Report on the Public Consultations Held in November 2012 Following Implementation of Hydro-Québec's **Eastmain-1-A** and **Sarcelle** Powerhouses and **Rupert** Diversion Project

la Convention
de la Baie-James
et du Nord québecois

Comité d'examen
Review Committee

Report on the Public Consultations

Held in November 2012 Following Implementation of Hydro-Québec's **Eastmain-1-A** and **Sarcelle** Powerhouses and **Rupert** Diversion Project

December 2013

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Rupert dam and spillway, photo credit: Photo Hydro-Québec, 2012.

Stocking of lake sturgeon in the Rupert River, photo credit: Photo Hydro-Québec, 2008.

Archaeological digs in the Rupert diversion area, photo credit: Archaeology and Cultural Heritage Program (Cree Nation Government), 2009.

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Chairman's Message

It has been seven years since the certificate of authorization for Hydro-Québec's Eastmain-1-A and Sarcelle Powerhouses and Rupert Diversion Project in the James Bay Territory, known as "Eeyou Istchee" to the Crees, was issued.

One of the conditions of authorization stipulated that the proponent had to collaborate with COMEX to set up a process for consulting the Cree population and that the consultation had to take place between the end of the construction period and before the commissioning of the project. The primary objective was to, among other things, make known the point of view of the Crees on the effectiveness of the mitigation measures put in place and the means that could be envisaged to deal with the project's residual impacts.

Note that COMEX was not responsible for conducting a cost analysis of the hydroelectric infrastructure, establishing the price/quality ratio or deciding the technology to be used.

In November 2012, COMEX held public consultations in the communities of Mistissini, Nemaska, Chissaibi, Eastmain, Wemindji and Waskaganish. Some 200 Crees participated.

This report takes into account the points of view expressed by participants and the explanations and responses provided by the proponent and, for each of the themes addressed, includes COMEX's opinions, analyses, and views in response to the questions raised during the consultation sessions.

The consultations revealed strong feelings among the Crees, especially toward their land. The Grand Chief of the Crees, Mathew Coon Come, summarized their feelings during the last public consultation held in Waskaganish, recalling the discord several of his fellow Crees experienced following the signing of the James Bay Agreement. Moreover, he recalled that the *Paix des Braves* agreement won over a majority of people, adding in the same breath that many families were divided over what was happening to their river. He concluded with this appeal:

> *"We therefore need to try and find solutions for these people. That's what the agreement, the James Bay Agreement, is there for: to find solutions for everyone, not just for those directly affected by the flooding."*

In COMEX's opinion, there has been very good collaboration between the Cree Nation and the proponent in recent years. In addition, the Committee is convinced that the Eastmain-1-A and Sarcelle Powerhouses and Rupert Diversion Project will have contributed to greater understanding between all the parties concerned, to greater Cree involvement in the development of the territory, and perhaps to empowering them to achieve their long-term economic and community development goals.

COMEX intends to remain attentive and wishes to thank the proponent and the Cree communities for participating in these public consultations.

Pierre Mercier
December 2013

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LIST OF ACRONYMS

CBHSSJB: Cree Board of Health and Social Services of James Bay

COMEX: Review Committee

CRA: Cree Regional Authority

COTA: Cree Outfitting and Tourism Association

EQA: Environment Quality Act

GCCEI: Grand Council of the Crees (Eeyou Istchee)

GCCQ: Grand Council of the Crees of Québec

JBNQA: James Bay and Northern Québec Agreement

KP: Kilometre Point

MDDEFP: Ministère du Développement durable, de l'Environnement, de la Faune et des Parcs

MW: Megawatt

NQA: Northeastern Quebec Agreement

SEBJ: Société d'énergie de la Baie-James

TWh: Terawatt-hour

1. INTRODUCTION

1.1 The Review Committee

The Review Committee (COMEX) was created following the signing of the James Bay and Northern Québec Agreement (JBNQA) in 1975. It is responsible for reviewing development projects in the James Bay territory south of the 55th parallel that are subject to the environmental and social impact assessment and review procedure provided for in Section 22 of the JBNQA and Chapter II of the *Environment Quality Act* (EQA). The Review Committee is a permanent body established by Sub-Section 22.6 of the JBNQA and section 148 of the EQA and is composed of three members appointed by the Québec government, including the chairman, and two members appointed by the Cree Regional Authority (CRA). COMEX transmits its recommendations to the Provincial Administrator of the JBNQA, in this case the Deputy Minister of Sustainable Development, Environment, Wildlife and Parks.

The Provincial Administrator submits the environmental impact statement prepared by the proponent to the Review Committee, which studies it to make sure that the proponent has provided the information required to review the project and that such information satisfies the requirements of the directive. The Review Committee may also hold public hearings on the project's potential impacts, both positive and negative, in order to determine the project's environmental and social acceptability. Following its review, the Committee recommends whether or not the project should be authorized, including, where appropriate, the conditions for its authorization.

Paragraph 22.2.4 of the JBNQA and section 152 of the EQA stipulate that the Review Committee must give due consideration to the following guiding principles:

- the protection of the hunting, fishing and trapping rights of Native people in the Territory, with regard to any activity affecting the Territory;
- the protection of the environment and social milieu, particularly by the measures proposed pursuant to the assessment and review procedure, in view of reducing as much as possible for the Native people the negative impacts of the activities connected with projects affecting the Territory;
- the protection of Native people, societies, communities and economies, with regard to any activity connected with projects affecting the Territory;
- the protection of the wildlife, physical and biological milieu and ecological systems of the Territory, with regard to any activity connected with projects affecting the Territory;
- the rights and guarantees of the Native people in Category II lands;
- the participation of the Crees in the application of the environmental and social protection regime;
- any rights and interest of non-Native people;
- the right to carry out projects in the Territory.

The Review Committee is also the body the Provincial Administrator consults when a project must be modified or during review of the environmental and social monitoring programs prepared by the proponent during the carry out of a project.

1.2 Background

To understand the Crees' views on major developments such as Hydro-Québec's Eastmain-1-A and Sarcelle Powerhouses and Rupert Diversion Project (hereafter referred to as the "Eastmain-1-A/Sarcelle/Rupert project"), which is the subject of this public consultation report, it is worthwhile to consider certain aspects of the history of the Cree communities.

The Cree people, with a present population of around 17 700,[1] live in nine (9) communities in the Territory of the James Bay and Northern Québec Agreement. The Crees living in inland communities call themselves "Eeyouch" or "Eenouch." The Crees call their traditional territory "Eeyou Istchee," which is the totality of the hunting territories of the Eeyou. "Ndohoauchimauch," referred to as "tallymen" in this report, are the stewards of the land and its resources. The Eeyou homeland is a vast area of forests, rivers and lakes. Hunting and fishing are still important, even vital, components of Cree life and culture. For the Crees, hunting and fishing consist of far more than simply teasing fish and tracking game. Occupation of their hunting territories and ancestral lands is crucial to the Crees' mental, physical and spiritual well-being, which they call "Miiyoupimaatahsiiwun." Consequently, the Crees have a close relationship with Eeyou Istchee—its waters, forests, plants, animals, fish and spirit—and what they have become as a direct result of their relationship with the land, the very nature of being Eeyou. The paramount importance of Eeyou Istchee is the cornerstone of Eeyou governance, culture, identity, history, spirituality and way of life.

The traditional Cree way of life, based on hunting, fishing, trapping and gathering of the resources of Eeyou Istchee, was transformed by the introduction of European products and technology in the 17th century. However, while the fur trade ostensibly brought the Crees into the European economy, their adaptation to the fur trade actually allowed the Crees to continue living a largely traditional way of life in the territory for over 300 years after their first contact with Europeans. During that period, they continued to live isolated from many of the cultural and economic influences of colonization elsewhere in the world.

Land use by the Crees had little negative impact on the ecosystem, since their way of life left hardly a trace of their presence. The Cree way of life was and remains rooted in an understanding of the changing natural cycles. Most of the important events in this way of life were related to natural phenomena: variations in climate, storms, high water levels, variations in snow depth, rain in the middle of winter, etc. These were major—and largely unforeseeable—events for the territory's inhabitants and they had a major impact on the people and their way of life. The presence and absence of disease, an abundance of food and a scarcity of food causing starvation, and accidents were among the experiences of people who lived before and during the fur trade period.

Following WWI, intensive trapping by non-Aboriginals who had settled the land in Abitibi, coupled with hunting by Aboriginal people, threatened the survival of certain fur-bearing animal species, especially beaver, and undermined these species' conservation. This near-extinction of certain wildlife species is partially responsible for the famine experienced by the Crees at the time and

1 Register of Cree, Inuit and Naskapi beneficiaries of the JBNQA and NEQA, 2013.

which the Elders still remember.[2] Action taken by the Québec government at the request of the Crees and Hudson Bay Manager James Watt, in Fort Rupert, and his wife, Maude Watt, led to the creation of beaver preserves to protect traditional family hunting territories, which resulted in a speedy recovery of the fur trade in Cree communities. In addition, higher fur prices in the 1930s fostered a brief period of economic growth and improved the standard of living in Cree communities.

The second half of the 20th century, i.e. from the 1960s to the end of the millennium, saw a gradual collapse of the fur market due to competition from synthetic materials as well as anti-fur campaigns. Today, the fur trade accounts for less than one percent of the Cree economy. However, the Cree economy is still based on subsistence activities, with hunting being an important source of high-quality food for the Cree population. The Crees still occupy and practise their traditional pursuits on their ancestor's family hunting territories.

Industrial development arrived in Eeyou Istchee in the 20th century, in the form of mining and forestry in the 1950s and hydroelectric development in the mid-1970s. Since then, the Cree population has tripled due to greater prosperity, better living conditions, modern health and social services and a decline in emigration.

Hydro-Québec's Eastmain-1-A/Sarcelle/Rupert project, authorized in 2006 (Appendix 1), is located in the southern portion of a vast territory that has seen major hydroelectric developments in the last 40 years. The La Grande hydroelectric complex began in the 1970s and was completed in the 1990s. It was followed by the Eastmain-1 hydroelectric development project, which was completed in 2007. To provide a clearer understanding of the Eastmain-1-A/Sarcelle/Rupert project, the following sections briefly describe the James Bay hydroelectric developments in general.

The La Grande complex

The signing of the JBNQA in 1975 defined the scope of the hydroelectric developments of the La Grande complex and set the terms for completion of the project's construction on the La Grande River. The project was built in two stages over the next 20 years, during which time the original agreement signed between the governments of Québec and Canada, the Société d'énergie de la Baie James, Hydro-Québec, the Grand Council of the Crees of Québec and the Inuit of Nunavik.

Phase I of construction of the La Grande complex began in 1973 (drilling of diversion tunnels for La Grande-2) and was completed in 1985 (commissioning of final group at La Grande-4). The complex consists of the Robert-Bourassa (La Grande-2), La Grande-3 and La Grande-4 generating stations, each one with a reservoir, in addition to the reservoirs of the diverted Caniapiscau, Eastmain and Opinaca rivers. The three generating stations have an installed capacity of 10 282 MW and an annual output of 62.2 TWh. At maximum operating level, the reservoirs (La Grande-2, La Grande-3, La Grande-4, Caniapiscau and EOL) cover a total area of nearly 11 335 km^2. These projects were located for the most part on the traditional lands of the communities of Chisasibi, Wemindji, Nemaska, Eastmain and Mistissini.

2 Scott, C.H. & J. Morrison. 2004. "Frontières et territoires: mode de tenure des terres des Cris de l'Est dans la région frontalière Québec/Ontario. I: Crise et effondrement". *Recherches amérindiennes au Québec*, 34 (3), pp. 23-43.

Phase II began in 1987, with construction of the La Grande 2-A, and was completed in 1996, with the commissioning of Laforge-2. Five more generating stations were built, La Grande-1, La Grande 2-A, Laforge-1, Laforge-2 and Brisay, increasing the complex's installed capacity by 4 962 MW and its annual output by 18.3 TWh (the La Grande-2 and La Grande-2-A generating stations produce slightly more energy than the La Grande-2 generating station alone, for an energy increase of 2.2 TWh per year). Three new reservoirs (La Grande-1, Laforge-1 and Laforge-2), with a total area of 1 618 km^2 at maximum operating level, were created.

Eleven power transmission lines were also added, i.e. four 315-kV lines, six 735-kV lines, and one 450-kV DC line, totalling over 6 570 km in length. The lines carry the energy produced to southern Québec. Some 1 800 km of permanent roads were built, as well as seven airports.

Talks between the Crees and Hydro-Québec in the context of the La Grande complex led to the signing of other agreements between the two parties (see Appendix 2).

The Eastmain-1 hydroelectric development project

On February 7, 2002, the Grand Council of the Crees, the CRA, the Eastmain band, the Cree Nation of Mistissini, the Nemaska band, the Waskaganish band, Hydro-Québec and the SEBJ signed the Nadoshtin Agreement, which established funds totalling $29.65 million and provides for the construction, operation and maintenance of the Eastmain-1 project. The purpose of the agreement is to reduce the project's impacts on the Crees, protect the Cree way of life, enhance community development and provide other opportunities for the Crees. The agreement also provides for environmental, corrective and mitigation measures in connection with the project.

The Eastmain-1 hydroelectric development includes the 480-MW Eastmain-1 powerhouse, with an annual output of 2.7 TWh (on Eastmain River), a permanent access road, a 315-kV power transmission line and a campsite. The development also includes the creation of the 603-km^2 Eastmain-1 reservoir. Work began in spring 2002 and impoundment of the reservoir was completed in summer 2006.

The Eastmain-1-A and Sarcelle Powerhouses and Rupert Diversion Project

This project includes partial diversion of the Rupert River 314 km from its mouth, near the Gorge Rapids, at a point now referred to as kilometre point (KP) 314, as well as the creation of two diversion bays covering a total area of 346 km^2 and linked by a transfer tunnel (Figures 1 and 2). It also includes the construction of two generating stations: the Eastmain-1-A powerhouse (installed capacity of 768 MW), located near the Eastmain-1 powerhouse, and the Sarcelle powerhouse (installed capacity of 150 MW), built between the Opinaca reservoir and Boyd and Sakami lakes to replace the control structure previously built for the La Grande project. Water diverted from the Rupert River flows northward via the La Grande River to increase the amount of energy produced at the Robert-Bourassa, La Grande-2-A and La Grande-1 power plants. The project has an estimated annual output of 8.5 TWh. The proponent built eight hydraulic structures in the reduced-flow section of the Rupert River to maintain the biological productivity of riparian habitats and facilitate the pursuit of traditional activities, including boating. The project included the construction of a 40-km-long permanent road linking Muskeg and Eastmain and a 315-kV power transmission line 101 km long, as well as the establishment or maintenance of camps for the project's 5,500 workers. The main camps are Eastmain, Rupert and Nemiscau. When the project was authorized in 2006, its cost was estimated at nearly $5 billion, including financing costs.

