

7. North and South Access Roads to Keeyask

The North Access Road, a 25km two-lane gravel road that will run from the north shore of Gull Rapids to PR 280 (intersecting at km 174 of PR 280), is presently under construction as part of the Keeyask Infrastructure Project. A security gatehouse, which will be manned 24 hours a day, will be located at the intersection of the North Access Road and PR 280.

Source: Keeyask Infrastructure Environmental Assessment, Chapter 2: Project Description, Section 2.2.2: Road Facilities, at pg. 2-6 .

Although the the North Access Road is being constructed as part of the Keeyask Infrastructure Project:

"The operation of the north access road ... are included as part of the Keeyask Generation Project for which regulatory approval is being sought."

Source: Keeyask Generation Project EIS: Supporting Volume Project Description., Chapter 2: Project Components, pg. 2-1.

This is because the Keeyask Generation Project also includes the construction of the 35 km South Access Road that will run from the Town of Gillam to the south shore of Gull Rapids. The North Access and South Access Roads will be connected by a permanent Nelson River crossing over the north dam, powerhouse, central dam, spillaway, and south dam of the proposed Keeyaks Generation Project.

Source: Keeyask Generation Project EIS: Supporting Volume Project Description, Chapter 2: Project Components, Section 2.4.6 pg. 2-23 to 2-24.

The fact that the North and South Access roads will connect and become a continuous access road from Gillam to PR 280 demonstrate that the Keeyask Infrastructure Project and the Keeyask Generation Project (in combination with the Transmission required by the proposed Keeyask Generating Station) are in fact a single project. The three "separate projects" cannot, and should not, be assessed separately.

Manitoba Hydro has been saying that these new roads will improve travel access for local residents, but it is not clear if a gatehouse will be installed on the North Access Road, and how or if access will be allowed.

It is also not clear, who will pay to maintain the road. Will it be maintained solely for the use of Manitoba Hydro, and thus the costs will be born by Manitoba Hydro? Will the public be able to access the road, and as such the costs of managing the road, once completed, will be fall on Manitoba Infrastructure and Transportation? Or, similar to building and upgrading PR 280, do Manitoba Infrastructure and Transportation and Manitoba Hydro intend to share the costs and responsibilities of managing the access roads? None of the answers are evident in the executive summary of the EIS. No public

materials are available regarding the permits, and licensng of these roads. We assume licenses are required for vehicles to be able to use their insurance, should the need arise.

Recommendation: CEAA request clear inforamtion about both access roads, bridge crossings, and any other roads, with all roads being described clearly together.

8. Valued Environmental Components

It would be helpful if there was a more simple and easily understood list of Valued Environmental Components (VECs).

In terms of VECs for the Transmission portion of the project, we appreciate that *Appendix C: Valued Environmental Components* of the *Keeyask Transmission Project Environmental Assessment Report* (EAR) providea a fairly easy to understand list of VECs.

Appendix C, however, should have been included in the Keeyask Generation Project Environmental Effects Summary.

We recognize that there is an appendix to the generation section of the *Keeyask Generation Project Enviornmental Effects Summary* (pp. 44-59) with a chart that lists potential effects on VECs, mitigation/enhancement, and residula effects. However it is not clear that this chart perfectly matches with VECs outlined in Chapter 6 of the *Keeyask Environmental Impact Statement: Response to EIS Guidelines*. Moreover, in reviewing Chapter 6 it was difficult to easily discern what the VECs were.

Recommendation: Peguis First nation recommends that a simple, easily understood, all-in list of the VECs for the Generation, Transmission, and Infrastructure components of the Keeyask project be provided.

Based on our review we provide the following example. It was only with great efforts and several reviews of the *Keeyask Generation Project Environmental Effects Summary* and pertinenet sections of the *Keeyask Generation EIS* and *Keeyask Transmission EAR* we were able to draft this list. This list below does not include the VECs for the *Keeyask Infrastructure Project*, which should also be added. Public reviewers should not have to go to these efforts to make sense of the VECs.

