Manitoba Clean Environment Commission - Keeyask Generation Project

Final Argument Kaweechiwasihk Kay-tay-ti-suk, Inc.

January 9, 2014 (Oral Portion) – Hotel Fort Garry, Winnipeg, Manitoba January 13, 2014 (Written Portion)

The closing submissions and recommendations of the Kaweechiwasihk Kay-tay-tisuk, Inc. can be summarized as:

1. Introduction, Overview and Core Interests

2. a) ATK must be treated as "expert" knowledge and with "equal value and importance" to Western Scientific Knowledge;

b) ATK must be considered FIRST in order to guide the technical science work. In this way, Western Science will be coordinated and harmonized with ATK in the design, implementation and monitoring of the Keeyask project.

c) Western Science must be coordinated, harmonized and integrated with ATK to ensure that ATK is not approached as an "add on" to the design, implementation and monitoring of the Keeyask project or as an "add on" to the Environmental Protection Program.

d) That monitoring activities be carried out in accordance with the Moons and Seasons of the Cree calendar, for example, as depicted in Exhibit KK-019.

3. a) That the Environmental Protection Program for the Keeyask project MUST include the completed community-specific ATK Plans AND the direct incorporation of ATK into the Environmental Protection Program. These ATK plans MUST be part of or attached to the project Licences and so form part of the Licence conditions.

b) Kaweechiwasihk Kay-tay-a-ti-suk endorses and adopts the Nisichawayasihk Aski Kitche O'nanakachechikiwuk (NAKO) process as being applicable to the Keeyask Project. c) Kaweechiwasihk Kay-tay-a-ti-suk recommends that the Commission make an interim recommendation that a process similar to the Nisichawayasihk Aski Kitche O'nanakachechikiwuk (NAKO) process be established <u>immediately</u> for the Keeyask Project in order to incorporate the ATK (portions) <u>directly into</u> each element of the Environmental Protection Program for the Keeyask Project;

4. a) Kaweechiwasihk Kay-tay-a-ti-suk recommends that the Commission recommend that the continuity of the river must be maintained and "what can be done, must be done" to mitigate and reconcile past and future blockages in the river.

b) In order to ensure progress toward achieving Kwayaskonikiwin – meaning a reconciliation of impacts and a restoration of balance - Kaweechiwasihk Kay-taya-ti-suk recommends that the Commission recommend a process by which ATK and WSK will work together to identify, design and implement fish passage and fish passage enhancements and enhancements to fish habitat, including:

- Keeyask Fish Passage (as required by Fisheries and Oceans Canada in the project design);
- Modification of flows at the Keeyask project site through both the spillway and powerhouse to maintain the ecologically-based flow regimes needed for spawning, egg incubation, juvenile rearing, summer feeding and overwintering and in particular maintaining water flows during the spawning periods for Namayo (Lake Sturgeon) and other fish species;
- Kelsey Fish Passage (built at the site of the original Kelsey rapids or *mispawistik*);
- Kelsey Spawning Site (spillway operation and enhancements to create spawning habitat for Namayo (Lake Sturgeon) and other fish species);
- Kelsey discharge deflection (addition of in-stream structure to deflect flows downstream);
- Modification of flows at the Kelsey project site through both the spillway and powerhouse to maintain the ecologically-based flow regimes needed for spawning, egg incubation, juvenile rearing, summer feeding and overwintering and in particular maintaining water flows during the spawning period for Namayo (Lake Sturgeon) and other fish species.

5. a) Kaweechiwasihk Kay-tay-a-ti-suk recommends that the Commission make an interim recommendation to initiate a process by which ATK and WSK can work together to recognize and protect Noschimik Atikok, being the group or herd of boreal woodland caribou which has long been recognized by ATK - and more recently by the WSK in the Bipole III and Keeyask hearings - as being resident in the general area of the Keeyask Project.

Kaweechiwasihk b) Specifically, the Kav-tav-a-ti-suk further recommends that the Commission acknowledge that there is sufficient ATK evidence partially supported by recent WSK evidence to suggest that the of caribou referred to as the Noschimik Atikok by the Kaweechiwasihk Kay-tay-ati-suk exists as a distinct resident caribou population occupying a range that includes the Keeyask area and that further collaborative work involving Kaweechiwasihk Kay-tay-a-ti-suk, Manitoba Conservation and Water Stewardship, the Canadian Wildlife Service, the Partnership, Manitoba Hydro and the holders of Aboriginal Traditional Knowledge from of other First Nations is needed to recognize and protect Noschimik Atikok, including regarding range, population estimates and calving areas, and that such a collaborative ATK-WSK process be included as a specific condition of any Environment Act Licence issued for the Project.

c) Kaweechiwasihk Kay-tay-a-ti-suk also recommend that the Commission make an interim recommendation to immediately establish such a project for ATK and WSK to work together to recognize and protect Noschimik Atikok, including as a possible outcome of this initiative, the recognition and inclusion of the Noschimik Atikok herd in Manitoba's *Conservation and Recovery Strategy for Boreal Woodland Caribou (Rangifer tarandus caribou)* and for possible inclusion in an updated *Action Plan for Boreal Woodland Caribou Ranges in Manitoba*.