Photo credit: Photo Hydro-Québec, 2012.

TOMMY-NEEPOSH TRANFER TUNNEL

Hydro-Québec Production entrusts the carrying out of hydroelectric developments in the territory covered by the JBNQA to the SEBJ, a subsidiary of Hydro-Québec that was initially under the responsibility of the Société de développement de la Baie-James. The Eastmain-1-A/Sarcelle/Rupert project was thus carried out by the SEBJ, according to the following schedule.

Project schedule

Project components	Construction	
	Start	Completion
Road to Rupert diversion bays	February 2007	Fall 2007
Muskeg-Eastmain-1 road	Fall 2007	Summer 2008
Sakami structure	Spring 2008	Fall 2008
Dams and dikes in Rupert diversion bays	February 2007	Fall 2009
Hydraulic structures on Rupert River	Spring 2009	Fall 2010
Eastmain-1-A powerhouse	Summer 2007	Winter 2012
Sarcelle powerhouse	Fall 2008	Summer 2014

Photo credit: Photo Hydro-Québec, 2010.

ACOTAGO BRIDGE ON THE MUSKEG ROAD

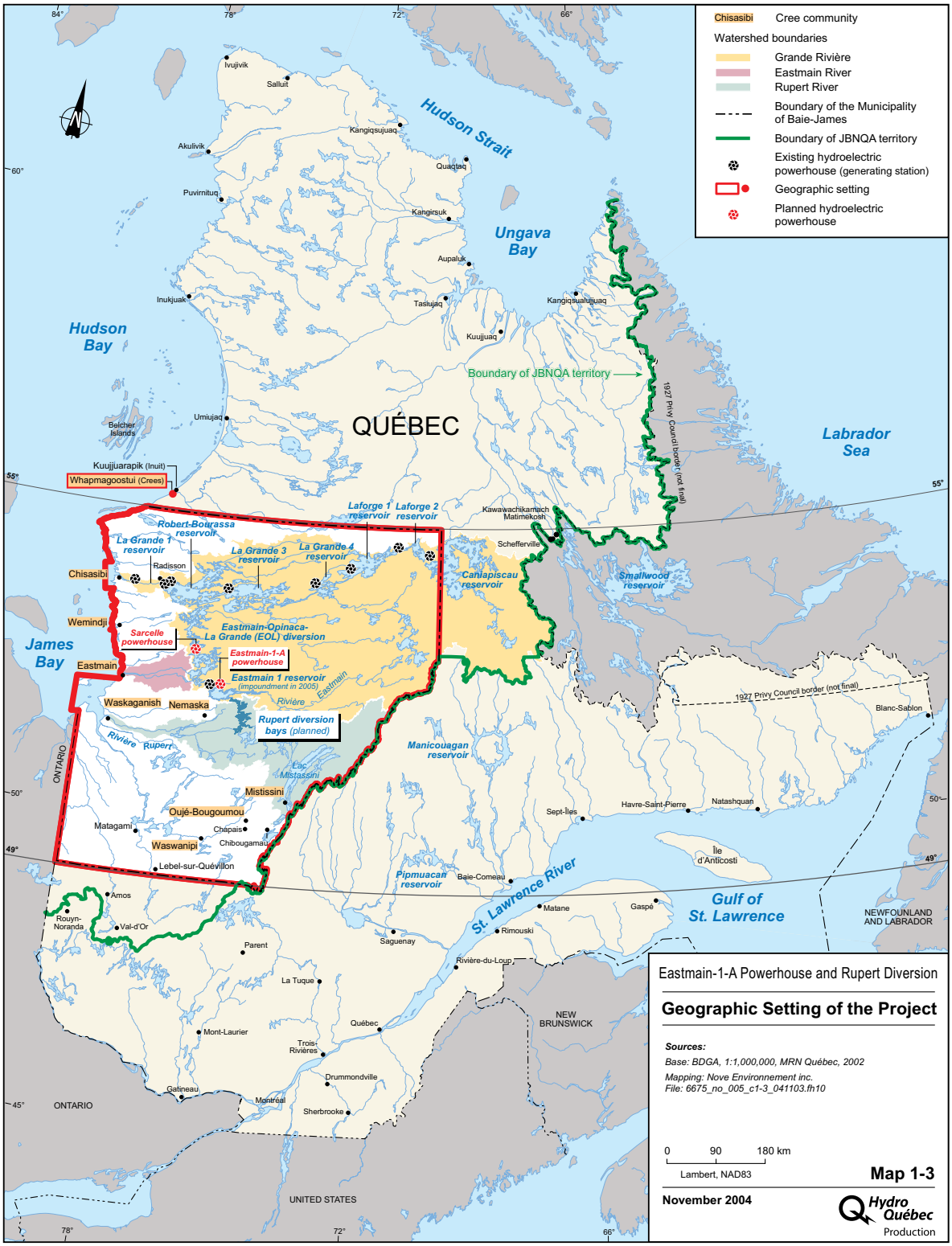


Figure 1. Location of the Eastmain-1-A/Sarcelle/Rupert project

Source : http://www.mddefp.gouv.qc.ca/evaluations/eastmain-rupert/rapport-comexfr/carte2-1.pdf

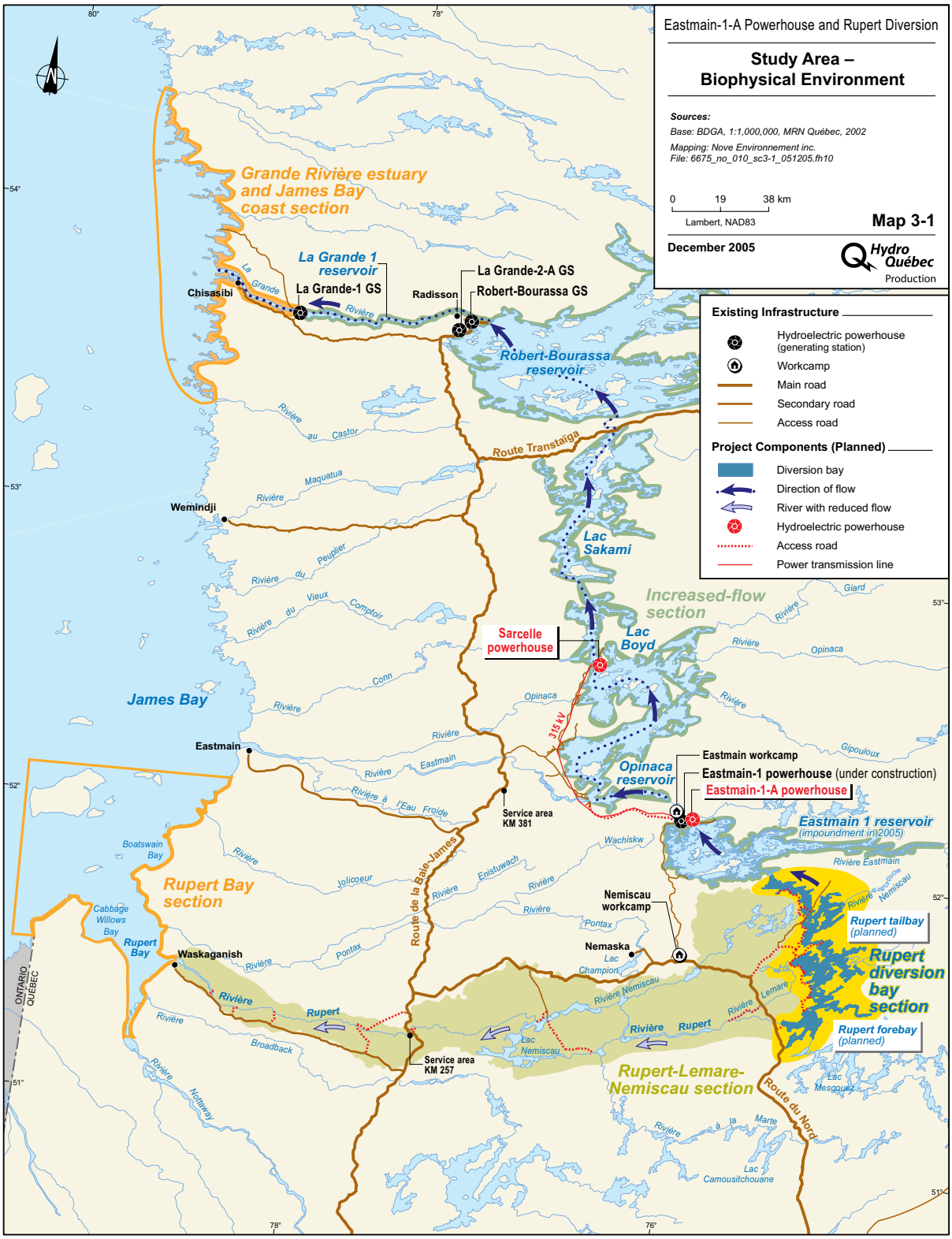


Figure 2. Location of the Eastmain-1-A/Sarcelle/Rupert project

Source : http://www.mddep.gouv.qc.ca/evaluations/eastmain-rupert/rapport-comexfr/carte2-2.pdf

Agreements prior to the project

Certain events leading to Hydro-Québec Production's Eastmain-1-A/Sarcelle/Rupert project must also be mentioned. On February 7, 2002, the Québec government, the Grand Council of the Crees Eeyou Istchee (GCCEI) and the CRA signed the Agreement Concerning a New Relationship Between le Gouvernement du Québec and the Crees of Québec, commonly referred to as the *Paix des Braves*.

The purposes of the agreement include "the establishment of a new nation-to-nation relationship, based on the common will of the parties to continue the development of the James Bay Territory and to seek the flourishing of the Crees and the Cree Nation within a context of growing modernization."

The agreement states that "in consideration of this agreement, the Crees consent to the carrying out of the Eastmain-1-A/Rupert Project" … and that the project "will be subject to the applicable environmental legislation and to the environmental and social protection regime stipulated in Section 22 of the James Bay and Northern Québec Agreement according to the terms of that Section."

This was the first agreement after the JBNQA to bring significant and long-term (50 years or more) improvements to Cree society. Up until then, most Crees saw hydroelectric development as bringing short-term benefits and long-term damages to the Cree way of life. It had weakened the social fabric. The *Paix des Braves* gave the Crees access to the economic and social safety net for the Québec and Canadian societies. The guarantor of Cree society was the natural productivity of the land and people's knowledge about how to use the land's resources to ensure their families' well-being.

In addition, the *Paix des Braves* stipulated that the Québec government would definitively abandon the hydroelectric development project on the Nottaway, Broadback and Rupert rivers (N.B.R. Complex) provided for in the JBNQA.

Also on February 7, 2002, the Boumhounan Agreement was signed between Hydro-Québec, the SEBJ, the Grand Council of the Crees, the Eastmain band, the Nemaska band, the Waskaganish band and the Cree Nation of Mistissini. This agreement covers the definition, description and final design of the Eastmain-1-A/Sarcelle/Rupert project, as well as Cree involvement in the various stages of the project. It establishes funds, administered by the Crees, with a view to mitigating the impacts of the project on the territory's residents.

Authorization of the project

The environmental impact assessment procedure for the Eastmain-1-A/Sarcelle/Rupert project was triggered in November 2002, with the submission of the preliminary information by the proponent. The Evaluating Committee held consultations in the six Cree communities as well as in Chibougamau and Montréal to help it devise the directives for the impact statement. The directives were transmitted to the proponent in July 2003. The proponent submitted the environmental impact statement in late December 2004, followed by some 30 sector-based studies and the additional information requested by COMEX. More public hearings on the project's environmental and social impacts were held between March 15 and June 9, 2006, in six Cree communities as well as in Chibougamau and Montréal. The Provincial Administrator issued the certificate of authorization for the project on November 24, 2006 (Appendix I).

The certificate of authorization contains 97 conditions. Condition 9.2 reads as follows:

> The proponent must collaborate with COMEX to set up a process for consulting the Cree population. This consultation must take place around 2011, namely between the end of the construction period and before the commissioning of the project. The objective of this process is, among other things, to make known the point of view of the Crees on the effectiveness of the mitigation measures put in place and the means that could be envisaged to deal with the project's residual impacts.

The public consultation, which took place after the construction phase, was neither normal practice for the Review Committee nor usual in the conventional environmental impact assessment procedure. This condition was stipulated in the certificate of authorization because of the project's scope, its location in a region that was already significantly affected by hydroelectric developments, and the lessons drawn from the La Grande complex since 1975.

COMEX's primary motivation for stipulating this condition was also the importance of getting the Cree Nation's views on the project's construction in hopes that the Crees would be able to reappropriate the territory affected by the project. The condition also aimed to reassure the population with regard to the decision to authorize the project, as the Crees' acceptance would be a determinant in the societal direction of future generations.

Hydro-Québec has repeatedly asked COMEX to exempt it from Condition 9.2, i.e. the requirement to consult the six Cree communities concerned. However, it was very important to COMEX that the Cree population be consulted and have a chance to express its views. Faced with the fact that public consultations were going to take place, Hydro-Québec asked COMEX to postpone them from fall 2011, when they were supposed to be held, to spring 2012. The request was accepted. However, a few days before the consultations were to begin, Hydro-Québec asked that they again be postponed, but this time COMEX refused. At the request of the Grand Council of the Crees, COMEX finally agreed to hold the public consultations in fall 2012.

In the meantime, the proponent negotiated and entered into the Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project with the Crees. As a result, public consultations were held in the six Cree communities affected by the project, with the cooperation of the band councils and the proponent.

The public consultations took place from November 6 to 22, 2012, in the Cree communities of Mistissini, Nemaska, Chisasibi, Eastmain, Wemindji and Waskaganish.[3] Roughly 180 people participated. Each session consisted of two parts: an information period and a consultation period. During the first part, the proponent presented the main mitigation measures adopted within the framework of the project, for each of the communities concerned, and indicated the number of Crees benefiting from the opportunities created by the project. During the second part, individuals, groups and organizations were invited to share their views with the Review Committee and the proponent, especially regarding the project and its impacts. The public could give verbal testimony or submit briefs. The consultations were held in the evening, starting at around 7:00 pm and lasting until midnight or until participants had no more comments or questions. The information pertaining to each consultation session was announced in newspapers and on the radio, and with the help of band councils, monitoring committees, etc.