Additionally we should note that although we have listed each VEC we were able to identify, given resource constraints we have not responded to each VEC identified below. It is apparent that traditional ecological knowledge and aboriginal traditional knowledge were not used in selection of the VECs.

- I. GENERATION VECs
 - A. AQUATIC
 - 5 Auquatic
 - 1) Water Quality

- 2) Lake whitefish
- 3) Northern pike (jackfish)
- 4) Walleye (pickerel)
- 5) Lake sturgeon

B. TERRESTRIAL

-13 Terrestrial, plus 9 supporting topics (see: Table 6-6 at p. 6-81)

- Terrestrial habitat
- Fire regime
- 1) Ecosystem Diversity
- 2) Intactness
- 3) Wetland function
- 4) Priority plants
 - Invasive plants
 - Priority amphibians
- 5) Canada Goose
- 6) Mallard
- 7) Bald-eagle
- 8) Olive-sided flycatcher
- 9) Common nighthawk
- 10) Rusty blackbird
 - Other priority birds
- 11) Caribou
- 12) Moose
- 13) Beaver
 - Other priority mammals
 - Mercury in wildlife

C. SOCIO-ECONOMIC

Economy (VECs)

- 1) Employment and training
- 2) Business opportunities
- 3) Income
- 4) Cost of living
- 5) Resource economy

Population, Infrastructure and Services (topics and VECs)

- Population
- 1) Housing
- 2) Infrastructure and services
- 3) Transportation infrastructure
- 4) Land

Personal, Family and Community Life (VECs)

- 1) Community governance
- 2) Goals and plans
- 3) Community health
- 4) Mercury and health
- 5) Public safety and worker interaction
- 6) Travel, access, and safety
- 7) Culture and spirituality
- 8) Aesthetics (the way the landscape looks)

II. TRANSMISSION VECs

Physical Environment

- 1) Atmosphere

- 2) Physiography
 - 3) Soils
 - 4) Surface Water
 - 5) Groundwater
- Aquatics Environment**
- 1) Fish habitat
- Terrestrial Environment**
- 1) Fragmentation
 - 2) Ecosystem Diversity
 - 3) Priority plants
- Wildlife**
- 1) Invertebrates, Amphibians and Reptiles
 - 2) Birds (particulary Raptors; also not VECs but considered Common Nighthawk, olive-sides flycatcher, and rusty blackbird)
 - 3) Mammals (Moose, Caribou, and Beaver; also not VECs but considered gray wolf, red fox, black bear, American marten)
- Socio-economic Environment**
- 1) Land and Resource Use
 - 2) Population, Infrastructure and Services
 - 3) Economy
 - 4) Personal, Family and Community Life
 - 5) All heritage sites protected by Manitoba Heritage Resources Act

It is problematic that the chart provided in the appendix to the generation section of the *Keeyask Generation Project Environmental Effects Summary* often combines several species into a single VEC. For example: pickerel, jackfish, and lake whitefish are all lumped together as a single VEC; as are Canada goose, mallard, olive-sides fly-catcher, common nighthawk, and rusty blackbird. Combining these multiple species into a single VEC is not only confusing for the reader, it also undermines the value of the analysis. Different species have different reproduction rates, differing sensitivities to differing impacts, etc. In short, what may be of concern for one fish or birds species may not be of concern for the next.

Unfortunately, because of the combining of VECs in the *Keeyask Generation Project Environmental Effects Summary* we have responded to the VECs below as they are laid out there (i.e. combined several species as a single VEC), as it is difficult to disentangle Manitoba Hydro's convoluted review.

Recommendation: Peguis First Nation recommends against combining several species or elements together as a single VEC.

Recommendation: Peguis First Nation recommends clarity regarding where Manitoba Hydro used ATK or / and TEK in its analysis for VECs, and specific species.