6. Further Comments, Recommendations and Conclusions

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Kaweechiwasihk Kay-tay-a-ti-suk Inc. Introduction, Overview and Core Interests:

- 1.1 Kaweechiwasihk Kay-tay-a-ti-suk means "the Elders of York Landing" in the Cree Language.
- 1.2 Kaweechiwasihk Kay-tay-a-ti-suk, Inc. is a not-for-profit organization incorporated under the laws of Manitoba. While the Kaweechiwasihk Kay-tay-a-ti-suk have been recognized in our ancestral lands since time immemorial, the Kaweechiwasihk Kay-tay-a-ti-suk, Inc. has incorporated under the laws of Manitoba in order to better engage with others outside of Kaweechiwasihk, including for the hearings before the Clean Environment Commission regarding the Keeyask Generation Project.

2.0 Kaweechiwasihk Kay-tay-a-ti-suk Inc. Core Interests:

We, the KAWEECHIWASIHK KAY-TAY-A-TI-SUK, believe that everything on ASKI is interconnected and alive. We believe that everything and every living thing has a purpose on ASKI.

We do not take from ASKI without giving in return.

When one part is changed or destroyed or damaged, ASKI is off balance.

We call this OCHENEWIN. This means that what you do to ASKI will affect you and your family and your extended family and your community and your Nation and the children yet unborn. In this way, every person has an obligation to care for ASKI and to care for everything on ASKI.

We believe that every INNINU and all INNINUWUK have an obligation to carry out their role as O-KA-NA-WAY-NI-CHI-KAY-WAK.

We believe that every INNINU and all INNINUWUK have an obligation to do everything possible to achieve KWAYASKONIKIWIN, meaning to restore balance. We must take every step we can to achieve KWAYASKONIKIN whenever ASKI is changed or destroyed or damaged or out of balance.

We, as OKANAWAYNICHIKAYWUK, have a responsibility to be the voices for everything on ASKI and to find ways to make things better.

We, as OKANAWAYNICHIKAYWUK, have to do everything we can to achieve KWAYASKONIKIWIN.

Where there is a disturbance and where ASKI is out of balance, the future of all INNINUWUK depends on achieving KWAYASKONIKIWIN.

Every project must begin by talking to Elders and holders of ATK, BEFORE, Western Sciencebased studies are started. The results of these preliminary discussions with holders of ATK should be set out in an initial ATK report. In this way, Western Science will be coordinated and harmonized with ATK in the design, implementation and monitoring of the Keeyask project.

- 1.1 As an intervenor, the main interests of Kaweechiwasihk Kay-tay-a-ti-suk are:
 - a) How INNINEW KISKAYTOMOWIN Aboriginal Traditional Knowledge was and will be in future - considered, included and treated as "expert" knowledge and with equal value and importance by the Partnership and the regulators; and
 - b) How the differences in the world views and conclusions between
 Aboriginal Traditional Knowledge and Western Science and will be
 in future treated by the Partnership and the regulators in:
 - i) the project design, construction and operation;
 - ii) the EIS;
 - iii) the environmental protection plans;
 - iv) the environmental monitoring plans; and
 - v) the environmental and project management plans.
 - c) To ensure that everything that CAN be done WILL be done to achieve KWAYASKONIKIWIN.
 - d) To ensure that Western Science is be coordinated, harmonized and integrated with ATK to ensure that ATK is not approached as an "add on" to the design, implementation and monitoring of the Keeyask project or as an "add on" to the Environmental Protection Program.

"Treating Traditional Scientific Knowledge with Equal Value and Importance": Traditional Scientific Knowledge and the Keeyask Generation Project

Elements of the Commission's findings regarding the consideration of Aboriginal Traditional Knowledge for the Wuskwatim Generation Project are relevant to the Keeyask Generation Project. In particular, Part 1.6.1, Traditional Knowledge, of the September 22, 2005 *Report on Public Hearing for the Wuskwatim Generation and Transmission Projects of the Clean Environment Commission*, which states, at page 5:

In this report the Commission uses the terms Western Scientific Knowledge (WSK) and Traditional Scientific Knowledge (TSK) and accords them equal importance and value throughout the report.