3 Transcripts (in French) of the public consultation sessions are available on request from the COMEX Secretariat (secretariat.comex@mddefp.gouv.qc.ca).

Photo credit: MDDEFP, 2012.

PUBLIC CONSULTATION IN THE CREE NATION OF WASKAGANISH

1.3 Objectives of the report

One of the primary objectives of this report is to record and interpret, as faithfully as possible, the Crees' views on the effectiveness of the mitigation measures implemented by the proponent and the planned means of offsetting the project's residual impacts. The report contains the comments expressed by the Crees during the public consultations held in November 2012, as well as the proponent's responses. COMEX compiled the comments in order to record the Crees' experience, both positive and negative, of the Eastmain-1-A/Sarcelle/Rupert project and its impacts.

1.4 Main mitigation measures implemented by Hydro-Québec in relation to the Eastmain-1-A/Sarcelle/Rupert project

The project will reduce the flow of the Rupert River from KP 314 to its mouth. The reduction will be 71% of the mean average flow at the diversion point and 51% at the river's mouth in Rupert Bay. The proponent carried out remedial measures and environmental monitoring to more clearly define or correct anticipated biophysical impacts.

As part of the environmental assessment procedure, and after consulting the Aboriginal communities concerned and incorporating traditional knowledge into the policy governing the work, Hydro-Québec and its Cree partners established numerous measures to mitigate the environmental and social impacts of the Eastmain-1-A/Sarcelle/Rupert project. They also made

considerable resources available to offset temporary or permanent disturbances to the environment. Furthermore, during the planning phase, the proponent and its Cree partners chose the project variant that would flood the smallest area of land.

Generally speaking, Hydro-Québec undertook to maintain an instream flow of approximately 29% of the mean annual flow at the Rupert River closure point and to build eight hydraulic structures on the river to reduce the impacts of the reduced flow and water levels on fish, navigation, the landscape and land use. The proponent undertook to follow the principle of adaptive management for the planned ecological instream flow regime downstream from the Rupert diversion point. This mitigation measure is designed so that, if necessary, the regime will be modified to offset an impact identified *a posteriori* by the numerous environmental follow-up programs the proponent is required to carry out or by land users' observations.

Other measures were also provided for, including a controlled-flow regime on the Lemare and Nemiscau rivers to respect the rivers' respective mean seasonal flow, construction of a canal and weir at the Sakami Lake outlet to maintain the normal maximum level in the lake under the maximum level stipulated in the agreement, and preservation of the natural character and navigation in certain stretches of the Rupert River. Other measures included construction of a new drinking water plant to supply the community of Waskaganish with high-quality drinking water.

The measures adopted in relation to the project's impacts on Cree hunting, fishing and trapping activities primarily concerned the use of the funds (total $47.4 million) established by the Boumhounan Agreement to enhance travel by Cree users, wildlife management, and the availability of wildlife resources. Various means were taken to enable the Crees to continue practising their traditional activities and access the territory: camps were moved or built; access routes (boat, snowmobile, truck and all-terrain vehicle) were built or improved; navigation corridors were cleared of debris; portage trails, beaching areas and boat launching ramps were developed or built; navigation maps were published; appropriate signs were installed on roads, trails and water bodies to ensure user safety; users were informed of the construction schedule; the stability of ice cover was monitored and maps were produced on a regular basis to show ice conditions; ditches and platforms were built to enable cisco fishing at Smokey Hill; approach corridors, pools, ponds and wetlands were developed for goose hunting, and so on.

Measures to optimize regional and local economic spinoffs for Cree and Jamesian communities were also planned, including hiring Cree workers and keeping them employed, awarding contracts to local and regional enterprises, and involving tallymen in follow-up studies. Hydro-Québec, with Cree participation, monitored the methylmercury content of fish and collaborated in the production of fish consumption guidelines to protect public health. Lastly, lookouts and interpretation panels were installed to promote recreational and tourism activities.

Numerous mitigation measures also focused on wildlife with the aim of ensuring the long-term survival of existing species. Multispecies spawning grounds for lake trout, lake sturgeon, walleye and brook trout were developed or enlarged. In addition, lake sturgeon were stocked from the fish farm at the EM-1 camp. Other measures include the relocation of bird nests and installation of nesting structures for special-status or rare species, beaver trapping programs and the capture of bears in collaboration with tallymen. Hydro-Québec also carried out rejuvenation cutting and tree removal in corridors to enhance moose habitat and facilitate moose movement. Measures were also implemented, through the Weh-Sees Indohoun Corporation, to manage and reduce the risk of overfishing and overhunting by non-Aboriginal people.

Photo credit: Photo Hydro-Québec, 2011.

LAKE STURGEON HATCHERY ON THE EASTMAIN-1-A WORKSITE

Hydro-Québec rehabilitated worksites, including quarries, borrow pits, access road rights-of-way, and material storage areas and service areas used by contractors. The sites were then replanted or seeded, or both. Enhancements were also carried out to make the sites attractive to wildlife and enable the Crees to hunt there.

To promote the Eastmain-1-A/Sarcelle/Rupert project and pay tribute to the Crees' ancestors and the people who walked the land, commemorative sites, lookouts and roadside observation areas were developed near hydroelectric structures. In addition, Aboriginal traditional knowledge about Cree heritage was documented through a research program whose primary objective was to identify burial sites and conduct an inventory of over 800 areas of archaeological potential. During the inventory, a site of significant value was unearthed at the confluence of the Rupert and Misticawissich rivers. The artefacts and other evidence discovered testify to the site's occupation for over 4,000 years and provide the first proof of pottery making by Amerindians in the James Bay region.

Photo credit: Archaeology and Cultural Heritage Program (Cree Nation Government), 2008.

ARTIFACTS FROM MODERN SITES IN RUPERT DIVERSION AREA

Based on the results of the different follow-up studies conducted in collaboration with the Crees, the proponent implemented further measures to maintain or improve, for example, fish access to tributaries and ice cover stability at certain snowmobile crossing points, monitor changes in walleye, chub, lake sturgeon and cisco spawning grounds, and so forth. Hydro-Québec, with the participation of Cree land users, is thus continuing to monitor the impacts of the Eastmain-1-A/Sarcelle/Rupert project in the territory of James Bay.

1.5 Methodology

Analysis of public consultations

The methodology employed in the analysis of these public consultations draws on methods commonly used in social research for analyzing qualitative data, such as oral or written statements. The process of data analysis consists in organizing information so as to address research questions and objectives.[4] In this case, the objective was to record the opinions expressed by Cree participants during the public consultations held by COMEX in November 2012 on the Eastmain-1-A/Sarcelle/Rupert project, its impacts and the mitigation and compensation measures put in place. Participants' comments during the six consultation sessions were transcribed and the thematic content of the transcripts and the four documents submitted by participants was analyzed to meet the consultation objective. In addition, the Hydro-Québec document containing

4 Blais, M. and S. Martineau. 2006. "L'analyse inductive générale: description d'une démarche visant à donner un sens à des données brutes" in *Recherches qualitatives*, 26(2), p. 3.

the highlights of the consultations in each community, along with the notes taken by the members and executive secretary of COMEX, served to validate the understanding of participants' testimonies. Information from the consultative meetings held between COMEX and band councils over the last four years, COMEX working sessions and tours of hydroelectric infrastructures in certain parts of the James Bay territory, organized by the SEBJ in conjunction with Hydro-Québec Production, was also taken into consideration. As well, the proponent's follow-up reports were consulted, in particular for purpose of updating information on certain areas of activity.

Note that the transcripts used for the analysis were based on French translations done by the conference interpreters. Since a number of Cree participants spoke in their mother tongue, their testimonies were translated from Cree into English and then from English into French. Consequently, the analysis is inherently skewed given that certain meanings and interpretations may have been lost in translation. However, every possible precaution was taken not to alter the meaning of participants' comments contained in this report.

Note that some of the impacts mentioned during the consultations are essentially personal observations and perceptions of the Crees who spoke at the consultations. That being said, regardless of whether their perceptions are founded on hard data or cold facts, they reflect the everyday reality of the individuals who shared them. However, considering that personal perceptions are largely subjective, and given the lack of information provided in some of the testimonials, it was difficult to clearly document the exact nature and extent of some of the impacts mentioned.

Lastly, some of the same concerns were voiced several times during the consultations, which may give the impression that parts of this report are repetitive. However, COMEX chose to favour clarity over uniformity in order to report testimonies and issues as faithfully as possible and foster a clear understanding of participants' comments.

See Appendix III for additional information on methodology and the structure of this report.

2. MAIN ISSUES RAISED BY THE CREES DURING THE PUBLIC CONSULTATIONS

Some issues were raised throughout the consultations held by COMEX in fall 2012. They were divided into four categories of impacts: impacts on avian, terrestrial and aquatic fauna; impacts on hunting, fishing and trapping; sociocultural impacts; psychosocial impacts; and economic impacts and spinoffs. The following sections summarize the comments made in all six Cree communities.

2.1 Impacts on avian, terrestrial and aquatic fauna

The impacts on avian, terrestrial and aquatic fauna of hydroelectric projects carried out in the territory prior to the Eastmain-1-A/Sarcelle/Rupert project were raised repeatedly during the 2012 public consultations. The possible disappearance of lake sturgeon from the Opinaca River and its tributaries following the cut-off of the river is one of the impacts frequently mentioned by participants at the session held in Wemindji. In that community as well as in Waskaganish, Eastmain and Chisasibi, participants have noted changes in the migratory patterns of geese as well as fewer geese along the coast in the wake of the hydroelectric projects. According to certain participants, the deforestation, road construction and flooding of a large part of the territory in relation to these projects has led to profound changes in the habits of species such as moose, partridge, willow ptarmigan, beaver and hare. Certain participants have noted changes in the appearance of fish, moose, porcupine and beaver in the areas affected by the projects and associated power lines.

One of the observed changes in wildlife attributed to the Eastmain-1-A/Sarcelle/Rupert project most often cited by participants at the consultations is the marked decrease in, if not total disappearance of, waterfowl. Most of the participants attributed the sudden decline in species such as the snow goose and merganser to the near-total drying up of feeding sites. A number of participants called for measures to restore sites to their pre-project state.

The disturbance of fishery resources is another major impact observed by participants. Many residents of Nemaska have noticed that the spawning areas identified in certain sectors prior to the project have been significantly affected. In fact, a number of people remarked that, despite the mitigation measures put in place, lake sturgeon no longer spawn in some of the known spawning sites because water levels are too low. Some participants requested that measures be adopted to restore lake sturgeon spawning areas.

Participants at the consultations held in Waskaganish and Wemindji have also observed a significant decline in fish in rivers, in particular lake sturgeon, cisco, lake whitefish and walleye. In addition, some participants noted a correlation between the start of the project and the observation of dead fish. They maintain that fish get trapped in the weirs and die.

Several members of the communities of Waskaganish, Nemaska and Eastmain emphasized that beaver is one of the species most disturbed by the project. Even if large numbers of beaver were trapped or relocated prior to the construction of hydraulic structures, it seems that the higher water levels flooded their lodges. Beavers and their young abandon their lodges to escape the

spring flood and readily fall prey to other species, not to mention that young beaver can be carried away by the current. Participants from Waskaganish have noted a marked drop in the number of beaver along the diverted river; one participant claimed that around 380 beaver have died because of the project.

2.2 Impacts on hunting, fishing and trapping

As mentioned by several participants at the consultations, the first hydroelectric projects carried out in the territory had numerous impacts on hunting, fishing and trapping practices. First, many hunting and trapping grounds were completely flooded, especially during the construction of reservoirs for the La Grande complex. Second, it was much harder to boat into the heart of the territory in some areas because several watercourses had almost completely dried up. A number of participants noted a correlation between the advent of hydroelectric projects and higher water temperatures in lakes and rivers, which have caused them to freeze later than before. Thinner ice has apparently caused a number of incidents, in particular deaths by drowning. As for fishing, participants noted a change in water levels since the dams were built, which apparently means that fishermen have to wait longer before water levels are high enough to launch their boats.

In most of the communities visited during the consultations held in November 2012, the participants talked about the impacts on hunting, fishing and trapping associated with the Eastmain-1-A/Sarcelle/Rupert project. They maintained that the observed changes in the presence of different species in the territory are extensively altering the pursuit of traditional hunting, fishing and trapping activities. Not only has it become necessary to engage in lengthy searches for new sites to practise these traditional activities, but it also seems that a number of individuals now have to rethink their hunting, fishing and trapping strategies and methods. As one participant put it, they have to reconnect with the territory, not only in terms of sites used from one generation to the next, but also in terms of traditional activities and knowledge. In addition, participants stressed that several sections of waterways are no longer navigable and that portage trails have not necessarily been developed. Consequently, they have had to abandon some navigable waterways and, as a result, are losing the knowledge attached to them. One participant noted that it is not just a matter of finding new navigable waterways, but of gaining the knowledge of how to use them (winds, tides, waves, temperature, water salinity, etc.).

It was also mentioned that some sites are no longer accessible due to flooding of certain parts of the territory, including roads and trails traditionally used by the Crees. Modes of travel used to hunt, fish and trap have also changed due to the thinner ice cover on many water bodies in winter and the flooding of certain sectors, requiring some individuals to either move their camp or stop engaging in these activities. In some cases, less time is spent on traditional activities than before because it takes longer to get to hunting, fishing and trapping sites now.

Other participants mentioned that until knowledge of new navigable routes and better hunting, trapping and fishing sites is consolidated and transmitted, the pursuit of traditional activities will be limited for communities affected by the project. For some of them, the harvest from these activities is no longer sufficient to ensure a supply of traditional food comparable to that prior to the project. One participant said he had to abandon his usual spot for net fishing because of the low water level and regretted no longer being able to obtain daily supplies for his everyday consumption. Furthermore, according to certain residents of Nemaska and Waskaganish, the opening of dam gates in spring raises the water level in the Rupert River, which limits access to sites that used to be good for goose hunting. One participant underlined that the higher water

levels caused by the opening of the gates creates more work for individuals who must temporarily move their traps and blinds. Some participants said they have to move several times now during spring hunting trips, whereas they used to be able to stay in a single area. Furthermore, they maintain that the distance and physical effort required to get to hunting camps now make it impossible to pursue certain traditional activities as a family, particularly families with young children.