The way Manitoba Hydro determined the regulatory significance of impacts is also problematic (see: Figure 5-1 *Keeyask Generation Project EIS: Response to EIS Guidelines*, pg. 5-12). If the magnitude of the impact is considered small then the impact in question will never have regulatory significance. If impacts are determined to have a small geographic extent, then these impacts only have regulatory significance if they are

both large in magnitude and long-term in duration. Self assessment means the proponent can choose size and boundaries of the study area and project area. The proponent can also choose VECs. For Keeyask there is acknowledgement of significant environmental effects, that may not be able to be mitigated. The utility is indicating that its First Nation proponents have accepted these significant effects. Except having First Nation partners does not mean those First Nations are the only First Nations affected by the project.

The net result of the regulatory significance matrix outlined in Figure 5-1 *Keeyask Generation Project EIS: Response to EIS Guidelines* is to provide multiple avenues for Manitoba Hydro to determine that impacts have no regulatory significance. There is no clear standard for determining what is long-term vs. short-term or what is a small magnitude vs. large magnitude. This allows Manitoba Hydro to determine that impacts are short-term, limited in geography, or magnitude. In this way it is easy to determine that there will be no significant residual effects on any VEC. Accordingly, numerous unrealistic claims about the long-term impacts and regulatory significance of serious ecological issues are made.

Recommendation: CEAA determine how Manitoba Hydr selected VECs?

Recommendation: CEAA provide Manitoba Hydro with advice on how to determine long-term vs. short term, and small-magnitude vs. large-magnitude.

Recommendation: That CEAA thoroughly review Manitoba Hydro's determination of the existence or non-existence of residual adverse effects.

Water Quality (see: Keeyask Generation Project Environmental Effects Summary, pg. 44)

The *Keeyask Generation Project Environmental Effects Summary* and the various volumes of the *Keeyask EIS* materials are quite clear that construction of the Keeyask Generation will result in the discharge of effluents, leading to an increase in suspended solids, nutrients, metals and pH in waterways connected to the project. However it is claimed that once operational the increases will be only "short-term (10-15 years)" in nature. Firstly, it is questionable if increased suspended solids, nutrients, metals and pH will in fact decline within 10-15 years. Secondly, very few people would determine that 10-15 years is "short-term."

Recommendation: That CEAA thoroughyl investigate claims that mercury and other effluent levels will return to pre-project levels withing 30 years.

Pickerel/ Jackfish/ Lake Whitefish (see: Keeyask Generation Project Environmental Effects Summary, pg. 45)

CEAA *Keeyask Generation Project Environmental Effects Summary* states that 'although there will be short-term effects to fish during the construction phase, stocking will replace

long-term fish population declines.' "Over time, productive habitat for fish species such as jackfish, pickerel and lake whitefish will develop in the reservoir. ... Overall, in the long term the numbers of pickerel, jackfish and lake whitefish are expected to remain similar to the present day environment in the Keeyask reservoir and Stephens Lake, though there may be short term declines (see: pp. 24-25).

Manitoba Hydro assumptions that utilizing spawning shoals as a mitigatory measure will result in fish populations remaining stable over the long-term are extremely optimistic.

Recommendation: Comparison to effects on lake fish in relation to other generation stations, and rate of recovery in the short, medium, and long term should be required as part of the EIS for this project.

Lake Sturgeon (see: Keeyask Generation Project Environmental Effects Summary, pg. 46)

Lake Sturgeon are important to First Nations in Manitoba, including Peguis First Nation, as they are not only an important food source, known as "buffalo of the water" they are also central to First Nation culture and identity.

It is well documented that past hydro-projects have had devastating effects on Lake Sturgeon. Construction of dams for hydroelectric and flood mitigation purposes impacts lake sturgeon populations due to habitat loss and fragmentation, altered flow regimes, and increased mortality from entrainment in turbines.

The *Keeyask Generation Project Environmental Effects Summary* (pg. 12) claims that:

"...turbines are being designed to minimize potential for injury and mortality to fish ... over 90 percent of fish passing through the generation station are expected to survive."

Firstly, a 90% survival rate has little meaning unless it is put in the context of how this 90% survival rating compares with other turbine designs; moreover on the inverse this means a 10% mortality rate. It appears that Manitoba Hydro does not yet have any experience with the type of turbine they are referring to. The proponent needs to provide clarity as to turbines in its existing generation stations versus the claim above.