The Kaweechiwasihk Kay-tay-ti-suk views Aboriginal Traditional Knowledge as including many of the similar elements identified by the Commission in its report on the Wuskwatim project. The Kaweechiwasihk Kay-tay-ti-suk views Aboriginal Traditional Knowledge as including:

- our language, practices, beliefs and identity as Inninuwk;
- our knowledge, observations and experiences of the waters, land, animals and environment held and shared between our families and Nations over many generations;
- our spiritual relationship to Aski and to each other as human beings;
- our Customary Laws which guide our obligations and duties as Inninuwuk to respect and protect Aski as the stewards of our ancestral lands; and
- our Customary Laws which require us seek to achieve Kwayaskonikiwin and to restore balance whenever we are responsible for changes or impacts to Aski or become aware of changes or impacts.

The differences in the world views and conclusions between Aboriginal Traditional Knowledge and Western Science-based analysis, including those which have been identified by the Partnership, must be – and ought to be in future - treated by the Partnership and by the regulators.

The Kaweechiwasihk Kay-tay-ti-suk recommends that the Commission recognize Traditional Scientific Knowledge as "expert" knowledge that is treated with at least equal an value and importance by the Partnership and regulators regarding:

- a) the project design, construction and operation;
- b) the EIS;
- c) the environmental protection plans;
- d) the environmental monitoring plans; and
- e) the environmental and project management plans.

The Recommendations of the Nisichawayasihk O'nanakachechikewuk Regarding Traditional Scientific Knowledge and the Wuskwatim Generation Project

Kaweechiwasihk Kay-tay-ti-suk is concerned that the community ATK-based monitoring plans are not presently available and were not available for review by the Commission, the intervenors or interested parties and community members.

The KHLP response to CEC Rd 1 KK-0007b states, in part:

37 (...)

As

38 such, monitoring will measure changes against current conditions and the expected 39 trends in such conditions without the Project. This monitoring will be undertaken 40 through both technical monitoring programs, as well as ATK monitoring programs 4t undertaken by each of the KCNs. To date, draft technical science monitoring plans have 42 been submitted to regulators; **work is still underway with each of the KCNs to develop 43 community-specific ATK monitoring plans.** [emphasis added]

Kaweechiwasihk Kay-tay-ti-suk is also concerned that the chart provided as part of the response to in KHLP-103 as a response to Question 33.2, Environment Protection and Monitoring, EPM Plan makes it difficult to see how ATK is a key part of the comprehensive long term monitoring program. That is, ATK appears to be an "add on" to certain elements of the Environmental Protection Program as distinct from being coordinated, harmonized and integrated throughout all aspects of the Environmental Protection Program. In addition, without the communitybased ATK plans available for review, there is little available information regarding the specifics of the key elements, components and mechanisms of the community-based ATK monitoring programs. Similarly, there appears to be no evidence that ATK in the EPM plan is considered important baseline information needed prior to developing a monitoring program (Vol. 27, p. 6275, lines 19-21).

Kaweechiwasihk Kay-tay-ti-suk 's CEC Rd 2 KK-0014 and the Commission's Question 40 of KHLP-103 raises the point of what if there are differences between the results of ATK and Western Science. The KHLP response as set out in KHLP-103 suggests that such differences will be addressed on a case by case basis. Kaweechiwasihk Kay-tay-ti-suk views the approach to determining the treatment of such differences between ATK and Western Science as being of central importance to the success of the coordination, harmonization and integration of Western Science with ATK. Similarly, Kaweechiwasihk Kay-tay-ti-suk also views the treatment of ATK with at least equal weight to that given Western Science as being essential to the success of any monitoring programs or the design of studies to resolve any such differences (Vol. 27, p. 6271, lines 1-8). As stated by Elder D'Arcy Linklater at the conclusion of his January 7, 2014 letter to the Commission Chair in rebuttal to the comments by the KHLP panel regarding the degree and success of the harmonization and integration of *Ethinesewin* and Western Science as part of the reporting of monitoring of the Wuskwatim project (Transcript 6517-6518), (to be identified as) Exhibit KK-031,

"It is essential that every effort be made to coordinate, harmonize and integrate Ethinesewin and Western Science throughout the planning, construction, operation and monitoring of hydroelectric projects. It is also essential to ensure that an effective bridge is built between the differing world views represented by Ethinesewin and Western Science. Achieving Kwayaskonikiwin (which means that the conduct of a person must be reconciled with Kihche'othasowewin (the Great Law of the Creator)) depends on our success!"

