents' filings. As yet there is no indication how the NFAAT (Needs for and Alternatives to) review for Keeyask generation and transmission projects will be conducted.

In a July 6, 2012 letter to Tracey Braun, Director of Environmental Assessment & Licensing, K.R.F. Adams, President of the Keeyask Hydropower Limited Partnership bluntly states:

"For the purpose of Manitoba's review, we would expect that "needs for and alternatives to" will not form part of Manitoba's review as the government has advised that this issue will be dealt with by a separate panel in a separate process."

Planning for the Keeyask hydroelectric generating station has been underway for years. Former Deputy Premier Rosann Wowchuk indicated January 13, 2011 that "an independent body" would carry out an NFAAT assessment of future hydro projects.

Twenty-one months later, no one, including Manitoba Hydro, is aware of when this NFAAT process will begin, who will be charged with the responsibility of carrying out this NFAAT review, what the terms of reference will be, or any of the other pertinent details required for the NFAAT review process to begin. Manitobans, including stakeholders, affected communities, and those that wish to participate in the NFAAT review, need to know what the NFAAT process will be.

In our February 3, 2012 comments on the Keeyask Scoping Document we highlighted the need for clarity in the NFAAT process. We would strongly recommend that the PUB or CEC NFAAT review of Keeyask, Conawapa, export sales and related transmission projects be put in place, with participant funding, immediately.

**RECOMMENDATION:** *Manitoba Wildlands recommends that once a proposal is filed under the Environment Act, reviews not be considered complete until after a public NFAAT review and analysis has been undertaken,, with test methods and recommendations reports available..*

**RECOMMENDATION:** *Manitoba Wildlands further recommends that the NFAAT review take place by way of tribunal or an existing administrative body, whereby affected parties and individuals, interested organizations and the public, are able to seek funding and test the technical information and NFAAT evidence put forward by the Keeyask Cree Nation Partners/Manitoba Hydro.*

### **3. Staged Licensing: Transmission and Generation Should be Subject to Combined Review**

We would remind that Wuskwatim Generation Station and Transmission projects were subject to same Environment Act proposal filing, EIS filing, reviews, and CEC proceedings. All Environment Act and CEC deadlines, processes, and hearings were about both projects. The Wuskwatim generation station is contained in a PDA, was subject to community referenda, and involves similar if not the same steps by Manitoba Hydro regarding project partnership and joint proponent status with Manitoba Hydro by a First Nation as does Keeyask. The Wuskwatim transmission project was not. Why would Manitoba Hydro then delay and separate the filing of the Keeyask Transmission project? Why would Manitoba Conservation agree to this exaggerated process of staged licensing for Keeyask?

The July 6, 2012 letter to Tracey Braun, Director of Environmental Assessment & Licensing, K.R.F. Adams, President of the Keeyask Hydropower Limited Partnership also states:

"It is our understanding that the Keeyask Transmission Project, which is a Manitoba Hydro Project as opposed to a [Keeyask Cree Nation] Partnership Project, will be evaluated separately by the department as a Class 2 Development once the EIS for that project has been completed and filed." (Quote from same July 6, 2012 letter.)

It appears that Mr. Adams wishes to avoid public reviews, hearings, and a full EIS proceeding for the Keeyask transmission line projects. There was no problem with the Wuskwatim Environment Act and CEC proceedings including the transmission line for the dam, even with it being a Manitoba Hydro project only.

**RECOMMENDATION:** *Manitoba Wildlands recommends that the Keeyask Generation and Transmission projects be evaluated together as a single project during both the environmental assessment and NFAAT processes.*

The fact that Manitoba Hydro has established several separate corporate entities, including the Keeyask Cree Nation Partnership, with local First Nations, does not negate the fact that generation and transmission are two parts of the same project. One cannot be built without the other, and thus they need to be, reviewed assessed, and analysed together.

The Keeyask projects pattern is troubling, as there will be several licenses in total, while only the generation plant will receive public review, and proceedings. This is the most extreme pattern of staged licensing to date in Manitoba.

#### 4. Consultation with Aboriginal and First Nation Peoples Before Reviews/ Hearings

We would also urge the government to start consultation with affected First Nations before the start of the environmental review process for Keeyask. The fact that aboriginal consultation projects for the Bipole III Transmission Project will not be completed until after the conclusion of the Clean Environment Commission (CEC) hearings on Bipole III has created distrust among Manitoba First Nations, and created difficulties for the CEC.