They also said that some sites that were once favourite fishing spots, such as water bodies where the Robert-Bourassa reservoir is now found, are no longer frequented out of fear that fish contain excessively high concentrations of contaminants, despite the pamphlets published by the Cree Health Board in cooperation with Hydro-Québec to reassure the population.

2.3 Sociocultural impacts

Numerous participants at the public consultations in 2012 mentioned the sociocultural impacts of hydroelectric projects carried out in the territory. The impacts concern changes to the territory and its resources, the attendant cultural reference points, social cohesion within communities, traditional roles, and changes in the way of life and diet. Several people have had a hard time dealing with the impacts of these projects on the land.

First, the loss of sectors or territories used for the pursuit of traditional hunting, fishing and trapping activities has largely altered access to traditional food resources. As one participant emphasized, the abundance that prevailed prior to the advent of the projects was conducive to sharing within communities. Tallymen were responsible in times past for ensuring that all families had food throughout the year. Some participants stressed that it has now become impossible to fulfil this responsibility. Social cohesion between and within communities has also been affected by the reduced frequency of certain activities that used to unify the communities. For example, one participant from Chisasibi spoke of goose hunting as traditionally being a highly structured activity that brought together the members of different communities. According to him, the marked reduction in the presence of geese in the area, which many participants attribute to the hydroelectric projects, may have reduced the social benefits of this activity.

Furthermore, the food eaten by the Crees was greatly affected by the first hydroelectric projects. As described in sections 2.1 and 2.2, several species that are part of the traditional Cree diet are not as available as before. A number of participants at the 2012 public consultations emphasized the cultural value of traditional foods. For example, participants remarked that lake sturgeon was a key food in children's' diet and it became much harder to catch following the first hydroelectric projects. Other species, such as the snow goose, traditionally used during community celebrations, can no longer be served as regularly at such events. One participant noted that organizing a community feast centred on traditional foods now poses a considerable challenge and a "modern feast," composed of food purchased at the grocery store, does not hold the same value. He went on to say that there are not as many community feasts as before, which in turn reduces the transmission of know-how within communities related to the preparation of traditional foods. Moreover, a participant from Waskaganish lamented the decline in brook trout in certain waterways since the Rupert's partial diversion, because this species is an important component of traditional medicine.

There is apparently widespread distrust in the Cree communities regarding the quality of traditional food harvested in certain areas, in particular near power plants and reservoirs. Cases of mercury contamination of fish from reservoirs that occurred when the La Grande complex was

built remain rooted in the collective memory, to the extent that a number of people categorically refuse to eat species harvested in these areas, despite the guidelines published by the proponent and different bodies to promote safe eating habits. More limited access to wildlife and fishery resources and distrust of food harvested at certain sites has contributed to increased consumption by the Crees of food from southern Québec. It would seem that the new diet has had a significant impact on Cree health, not to mention the impact of the change in lifestyle associated with diet.

Many participants, especially from Chisasibi and Eastmain, also brought up the changes in water quality in the wake of previous hydroelectric projects. These communities' drinking water supply has been greatly altered since the water in several rivers and lakes has become cloudy. Drinking water directly from its source is regarded as a facet of the Cree way of life and culture. Indeed, several participants' comments in this regard suggest that this is much more than a simple practice; rather, it is an unspoken way of living their relationship with the territory. It goes without saying that having to carry water is an added constraint during long hunting, fishing or trapping trips, as one participant emphasized.

According to several participants, the introduction of treated water into the Cree diet following the first hydroelectric projects is apparently responsible for health problems that were previously non-existent in the communities, e.g. skin diseases such as eczema. One participant from Chisasibi mentioned that several members of his community, including the elderly, did not like the taste of tap water and that, despite the health risks, many of them continued to drink at natural sources whose waters have become turbid and, according to him, may contain high mercury concentrations. Other participants mentioned that they had instead decided to look for other sources of clear water in the territory. They maintained that, since sources are more remote, it takes longer and more effort now to obtain water. Moreover, a number of participants deplored that some watercourses have been littered with debris since the Eastmain-1-A/Sarcelle/Rupert project. Despite the programs implemented to monitor certain water quality parameters and despite the information transmitted to the public stating that water quality is mostly unchanged, the perception of some users is that the water does not taste the same and is, in their view, unfit for consumption.

In the wake of the Eastmain-1-A/Sarcelle/Rupert project, similar sociocultural impacts were observed by the participants at the 2012 public consultations. Several participants said they experienced the changes to the territory as an abdication of part of themselves and the community to which they belong. One participant from Waskaganish clearly expressed this notion: "The river is at the root of our community. … the river is part of the community."

Many participants noted varying levels of impacts on the traditional way of life. Among other things, changes in modes of travel as a result of changes to the territory appear to be experienced as the loss of an important facet of the traditional way of life. In Eastmain, one participant emphasized that some individuals can only get to their hunting camps by helicopter now. According to him, a whole dimension of hunting and fishing associated with travel within the territory has been affected. Hunting and fishing practices and the attendant know-how could be lost if less traditional food is available. Fewer opportunities to transmit knowledge and traditional know-how related to hunting, fishing and trapping to youth is a factor identified by many participants. As one participant noted, the sporadic, spontaneous teaching of young people is now limited because numerous sites located near communities that were previously good for fishing are no longer suitable for this activity.

However, in the opinion of one participant from Nemaska, the current project has created opportunities for some community members to get closer to the territory. Field studies involving the Cree, both prior to the project's authorization and during environmental monitoring, are a means of transmitting knowledge of the territory and its resources, especially when young people have an opportunity to participate in them.

2.4 Psychosocial impacts

Numerous testimonies presented during the public consultations in 2012 referred to the psychosocial impacts on the Crees of past hydroelectric development projects in the territory. The fact that several participants talked about these impacts bears witness not only to the extent and depth of the impacts, but also to their persistence. Numerous participants described the shock they experienced—and sensed among their family and friends as well—at the extent of the impacts on the land and its resources following the first hydroelectric projects. Some said they never anticipated such huge changes. The isolation of the Cree people in times past, and the fact of living off the land, brought a sense of community pride and independence. Now they are faced with the reality that they can never go back.

One impact repeatedly mentioned by participants is the pain of losing or dealing with the changes to certain parts of the territory as a result of the Eastmain-1-A/Sarcelle/Rupert project. Some lamented the loss of places where they used to practise traditional pursuits. Some comments were more personal in nature, such as childhood memories about places people will never be able to return to, and the regrets about having to give up some of their associated traditional practices. Many participants regret that the younger generation will never get to know and experience their ancestors' way of life. Some expressed this by talking about the scenery and landscapes their descendants will not get a chance to see. Others spoke of the fishing, hunting and trapping spots they will not be able to take their children and grandchildren to anymore. Still others expressed sadness at no longer being able to take Cree youth on long trips across the land, the types of trips they have been on so often during their lifetime and that have enabled them to get to know the land so well.

Some participants talked not only about their individual and collective distress, but also about the distress to the natural environment, as evidenced by this comment: "The river is so sad since the dam was built." Several participants empathized with animals that have suffered the effects, such as destruction of their habitat and forced displacement, or that died during construction of the project.

The advent of the first hydroelectric projects apparently undermined the harmony within communities in certain regards. Some members of the communities suddenly became richer, creating inequalities in wealth distribution and, consequently, widespread tension and quarreling. In addition, as one participant pointed out, the members of certain communities no longer have equal access to wildlife and fishery resources, depending on the extent to which developments have affected the territories they use to harvest these resources. One participant from Eastmain pointed out that ever since the dams were built, the members of his community upstream from Eastmain River have to wait longer for the tide to rise in order to go fishing, whereas people downstream from the project have sufficient water levels sooner.

Several participants mentioned the conflicts that the Eastmain-1-A/Sarcelle/Rupert project has caused within their community and even between certain community members. First, changes in the abundance of wildlife and fish in certain sectors, harder access to certain hunting or fishing

grounds, and the flooding of trapping territories, have sometimes led to conflicts between different communities that coveted the same sites. Numerous participants spoke of the polarizing effect the project had in their community. In Nemaska, in particular, members of the community noted that during the initial discussions on the project, the community was clearly divided and the division grew as the project advanced. In one participant's view, individuals who spoke out against the project subsequently had difficulty obtaining contracts related to the project. The awarding of contracts to certain community members for specific mitigation measures also aroused jealousy and created conflicts. One participant even reported that disputes sometimes resulted in physical violence.

In addition, social problems already present in communities affected by the project apparently worsened in the wake of the Eastmain-1-A/Sarcelle/Rupert project. One participant from Waskaganish noticed an increase in alcohol consumption by certain members of his community who benefited financially from the project. As another participant from Waskaganish emphasized, a lot of time and resources were spent on reviewing the project, which had the adverse effect of draining resources that could have been devoted to the mitigation of social problems.

Another psychosocial impact that came across in several comments concerned worries about the future. Many participants expressed fears about the safety of the La Grande complex should a natural disaster cause dams to break or if the effects of climate change endanger infrastructure. Some people have the impression that the safety of nearby communities was not taken into account in the planning of these initial projects and that no emergency response plans existed. In terms of the Eastmain-1-A/Sarcelle/Rupert project, the concern has more to do with the future of young people. For example, one participant said he is worried that young people will no longer have as many cultural references with which to identify. In his opinion, they will no longer learn how to survive off the land. Another source of concern is the lack of jobs and assistance to help young people support themselves if they are unable to provide for their needs through subsistence hunting, fishing and trapping. Lastly, some participants said they were worried that animal species will become extinct. For example, many perceive a significant and worrisome decline of lake sturgeon in the Rupert River.

Several people said they were angry at the changes to the land caused by flooding, road and power line construction, changes in hydrology and the construction of hydroelectric facilities in their territory. People whose traplines were damaged still seem to be extremely bitter.

Moreover, in the wake of the first hydroelectric projects, many people had the impression that they did not actually benefit from them, or were not sufficiently compensated. Some feel that with everything the Crees have had to give up, they should not have to pay for electricity and drinking water. The feeling of having been fooled or taken in also stems from the perception that the proponent purposely downplayed the impacts of these projects, as mentioned by a member of the community of Eastmain: "[…] they told us nothing would be affected, not wildfowl, not animals, and that's what the Elders were told." As regards the observed impacts of previous hydroelectric projects, several people voiced their displeasure and annoyance at the absence or lack of mitigation or compensation measures. Some comments pointed to considerable incomprehension as to why environmental impact mitigation and compensation measures are of short duration and benefit so few people when hydroelectric projects generate so much money. A few people find it rather unfair that funding runs out whereas the impacts endure.

A number of participants at the public consultations also voiced dissatisfaction with the mitigation and compensation measures related to the Eastmain-1-A/Sarcelle/Rupert project, in particular their duration, which some feel is too short. A few participants said they find the eligibility criteria

for assistance measures for remedial work or hunting, fishing and trapping activities are unfair and arbitrary. Some people find it unfair that they are not entitled to the compensation measures. The fact that the assistance granted to the Crees applies only to the development of facilities, not to the facilities' maintenance, was criticized. Lastly, one participant said she was sorry to see that no steps were taken to attenuate the emotional, psychological and spiritual impacts of the project.

Some people were angry about the perceived lack of consideration they received. First, some saw the limited involvement of Crees in defining previous hydroelectric projects and conducting the preliminary studies and environmental follow-up as a lack of recognition of their expertise about the territory and its resources. Although the Crees have been more involved in the Eastmain-1-A /Sarcelle/Rupert project, some people feel that not enough consideration was given to Cree values and knowledge in conducting studies or implementing certain mitigation measures. A few people feel that denying them access to compensation and mitigation measures showed a lack of consideration. Others said that neither the proponent nor the committees created under the project had addressed their questions or requests. The feeling of always having to fight, to justify themselves and to exercise pressure in order to get assistance or the work promised to them reinforces the feeling of a lack of consideration.

Feeling powerless as well as a bit guilty was another impact that came across in several comments. Referring to the flooding of a Cree burial ground, a person from Nemaska said it felt like the community had abandoned the people buried there, that it had been unable to stop such a sacrilege from happening. The notion of responsibility was also mentioned by participants who felt powerless and guilty over not being able to protect the land of which they are stewards.

Furthermore, some people said they felt invaded by the first hydroelectric projects and the influx of workers to their territory. Some people did not feel at home anymore after the territory was opened up by previous hydroelectric projects and large numbers of non-Aboriginals and Crees from other communities arrived. For example, one participant said he experienced anxiety when he realized that spots where he used to go to be alone now have lots of people there. A person who works for Hydro-Québec made the same comment, saying that he no longer feels at home and is treated like a foreigner by non-Aboriginal workers. A participant from Eastmain remarked that Aboriginal and non-Aboriginal workers were not always respectful towards each other on worksites. He apparently observed the same situation on worksites near Nemaska.

A number of comments shed light on the impacts of hydroelectric projects on individuals' and communities' self-esteem. As one participant expressed it, the sense of pride in being an independent people living in abundance gave way to a sense of scarce resources and dependence on others soon after the first hydroelectric projects were carried out. The devaluing of their way of life caused by the changes brought on by these projects came across in some of the comments. First, the role associated with providers, including tallymen, has diminished considerably since hydroelectric projects began. Also, a few people said that the changes in hydrology have reduced former navigation experts to beginners' status.

However, people involved in the preliminary studies for the Eastmain-1-A/Sarcelle/Rupert project said they felt valued as Crees while participating in the work. Moreover, a participant from Waskaganish pointed out that if the project is a success it is in part due to the Crees' participation. Another participant from the same community thinks that the Crees improved the project by sharing their knowledge.

In short, pain, anger, frustration, sadness, helplessness and, in some cases, appreciation, are some of the emotions and feelings expressed by participants in relation to past hydroelectric developments as well as the Eastmain-1-A/Sarcelle /Rupert project. As well as needing to express these emotions, some participants seemed to want to share their experience with a view to acceptance and rebuilding. In the words of one participant: "Healing is possible, however. In fact, that's what we're trying to achieve here tonight. Tonight, we'll talk about the wounds caused by the loss of our land. And we'll try to see how they can be healed." Another participant expressed it this way: "I just wanted to share my feelings today, because I let go, I accepted. What's done is done and now I have to move forward because I can't changed anything. That's how I was able to heal. I hope my people will be able to heal too." And still another participant suggested starting over: "We need to move. Our ideas and our thoughts will be positive again. We can get a fresh start."