The KHLP response to CEC Rd 2 KK-0015 states, in part:

34 The Partnership has already committed to undertake both technical science and ATK 35 monitoring programs (see Chapter 8 of the Response to EIS Guidelines and the 36 introductory preface to the Environmental Protection Program). **It seems reasonable to** 37 **assume that regulators will expect the Partnership to honour the commitments made in** 38 **its EIS submission and that these would become part of the terms and conditions of the** 39 **Project licence** (unless there are particular exceptions). [emphasis added]

As the community-based ATK monitoring plans are expected to become part of the terms of the conditions of the Project licence, it is important that the ATK monitoring plans be considered together with the technical monitoring programs.

The Kaweechiwasihk Kay-tay-ti-suk adopts and endorses the presentation and submission by Elder D'Arcy Linklater, as set out in Exhibits KK-006 through KK-019 and KK-025 and as further reflected in Exhibits KK-026 to KK-030 as being relevant and applicable to the Keeyask Generation Project.

Kaweechiwasihk Kay-tay-ti-suk considers Exhibits KK-026 through KK-030 to be important and groundbreaking results of an effective approach to coordinate, harmonize and integrate INNINEW KISKAYTOMOWIN and Western Science throughout the design, planning, construction, operation and monitoring of hydroelectric projects.

The Customary Law principles and processes of importance to the Nisichawayasihk Aski Kitche O'nanakachechikiwuk have been incorporated directly into the Environmental Protection Plans for the Wuskwatim Generating Station, the Access Road, the Construction Camp and into the Heritage Resources Protection Plan.

Exhibit KK-026, being the Project licence for Wuskwatim, provides that the Wuskwatim Generating Station Environmental Protection Plan is attached to and so forms part of the terms and conditions Manitoba Environment Act Licence No. 2699, issued June 21, 2006. Exhibit KK-025, being the February 8, 2008 news release of the Canadian Electricity Association entitled, "Manitoba Hydro's Wuskwatim Project Wins CEA Environmental Stewardship Award", confirms the industry recognition for these achievements to coordinate and harmonize Western Science with ATK.

Western Science must be coordinated, harmonized and integrated with ATK to ensure that ATK is not approached as an "add on" to the design, implementation and monitoring of the Keeyask project or as an "add on" to the Environmental Protection Program.

The Kaweechiwasihk Kay-tay-ti-suk recommends that the Commission only accept any suggestion that the Keeyask project is not likely to cause significant residual adverse environmental effects or impacts if:

- 1. The responsible authorities, other regulatory authorities and those responsible for implementing any environmental plans or programs, which authorities should include Kaweechiwasihk Kay-tay-ti-suk:
 - acknowledge, recognize and apply the INNINEW KISKAYTOMOWIN (traditional knowledge, including collective wisdom) of Kaweechiwasihk Kay-tay-ti-suk as "expert" knowledge;
 - b) acknowledge and recognize the holders of INNINEW KISKAYTOMOWIN as "experts";
 - c) accord an importance and value to the contributions of INNINEW KISKAYTOMOWIN that is at least equal to western scientific knowledge; and
 - accord recognition to the Kaweechiwasihk Kay-tay-ti-suk as being in possession of "expert" information in respect of INNINEW KISKAYTOMOWIN and to be consulted in this regard.
- 2. The customary laws, beliefs, values and principles of Inninuwuk in relation to the protection of environmental and heritage resources are acknowledged and are applied as part of the environmental protection, heritage resource protection and monitoring programs associated with the Keeyask Generation Project and in particular, the Customary Law principle of Kwayaskonikiwin (reconciliation and restoration of balance).
- 3. Measures for the protection of heritage resources must be developed that will address heritage resource protection within Aski and will:
 - ✓ ensure a direct role to Kaweechiwasihk Kay-tay-ti-suk for the protection and disposition of found non-forensic aboriginal human remains, grave goods and artifacts in a manner substantially similar to the Manitoba-Nisichawayasihk Protocol on Heritage Resources;

- ✓ provide a direct role for Kaweechiwasihk Kay-tay-ti-suk in any agreements or activities related to the Churchill River Diversion Archeological Project, particularly regarding and recovery activities in the forebay and reservoir and construction areas of the Keeyask project; and
- ✓ protect the proprietary interests and intellectual property values and rights inherent in Inninewsewin, including knowledge of heritage resources, sites of special interest and the uses and location of medicines.