To avoid these problems we recommend that consultation with First Nations proceed ahead of the full environmental review process. While it is heartening to see Mr. Bedford of Manitoba Hydro indicate there are as many as 45 Aboriginal communities potentially affected by Bipole III – there is concern that an artificial lowering of the number of Aboriginal communities potentially affected by Keeyask projects could create real problems for the utility and the government. Keeyask, for instance requires Northern Flood Agreement (NFA) consultations also. It should be noted that our offices have heard nothing about the NFA consultations regarding BiPole III.

It is unclear how consultation with affected communities about the generation station can proceed without full information and content about the transmission line. Or how they could proceed without complete EIS materials.

Given Mr. Adams' content in his Keeyask EIS transfer memo regarding First Nations issues it would be helpful for the Minister and the director of licensing to confirm that First Nation review of the EIS, review comments, and analysis of the Keeyask EIS are encouraged and considered valid. Certainly it would be unfortunate if Mr. Adams or any other Manitoba Hydro or Manitoba Conservation executive were to give the impression that First Nations analysis is only relevant and will only be re considered with respect to rights.

***RECOMMENDATION: Manitoba Wildlands recommends that aboriginal and First Nations consultations regarding the proposed Keeyask Generation and Transmission Project proceed ahead of the environmental review process, and that outcomes from these consultations be available before any licensing decision.***

### 5. Further Concerns, Recommendations, and Requested Clarifications

The inadequate access to materials, short time frame for EIS review provided, and the fact Wildlands efforts, along with other interested and affected parties, are being directed to the on going Bipole III proceedings has limited our ability to provide as thorough a review of the initial EIS documentation. Please see our recommendation above to extend the time frame for review of the EIS, to commence with the NFAAT review, and First Nations consultations immediately and before the next stages of the environmental reviews and proceedings.

Please note because of the above-mentioned deficiencies in the review process the comments below do not constitute a full review of the 13 binders of EIS materials for the Keeyask Generation project, rather some concerns are included below:

- Section "4.6.3 Reservoir Clearing" states: "Selected locations will not be cleared if they are deemed to provide environmentally sensitive habitat."
  - Question: If these non-cleared areas of "environmentally sensitive habitat" are inside the reservoir area, will they not eventually be flooded?
- Section "4.7.3 Vegetation and Debris Management" states: "...some shoreline areas will disintegrate after initial flooding, adding approximately 7 to 8 km<sup>2</sup> to the reservoir area in the first 30 years after it is created."
  - Question: Of the total reservoir area, both initially and subsequently as the reservoir expands over decades, what percentage of flooded area will be peatlands/muskeg vs. what percentage will be forested lands, etc.?
  - Question: Full information as to the project and potential flood areas are required.

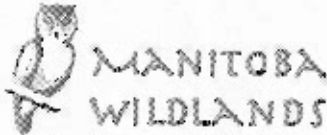
**RECOMMENDATION:** *Manitoba Wildlands recommends that once TAC comments on the EIS are completed and public that EALB file a thorough supplemental filing requirement for Manitoba Hydro to file, with a stated deadline of 30 days, and public review of those additional EIS materials for Keeyask.*

### 6. Federal Responsibility: Keeyask

The EIS transmittal letter from Vice President Adams omits a primary issue. Acknowledgement of federal responsibility under CEAA for proceedings that began two years ago and continue under that CEAA Act are missing from his letter. This is a concern and begs the question whether Manitoba Hydro seeks to avoid federal responsibility and regulatory framework for the Keeyask projects. We would recommend, as we have in the past, that a joint panel be established for the hearings for the Keeyask projects.

On the same basis, the lack of reference to: the Scoping Document for Keeyask Generation Station, and requirement to fulfil the CEAA EIS Guidelines for Keeyask are





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of real concern to Manitoba Wildlands. Appropriate response and fulfilment of the federal requirements regarding Keeyask should also be contained in Mr. Adams' letter.

***RECOMMENDATION: Manitoba Wildland recommends that Manitoba Conservation EALB make sure that both or the Scoping Document for Keeyask Generation Station and the CEAA EIS Guidelines for the project are fulfilled – including via additional EIS materials being filed.***

We presume that both the Scoping Document and CEAA EIS Guidelines are in the public registry file for Keeyask Generation Station. If not they should be added to the file immediately.

Sincerely,

Gaile Whelan Enns, Director  
Manitoba Wildlands

cc: Jim Morrell, Canadian Environmental Assessment Agency Project Manager  
Hon Dave Chomiak, Minister Responsible for Manitoba Hydro.