2.5 Economic impacts and spinoffs

During the consultations in 2012, many participants expressed gratitude toward the proponent for the financial assistance, contracts and jobs received under the Eastmain-1-A/Sarcelle/Rupert project. Several people remarked that the economic benefits derived from the project had helped improve the quality of life in Cree communities, in particular by enabling people to make their homes bigger, purchase goods and save money for future projects. One participant took the opportunity to thank the Hydro-Québec representatives directly for the opportunity afforded by the project: he had never had a paid job before. Another participant mentioned that no other proponent had ever done as much to ensure direct economic spinoffs for the communities and, in his opinion, this has helped improve relations between the Cree communities, Hydro-Québec and the Société d'énergie de la Baie-James.

While some said they had gotten either work or contracts for a significant length of time, most of the participants who addressed the issue feel that few economic benefits have been derived from the project considering that jobs and contracts are temporary. Some participants said that the Crees had very high expectations in this regard and had over-estimated the project's economic spinoffs. One participant described the roughly three years of economic growth followed by what now appears to be a significant slowdown as a period of "boom and bust." The drop in employment opportunities and contracts was so sudden that transition measures should have been planned. Not everyone feels that way, however: some participants think there will be work for many years to come.

Numerous participants feel that the economic benefits have not been shared equally within communities. First, a number of people remarked that it was relatively hard, if not impossible, for anyone other than tallymen to get contracts. Second, a few participants said that tallymen got the smallest piece of the pie in terms of contracts, with the latter going to big companies first, followed by companies co-owned by band councils. Some participants think that the process for awarding contracts does not reflect a genuine willingness to ensure that every bidder has the same chance, because it is hard for individuals to compete against big companies or businesses created in partnership with band councils. In particular, the deadlines for submitting service offers are apparently too short to enable local contractors to put the necessary organizational structures in place. The lack of experience and training also make it harder for local contractors to win contracts than band councils working in partnership with well-established industry players. In addition, some participants said they had the impression that the qualifications required to get available jobs do not create equal opportunities for Crees and non-Aboriginals, even though equal opportunity policies exist.

As regards the economic development of communities through the project, once again expectations seem to have exceeded reality. Whereas one participant said that the project allowed some local businesses to grow, another felt that there had been relatively little business development in his community. Nevertheless, it would appear that communities have prospered more than ever before, but are having trouble setting up the structures needed to continue stimulating the local economy: "We're fighting to maintain this prosperity."

On the other hand, as one participant pointed out, the Eastmain-1-A/Sarcelle/Rupert project has allowed many people to develop their skills. He, himself, has watched young people involved in field studies gain knowledge and confidence. The functions he has performed in relation to the project have given him an opportunity to explore fields ranging from forest management to archaeology, which seems to have made him more versatile and given him greater confidence in his professional abilities. As another participant explained, most of the jobs requiring little training or experience are manual jobs, which he thinks makes it harder to develop other types of skills.

Several participants underlined some of the economic impacts of the Eastmain-1-A/Sarcelle/Rupert hydroelectric development. First, most of the recreational and tourism potential of the Rupert River has been lost, robbing certain communities of a major opportunity for sustainable economic development. One participant from Waskaganish who works in tourism said he was embarrassed to take tourists to the Rupert River now, because it is not as beautiful as it was before the partial diversion. Many participants also mentioned the higher cost of travelling to hunting, fishing and trapping grounds as one of the project's impacts on the land and avian, terrestrial and aquatic fauna. Although a number of measures were implemented to offset this impact, several participants decried the short duration of the measures and the limited access to them. Moreover, one participant said that the project's economic spinoffs must be considered in relation to the cost to certain communities of dealing with the project's impacts on the land and its resources, such as the purchase of a helicopter by the community of Waskaganish in order to fly hunters into the heart of the territory. A number of participants say they are still a bit bitter over the actual economic benefits derived from the first hydroelectric development projects as well as from this project. Some especially deplore the low number of jobs created and the fact that they are temporary, as well as the procedure for awarding contracts, which they feel does not give large companies, tallymen and other individuals an equal chance.

In short, the various verbal testimonies relating to the project's economic spinoffs reveal that, in general, the communities' expectations have not been fully met. One participant recalled the words of an Elder, who had told him that the only reason he was able to accept the project and everything the Crees would have to give up was the anticipated economic spinoffs that were supposed to secure young Crees' future. Although many participants said they were grateful for the opportunities afforded them, some questioned the short-lived economic boom produced by the project, which is still of major concern to them.

3. MISTISSINI

The consultation session took place at the Complexe sportif de Mistissini on November 6, 2012, in the evening. Twenty people attended the session and six of them took the floor, including one woman. Two tallymen along with the Deputy Chief of the Mistissini Band Council were present. The Cree village of Mistissini has a population of roughly 3700[5].

Note that the consultation session in Mistissini was shorter than those in the other communities. Consequently, this chapter is shorter than the others as well. Few topics were discussed and comments were generally very specific. In fact, the participants from Mistissini primarily made specific requests rather than general comments, as reflected in the section discussing the views expressed by the Crees (section 3.2).

3.1 Concerns expressed at the public hearings held in 2006[6]

Several concerns expressed by the Mistissini Cree at the public hearings in 2006 related to the importance attached to traditional knowledge. A number of Cree participants sought assurance from Hydro-Québec and its consultants that they would maintain relations with the Cree communities so as to ensure their access to relevant information and that their concerns and traditional knowledge would be taken into account in monitoring and follow-up programs.

The Crees from Mistissini also expressed their fear that other hydroelectric projects would be carried out in the James Bay territory. They wanted to ensure that the integrity of Mistissini Lake would be preserved.

Participants were concerned about the project's potential impact on fish and fishing. A number of participants were sceptical about the effectiveness of the proposed mitigation measures to create spawning grounds in other areas and feared that flooding of the Rupert diversion bays would channel mercury to the Opinaca and La Grande reservoirs. One outfitter anticipated a drop in his sportfishing clients because of the negative perception created by the harnessing of Rupert River and the loss of its natural character.

Lastly, several participants were worried about the safety of the dams in operation on the Eastmain-1, Opinaca, La Grande-2 and La Grande-1 reservoirs. They feared that because the dams were built in the 1970s, they might not be designed to received a greater volume of water.

Note that none of these concerns were raised at the public consultation held in Mistissini in November 2012.

5 Registry of Cree, Inuit and Naskapi beneficiaries of the JBNQA and NEQA, 2013.

6 Provincial Review Committee (COMEX). 2006. *Eastmain-1-A and Rupert Diversion hydropower project. Report by the Provincial Review Committee to the Administrator of Chapter 22 of the James Bay and Northern Québec Agreement*, pp. 135-136.

3.2 Views expressed by Cree participants at the consultation sessions held in 2012

3.2.1 General comments

Before examining the specific impacts of the Eastmain-1-A/Sarcelle/Rupert project, as reported by the Cree Nation of Mistissini, it is worth mentioning a general comment made with regard to the proponent. One of the participants maintained that by refusing to grant funding for certain projects aimed at enhancing or mitigating impacts, Hydro-Québec failed to honour its commitments to address the impacts of the Eastmain-1-A/Sarcelle/Rupert project. He was referring more specifically to projects submitted to the SEBJ in 2008, 2009 and 2010 with a view to facilitating land use and access to a bay following impoundment of the Rupert diversion bays. Hydro-Québec replied that the SEBJ had indeed refused a request in 2008 for economic reasons, but that land had been cleared and a trail had been built to facilitate access to the bay. Apparently, the tallyman had accepted this alternative solution.

3.2.2 Impacts as noted by participants at the consultation session held in Mistissini

In some communities, the comments relating to impacts generally pertained to all hydroelectric development projects in the James Bay region, whereas in Mistissini, the majority of comments referred specifically to the Eastmain-1-A/Sarcelle/Rupert project.

3.2.2.1 Environmental impacts

Only one environmental impact of hydroelectric developments in general was mentioned during the consultation and that is shoreline erosion in James Bay. The participant who mentioned it attributed the erosion to the fluctuating water levels caused by the hydroelectric dams.

The other environmental impacts mentioned relate specifically to the Eastmain-1-A/Sarcelle/Rupert project. The spouse of a tallyman confirmed that their trapping territory had suffered the biggest impact from the project, in particular due to flooding of the land. Another participant had remarked that the water level in Misticawissich River was very high in fall 2012:

> We were there to hunt moose and do some work, but it proved to be impossible. I saw that the water level of the river was very high. Hydro-Québec had told us that the water level would be stable for the next 40 years at sites where brush clearing was carried out. I was shocked recently to observe how high the water level was. The waterline was very close to the trees.

The same participant also observed shoreline erosion along the Misticawissich River, which he claims is caused by changes in the water level.

3.2.2.2 Sociocultural and economic impacts

In terms of sociocultural and economic impacts, a minority of participants reported the project's effects on traditional activities, especially moose hunting, due to higher water levels in Misticawissich River.

A participant also mentioned nuisances caused by a road that is in poor condition. A Cree contractor built the road under a contract received from Hydro-Québec. The proponent had promised to build an access road to the camp at KP 14, which has become the main camp used by people trapping in this area since the Rupert's diversion. The participant stated that the condition of the road is getting worse, especially in spring, which hinders land users: "The road leading to our camp is a disaster. We asked that the road be repaired, but our request was ignored. … There is sand everywhere."

3.2.2.3 Psychosocial impacts

The only psychosocial impact that came to the fore was a sense of anger expressed by a participant at the consultation in Mistissini, who had asked SEBJ to repair a road in poor condition and the SEBJ refused:

> I would like to know why the road was not repaired even though we were told that it would be and our trapping area was destroyed by the work. Every time we submit a request to Hydro, it replies that it does not have the necessary funds. It has caused so much destruction. I am certain that funds are available for our modest requests concerning road repairs. … How is it that this road cannot be repaired when such a large part of our trapping area was destroyed? We made only one small request and it was refused. I'm only starting to talk. I risk losing my temper.

3.2.3 Concerns expressed

Concerns about wildlife and, more specifically, beaver, were expressed by a few participants at the consultation held in Mistissini. One of the participants had noticed a new beaver lodge along the Misticawissich River whereas the water level in the river was high and he is worried about what will happen to the beaver: "We know that the water level will fall again when the dam gate is opened. I wonder what will happen when the water level falls. I am worried about the beaver. I wonder if they will die." Some participants would therefore like the beaver trapping program to be reactivated and hope they will be allowed to harvest the beaver, as they believe it will be difficult for the animals to survive once the river's water level falls.

4. NEMASKA

The consultation session took place at the Complexe sportif de Nemaska on the evening of November 8, 2012. Roughly 35 people attended the session and 17 of them took the floor, including three women. Nine tallymen, including the Chief of the Nemaska Band Council, were present at the meeting. The population of Nemaska is roughly 800[7].

4.1 Concerns expressed at the public hearings held in 2006[8]

One concern about the Hydro-Québec project raised by the community of Nemaska at the 2006 public hearings was the temporary nature of the anticipated jobs created during construction phase, which meant that the Crees risked abandoning their way of life for a certain period. In addition, participants feared a drop in economic spinoffs during the dismantling of operations and worried that it would be more difficult for people to resume their traditional activities and live off the land. The Crees wondered what would happen once the construction work was completed.

Residents of Nemaska were also worried about the project's impacts on water quality in the Rupert River. They feared that water quality would be permanently altered by the construction work, dynamiting and the presence of extensive infrastructure. At the time, people drank water from the river without having to treat it and residents feared that the water would no longer be potable due to the turbidity caused by changes in the flow of the river.

A few people voiced concerns about potential impacts on the streams and bodies of water near the Rupert River, such as Nemiscau Lake and the Nemiscau River, Champion Lake and the Pontax River. They wanted reassurance that the project would not affect water levels, especially to preserve existing fish habitats.

With respect to the ecological instream flow regime, participants emphasized the importance of taking natural water level variations into consideration from one season and one year to the next, in particular by considering average precipitation. The participants also voiced concerns about the impact of hydropower dams on global warming.

Some people felt that increased traffic in the territory, combined with more trucks on the roads, would contribute to the deterioration of existing roads and increase the risk of accidents. One participant asked the proponent to make the necessary improvements to the highway infrastructure to ensure driver safety.

A number of participants recommending limiting the scope and number of hydroelectric development projects in order to preserve natural environments, avoid more dam construction in the territory and prevent the destruction of more rivers.

Various people were especially worried about the project's impacts on fish populations and spawning sites in the Rupert River. Some participants were dissatisfied with the fish studies conducted by Hydro-Québec.

7 Registry of Cree, Inuit and Naskapi beneficiaries of the JBNQA and NEQA, 2013.

8 Provincial Review Committee (COMEX). 2006. *Eastmain-1-A and Rupert Diversion hydropower project. Report by the Provincial Review Committee to the Administrator of Chapter 22 of the James Bay and Northern Québec Agreement*, pp. 138-141.

Residents of Nemaska spoke about the sense of loss related to the possible diversion of the Rupert River and about how deeply affected they were by the thought of losing the river in its natural state.

It should be noted that participants at the consultation held in Nemaska in 2012 voiced some of the same concerns as participants at the public hearings in 2006, namely the impacts on water levels and quality in the Rupert River, fish populations and spawning areas. However, the other sources of concern mentioned in the previous paragraphs were not raised during the 2012 consultation session in Nemaska.

4.2 Views expressed by Cree participants at the consultation sessions held in 2012

4.2.1 General comments

In a presentation on the historical background to the Eastmain-1-A/Sarcelle/Rupert project, the Nemaska Cree representative on the Monitoring Committee said that he had observed an improvement in relations between the Crees and Hydro-Québec, as evidenced by Cree involvement in the various stages of the project. He explained that, during a conference organized by the Cree–Hydro-Québec Feasibility Study Group (Boumhounan Committee) in 2005, many people affected by the hydroelectric developments (La Grande complex, Eastmain-1, etc.) shared their opinions on the project and their testimonies revealed the need to establish an information and consultation mechanism to ensure Cree involvement in every stage of the Eastmain-1-A/Sarcelle/Rupert project:

> … a mechanism needed to be established to continue to inform the people but more importantly include them in the project design, the ongoing technical and environmental study programs so that the people would have a better understanding of the project and the potential impacts and be better prepared to accept the reality in the event the project was authorized and proceeded.[9]

This led to the creation of the Cree–Hydro-Québec Monitoring Committee in 2007. Starting in 2007, information sessions were also held twice a year in the Cree communities affected by the Eastmain-1-A/Sarcelle/Rupert project. In addition, regular meetings were held with tallymen to inform them about the work, but also hear their concerns and gain a better understanding of the project's impacts on their respective traplines. Based on the discussions, various mitigation measures were implemented, including construction of a new boat ramp, development of spawning beds, planting of trees and shrubs to restore worksites, and so forth. The awarding of contracts to Cree enterprises and tallymen also helped to improve relations between Hydro-Québec and the Cree communities.