The Kaweechiwasihk Kay-tay-ti-suk recommend that the Commission recommend that completed community-based ATK Monitoring Programs AND the direct incorporation of ATK into the Environmental Protection Program in a manner similar to the Nisichawayasihk Aski Kitche O'nanakachechikiwuk process as described by D'Arcy Linklater in Exhibits KK-006 through KK-019 and KK-025 and with the result as reflected in Exhibits KK-026 through KK-030 MUST form part of or attachments to the project Licences and so form part of the Licence conditions.

The Kaweechiwasihk Kay-tay-ti-suk recommend that the Commission make an interim recommendation that a process very similar to the Nisichawayasihk Aski Kitche O'nanakachechikiwuk process as described by D'Arcy Linklater in Exhibits KK-006 through KK-019 and KK-025 should be established <u>immediately</u> for the Keeyask Project in order to incorporate the ATK (portions) <u>directly into</u> the Environmental Protection Program.

The Kaweechiwasihk Kay-tay-ti-suk recommend that the Commission make an interim recommendation that an arrangement for the protection and disposition of found non-forensic aboriginal human remains, grave goods and artifacts in a manner substantially similar to the Manitoba-Nisichawayasihk Protocol on Heritage Resources be established for the Keeyask Project.

Innovative Measures to Mitigate Impacts on Lake Sturgeon and Enhance Sturgeon Habitat in the area of the Keeyask Project and the Nelson River

Kaweechiwasihk Kay-tay-a-ti-suk recommends that the Commission recommend that the continuity of the river must be maintained and "what can be done, must be done" to achieve Kwayaskonikiwin by taking every step to mitigate and reconcile past and future blockages in the river and habitat losses, including by restoring migration routes between different habitats used by fish.

Kaweechiwasihk Kay-tay-a-ti-suk recommends that the Commission recommend that the implementation of measures to mitigate the adverse effects of the Keeyask Generation Project on Lake Sturgeon, in addition to those proposed for the Keeyask site, should also include innovative measures to mitigate the impacts of previous hydroelectric developments on Lake Sturgeon.

At Transcript Vol. 27, p. 6284, lines 3-8; p. 6285, lines 7-12) Kaweechiwasihk Kay-tay-a-ti-suk state that restoring the continuity of the Nelson River through fish passage at Kelsey as important to connect the populations of sturgeon above and below Kelsey. Furthermore, ATK from the Kay-tay-a-ti-suk (Elders) and community members of Kaweechiwasihk report that Lake Sturgeon moved up and downstream prior to the construction of the Kelsey dam, as noted in Exhibit KK-002

This ATK information differs from the current genetic studies which suggests that sturgeon populations above and below Kelsey are genetically different today and infer that these sturgeon populations were genetically isolated in the past prior to the construction of Kelsey (Vol. 23, p.5270, lines 16-25: p. 5271, lines 1-25). The information on present day sturgeon genetics was acquired from small fragmented populations of sturgeon some 50 years after Kelsey was built and does not take into account the normal "bet hedging strategy", across populations of biological organisms to ensure maximum genetic variability (Vol. 27. p. 6329, lines 6-20). This contradiction emphasizes that differences in interpretation between ATK and WSK occur. Once again, as in this case, ATK is based on many observations over many years and is the stronger source of information.

In addition to the expert Traditional Scientific Knowledge of Kaweechiwasihk Kay-tay-a-ti-suk, Exhibit KK-002 notes at Physical Setting and ATK Indications, 4(a), at page 14, that:

"The result of the ATK studies previously conducted and presently being conducted by the York Factory First Nation (and other First Nations) indicate that the multiple confluences of these rivers in the vicinity of the former rapids at the Kelsey site, known as misipawistik, or great rapids, by the local Cree, and present day Kelsey Generating Station represents highly significant and productive fisheries habitat extensively used by First Nations peoples, particularly in respect of lake sturgeon, northern pike, walleye and whitefish (Figs. 1, 4, 5). Notwithstanding any lack of baseline information documented at the time of the construction of the Kelsey Generating Station and the need to further document ATK, it is well supported in the scientific literature that these multiple and closely adjacent river confluences are expected to represent important habitat, including spawning habitat, for these fish species."

Exhibit KK-002 also observes at Physical Setting and ATK Indications, 4(b), at page 14, that the former *mispawistik is* covered by a dyke made primarily of aggregate fill:

"A review of engineering drawings and current photographs in the available literature reveals that the former river channel and rapids at the Kelsey site have been covered by the "Centre Dyke" of the Kelsey Project and that the present spillway, although in very close proximity to the east of the former rapids, is an excavation (Fig.3).