***Attachments:***

Manitoba Wildlands comments Draft CEAA EIS Guidelines for Keeyask  
<http://manitobawildlands.org/pdfs/KeeyaskCEAASubmission-FINAL.pdf>

Manitoba Wildlands comments Manitoba Hydro Keeyask Scoping Document about Keeyask Generation Station  
<http://manitobawildlands.org/pdfs/MBCon-KeeyaskScopDocSubmission-FINAL.pdf>





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September 20, 2012

Darrell Oulmet, Environmental Officer  
Manitoba Conservation  
123 Main Street, Suite 160  
Winnipeg, MB R3C 1A5

Dear Mr. Oulmet:

**Re: Keeyask Generation Project**

On behalf of the Consumers Association of Canada (Manitoba Branch)<sup>1</sup>, I am writing to offer its comments on the Environmental Impact Assessment prepared by Manitoba Hydro with regard to the Keeyask Generation Project.

#### **Background on CAC Manitoba**

CAC Manitoba is a non-profit organization with a lengthy record of public participation in regulatory matters relating to Manitoba Hydro. It regularly appears before Manitoba's Public Utilities Board on issues relating to the setting of just and reasonable rates for Manitoba Hydro. It also participated in the Manitoba Clean Environment Commission proceeding considering the Needs for and Alternatives to the Wuskwatim Hydro Electric Generating Station.

The participation of CAC Manitoba in this public process is guided by reference to three basic consumer rights:

The right to a safe and healthy environment;<sup>2</sup>

The right to basic needs;<sup>3</sup>

The right to participate in decisions that will affect consumers.<sup>4</sup>

#### **Decisions based on Public Participation and Complete Information**

As mentioned in our letter of January 31, 2012 relating to the Keeyask Scoping Document, CAC Manitoba views the Keeyask GS as part of a highly integrated

- 1 Also known as CAC Manitoba.
- 2 Access to products and services that are less environmentally harmful and more sustainable.
- 3 Access to goods and services which meet your basic needs, including food, clothing and shelter.
- 4 A role in making government policies for the marketplace.

series of proposed hydro-electric development projects which are currently being considered as part of Manitoba Hydro's \$17 billion to \$20 billion decade of expenditures.<sup>5</sup> The licensing and regulatory authorizations for the construction, operation and maintenance of new and existing hydro-electric development and infrastructure in Manitoba has become a patchwork quilt of regulatory proceedings, only some of which involve public participation (see Appendix A). Environmental and regulatory decision-making on the Keeyask GS project alone include a Water Power Act Licence Application, Environment Act License Application and Need For and Alternatives To (NFAT) consideration.

The information relating to each of these regulatory proceedings must be publicly available and should involve the public in the assessment of the proposed "Class 3" development<sup>6</sup> in accordance with the principles of public participation set out in *The Sustainable Development Act*.<sup>7</sup>

**2 Public Participation - which means:**

- (a) establishing forums which encourage and provide opportunity for consultation and meaningful participation in decision making processes by Manitobans;
- (b) endeavouring to provide due process, prior notification and appropriate and timely redress for those adversely affected by decisions and actions; and
- (c) striving to achieve consensus amongst citizens with regard to decisions affecting them.

CAC Manitoba expects that the review of the EIS will draw on the comments that are made by the public and interested parties. CAC also expects that the Minister will refer this matter to a public hearing at the Clean Environment Commission to assess Keeyask GS in accordance with s.12(5)(3) of *The Environment Act*.

CAC Manitoba remains committed to reviewing the EIS, making information requests and participating in a public proceeding relating to the Keeyask EIS environmental assessment based on best practices, including consideration of cumulative effects, aboriginal traditional knowledge, adaptive management and monitoring, and regional planning.

**NFAT Analysis**

CAC Manitoba notes that the Keeyask GS EIS contains only a page and a half analysis of the Need For and Alternatives to the project.<sup>8</sup> Manitoba Hydro notes that the "EIS does not

5 PUB Board Order 5/12, page 25/232. The PUB estimates the "decade of investment" or "decade of development" to be in the range of \$20 billion. Hydro's estimates may be lower.