Lake Sturgeon are particularly sensitive to habitat disturbance. Hydroelectric developments, in combination with low reproductive rates for Lake Sturgeon, historically are the primary reasons why the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) has identified five of the six different populations of Lake Sturgeon within Manitoba as "endangered" (meaning the species is facing imminent extirpation or extinction).

Lake Sturgeon have a low reproductive rate, only spawning every four to five years. A 10% loss of this endangered species is likely to have a significant effect. Cumulative impact should another generation station be built on the river will need analysis.

other dams, such as the more cost-effective proposed Conawapa generation facility first, and holding off on building Keeyask.

A Needs For And Alternatives To (NFAAT) analysis needs to be one of the first steps to justify any decision to commence, or not commence, with any given project. Unfortunately it would appear that it is one of the last steps in the review process.

Manitoba Innovation, Energy and Mines Minister, Dave Chomiak, announced that Manitoba's Public Utilities Board (PUB) would be conducting a Needs For And Alterantives To (NFAAT) review of:

"...upcoming Manitoba Hydro projects including the Keeyask and Conawapa generating stations and their associated transmission facilities."

Source: Government of Manitoba, November 16, 2012 News Release:
"Manitoba Asks Independent Board To Review Major Hydro Capital Projects"
<online: <http://news.gov.mb.ca/news/index.html?archive=2012-11-01&item=15563> >

However, the terms of reference for this review have still not been issued, creating a lack of clarity about the review, and its openness and timelines, etc.

There are also several problems in the way it appears the review will be conducted.

Firstly, the review will not include Bipole III, even though Bipole III is clearly a transmission project is associated with Keeyask and Conawapa.

Secondly, Manitoba's PUB expertise is economic costs, not environmental impacts. Thus the PUB review is likely to consider cheaper alternatives, like natural gas, without considering the environmental impacts of such alterantives. Accordingly a PUB NFAAT review may not meet the criterion of an CEAA NFAAT review as laid out in the *Canadian Environmental Assessment Act* (pre-2012 changes) and *CEAA EIS Guidelines for the Keeyask Generation Project*.

Recommendation: Peguis First Nation recommends that CEAA conduct its own NFAAT review for inclusion in the CSR rather than relying on Manitoba's NFAAT review.

10. Environmental Study Reports

Appendix 6A: Environmental Study Report List found in the *Keeyask Generation Project EIS: Response to EIS Guidelines* provides a list of Environmental Study Reports that have either been completed, or which are in progress. Firstly, we question why Manitoba Hydro and its partnership entitites are applying for regulatory approvals before completing all environmental studies. Secondly, the list provides no indication of where someone could locate these supporting studies, either online or within the EIS materials.

water ecology similar to before the flooding. This means emissions will continue for at least thirty years. Emissions from the effects of the spillway should be reported also.

9. Needs For And Alterantives To

As stated by Campbell, J. in *Alberta Wilderness Assn. v. Cardinal River Coals Ltd.*:

...simply identifying potential "alternative means" without discussing their comparative environmental effects fails to provide any useful information to decision makers, and fails to meet the requirements of paragraph 16(2)(b) of [Canadian Environmental Assessment Act] CEAA.

Source: Federal Court of Canada, April 8, 1999 <online:
<http://reports.fja.gc.ca/eng/1999/1999fc24281.html>>.

The final CEAA *EIS Guidelines for the Keeyask Generation Project* were quite clear in this regard:

5.2.1 Alternatives to the Project

The EIS must include an analysis of alternatives to the Project which describe functionally different ways to meet the project need and achieve the project purpose...

... When assessing project alternatives, the proponent is encouraged to take into account the relations and interactions among various components of the ecosystem, including affected Aboriginal and other communities, and any adverse impacts on current lands and resources for traditional purposes by Aboriginal peoples, including but not limited to hunting, fishing, trapping and gathering. ...