Kaweechiwasihk Kay-tay-a-ti-suk recommends that the Commission recommend the consideration of the construction and operation of fish passage facilities at the location of the former *misipawistik* or "Great Rapids" at the site of the Kelsey Generating Station in order to at least partially restore the former seasonal passage of Lake Sturgeon and other fish species between the Sipiwesk Lake area of the upper Nelson River and the area of the multiple confluences with the Nelson River of the Grass River, Burntwood River and Odei River at the headwaters of Split Lake.

In addition to the expert Traditional Scientific Knowledge of Kaweechiwasihk Kay-tay-a-ti-suk, Exhibit KK-002 also notes at Conclusion 5(b), at page 16, that:

"The available preliminary ATK information suggests that lake sturgeon moved upstream through the former rapids and continue to attempt to move downstream through the Kelsey powerhouse. This information underscores the significance and relevance of conducting ATK studies in relation to pre-project and post-project fish habitat, spawning areas and fish movement as part of any assessment of the impacts or adverse effects of the Kelsey re-runnering project."

Kaweechiwasihk Kay-tay-a-ti-suk recommends that the Commission recommend that measures to mitigate the adverse effects of the Keeyask Generation Project on Lake Sturgeon should broadly examine innovative measures to mitigate adverse effects on Lake Sturgeon and to enhance sturgeon habitat and populations in both the upper and lower reaches of the Nelson River, particularly in the area of the multiple confluences with the Nelson River of the Grass River, Burntwood River and Odei River and in the Sipiwesk Lake area.

Specifically, the Kaweechiwasihk Kay-tay-a-ti-suk proposes and recommends that the Commission recommend the consideration, design, construction and operation, together with Kaweechiwasihk Kay-tay-a-ti-suk, of:

- Keeyask Fish Passage being construction of the fish passage facilities already being designed into the Keeyask Generating project as required by Fisheries and Oceans Canada as set out at Exhibit KK-021;
- Modification of the Keeyask Flow Regime, being the modification of flows at the Keeyask project site through both the spillway and powerhouse to maintain the ecologically-based flow regimes needed for spawning, egg incubation, juvenile rearing, summer feeding and overwintering and in particular maintaining water flows during the spawning periods for Namayo (Lake Sturgeon) and other fish species;
- Kelsey Fish Passage, being the construction and operation of a fish passage at the site of the former *misipawistik* at the site of the present Kelsey Generating Station in order to at least partially restore the former seasonal passage of Lake Sturgeon and other fish species between the upper and lower reaches of the Nelson River, and in particular, to restore the seasonal passage of fish between Sipiwesk Lake and the area of the multiple confluences with the Nelson River of the Grass River, Burntwood River and Odei River;
- Kelsey Spawning Site, being spillway operation and enhancements to create spawning habitat for sturgeon and other species through spillway operation and enhancements of and nearby the spillway to create spawning habitat for Namayo (Lake Sturgeon) and other fish species;
- Kelsey discharge deflection, being the placement of an in stream structure to deflect water discharges downstream in order to enhance fish passage upstream from the powerhouse and toward the Kelsey Fish Passage and Spillway Spawning Site;
- Modification of Kelsey Flow Regime, being modification of flows at the Kelsey
 project site through both the spillway and powerhouse to maintain the
 ecologically-based flow regimes needed for spawning, egg incubation, juvenile
 rearing, summer feeding and overwintering and in particular maintaining
 water flows during the spawning period for Namayo (Lake Sturgeon) and other
 fish species.

The recommendations of Kaweechiwasihk Kay-tay-a-ti-suk are consistent with the conclusions of the Department of Fisheries and Oceans Canada in Recovery Potential Assessment of Lake Sturgeon: Nelson River Populations (Designatable Unit 3), Exhibit CAC-002, at page 15 (of the complete document):

"Survival and recovery of Lake Sturgeon in DU3 depend on maintaining the functional attributes of habitat, including the ecologically-based flow regimes, needed for spawning, egg incubation, juvenile rearing, summer feeding and overwintering, as well as migration routes between these habitats. It is essential that conditions that optimize the survival and recovery of Lake Sturgeon be maintained, especially during the spawning and incubation periods."

and;

"A variety of mitigation measures and alternatives could be implemented to aid in the survival and recovery of Lake Sturgeon in DU3 including protecting spawning and rearing habitat, minimizing activities that cause habitat degradation or loss, rehabilitating habitat in key areas and reducing impacts of the fishery through education and effective enforcement. Conservation stocking using fish from the same genetic stock may be a useful enhancement tool as part of a comprehensive conservation stocking strategy for the DU and when combined with mitigation measures and alternatives."