6 See section 12 of *The Environment Act*

7 C.C.S.M. c. S270

8 see section 4.2 "Need For and Alternatives To" in Keeyask Generation Project: Response to EIS Guidelines, Chapter 4: Project Description, p.4-5

include an assessment of Manitoba Hydro's markets or the economic feasibility of the Project."<sup>9</sup>

Although the Minister responsible for Hydro has indicated that there will be an independent panel to review the NFAT, CAC Manitoba is of the view that environmental best practises and the applicable legislation require that social and economic factors be considered, along side the efficient use of resources. In order for these environmental requirements to be met, social, environmental and economic factors must be addressed in the environmental assessment process and alternatives to the project must be canvassed.

A review of the NFAT is essential to the BI-Pole III proceeding given that:

- it is generally accepted that NFAT analysis is a primary element of modern "best practices" environmental assessment;
- a reading of the *Environment Act* and the *Sustainable Development Act* in their grammatical and ordinary sense makes it evident that the NFAT is essential to adequately address environmental issues including the efficient use of resources;

***NFAT analysis is a primary element of modern "best practices" environmental assessment***

Professor Robert Gibson, arguably Canada's leading expert in environmental assessment, offers a more powerful testament to the essential role of alternatives analysis in setting the standard for environmental assessment. Professor Gibson highlights the importance of a "comparative evaluation of options with explicit emphasis on cumulative effects and implications for building desirable and resilient futures." In his view, "where assessment processes involve a comparative evaluation of reasonable alternatives, the effective choice can centre on which option is most desirable"<sup>10</sup>.

At its core, NFAT analysis is an integral component of the environmental assessment and licensing process. It seeks to measure the societal utility of the costs, benefits and impacts which may flow from a project against other reasonable alternatives and against the option of proceeding at a different pace or not proceeding at all<sup>11</sup>.

<sup>9</sup>see section 4.2 "Need For and Alternatives To" In Keeyask Generation Project: Response to EIS Guidelines, Chapter 4: Project Description, p.4-6

<sup>10</sup>Gibson, *Application of a contribution to sustainability test by the Joint Review Panel for the Canadian Mackenzie Gas Project, Impact Assessment and Project Appraisal* 29(2), September 2011, pages 231 – 244 at pages 241 and 236. He describes the approach as setting the Canadian standard for sustainability based assessment and argues that the approach is broadly applicable to most assessment cases (241). He considers the options/alternative analysis to be one of the two key elements of Panel's approach (236).

### ***NFAT analysis is integral to statutory compliance***

From a sustainability perspective, the NFAT analysis is integral to the central societal question of appropriate resource allocation taking into account all costs including environmental externalities.

There can be little doubt that a NFAT analysis is mandated when the *Environment Act* is read in a manner consistent with the spirit and intent of the Sustainable Development Principles and Guidelines<sup>12</sup>.

One of the central purposes of the *Environment Act* is to provide for "the recognition and utilization of effective review processes that adequately address environmental issues"<sup>13</sup>. Section 20 of the *Sustainable Development Act* expressly states that the Crown and Agents of the Crown are bound by the Act. Article 1 of the Sustainable Development Guidelines articulates the importance of a NFAT analysis to a sustainability based environmental assessment. It defines the efficient use of resources to mean:

(a) encouraging and facilitating development and application of systems for proper resource pricing, demand management and resource allocation together with incentives to encourage efficient use of resources; and

(b) employing full-cost accounting to provide better information for decision makers. [emphasis added]

An effective review process which adequately addresses environmental issues cannot comply with the *Sustainable Development Act* unless it addresses the question of efficient resource allocation taking into account full-cost accounting. As those who adhere to Canadian best practices acknowledge, the NFAT is the tool through which that analysis is undertaken.

### **Aboriginal Traditional Knowledge (ATK)**

CAC Manitoba notes that in Chapter 6, Environmental Effects Assessment, reference is made in each of the subsections to Aboriginal Traditional Knowledge. "ATK observations" are listed in the material, followed by the following paragraph:

*"Because the ATK has perspectives that differ and doubt some of the results of technical science, an emphasis has been placed on mitigation, adaptive management and monitoring. These topics are covered in Chapter 8."*

<sup>11</sup>What is described by Professor Gibson as the "null hypothesis". *Application of a contribution to sustainability test by the Joint Review Panel for the Canadian Mackenzie Gas Project*, Impact Assessment and Project Appraisal 29(2), September 2011, pages 231 – 244 at page 236.

<sup>12</sup>*Rizzo & rizzo Shoes Ltd. (Re)*, [1998] 1 S.C.R. 27 at para 21 suggests that statutes are to be read in their context and in their grammatical and ordinary sense harmoniously with the scheme of the legislation, the objects of the legislation and the intention of the legislation.