In the participant's opinion, it is crucial that an approach centred on cooperation between the proponent and the Cree communities be adopted in order to minimize impacts on the communities, Cree territories and Cree land use, especially hunting and fishing activities: "Failure to adopt such an approach would only create acrimony and animosity between the people and the project proponent." The same participant was of the view that the approach adopted by Hydro-Québec

9 Jimiken, L. (2012). *Presentation to COMEX*. Document submitted during the 2012 public consultations on the Eastmain-1-A/Sarcelle/Rupert project, 5 pages.

to foster Cree participation in the different stages of the project and limit the project's impacts on the communities could even serve as a model for future development projects. On the other hand, a resident of Nemaska felt that greater reciprocity in relations between Hydro-Québec and the Cree communities is needed, i.e. they should work more closely together.

A few participants think it is hard for tallymen to get support or answers to their questions from Hydro-Québec: "… I can see how hard it is for the tallymen when they make requests. … You know, it's very difficult emotionally, very difficult. When, in addition, you have the impression that you're talking to a wall when you make a request, it's harder still." Certain participants noted that the measures implemented by Hydro-Québec did not eliminate, or at least mitigate, all of the project's impacts because other impacts occurred in addition to those initially anticipated: "I'm grateful for what has been done. However, if you think about the state of the trapping areas before the work, there are shortcomings in what should have been done." In this respect, the Nemaska Cree representative on the Cree–Hydro-Québec Monitoring Committee mentioned that, under the new agreement adopted in 2012 (the Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project), funds would be available to offset residual and unforeseen impacts of the Eastmain-1-A/Sarcelle/Rupert project.

Some participants also commented on the duration of the consultation sessions, saying that they should be longer so that everyone wishing to express an opinion or concerns about the project and ask questions can do so: "Nemaska was the most extensively affected community and it can only take advantage of a brief period to express its concerns. I think that it's unfair … people deserve to be heard for more than one evening." Other participants wondered whether all of the comments that participants made during the consultations would be taken into account and if measures would be adopted accordingly.

Lastly, some members of the community of Nemaska spoke about their traditional way of life, their attachment to the territory and their culture, the difficulties that Cree communities experienced in the past, their use of the territory, and the transmission of traditional knowledge to younger members of the community.

4.2.2 Impacts as noted by participants at the consultation session held in Nemaska

Like at the consultation in Mistissini, most of the comments on impacts expressed at the consultation held in Nemaska dealt with the Eastmain-1-A/Sarcelle/Rupert project in particular and not with the other hydroelectric development projects carried out in the James Bay region.

4.2.2.1 Environmental impacts

First, in terms of environmental impacts, many participants mentioned changes in the flow and water level of the Rupert River since construction of the project infrastructure. Lower water levels have been observed in certain sectors (e.g. between KP 135 and KP 170 and at KP 281), while in others (in particular between KP 223 and KP 260), the water level is higher, especially when the Rupert dam gates (at KP 314) are opened in spring. Furthermore, the flow rate is much slower now in places, particularly the Sipastikw branch, to the extent that the current has changed direction: "When I saw the channel again, the water was flowing backward. Once the river was closed, the water returned upstream. Everything is now dry where the water once flowed. The changes are radical. Nothing remains but a stream. Fortunately, there are a few streams where the

water can still flow, but the water level remains low." Several participants also noted the appearance of rapids and protruding rocks at KP 285, one of the sectors of the Rupert River affected by a drop in water level.

Participants at the public consultation held in Nemaska also talked about impacts on wildlife. Some said that there are fewer geese than before in certain sections of the Rupert River. They attribute their disappearance to the higher water level in spring when the Rupert dam gates are opened, as one participant explained: "At that time, the gates were opened and the water arrived suddenly. The geese will not go there. As a matter of fact, this area is the most popular bird feeding area, especially for geese. The water arrives and the birds fly away. The region is deserted."

Other participants have noted fewer fish in sections of the Rupert River where the water level has dropped significantly since construction of the Rupert dam. Moreover, they have observed that lake sturgeon no longer spawn in some of the places they used to before the Rupert's diversion, in particular the confluence of the Rupert River (at KP 281) and Sipastikw branch:

> Before the work, we collected information on important sites on the river where fish were numerous and the sturgeon spawned. The Cree people greatly appreciate sturgeon. I remember that I discussed three places. The first one, Chenomí, provides our livelihood. The second one, Ká Iyápshámshí, is at KP 281 and the third site is Lac Mesgouez. It was there that my grandfather had his trapping area. I saw sturgeon being fished at all three locations. Before the dam was built on the river, the sturgeons were abundant.

It is important to remember that residents of Nemaska had expressed concerns in this regard during the public hearings in 2006. A tallyman also noted lesions on the fish he caught: "I believe that the fish are now sick. They are no longer the way they used to be."

Beaver also appear to be affected by fluctuating water levels, according to another tallyman. He reported that the beaver lodges were flooded in the fall when the water level of the river rose: "The beaver had prepared for the winter. They were disturbed and had to move. … the current swept away all of the beavers' food."

4.2.2.2 Sociocultural and economic impacts

The main sociocultural impacts of the Eastmain-1-A/Sarcelle/Rupert project mentioned by Crees who spoke during the consultation in Nemaska are related to traditional hunting and fishing activities, navigation conditions, water consumption, economic spinoffs and relations between members of the community.

As regards impacts on traditional activities, the opening of the Rupert dam gates in spring coincides with the goose break, during which many Cree go to the territory to hunt geese. As previously mentioned, the higher water level after the gates are opened floods certain area previously suitable for goose hunting:

> In certain regions, especially between KP 223 and KP 260 in the spring when the gates are opened, and even before or during the construction period of the hydraulic structure at KP 223, in 2010 and 2011, and again in 2012, the region to which I am referring was completely flooded, submerged. Those who hunt in these places have not engaged in satisfactory hunting since then because all of the lowlands have been flooded, like the good hunting areas. While the problem was not anticipated, it is an unforeseen impact that must be resolved.

Hunters must therefore travel to find new goose hunting sites, which can be an annoyance, as this excerpt reveals: "When we are hunting in our area, we sometimes have to move as many as five times because of the change in the water level. At the end of the goose break, I had moved seven times. It is impossible to hunt comfortably in this area." Moreover, this hunter had to move his cabin several times before finding a suitable site to establish his hunting camp.

Furthermore, several participants stressed that the Crees' traditional fishing sites can no longer be used since the Rupert River was diverted, in particular because the river dries up in places:

> I installed my net there for the last time three years ago. I recognize the places that have been affected. The site where my father-in-law used to install his net was beginning to dry up. I could see the bay drying up. That is where he installed his fishing net before the fish moved towards the rapids. When I observed the drying at these sites, the fish had begun to disappear.

In short, hunters and fishermen have in a way lost their reference points, because their traditional hunting and fishing grounds have changed considerably, as testified by this remark by the Nemaska Cree representative on the Monitoring Committee:

> According to the community, all of the usual fishing sites have changed. It is no longer possible to catch fish where we used to be able to. Community members must re-learn the river. They must return to it and can no longer rely on the knowledge that they acquired. They must start all over again. Where are the fish? What are the best sites for hunting and fishing? This is something that we did not foresee. We knew that there were fish and that there still would be but the question now is to know where. The fishermen are still trying to answer this question.

The users of the territory must also familiarize themselves with new navigation conditions, because they have changed since the Rupert's diversion. Many participants talked about this impact during the consultation held in Nemaska, saying the lower water level makes it harder, indeed impossible, to travel on certain navigable waterways the Cree used to use:

> The section between KP 135 and KP 150 is no longer usable. Certain streams that flow into the Rupert River are virtually dry during the summer. They are not navigable. Farther upstream, they have dried up. I try to travel over them but it is difficult. It is impossible to paddle. The changes in one of the sections where navigation has been altered have affected the flow and level of the water. This has affected navigation and the use of the river at different times of the year.

The changes sustained by the territory of Nemaska have had significant social and cultural repercussions in the community. Apart from those already mentioned, the project has also affected the Cree way of life and the transmission of traditional knowledge. The comments made by a tallyman clearly illustrate how the way of life has changed:

> I find that everything ended too quickly, even though we still had not found good net-fishing sites. That is how our ancestors lived. Today, everything is very different. … I grew up with fish and find it worrisome. I remember paddling in the past. We camped where my cabin is now located. That is where we smoked the fish. … Times have changed a lot.

As regards the transmission of traditional knowledge, another tallyman said that certain people would sometimes come to his campsite with their grandchildren to teach them to hunt, but they cannot do that now because the land is flooded.

Furthermore, several participants talked about the impact on their water supply due to the perceived degradation in the quality of water from the Rupert River. This concern was raised during the public hearings held in 2006. One of the participants at the consultation held in Nemaska in 2012 stated that the residents of that village used to draw their drinking water directly from Nemiscau Lake, but it is no longer possible:

> In the old days, when we lived in Vieux-Nemaska, we took our pails and went to get our water. It was fresh water. We even took our mugs to drink the lake water, directly from the lake. Unfortunately, this is no longer possible. … The water is now the same colour as dark tea. We need quality water to drink. We must find it somewhere.

According to the comments gathered during the consultation, the problem mainly occurs in spring when the Rupert dam gates are opened and the flow of the river increases:

> We have to think about changing the date the gates are opened, which is May 5. May 8 marks the beginning of goose hunting in the Nemaska region. This affects water quality. During this period, the water becomes very turbid and polluted and debris floats on the river. People are afraid to drink the water. Many users bring their water from the community, spring water, or go to the streams along the river.

On a more positive note, one participant mentioned that the maintenance of roads built for the Eastmain-1-A/Sarcelle/Rupert project has benefited the community of Nemaska, because the new roads facilitate access to hunting sites along the Rupert and Nemiscau rivers.

In addition, many participants at the consultation held in Nemaska talked about the project's economic spinoffs. One participant reminded everyone that 37 contracts were awarded to enterprises from Nemaska and 67 contracts were awarded directly to tallymen from Nemaska to perform work related to the Eastmain-1-A/Sarcelle/Rupert project (deforestation, road construction and maintenance, operation of campsites, etc.). One of the tallymen appreciated working for the SEBJ: "I myself worked a great deal. I did several types of work. It was very pleasant. I even did some brush clearing and a bit of archaeology. I was very happy." The project apparently helped improve the community's socioeconomic well-being in that several community members got jobs and local enterprises supported by the Band Council were created. Cree involvement in technical and environmental studies was emphasized. What is more, the continuation of follow-up programs will provide jobs to some community members for years to come.

However, several Cree participants at the consultation in Nemaska criticized the way in which contracts are awarded, including this participant:

> Decisions were made to determine who would obtain the contracts. The contracts were distributed such that big enterprises were selected first. The tallymen had to be satisfied with small contracts because they did not have the time to prepare and organize themselves, even less so to learn about what was involved in pursuing a project to its conclusion.
>
> … The time at which the contracts were awarded and the manner in which they were awarded surprised me a great deal. I understood that most of the projects related to the trapping areas were intended for the tallymen. However, in the case of those who did not have a trapping area or who were not affected by the projects, it was hard to obtain contracts. Everything was settled in advance.

The money the tallymen received to carry out the contracts awarded to them was also a source of conflict in certain families, as the Nemaska Cree representative on the Cree–Hydro-Québec Monitoring Committee explained in a document submitted at the consultation:

> It is at this point in the issue of contracts that a misunderstanding developed and led to family dissension. On these contracts an amount of 15% was provided for profit and administration. Other persons informed the tallymen this was for them and that it was directly for them, while other family members claiming that this amount should be for the benefit of the family members and not just one individual. This misconception exists to this day and people still believe that there is a "royalty of 15%" on every contract and want their fair share.[10]

The project in itself divided the community of Nemaska and even the members of certain families, as revealed by the testimonies of several participants. Even before the official announcement of the Eastmain-1-A/Sarcelle/Rupert project, tension was palpable, as this participant noted:

> From the outset, I knew that there would not be general agreement about the project. Once the project began, an obvious division arose between those who were for and those who were against the project. Individual perceptions also changed according to opinions on the dam. At that time, it was one of the hardest aspects to deal with and one of the most painful topics to broach. It was even harder for those whose opinions differed to talk to each other. It was practically impossible.

A former tallyman even asserted that other members of his community mistreated him because of his stance on the project. This social division also had repercussions on the process of hiring workers to carry out different contracts: "People created their own selection method or their own hiring criteria. Some of us were in favour of the project while others were not. More specifically, people opposed to the project had difficulty getting hired. If they did so, they were subsequently perceived as being in favour of the project."

4.2.2.3 Psychosocial impacts

The psychosocial impacts of the Eastmain-1-A/Sarcelle/Rupert project are closely tied to the sociocultural impacts and the project's impact on the territory, which were examined in the preceding sections. First, several participants said that they felt a deep attachment to the territory and perceived the changes stemming from the project as the destruction of the territory, which caused them some degree of emotional suffering, as the following excerpts reveal:

- "The impacts are at once physical, emotional and spiritual. It is things on the land that we do not see and that affect people. … I was involved in the permanent closing of the [Rupert dam gates]. Once again, all of that was so painful that some individuals did not even want to go there. They preferred to keep their memories intact and not see what the place had become. They preferred to remember what it was before."
- "You know, it's very difficult emotionally, very difficult."
- "… when they announced that the Rupert River, when they accepted … I cried for five days. I went to my trapping area and I cried."

10 Jimiken, L. 2012. *Presentation to COMEX*. Document submitted during the 2012 public consultations on the Eastmain-1-A/Sarcelle/Rupert project, 5 pages.