The potential effectiveness of the basic principles and elements of the ATK-based recommendations of Kaweechiwasihk Kay-tay-a-ti-suk have been recognized as international basic good practice and best practice, as set out in the *Official Assessment conducted in accordance with the Preparation Tool of the Hydropower Sustainability Assessment Protocol, Official Assessment Keeyask Hydropower Limited Partnership - Keeyask, Canada* (Exhibit KHLP-035) at 7.2.2 Management, Analysis of Basic Good Practice, page 42:

"Examples of how operations plans (for the Keeyask project) are based on environmental considerations are: operation will ensure sufficient water velocities in the lake sturgeon spawning area (downstream of the powerhouse) during the spring spawning period; and operation may also be constrained if monitoring shows lake sturgeon eggs are deposited downstream of the spillway, which may necessitate its continued operation until the eggs have hatched even if spilling is no longer required for operational purposes."

The Scoring Summary for the Keeyask project for criteria P-23, Downstream Flow Regimes, at page 124 of Exhibit KHLP-035, also reinforces the principles and elements of the recommendations of Kaweechiwasihk Kay-tay-a-ti-suk:

"Opportunities for habitat creation and enhancement have been taken through the creation of fish-spawning habitat, wetlands creation and a commitment to spill water through the spillway throughout the spawning season, if required to in order to meet environmental objectives."

Recognizing and Protecting *Noschimik Atikok*: Resident Woodland Caribou in the Area of the Keeyask Generation Project

Kaweechiwasihk Kay-tay-a-ti-suk recommends that the Commission recognize the distinct herd of resident boreal woodland caribou in the area of the Keeyask Project and nearby the other projects on the Nelson River and recommend measures to recognize and protect the herd and to mitigate the impacts of the Keeyask Project on the herd.

Kaweechiwasihk Kay-tay-a-ti-suk recommends that the Commission acknowledge that the Kaweechiwasihk Kay-tay-a-ti-suk has described the four caribou herds in the study area as known to expert holders of Traditional Scientific Knowledge, being:

- *Noschimik Atikok*, which means "caribou that stay in the bush" and refers to the resident woodland caribou which calve on protected islands and in peatlands in the area of Nelson River;
- *Wapanok Atikok,* which means "comes from the east caribou" and refers to the Pen Island herd of woodland caribou which calve on the coastal tundra along the Hudson Bay Coast generally in the area of the Manitoba-Ontario boundary;
- *Mantayosipi Neyahk Atikok*, which means "caribou from the point of land of the River of Strangers" and refers to the caribou in the vicinity of the point of land at the mouth of the "River of Strangers" being the Churchill River and Cape Churchill and to the Cape Churchill caribou herd;
- *Pasko Atikok,* which means "no tree caribou" and refers to the Beverly and Quaminirjuak herds of barren ground caribou which are generally encountered during winter migrations into the southern and southeast extent of the range.

These traditional naming and descriptions by the Kaweechiwasihk Kay-tay-a-ti-suk of the caribou in the Study Area are generally consistent with the discussion in *Defining the Pen Islands Caribou Herd of southern Hudson Bay*, including at page 36, where it is noted:

"Independent discussions we had at this time with Shamattawa, Manitoba, Cree hunters revealed similar information. They also distinguished three types. Shamattawa hunters began to see and hunt the migrating caribou in about 1980 (possibly the Pen Islands Herd) **<u>in addition</u>** to the more usual **resident** "woodlands" caribou and the Cape Churchill caribou with thinner hides and "pelage like a rabbit". [emphasis added] Kaweechiwasihk Kay-tay-a-ti-suk recommend that the Commission recommend taking immediate steps to resolve the differing descriptions of the Noschimik Atikok herd which appear in the materials filed as part of the Bipole III Transmission Project and the Keeyask Generation Project, being the characterization in the Bipole III materials of Noschimik Atikok as "coastal caribou" or the "Gillam Area Pen Island Herd", and in the materials filed as part of the Keeyask Generation project, being a description of the Noschimik Atikok herd as "summer resident" caribou.

Kaweechiwasihk Kay-tay-a-ti-suk recommend that the Commission recognize the Noschimik Atikok herd as a distinct herd of resident boreal woodland caribou and that appropriate steps be taken to recognize and protect the Noschimik Atikok herd and to identify appropriate measures to mitigate the impacts of the Keeyask Project on the Noschimik Atikok herd.