<sup>13</sup>Section 1(1).

It is unclear whether these lists of "ATK observations" are exhaustive and how they were selected for inclusion in the EIS. It also unclear whether in any circumstances technical science was displaced by "ATK observations", whether further investigation was conducted when "difference or "doubt" arose, or how "difference" and "doubt" was addressed in making the mitigation, adaptive management and monitoring recommendations. A cursory review of Chapter 8 demonstrates that ATK is addressed at p.8-39 and consists only of forward looking monitoring using ATK. No reference is made to the ATK data that has been collected to date and no reference is made to where technical science and ATK "differed". This leads the reader to believe that for the purposes of this EIS, where technical science and ATK deferred, technical science was privileged and new ATK will be sought in the future for the purposes of monitoring the project.

### Conclusion

Our clients have not taken a position on whether the Keeyask GS application for an Environment Act Licence should be approved. Their concerns are related to the process which will allow for a full and fair consideration of hydro related licencing in the best interests of Manitoba consumers.

Thank you for your consideration of these comments.

Yours truly,



Aimée Craft  
Attorney

/ac

Enclosures

cc. CAC Manitoba  
Keeyask Hydropower Limited Partnership

## APPENDIX A

Upcoming regulatory proceedings relation to hydro-electric development include:

- the proposed licensing under the *Environment Act* of the Bi-Pole III Transmission line. This licensing procedure will involve a public hearing before Manitoba's Clean Environment Commission for the purposes of providing recommendations to the Minister;
- the proposed licensing under the *Environment Act* of the Keeyask GS. It is expected that consideration of the Keeyask EIS will involve a public hearing before Manitoba's Clean Environment Commission for the purposes of providing recommendations to the Minister. It does not appear that a schedule for these proceedings has been made publicly available;
- a potential licensing under the *Environment Act* of the Conawapa Hydro Electric Generating Station and related projects. It is expected that consideration of the Conawapa EIS will involve a public hearing before Manitoba's Clean Environment Commission for the purposes of providing recommendations to the Minister. To our client's knowledge, no application is currently before Manitoba Conservation;
- an independent assessment of the Need for and Alternatives Analysis (NFAT) to Keeyask GS and Conawappa GS was promised by former Finance Minister Wowchuk. It is not clear which tribunal will be designated to hear this matter or what process of public participation is contemplated. While the Public Utilities Board has recommended a hearing of this issue at the earliest possible date, no timetable is presently available;
- an application for Final licence for Lake Winnipeg Regulation under the *Water Powers Act*, which for decades has been operating on the basis of interim licensing. Under the limited terms of reference from the Minister, the Clean Environment Commission will hold a public hearing for the purposes of providing recommendations. No timetable is presently available for this proceeding;
- an application to grant a final licence for the Churchill River Diversion under the *Water Powers Act*, which for decades has been operating on the basis of interim licensing. It does not appear a public process is contemplated for this proceeding.



## **Quimet, Darrell (CON)**

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**From:** Kaita, Adara (CON) on behalf of +WPG1212 - Conservation\_Circulars (CON)  
**Sent:** October-04-12 3:38 PM  
**To:** Quimet, Darrell (CON)  
**Cc:** Stevenson, Lori (CON); Hastman, David (CON); Roberts, Pierce (CON)  
**Subject:** EIS - Keeyask Hydropower Limited Partnership - Keeyask Generation Project - File No. 5550  
**Attachments:** Lands Branch Comments Keeyask Generation Project File 5550.doc

Hi Darrell,

Thank you for the extension. The Sustainable Resource and Policy Management Branch has no concerns. The Lands Branch provides the attached comments. Although the comments are submitted on behalf of the Lands Branch as a whole, the comments are divided by specific branch section to make it easier for Environmental Approvals staff to contact the appropriate people for questions and clarification.