- "For me, it was very difficult because the Rupert River is my father's trapping territory. I'm Freddy's sister and when I heard about the project for the first time, I heard it, I saw it on TV and I was shocked. … I couldn't believe it, I was sad when I looked at the river. For me, it was like losing a loved one. … It destroyed me emotionally, spiritually and psychologically."

Certain participants also expressed feelings of loss and sadness over the changes observed on their usual hunting and fishing sites. One of them made the following comment:

> … the tallymen are seeking places to install their fishing nets. That is what I will do, too, if I return to Chenomí. … I went there roughly two months ago. It's completely dry. The net will stay caught in the rocks if I install it there. I don't think it's a good place for that. As far as I'm concerned, I don't think I'll go back there. … The tallymen should receive some support because this region has been destroyed. If we go back there, there will only be sadness. It will disturb our minds and families.

The disappearance of a burial site caused by flooding of part of the territory also deeply upset members of the community of Nemaska, especially the Elders, as this participant explained: "Once, we took the Elders to the site where flooding was planned. We had the opportunity to visit one of the old cemeteries, but I believe that it is now flooded. Even if it was only for a few hours, the effects were visible and the faces were sad, especially those of the Elders, who were powerless."

The sadness felt by certain members of the community also stemmed from the family conflicts provoked by the project and questions of money. What is more, one participant suggested that problems of alcohol consumption already present in the community could worsen because of the emotional and psychological suffering of some residents over the changes observed since the start of the Eastmain-1-A/Sarcelle/Rupert project.

Some of the comments made during the consultation held in Nemaska denoted hope, resilience and the possibility of healing. One participant who suffered great emotional distress as a result of the project said she had been able to heal and accept the project more, and she hopes her people can too. Another participant claimed there are ways for people affected by the changes to the land to find peace and to heal. Lastly, a participant who has a camp in the area affected by the project is considering moving the camp elsewhere and starting over.

Furthermore, many participants expressed fear and anxiety linked to concerns about the changes observed in hunting grounds and trapping areas, impacts on fish, emotional suffering (especially among young people), and risks for the population in the event of a natural disaster. Some of the concerns will be described in greater detail in section 4.2.3.

Lastly, certain participants expressed anger and frustration during the consultation in Nemaska, including this woman who was deeply shocked by the announcement of the Eastmain-1-A/Sarcelle/Rupert project and the closing of the Rupert dam gates:

> … I couldn't believe what was happening to us and I was angry. … when reality sunk in in 2009, was it in 2009 that they closed the dam? I was really angry, I couldn't even … I saw the others, they went there, they watched the gate slowly close but I couldn't go there … I took anger management therapy to cure my rage, to heal emotionally and spiritually.

It was the difficulty in obtaining support from Hydro-Québec that aroused such feelings in one tallyman:

> When Hydro-Québec came here and decided on the fate of the trapping areas, everything happened quickly. Today, she is satisfied and happy. As for the hunters, they are fighting to obtain support. This is also my case. … When Hydro-Québec builds roads, it uses perfect gravel and makes sure that they are beautiful. Why can't they do the same thing for the hunters? Why are they making things so difficult for them? Why can't they satisfy the hunters' needs?

Lastly, another participant mentioned that the increase in water level caused by the opening of the Rupert dam gates in spring compelled him to move his traps and blinds, thus hampering his hunting and trapping activities, which made him angry.

4.2.2.4 Impacts on health

Impacts on health were mentioned only once at the consultation held in Nemaska. A participant said that her mother fell ill after drinking water from the Rupert River when they went to their trapline for the goose break. They no longer dare to drink the river water because they are not sure about its quality: "… during the goose break, that is when they open the gates, a lot of debris comes from above as soon as the gates open. We don't want to drink the water because we don't know what is in it, during goose hunting."

4.2.3 Concerns expressed

An analysis of the contents of transcripts of the public consultation held in Nemaska revealed concerns about the project's impact on fish and water quality, its impact on future generations, and the safety of communities.

One participant mentioned that the decline in the lake sturgeon population was a source of considerable anxiety for the Cree Nation of Nemaska, to the extent that a lake sturgeon preservation committee composed of tallymen and other community members was set up and an information program was established to heighten public awareness and reduce lake sturgeon fishing. Additional measures will be implemented to preserve this species in the Rupert River. Some people fear that the river water is becoming more polluted and that it is affecting fish and their edibility. The presence of mercury in fish is especially worrisome for residents, as revealed by this excerpt from a document submitted by the Nemaska Cree representative on the Cree–Hydro-Québec Monitoring Committee: "… despite our combined efforts there are still perceptions that this project will have a detrimental effect on the fish, an increase of mercury levels in fish and also a degradation of the water quality."[11]

One participant who had a hard time dealing with the project being carried out in the territory of her community expressed concern about the project's impact on young people: "I was thinking about young people, the young generation, and wondered how they felt. They are remaining silent. … I am worried about emotional suffering in the Cree territory, especially that of the younger generation."

11 Jimiken, L. 2012. *Presentation to COMEX*. Document submitted during the 2012 public consultations on the Eastmain-1-A/Sarcelle/Rupert project, 5 pages.

Two other community members said they were worried about the safety of hydroelectric structures in the event of a natural disaster. They fear that the Cree communities, especially Chisasibi, would be flooded if the dams burst and wondered whether prevention measures have been planned.

Finally, a participant expressed concerns about safety measures during blasting, recounting that he and a few other members of the community were nearly killed by explosives because, in his opinion, not enough safety measures were taken during the blasting operations: "I told the foreman that it would've been easy for him to put up a sign on the landing, which is close by, notifying people of the blasting and what time it would be carried out. He couldn't give me an answer. He stared at the ground. I also told him that he should have sounded an alarm bell before blasting. There was no alarm bell."

5. Chisasibi

The consultation session in Chisasibi was held on November 13, 2012, in the evening, at the Mitchuap Auditorium. Approximately 40 people attended, 18 of whom made comments at the microphone, including one woman. The chief of the Chisasibi Band Council and one tallyman were present at the meeting, along with the Grand Chief of the Grand Council of the Crees. The Cree village of Chisasibi has a population of roughly 4300[12].

5.1 Concerns expressed at the public hearings held in 2006[13]

During the public hearings in 2006, Chisasibi residents voiced their concerns about the safety of dams and related structures. Because the community is located downstream from the La Grande hydroelectric complex, the Crees already feared that a future disaster might destroy one or more infrastructures. The extra volume of water expected following construction of the Eastmain-1-A and Sarcelle powerhouses and diversion of Rupert River made some people feel even more insecure and anxious, undermining their quality of life. People wondered if the community could me moved elsewhere.

The residents anticipated increased erosion of the banks of the La Grande River as a result of the Rupert diversion and changes to the flow of the river. In addition to bank erosion, landslides were also of major concern to the Crees of Chisasibi.

Participants were also concerned about a possible decline in various animal and bird populations, in particular geese, fish and beaver. Ecosystems would inevitably be affected.

Ice conditions on the La Grande River have already changed as a result of the La Grande complex, making travel harder and more dangerous, and the Crees feared that these problems would be exacerbated by the present project. They were also worried about the frequency and magnitude of ice jams. In addition, questions were raised about the potential impact on navigation of the higher level and faster flow of the La Grande River.

Mercury levels in fish were another issue of concern among Chisasibi residents. They worried about more fish consumption advisories given that fish is a staple of the Cree diet.

The chief of the Chisasibi Cree Nation requested that permanent jobs be offered to Crees. He wants lasting careers and training, rather than temporary jobs, especially for young people.

12 Registry of Cree, Inuit and Naskapi beneficiaries of the JBNQA and NEQA, 2013.

13 Provincial Review Committee (COMEX). 2006. *Eastmain-1-A and Rupert Diversion hydropower project. Report by the Provincial Review Committee to the Administrator of Chapter 22 of the James Bay and Northern Québec Agreement*, pp. 168-172.

5.2 Views expressed by Cree participants at the consultation sessions held in 2012

5.2.1 General comments

A number of comments about the proponent were made during the public consultation in Chisasibi. First, some participants criticized the follow-up studies done by Hydro-Québec. In their opinion, the studies do not give enough consideration to Cree traditional knowledge, particularly about caribou and waterfowl, and they question the reliability of the findings of these scientific studies, particularly regarding the causes of the eelgrass decline. Moreover, one stakeholder submitted a brief presenting Hydro-Québec's conclusions on the causes of the eelgrass decline (impact of waves and ice, global warming, prolonged cloud cover and heavy precipitation, etc.) and the Crees' findings and observations, which contradict Hydro-Québec's conclusions on each of those causes. According to this participant, the Crees believe that the loss of eelgrass is the result of changes to the land caused by the commissioning of the La Grande hydroelectric facilities, whereas Hydro-Québec experts think it is a natural occurrence that began in the 1930s, long before the hydroelectric developments:

> The studies conducted by Hydro-Québec tried to explain the impact on eelgrass as something completely natural, that it's the result of a series of natural events and has nothing to do with hydroelectric developments. But you'll see in this brief that, in our opinion, that's not true. That is the Crees' opinion. Moreover, it's based on Cree traditional knowledge and memories of people from the community as well as on some scientific data we were able to find.
>
> … Eelgrass was abundant before the work started. We've been told that eelgrass disappeared in the 1930s, but we couldn't find any written record of it. Maybe someone knows that eelgrass disappeared in James Bay [in the 1930s], but that's not the case according to the inhabitants of Chisasibi, because our grandfathers would have remembered, our ancestors would have remembered it disappearing.

As attested by the above excerpt as well as other accounts heard during the consultation in Chisasibi, Cree traditional knowledge is essentially based on the Crees' relationship with the land, on the memories of Cree Elders, on their experiences and their observations. So based on that knowledge, some residents of Chisasibi think that hydroelectric projects are responsible for the eelgrass decline and, since Hydro-Québec claims otherwise, some participants want independent studies to be conducted on the matter. One such participant also decried the proponent's failure to take action with regard to impacts on eelgrass and hopes action will be taken before the end of the follow-up program in 2019. It is important to note that no such criticism of the scientific studies conducted by Hydro-Québec was voiced during the public consultations held in the other Cree communities.

Furthermore, four Chisasibi residents feel that the proponent is not being transparent or honest with the Crees, as testified by the following excerpts:

- "We can't identify or tell you the source of this problem [eelgrass decline]. We actually don't know. Maybe Hydro knows. … Maybe they don't want to tell us the truth."
- "I've worked with the people seated here today. I know them and I know that Hydro is very good at hiding and avoiding problems they don't want to take responsibility for."

Once again, it is important to mention that comments like those were made only during the consultation in Chisasibi. The desire to speak directly to the head of Hydro-Québec instead of its representatives was also expressed—by three participants—only in Chisasibi.

Lastly, a few verbal testimonies describing the social and cultural dimensions of Cree society and the Crees' relationship with the land, in particular their ties to the La Grande River, were heard during the consultation in Chisasibi. One participant explained what goose hunts used to be like, when he was young, and the respect hunters showed these birds: "When my father was head of the hunting team, he led the hunt, and people paid a lot more attention, it was held in high esteem and highly respected, the goose hunt. … And the Elders had nothing but respect for hunting, and it was as if we had to take care of the geese."

5.2.2 Impacts as noted by participants at the consultation session held in Chisasibi

Whereas the personal testimonies heard during the consultation sessions in communities located farther south in the James Bay Territory primarily dealt with impacts related to the Eastmain-1-A/Sarcelle/Rupert project, the majority of views expressed in Chisasibi dealt with the impacts of hydroelectric developments prior to this project, particularly those in the area of the La Grande River.

5.2.2.1 Environmental impacts

The three environmental impacts most cited by participants at the consultation in Chisasibi are: the disappearance of eelgrass, the decline in the migratory bird population, and the deterioration of water quality in the La Grande River.

First, several participants said they have observed a significant shrinkage in eelgrass beds. And since eelgrass is considered to be the primary food source for migratory birds (snow goose, Canada goose, brant, etc.), the Chisasibi Crees see a strong connection between the declining numbers of migratory birds found in their area and the decline in eelgrass. The following excerpt summarizes well the views expressed by participants:

> … the only thing geese eat is eelgrass. I'm not going to believe anyone who says that geese don't eat eelgrass. I've seen a lot during my life as a hunter. That's all they eat, it's mainly what they eat, eelgrass. And no one who hasn't seen that can concur (*sic*). And the eelgrass zone is where the geese come to feed. … Before, they used to fly south and stage at this site because they loved it, they looked for eelgrass because they go wild over it. Everywhere there was an eelgrass bed, there'd be lots of geese. No one can say otherwise.
>
> It's the construction of a dam on the river that's destroyed the eelgrass. I won't believe anyone who tries to say it was caused by anything else. … As long as the river flowed, geese would fly over this area and now that work has been carried out in the river, these plants don't grow there anymore. And I heard, and Hydro said it was bacteria that killed it. We, what we're certain of, what we know for sure, is that from the moment the dam was built, the eelgrass stopped growing. … So geese no longer stage where they used to stage. And that's what we know.

This impact was mentioned back in 2006, during the public hearings held before the Eastmain-1-A/Sarcelle/Rupert project began. The La Grande complex was thought to be responsible for the perceived decline in migratory birds in the areas normally frequented by them.

Many participants subsequently noted that the water in the La Grande River had gotten cloudier. Also, four people noted the presence of green algae, especially on rocks bordering the river, making them more slippery. In their opinion, the algae appeared after the construction of the La Grande hydroelectric facilities. However, Chisasibi is the only place this impact was mentioned. One participant attributed the algae growth to water pollution:

> I've seen this green stuff in polluted waters. … I worked for the Cree Nation and me, I regularly went into the wastewater treatment plant. The same thing that's in the water is in the plant too … What I'm trying to say is that I've seen all this green stuff. It's pollution, it's what we call pollution. It's what's affecting the entire bay here.

Only a few members of the community mentioned impacts on wildlife, especially fish, caribou and bear. One of them is convinced that power lines affect animal health:

> … the biologists did a study on caribou. Caribou were dying and they said that there were 45 dead ones this winter. When they asked the Elders—you know, we go to Elders for their knowledge, especially when something happens on hunting grounds—I told them, I talked to them personally, I said: "Why are caribou dying?" It's because of the power lines. The lines cause a disease, I know that myself. That disease is cancer and it comes from the power lines. And that's what's killing the caribou.

One participant also noted that traplines had been almost completely submerged during construction of the reservoirs. Another said that the water level in the La Grande River is really high now and the current is very strong, particularly ever since part of the Eastmain and Rupert rivers were diverted north.