Kaweechiwasihk Kay-tay-a-ti-suk recommend that the Commission acknowledge that there is sufficient ATK evidence which is partially supported by recent WSK evidence to suggest that the of caribou referred to as the Noschimik Atikok by the Kaweechiwasihk Kay-tay-a-ti-suk exists as a distinct resident caribou population occupying a range that includes the Keeyask area and that further collaborative work involving Kaweechiwasihk Kay-tay-a-ti-suk, Manitoba Conservation and Water Stewardship, the Canadian Wildlife Service, the Partnership, Manitoba Hydro and the holders of Aboriginal Traditional Knowledge of other First Nations is needed to recognize and protect Noschimik Atikok, including regarding range, population estimates and calving areas, and that such a collaborative ATK-WSK process be included as a specific condition of any Environment Act Licence issued for the Project.

Kaweechiwasihk Kay-tay-a-ti-suk also recommend that the Commission make an interim recommendation to immediately establish such a project for ATK and WSK to work together to recognize and protect Noschimik Atikok, including as a possible outcome of this initiative, the recognition and inclusion of the Noschimik Atikok herd in Manitoba's *Conservation and Recovery Strategy for Boreal Woodland Caribou (Rangifer tarandus caribou)* and for possible inclusion in an updated *Action Plan for Boreal Woodland Caribou Ranges in Manitoba*.

The Bipole III Supplemental Caribou Technical Report referred to in the response to CEC Rd 2 KK-0015 provides a number of Western Science-based references which generally support the recognition of the Noschimik Atikok as a distinct resident caribou population occupying a range that includes the Keeyask area. Some of these references are:

- At page 78, Section 4.4.2.1.1 Overall Trends, it is noted that the majority of caribou (these being collared caribou and one has to remember the sample size is not large, especially considering the combined number of failures and mortality) exhibited one of four broad movement patterns, one of which "consisted of animals that summered in the immediate vicinity of Gillam and ranged eastward ….." and a second of which "summered in the Gillam area and ranged between….". Kaweechiwasihk Kay-tay-a-ti-suk view the fact that two groups were identified as summering in the Gillam area as being in itself important.
- At page 78, Section 4.4.2.1.1 Overall Trends, it is also noted that one animal utilized the area immediately south of Gillam "throughout the year, ranging no further than 70 km from the town in the winter and early spring, and remaining within 25 km during the summer and fall". Kaweechiwasihk Kay-tay-a-ti-suk view this as supporting evidence where these movements were attributed to the animal identified as Pen_M1; in the next Section reference is made to Pen_M2 which "was notable" in that it also did not exhibit seasonal migratory behaviour.
- At page 78, Section 4.4.2.1.2 Gillam-Area Pen Island Caribou, the fact that this Section is titled Gillam-Area Pen Island Caribou is viewed by Kaweechiwasihk Kay-tay-a-ti-suk as meaningful, in that it identifies a subset of 8 animals (of the 22 total caribou collared) as inhabiting the Gillam area for all or part of the year and raises a question as to whether this subset is part of a resident population distinct from versus part of the Pen Islands herd.
- At page 81, Section 4.4.2.2.1 Pen Island Calving Patch Identification, Kaweechiwasihk Kaytay-a-ti-suk notes that from the analysis of collaring data "it was possible to determine summer calving use of Pen Island caribou near the Bipole III Project infrastructure", while keeping in mind that throughout the EIS, Manitoba Hydro would follow the lead of Manitoba Conservation and Water Stewardship when it comes to "naming" the herds animals were associated with.
- At page 82, Section 4.4.2.2.2 Pen Island and Boreal Woodland Range Comparison, it is acknowledged that the Fox Cree Nation has referred to the caribou which summer in the Gillam area as "migratory woodland caribou", and goes on to note that based on the data and associated analysis this description would "appear to appropriately describe their behaviour".
- Map 20 shows a summer core use area overlapping and a winter core use area in very close proximity to the Keeyask area.

Exhibit KHLP-035, at the discussion of Biodiversity and Invasive Species (P-19), at page 103, also provides support for the collaborative ATK-WSK project proposed by Kaweechiwasihk Kay-tay-a-ti-suk to identify Noschimik Atikok as a distinct resident caribou population occupying a range that includes the Keeyask area:

"A number of different conclusions if not contradictions, persist in the presentation of the assessment reports based on Western science and those based on aboriginal traditional knowledge. Examples include the questions whether water levels and therefore aquatic biodiversity on Split Lake are likely to be affected, what herds and subspecies the resident Caribou belong to, and whether populations of certain species are likely to be diminished or may even increase."