5.2.2 Alternative Means of Carrying out the Project

The EIS must identify and describe any alternative means of carrying out the Project... The EIS will provide a parameter-based multiple accounts analysis of the alterantive means described, including a comparison of the likely environmental effects of each alternative to those of the Project.

Source: CEAA final *EIS Guidelines for the Keeyask Generation Project*, March 2012, pp. 7-8.

Unfortunately, Manitoba Hydro *have only considered alternative means* of carrying out the Keeyask project, but they *have put minimal effort, if any at all, into considering alternatives to the Keeyask project.*

Recommendation: Peguis First Nation suggests that Manitoba Hydro be required to consider alternatives beyond alternative means (potential redesign options for the proposed generation station). A thorough review requires considering the possibility of meeting future electricity demand through enhanced conservation measures, alternative forms of energy production such wind or solar generated electricity, and even building

Caribou (see: Keeyask Generation Project Environmental Effects Summary, pg. 49)

The *Keeyask Generation Project Environmental Effects Summary* analyses all sub-species of Caribou. However, there are important differences between barren ground, coastal, woodland, and summer resident caribou. It would appear that Manitoba Hydro and their are not recognizing these differences but lumping them all together, rather than considering each sub species separately as they should.

The *Keeyask Generation Project Environmental Effects Summary* also appears to be making contradictory statements. Claiming in one part, that woodland caribou ranges do not include the Keeyask area (see pg. 26); while also admitting that the reservoir and flooding caused by the project will result in the loss of important island calving habitat, increased predation, harvest and vehicle mortality, and other disturbances.

Recommendation: Independent experts need to assess the 'caribou' assumptions in the CEAA document, and in the EIS, providing CEAA with an assessment. Manitoba Conservation may need to request a supplemental filing in order to obtain and include more accurate caribou information. Manitoba Hydro has a responsibility to be clear about which caribou are listed under SARA, by COSEWIC, and under MESA – then indicating which of these caribou are present in the study area, and which other sub species are present in the project area.

Flooding

"The flooded area is largely composed of low-lying peatlands that will disintegrate, resulting in floating peat and breakdown of peat shorelines. As the peat shorelines break down, additional underlying mineral materials will be exposed and will erode over time."

Source: *Keeyask Generation Project Environmental Effects Summary*, pg 23.

This will result in higher GHG emissions than if cleared forested area flooded, yet they simply state:

"Project will reduce future greenhouse gas emissions by displacing the need for electricity produced by coal or gas thermal generation facilities."

Source: *Keeyask Generation Project Environmental Effects Summary*, pg 21.

Manitoba Hydro needs to be clear about GHG emissions from all aspects of the planning, building, and operation of the Keeyask Generation Station and the Keeyask Transmission lines. As to the quote above about flooding and emissions, Manitoba Hydro needs to move forward into present day analysis and include emissions from the spillway and reservoir during planning, construction and operations.

Elsewhere there is a reference from the proponent of up to 30 years before the reservoir has recovered sufficiently, according to the proponent, to have habitat and species and

Despite these well known facts, Manitoba Hydro claims that construction of spawning habitat to replaced lost spawning habitat, and restocking programs will result in increased Lake Sturgeon populations. This incredulus claim deserves much further scrutiny.

Recommendation: Peguis First Nation recommends that Manitoba Hydro be required to provide conclusive evidence to substantiate their claim that Lake Sturgeon populations will increase as a result of the construction the Keeyask project, and that the turbine they intend to use will assist in achieving this claim.

Recommendation: Manitoba Hydro be required to establish baseline data regarding Lake Sturgeon before any construction activities or reservoir activites.

Ecosystem Diversity/ Intactness/ Wetland Function/ Priority Plants (see: Keeyask Generation Project Environmental Effects Summary, pg. 47)

It is unfortunate that these disparate VECs were analyzed together (please see our recommendation above).

It is also unfortunate that despite it being quite clear that habitat will be lost, and landscapes altered that none of these effects were considered to have regulatory significance as these losses of landscapes were considered "regionally acceptable." Regionally acceptable may mean there are other lakes not being turned into reservoirs through flooding.