### **Adara Kaita**

Crown Land Program and Policy Manager  
Conservation and Water Stewardship  
Box 25, 200 Sauteroux Crescent  
Winnipeg, MB R3J 3W3  
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**Keeyask Generation Project - File No. 5550**  
**Lands Branch Comments**

**Comments from Pierce Roberts, Director of NE Region:**

**General:**

- The region immediately upon receiving the electronic version requested a paper copy of the EIS (considered essential) receiving it in late August. We recommend that for all future EIS reviews that paper copies of the EIS be sent to the region automatically to allow more time for review.
- Overall the information in EIS is quite accurate, considering the huge volume of information. Information on specific subjects however is scattered in numerous places in the various binders making it difficult to separate specific sections for individual staff to review.
- The NE Region recommends that a full time Environmental Biologist position be funded by Manitoba Hydro in the Northeast Region with the primary responsibility of coordinating Hydro project work. This would be of great benefit to both Hydro and Conservation. Not only for Keeyask but also with Bipole III and then Conawapa on the horizon, this position is needed for 15 years or more. Staff in Conservation are not always available for thorough review and input into all of these activities (as was the case with this review). A specialist in this area would be more efficient, would assist in training and providing guidance to other Conservation staff enhancing their skills, and most of all would provide better continuity and timely response for Manitoba Hydro. The same could be said for a dedicated NRO for the permitting and compliance aspect. During the Limestone project, MB Hydro funded such a position which proved to be very successful. I did a little research and found that it was recommendations in the Limestone EIS that lead to the creation of that position. I am making the same recommendation now for both an NRO and an Environmental Biologist.

**Specific EIS Comments:**

- 8.2.5 on page 8-34 states that harvesting activities conducted by domestic resource users authorized to harvest within the Project site will be monitored at the North and South access gates. Elsewhere it states that the public will be restricted from the site, workers will be prohibited from possessing firearms on the site, hunting by workers will be prohibiting in the project site etc. The first line seems to imply that domestic hunting will be permitted in the project site. If so will this be open to all Treaty Indians, only those living near the Project area or I am misreading the line entirely?
- This page also states that the CNP has developed moose and fish harvest sustainability plans to address the long-term sustainability of these species in the Split lake RMA in cooperation with the Split Lake Resource Management Board. Have these plans been developed? The NE region agrees that plans like this should be developed with the RMB; however are not aware of any completed plans as stated in the EIS.
- There was no mention of how timber will be disposed of. Is the plan to utilize any of the timber (firewood or otherwise) or will it be burned? Will the stumps (root systems) be left in place to slow erosion or will they be removed to reduce debris in the forebay? The EIS calculates "Project Forest Damage Appraisal and Valuation (Table 1-10) based on impacts and timber dues to be paid for timber removal within the Forest Management Unit 86, but not for timber removal outside the FMU in the non-commercial timber zone. As a major portion of this project exists outside FMU 86, Manitoba Conservation and Water Stewardship holds the option to assess Forest Damage Appraisal and Valuation on this portion of the project footprint. Bruce Holmes, NE Region Forestry Manager has raised the same concerns.
- The EIS focuses almost entirely on monitoring and mitigation during construction and points out that it is Conservation and Water Stewardship's responsibility to monitor harvest when the GS goes into operation and the new Highway 280 access is opened to the public. That may be true however: harvest of wildlife, particularly moose will be of greater impact when the road is opened to the public and there

should still be some responsibility for the developer to provide monitoring to accurately determine what that impact is. Little mitigation and no monitoring is planned for moose (8.2.5 page 8-34). Moose is an important big game species to the KCN. To me this seems like a perfect opportunity to monitor the effects of a development like this on moose. A preconstruction survey, a survey at the conclusion of construction and a survey 5 years post construction will provide important information on effects to moose at various critical stages. I believe the EIS underestimates the impacts of harvesting by domestic and recreational harvesters once access is open to the public. Alternate Access Programs will not significantly reduce domestic harvest in the project area and the area will reach an equilibrium similar to the surrounding road accessible area in a short time.

- The EIS refers to the Access Management Plan. (see AMP) is referenced many times such as in section 6.7.3.2.1 page 6-538. Does the AMP exist or is still to be developed?
- A reference to the proposed status could not be found for PR 280 east from its junction with the North Access road once the new route to Gillam is opened. Will the old 280 that runs north of Stephens Lake be decommissioned? This should be determined as it will have a significant impact on overall harvesting levels and it'd closing may offset any increased harvest created by the new access.
- In the future, the NE Region requests 3 paper copies of the draft EPP.

### Comments from Don MacDonald, NE Fisheries Manager:

#### Response to EIS Guidelines

##### 6.4.6.1 Walleye, Northern Pike, Lake Whitefish and Other Scale Fish

No concerns with the VECs selected. The description of Residual Effects is thorough. The mitigation proposed is reasonable with a good probability of success.