Canada Goose/ Mallard/ Bald Eagle/ Olive-sided Flycatcher/ Common Nighthawk/ Rusty Blackbird (see: Keeyask Generation Project Environmental Effects Summary, pg. 48)

Despite recognizing that there will be adverse effects to bird species, Manitoba Hydro, determine that this will be "regionally acceptable." Firstly, it needs to be acknowleged that most of these bird species, such as the Canada Goose, have a large habitat range due to their annual migration patterns. Secondly, species such as Canada Goose are an important country food source for many First Nations, and other species such as Bald Eagles are particualrly important to aboriginal culture. It is questionable then how these adverse effects on birds can be "regionally acceptable." Manitoba Hydro needs to explain and define ' regionally acceptable.'

Recommendation CEAA should investigate the vericity of these claims, regarding regional acceptability.

Recommendation: Manitoba Hydro to provide an ecologically sound definition of "regionally acceptability."

Recommendation: Peguis First Nation recommends that licensing not proceed until all environmental studies are completed and accessible. CEAA needs to make sure Manitoba Hydro makes both completed and to be completed reports available.

Recommendation: Peguis First Nation recommends full transparency and accessibility for all environmental studies be provided. This could be accomplished relatively simply by Manitoba Hydro. It would simply require posting the various studies cited online, or providing a DVD/USB of all of these studies.

11. Climate Change

Manitoba Hydro use of a Life-Cycle Assessment (LCA) to estimate greenhouse gas (GHG) emissions is particularly problematic.

Firstly, as noted above, we cannot locate the LCA of GHG emission performed by the Pembina Institute, being GN-9.5.5 in *Appendix 6A: Environmental Study Report* (pg. 6A-5).

Accordingly we can only assess GHG assessment provided on the basis on the less than three pages of analysis, being pp. 6-191 to 6-194 of the *Keeyask Generation Project EIS: Response to EIS Guidelines*.

In determining the GHG emissions from reservoir creation and land-use changes, reliance is placed on the 2006 Intergovernmental Panel on Climate Change (IPCC) guidance. Based on this guidance it is assumed that GHG emissions will significantly reduce after ten-years. On the basis of newer research, the assumption that GHG emissions from reservoirs diminish after ten-years is facing further scrutiny.

A January 2012 study, *Hydropower Developments in Canada: Greenhouse Gas Emissions, Energy Outputs and Review of Environmental Impacts*, written by Ryan Cheng and Peter G. Lee for Global Forest Watch Canada relying on IPCC guidance calculations drastically underestimates GHG emissions.

By using the 2006 IPCC guidance the emissions from the Keeyask Generation Project calculated by the Pembina Institute may in fact be 14 to 26 times greater than expressed in the EIS.

Source: Global Forest Watch Canada <online:

http://www.globalforestwatch.ca/pubs/2011Forests/03Hydro/Hydro2_GHGs_Energy_Environment.pdf.

12. Cumulative Effects Analysis

The CEAA *EIS Guidelines for the Keeyask Generation Project* define cumulative environmental effects as:

“... environmental effects of a project, when considered in combination with the environmental effects of other past, present and reasonably foreseeable future projects or activities.”

Source: CEAA EIS Guidelines for the Keeyask Generation Project, pg. 30.

The cumulative impact of numerous Manitoba Hydro (past, current, or future) projects is of particular concern to Peguis First Nation.

As noted above, the entirety of the hydroelectric system is predicated on the LWR and CRD. The impacts from these projects are far reaching. This includes impacts on the North and South basins of Lake Winnipeg. This then also concerns Peguis First Nation, whose traditional territory includes the Interlake, and whose main community site is just West of Lake Winnipeg.

As outlined above, the numerous existing, planned, and on-going Manitoba Hydro projects will result in new transmission projects in Peguis First Nation's Traditional Territory and Treaty Land Entitlement notice areas.

It is unclear why Manitoba Hydro is in such a rush to develop \$20 billion in new hydroelectric developments, when pausing or slowing down the rate of development could help to reduce cumulative impacts.