##### 6.4.6.2 Lake Sturgeon

The list of Construction Effects is thorough. The EIS states that *there is no potential for an increase in fish mortality due to harvesting by Aboriginal members of the workforce. Due to restrictions within the construction site and the prohibition on bringing personal boats on the site, workers will not be able to access the areas where sturgeon will be vulnerable to harvest.* Is this meant to include Aboriginal people who are not members of the work force? The EIS is not clear on whether or not road access to the Gull Lake/Keeyask area will be restricted to only members of the work force and that Aboriginal harvesters will not be allowed to access the site by road for the purpose of harvesting.

##### 6.4.7 Mercury, Palatability and Cysts in Fish

No concerns with the material presented.

##### 8.1.3 Adaptive Management

Using Adaptive Management as described in the EIS makes sense. There is a need to establish the role and mechanism for Conservation and Water Stewardship in reviewing the design of the monitoring studies, reviewing the results and assessing the most suitable adaptations. Table 8.3 Monitoring and Follow-up plans for the Aquatic Environment summarizes the proposed monitoring programs well.

#### Adverse Affects Agreements

The Cree Nation Partners Keeyask Environmental Evaluation describes the Offsetting Programs under the Adverse Affects Agreements. The objective of the Healthy Food Fish Program is *to provide opportunities for Members to continue to fish and to provide a supply wholesome fish to Members in order to replace fish that may no longer be safe to consume as a result of increased methyl-mercury levels caused by the Keeyask Project.*

Two of the lakes identified in Map 6 are allocated to an existing commercial use. Dunlop's Fly-in Lodge and Outposts is licenced to operate a 24 bed fishing lodge on Waskaiowaka Lake and a 6 bed outcamp on Pelletier Lake. The Supporting Volume on Socio-Economic Environment, Resource Use and Heritage Resources, Part 2 Resource Use, Section 1.8.3.2 Lodges describes this lodge and outcamp. Section 1.8.4.1 describes the potential impacts on the lodge's operations. In each case the EIS notes that *No mitigation is planned.* Section

1.8.4.3 Residual Effects continues to describe the likely effects on this commercial operation and again indicates that *No mitigation is planned*.

Since the Healthy Fish Program is clearly identified as only being necessary because of the impacts of the project and because the resulting program is predicted to have impacts on the lodge operation, it is not reasonable to conclude that *No mitigation is planned* is an acceptable position for the EIS to take. The EIS does not mention whether or not the lodge owner has even been advised of the Healthy Food Program. An impact on this operation arising from the project is anticipated in the EIS. It should be comparatively simple to devise mitigation strategies that cover the range of impact that may actually occur. The proponent should be required to develop and implement measures to mitigate these impacts.

#### **Fish Sustainability Plan**

The Evaluation also notes that *TCN, with Hydro, is developing a Fish Sustainability Plan to ensure the long-term conservation of our fish population*. The plan is also referenced in Section 6.7 of the Response to EIS Guidelines. While the Fish Sustainability Plan should be a valuable tool for ensuring the sustainability of fishing activities under this program, it should be noted that under 1992 Agreement between Canada, Manitoba Split Lake Cree Nation and Manitoba Hydro on the implementation of the Northern Flood Agreement the Split Lake Resource Management Board has the mandate for Resource Planning in the Split Lake Resource Management Area. The Response to EIS Guidelines states *The AEA's provide for coordination with and annual reports to the Resource Management Boards with respect to the management and administration of the AEA offsetting programs*. The Fish Sustainability Plan should be developed and implemented through the Resource Management Board, not developed independently and then presented to them as finished product, unless the RMB decides that is the way it wants to implement its Resource Planning mandate.

It should be noted that although a Draft Fish Sustainability Plan has been presented to the Split Lake Resource Management Board, it does not appear certain that this plan represents the way that fish will be harvested or the mechanism by which they will be managed. The First Nations have many options available to them on how to best implement their Offsetting Programs and it should be recognized that the means presented in the Draft Plan may not be the way that they choose to proceed. Again, the Resource Management Board should be identified as having more of a role in the development and implementation of this plan. There should be more recognition that the Offsetting Program may change over time as the First Nation adjusts it to meet the emerging needs of its people, and that the Sustainability Plan will also need to adjust to reflect the changes in the Program.