Recommendation: CEAA make sure Manitoba Hydro complete its effects assessment by including effects of other past, present, and future projects.

For instance, CEEA *Keeyask Generation Project Environmental Effects Summary Document* acknowledges:

“...there is potential for a cumulative adverse effect to water quality for one to three months per year over two years if construction of the Project and Conawapa occur at the same time.”

Source: CEAA EIS Guidelines for the Keeyask Generation Project, pg. 36.

This begs the question: why does Manitoba Hydro currently plan to develop Conawapa and Keeyask at the same time if the result would be increased cumulative effects? Simply slowing down the speed of development therefore could help to reduce overall cumulative effects.

Similarly, the rationale behind licensing Keeyask Infrastructure ahead of Keeyask Transmission and Keeyask Generation, was to ensure maximum opportunity for local First Nations to derive employment benefits from the infrastructure work. However, why not simply stagger the planned development. In other words, why not license all

component of the Keeyask Project (Infrastructure, Transmission, and Generation) together and simply slow down the rate of development to ensure maximum job benefits flow to local first nations?

The haste at which It should be noted that Manitoba First Nation members have the right to hunt on Crown lands and waters in our province.

Hydro is pursuing its favoured developments plans is not only unnecessary, but it is also enhancing the cumulative impacts from these various projects.

It should also be noted that even Manitoba Hydro acknowledge

“... the valued environmental component approach ... does not capture the broader concept of the Cree worldview, which places equal importance on all components of the environment, as all parts are important and interrelated. Further, a cumulative effects perspective is inherent to the Cree worldview, which considers the effects of the Project in the context of everything that has happened in the past and everything that is anticipated to happen in the future.”

Source: CEAA *Keeyask Generation Project Environmental Effects Summary Document*, pg. 35

The worldview of Peguis First Nation is also one that places importance on the interrelations of all components of the Environment.

13. Decommissioning

Consideration of the eventual need to decommission the project is explicitly required by the *Canadian Environmental Assessment Act* (pre-2012 changes).

Yet Manitoba Hydro, provide no discussion in regards to the eventual decommissioning of the Keeyask Generation Station. This is based on the argument that hydroelectric generating stations are built for one hundred years or more. Accordingly Manitoba Hydro only consider the decommissioning of temporary facilities, such as the Keeyask work camp.

Manitoba Hydro are clearly in violation of the *Canadian Environmental Assessment Act* (pre-2012 changes) and the *CEAA EIS Guidelines for the Keeyask Generation Project*.

“12.1.1 Decommissioning and Reclamation Plan

The EIS shall provide a preliminary outline of a decommissioning and reclamation plan for any components associated with the Project. This shall include ownership, transfer and control of the different project components as well as the responsibility for monitoring and maintaining the integrity of some of the structures. ... A conceptual discussion on how decommissioning may occur shall be provided for permanent facilities (emphasis added)."

Source: CEAA EIS Guidelines for the Keeyask Generation Project, pg. 33.

Numerous examples of decommissioning hydroelectric generating stations, with restoration of local ecosystems exist. Determining how the Keeyask Generation station would be decommissioned, if the need ever to arose, only helps to better the planning process.

Recommendation: Peguis First Nation recommends that a decommissioning plan be submitted for all components of the Keeyask project, including permanent components of the project.

14. Effect of The Environment On The Project & Accidents & Malfunctions

Hydroelectric dams have of course been known to fail from time to time. The *Canadian Environmental Assessment Act* (pre-2012 changes) also requires Manitoba Hydro to consider the risks from accidents or malfunctions. In our review we were unable to find anything that contemplated a failure of the reservoir dykes of the Keeyask Generation station, nor any other component for that matter.

Recommendation: Peguis First Nation recommends that CEAA require Manitoba Hydro to provide a thorough analysis of the risks associated with project accidents or malfunctions. Furthermore Peguis First Nation recommends that CEAA ensure that consideration is given to the risks of accidents or malfunction from the Keeyask Project in its CSR; and that Manitoba Hydro submit a decommissioning plan for Keeyask.

15. Hydropower Sustainability

Manitoba Hydro is a signatory and partner to the International Hydropower Association's (IHA's) *Hydropower Sustainability Assessment Protocol* (HSAP).

HSAP sets out four assessment tools for reviewing a proposed hydropower project at different stages of development: 1) early stages; 2) preparation; 3) implementation; 4) operation. Based upon the protocol hydropower projects are given a rank from 1-5 (with 5 being the best) in terms of sustainability.

Source: International Hydropower Association, *Hydropower Sustainability Assessment Protocol* <online: <http://www.hydrosustainability.org/Document-Library.aspx>>.

We assume Manitoba Hydro will adhere to the initiatives it supports. It is rather strange then to find no mention of the IHA HSAP in the CEAA *Keeyask Generation Project Environmental Effects Summary Document*.

Recommendation: Peguis First Nation recommends that CEAA ask Manitoba Hydro to clearly state how the Keeyask Project will adhere to the IHA HSAP and what sustainability rank Manitoba Hydro aim to achieve for the Keyask project.

16. Conclusion

Peguis First Nation considers its Nation, rights and its citizens to be impacted by the proposed Keeyask Generation Project, the ongoing Keeyask Infrastructure Project, and the Keeyask Transmission Project. Filing environmental statements in stages, and licensing of parts of a connected project does not change the impact of the whole connected project on our First Nation.

The Keeyask project does not stand alone. Keeyask is only viable on the basis of past hydro-electric development that continue to have adverse environmental and socio-economic effects. Manitoba's entire northern hydro electric system is built upon and dependent on Churchill River Diversion (CRD) and Lake Winnipeg Regulation (LWR).

The construction of Keeyask will require considerable upgrades to Manitoba's electric transmission system. These new transmission lines and both upgraded and new converter stations all exist in and criss cross the Traditional Territory and Treaty Land Entitlement notice areas of Peguis First Nation.

New Converter stations, and upgrades to older converter stations (Radisson and Dorsey), all affect Peguis First Nation. Dorsey Converter Station built in 1968 and the Riel Converter Convereter Station, presently under construction, are in the heart of Peguis' Traditional Territory and Treaty Land Entitlements Notice Area.

Peguis First Nation also holds lands on Lake Winnipeg and much of the Lake Shoreline is in our traditional territory and/or our TLE notice area. Peguis First Nation members have the right to hunt on Crown lands and waters in our province.

As a public utility Manitoba Hydro must be aware that our TLE notice area is in place so that Peguis First Nation can enhance economic opportunities, locate those opportunities, and enjoy economic benefits and employment from our TLE notice area.

These omissions by Manitoba Hydro directly affect our ability to enjoy our Aboriginal rights.

Appendix: Acronyms Used

ac	= Alternating Current
ATCID	= Available Transfer Capability Implementation
CEAA	= Canadian Environmental Assessment Agency
CEC	= Clean Environment Commission
COSEWIC	= Committee On The Status of Endangered Wildlife in Canada
CRD	= Churchill River Diversion
CSR	= Comprehensive Study Report
DVD	= Digital Video Disc
EAR	= Environmental Assessment Report
EIS	= Environmental Impact Statement
GHG	= Greenhouse Gas
HSAP	= Hydropower Sustainability Assessment Protocol
HVDC	= high-voltage direct current
IHA	= International Hydropower Association
IPCC	= Intergovernmental Panel on Climate Change (IPCC)
Km	= Kilometre
kV	= Kilovolts
LCA	= Life Cycle Assessment
LWR	= Lake Winnipeg Regulation
MISO	= Midwest Independent System Operator
MIT	= Manitoba Infrastructure and Transportation
MW	= Megawatts
NFAAT	= Needs For And Alternatives To
PR 280	= Provincial Road 280
PUB	= Public Utilities Board
TLE	= Treaty Land Entitlement
USB	= Universal Serial Bus
VEC	= Valued Environmental Components