#### **Supporting Volume Project Description**

Section 6 Alternative Means, Design, Mitigation provides a readable summary of design considerations and the rationale for the choices made. Table 6.2, Summary Table - Aquatic Environment - Alternative Means and Mitigation Measures - Upstream of Generating Station and Table 6.3 - Downstream of Generating Station, both provide an excellent summary of measures considered and adopted. The description of Potential Effects, options, considerations and recommendations is sufficiently detailed to provide confidence that effects and their mitigation options have been identified. Section 6.13.1 Aquatic Environment concludes with the statement *Ongoing discussions with MCWS and DFO may identify modifications to the design of recommended measures or determine additional mitigation measures that will be implemented as part of the Project*. The review of the proposed ongoing monitoring and the process for making decisions on the need for and suitability of the proposed and additional mitigation options should be described with attention to the structure by which Conservation and Water Stewardship will interact with CNP and Manitoba Hydro.

#### **Supporting Volume Aquatic Environment Part 1**

##### **Section 1A.3.1.10 Increased Sturgeon Harvest**

The proposed development of a Conservation Awareness Program is likely the most suitable means of addressing the potential for increased harvest arising from the Project, and recognizes the risk that the additional stresses imposed by the project may have on these populations. There is no mention of the Split Lake Resource Management Board in this section. As noted elsewhere in these comments the Resource Management Board has been given the mandate for Resource Planning within the Split Lake Resource Area. The Resource Management Board should be involved in the development and implementation of the Conservation Awareness Program.

##### **Section 1A.3.2.1.3 Trap/Catch and Transport Fish Pass System for Lake Sturgeon and Other Species**

The adaptive approach proposed to address the possible need for upstream fish passage appears valid. In addition to reviewing the results of the monitoring with DFO and MCWS there should also be a provision to include them in the design of the monitoring program. The point about the concern about transporting sturgeon from the very limited downstream population on Stephens Lake to upstream locations is an excellent example of the kind of considerations that will have to be made in designing these studies.

**Appendix 1A - Part 2 Keeyask Lake Sturgeon Stocking Strategy (marked as draft for discussion)**

The Strategy was reviewed. All of the material covered in the draft is relevant for this purpose. It is expected that as indicated in the title, this section is a draft for ongoing discussion with Fisheries and Oceans Canada and Conservation and Water Stewardship.

**Comments from Vicki Trim, NE Region Wildlife Biologist:**

Throughout the document, it indicates that the CNP (Cree Nation Partnership) will develop a moose harvest sustainability plan, and later it indicates it has been developed. Has this harvest plan been developed? It also references the responsibility of the province to regulate licensed hunter harvest levels and that moose harvest within the local study area will be recorded at access gates. Will community harvest levels throughout the regional study area be monitored through ATK monitoring and identified in the moose harvest sustainability plan? It is understood that there are sensitivities around recording community harvest levels but without a good understanding of harvest levels from all resource users, it is difficult to ensure population persistence within the northern Resource Management Areas. What exactly is meant by "ATK monitoring?"

**Pg 8-129**

The first paragraph describes Pen Island caribou migrating from northern Ontario to the area south of the Nelson River. Just for clarification, Pen Island caribou inhabit various areas, depending on the individual. Some caribou may not ever migrate into Ontario, and may reside solely in Manitoba.

**Pg 8-133**

The first paragraph indicates that population declines have been detected for both barrenground and coastal caribou herds in Manitoba. No declines have been determined for Pen Island or Cape Churchill coastal caribou herds. Coastal minimum population estimate surveys were conducted for Pen Island caribou in the summers of 2008 & 2009. Survey results indicated a reduction in summer range use along the Hudson Bay coast but did not confirm any reduction in population decline. More recent surveys indicate that a population decrease has not occurred but this is being investigated further. Results of the most recent Qamanirjuaq barrenground caribou population surveys were 495,665 in 1994 and 348,661 in 2008. Although this may signal a slight population decline, the standard errors of these consecutive survey estimates overlap and the potential decline cannot be statistically validated. When quoting these estimates, they should be referenced accordingly.

**Table 8-4, Pg 8-23 & 8-24**

The tables indicate a wide range of variables to be monitored in relation to caribou and moose, some of which are typically determined through collaring programs. The Fox Lake, York Factory and Split Lake Resource Management Boards, in coordination with Conservation and Water Stewardship, initiated a multi-year GPS collaring and genetics program in January 2010 for Pen Island and Cape Churchill caribou. This project is ongoing and currently in its third year. Without more detail, it is difficult to comment at this stage on monitoring programs that will eventually be proposed, but it is understood that these details will be described in the Environmental Protection Plan and Monitoring Plans soon to follow.