Lastly, according to one Chisasibi resident, the island located near the LG-1 dam is seeing severe shoreline erosion and there have even been landslides: "There was a landslide, some people had built houses and had to move them. So research was conducted in the LG-1 area and there were pretty major landslides there. … there's an island over there and the shoreline has eroded." It should be noted that these impacts, that is, shoreline erosion and landslides, were mentioned only during the consultations in Chisasibi and Mistissini. It is also important to remember that concerns in this regard were voiced during the public hearings in 2006.

5.2.2.2 Sociocultural and economic impacts

The main sociocultural impacts raised during the consultation in Chisasibi are related to water consumption, hunting and diet.

According to six participants, the Chisasibi Crees used to drink water directly from the La Grande River, that is, untreated. It seems the water was very clear back then, but ever since the hydro-electric developments upstream from the river, the water has become brown and muddy and the residents of Chisasibi can no longer drink it. They want "pure" water from a natural source back, like the water they used to drink: The river didn't used to be like that. It was actually really clear and clean. We could drink the water … we want Hydro-Québec to give us this water back. You know, what we, the Crees, appreciate the most is clear water, and we don't have that anymore. … What we need the most is pure, clean water."

Chisasibi residents nevertheless have access to potable water from the treatment plant, but some of them, especially Elders, do not want to drink it because they do not like the taste of it: "Some of the Elders drink the water [from the river] anyways, even if we tell them it's not good, because they don't like the alternative, [treated] water. … the water didn't need to be treated before Hydro came, we drank it as is. And who's to blame for the water not being potable anymore?"

Numerous participants at the public consultation in Chisasibi mentioned the impacts on hunting. Several of them said there was less game available for hunting, particularly waterfowl:

> We've lost a lot since the dam was built on our river, we've lost a lot. We've lost waterfowl along the coast of James Bay since the dam was built on the river. There's a lot of water in the reservoir to the east, and since then, we've hardly been aware of geese along the coast. … The geese fly to where the reservoirs are, and we've lost a lot in terms of hunting and waterfowl since the river was dammed. … before this work was carried out, there was a lot of game for us to hunt.

Hunting and trapping are also hampered by barriers that make it harder to travel by land. For example, hydroelectric facilities on the La Grande River prevent the Crees from using the river to get inland like they used to: "The Crees used to use the river to get inland. All the hunting that used to be done inland, the river … you could say it was their highway to get there." As this participant explained, hunters also have trouble getting to their hunting grounds because roads are poorly maintained: "Hydro-Québec benefits from our land, the land that belonged to our fathers and great-grandfathers. … but there doesn't seem to be any money to provide hunters with access to their hunting grounds, there's no money for snow removal or road maintenance where their camps are located." Also, because lakes now freeze later in the winter, their use as a travel route is more restricted, which is an obstacle to hunting. And when the lakes do freeze, the ice cover is so thin that it is dangerous to venture onto them. According to one participant, people have apparently fallen through the ice and one person even drowned. Moreover, concerns relating to ice conditions were expressed during the public hearings in 2006.

The impacts on hunting have apparently also affected social and community relations. As stated by a resident of Chisasibi, goose hunting used to be an opportunity for people from the different communities to get together, but it is harder now that geese no longer use the same areas as before. The goose hunt would also give hunters a chance to share their harvest with other members of the community, in particular Elders, and thereby solidify family and community ties. However, according to one participant, they can no longer continue that custom: "Geese don't frequent the same sites as before. … We'd appreciate being able to eat, to receive food … Hunters can no longer offer what they'd like to offer in order to help others out."

Wildfowl is a mainstay in the Cree diet, so a decrease in migratory birds in their territory represents a significant impact for the Crees, as underscored by three participants at the consultation in Chisasibi.

Lastly, no economic impacts or benefits were mentioned by the Crees who spoke during the consultation in Chisasibi, whereas jobs and training had been among the concerns voiced during the public hearings in 2006.

5.2.2.3 Psychosocial impacts

During the consultation in Chisasibi, four residents of the community expressed anger and indignation over the perceived unfairness of having to pay their electricity bill to Hydro-Québec when they consider the latter to be responsible for the "destruction" of their land and way of life, as testified by the following excerpts:

- "They want me to pay for the electricity I use every day, but this river belongs to us. And they're selling our river. That's how I see it. They sold our river and yet they want me to pay."
- "It's true. Hydro-Québec sends us bills despite all the damage they've caused all along the river. Everyone here in Chisasibi has been affected."
- "You know, I used to have a trapline and now all you see there is a mountaintop. Everything else is under water, flooded, and every month Hydro sends me a bill. … I'd be embarrassed if I were responsible for destroying someone's way of life; if I were to do the same thing, and that's what I want to discuss with any one of the leaders who's here today, to think about it in the future. You all know that those people are present here and we, the Crees, we were here first, before you. Before you came here, we were already here. … And yet you send bills to everyone whose land you destroyed. How would you feel if I came and destroyed your farms, your homes? What would you do to me?"

A few of the verbal testimonies heard in Chisasibi revealed a sense of loss as well. One tied it to the decrease in migratory birds found in the Chisasibi area and the effect it has had on hunting. Another participant tied the sense of loss to the fact that people can no longer drink water directly from the river like they used to:

> I can still remember how the water was before. I come from this river. I realized it at some point, I realized that we would no longer be able to drink water from this river, because I know this river by heart. You know, before, I used to walk along the banks and I could drink the water directly from the river. […] We had access to pure water. We were truly blessed. … Everyone seated here, we were all born with this water, the water of life. … And that no longer exists now.

Lastly, four members of the community expressed fears and worries mostly about dam safety and the possible release of chemical products into the La Grande River. These concerns will be addressed in section 5.2.3.

5.2.2.4 Impacts on health

Apart from Nemaska, Chisasibi is the only community where participants in the 2012 public consultations raised the issue of health impacts. In both cases, the impacts mentioned were related to the perceived degradation in water quality caused by hydroelectric projects in James Bay.

Four Chisasibi residents maintain that the members of this community, especially children, have had health problems, including digestive and respiratory problems and rashes, ever since the construction of the La Grande hydroelectric facilities. They attribute these problems to the drinking of treated water from the river and skin contact with the river. To wit:

- "Since the dam was built, the water's no longer good. … when I drink the tap water here, water that comes from the river, I get sick, I immediately get sick. That's because I don't drink good water. And the water's making our kids sick. … People suffer from asthma, get

pneumonia, have digestive problems, and we've been very aware of it ever since the dam was built, at least. … People get sick after drinking the water and have suffered from all kinds of ailments since the dam's construction."

- "The children are starting to get rashes on their faces, and even their bodies. They're always itchy. You know, the water's chlorinated now. Before that, before the chlorinated water, people didn't experience itchiness, people didn't have rashes on their faces."

5.2.3 Concerns expressed

Just like during the 2006 public hearings, the principal concern expressed by participants in the 2012 consultation in Chisasibi was related to safety. Several participants said they were worried about the large volume of water in the reservoirs located upstream from their community. They fear that if there is an earthquake, the dams will break and cause flooding and their community will end up under water. Diversion of the Eastmain and Rupert rivers to the La Grande River has heightened this fear:

> There's a lot of water in the reservoir. The Rupert and Eastmain rivers flow to the reservoir and spill into our river, so these rivers spill into our river now. … The young people and everyone in the community seem to be afraid because the river is so high. … I wonder if anything will be done if there's ever an earthquake, with the dams that are built on our river. … Here, there's a lot of water here where we are, upstream, and that's what worries us. … If there's a state of emergency one day, our community will practically disappear. … I wonder if a safety area has been planned, some place we can take shelter in the event of an emergency.

One member of the community said he was worried about the effects the products used on turbines could have if they wind up in the river: "Are we not affected when chemical products are put into the turbines? Me, I'm aware of it and it still worries me. The river, the water flows down to where we live and it's clear that we'll be impacted."

Another participant expressed concerns regarding food. He said he had noticed the impacts on wildlife and he ties them to the power lines and is worried about what the Crees will be able to eat if they can no longer eat animals that are staples of their traditional diet, in particular fish:

> I know we definitely can't eat fish from the reservoir. In fact, we have to travel very, very far inland, far away from the power lines, to catch fish that are healthy and that are supposedly safe to eat. So what are we going to eat 10, 15 years from now? What can we expect in terms of food? And we'll have to go buy it in stores or it'll have to be brought up from the south. We can't even trust what we get from down south.

Finally, one of the participants spoke about his concerns regarding the preservation of Cree land and the Cree way of life and said he hoped there would be no more hydroelectric projects in future:

> As we've already said, we're not against development, provided that it doesn't destroy our habitat and our way of life. We're going to continue trying to preserve who we are. … we don't want our rivers to be diverted anymore. We're still here, and if you're still here, we get the impression that there'll be even more of it. If you start doing that, well, we're going to start thinking of making you pay, and we're going to make Hydro-Québec pay for the water it takes from us. The water belongs to the Cree people, it's on Cree land.

6. EASTMAIN

The consultation session took place at the offices of the Eastmain Band Council on the evening of November 15, 2012. Nearly 25 people attended the meeting and nine of them took the floor. Among them, two women spoke, including the president of the local trappers' association. Three tallymen, along with the Deputy Chief of the Eastmain Band Council, were present. The population of Eastmain is roughly 700[14].

6.1 Concerns expressed at the public hearings held in 2006[15]

During the public hearings held in Eastmain in 2006, residents were concerned about the impact of the impoundment of diversion bays on fauna and personal safety. Indeed, the flooding of land would likely affect animal and bird life by altering their movements, especially moose, caribou, beaver and birds. Some participants felt that diversion bay impoundment should not take place in early winter because that is when animals are preparing their shelters for the winter. To ensure personal safety, residents also sought reassurance that they would be informed in advance of when dam gates would be closed or flooding would occur.

They were extremely worried about the project's impacts on fish populations, especially lake sturgeon. According to the participants, a drop in the water's flow would inevitably affect the fish, and they did not feel that the proponent had sufficiently studied the impact on lake sturgeon in the Eastmain River.

Hydro-Québec was asked to explain how it would be awarding contracts to tallymen whose traplines would be directly affected by the project, as there seemed to be a discrepancy between the number of jobs the proponent said would be created and the actual number of jobs obtained by Crees. The latter want permanent jobs and long-term contracts. It was proposed that a partnership be developed between the proponent and the Crees of Eastmain and Wemindji to create job opportunities for Crees from these communities so they can gain hands-on experience in the construction and operation of hydroelectric projects.

Another concern reported by the Crees was what would become of artefacts uncovered during the archaeological inventories and digs planned as part of the project. Residents wanted to maintain ownership of the artefacts discovered and see them displayed in the Eeyou Istchee territory.

The Chief of the First Nation of Eastmain asked that Hydro-Québec inform the community of the results of its safety inspections of facilities. Residents feared that the facilities surrounding the Eastmain-1 reservoir may not be designed to hold the additional water supply created by the Rupert's partial diversion.

Lastly, a few residents of Eastmain expressed their sadness and sense of loss regarding the major changes to natural environments and their traditional activities following construction of hydro-electric dams.

14 Registry of Cree, Inuit and Naskapi beneficiaries of the JBNQA and NEQA, 2013.

15 Provincial Review Committee (COMEX). 2006. *Eastmain-1-A and Rupert Diversion hydropower project. Report by the Provincial Review Committee to the Administrator of Chapter 22 of the James Bay and Northern Québec Agreement*, pp. 143-146.

6.2 Views expressed by Cree participants at the consultation sessions held in 2012

6.2.1 General comments

A number of participants at the consultation session in Eastmain, including the Deputy Chief of the Cree Nation of Eastmain, said they appreciated the fact that COMEX and Hydro-Québec had organized consultations to give the Crees a chance to express their views on the impacts of the Eastmain-1-A/Sarcelle/Rupert project post-construction, as well as on the related mitigation and compensation measures. According to the Deputy Chief of the Eastmain Band Council, this is a testament to the improved relations between the Crees and Hydro-Québec.

Some participants, on the other hand, doubted the usefulness of the consultations: they have the impression that nothing can bring the land back to the way it used to be. They wanted to know what Hydro-Québec intends to do to address the impacts mentioned by the Crees during the consultations: "What are you going to do on our behalf? You came to listen to what the Crees have to say, but what are you going to do about it? What can you do for me? What can you do for my people, everything I'm saying to you right now?"

That being said, a participant would have appreciated the consultation session starting earlier in the day so that people from his community could have longer to talk with the Hydro-Québec representatives. Moreover, a participant suggested that more meetings be held between the proponent and Cree hunters and tallymen to enable them to continue discussing issues and working collaboratively.

A number of criticisms were levelled at the Hydro-Québec representatives regarding the administration of the mitigation and compensation measures. Based on one tallyman's experience, the procedure for obtaining funding is long and complicated. He said:

> When we talk to you, there are at least twenty documents and forms to fill out, and if it wasn't difficult, well, we could get the help we ask for, and we could be compensated for our requests for reimbursement. … And you know, it's really hard, I ask everyone my question when I submit my requests. I say the same thing to everyone. It's complicated. You don't reply the same way to my requests, and I feel intimidated by you. A lot of people submit requests, and the requests are refused. No one's compensated. How can we reach an agreement so we can get the money?

This person has applied for compensation before, for stolen material or equipment. It took over a year for one of his claims to be processed, and he is worried that he will have to wait just as long for another request he wants to submit to Niskamoon Corporation. He would prefer that the band council manage the funds, because he would feel more comfortable submitting his requests to the leaders of his community than having to go through all the formalities required by the bodies that manage the Hydro-Québec funds.

Two participants displayed distrust of the proponent. They feel that Hydro-Québec did not tell the Crees the whole truth regarding the impacts of the hydroelectric projects, even with the mitigation measures. While they acknowledge that the Crees have received financial compensation, they would have liked to be better informed about the projects' residual impacts and would have liked the proponent to demonstrate transparency in this regard.

On the other hand, another participant underlined the excellent job done by Hydro-Québec representatives in *Hydlo and Friends*, a community radio show aimed at informing the Cree people about the Eastmain-1-A/Sarcelle/Rupert project. However, he would like listeners to be given a chance to ask questions during the broadcast.

Some of the testimonies heard at the consultation session in Eastmain described the sociocultural characteristics of the Cree people. A number of participants talked about hunting and fishing in the territory, activities that are an integral part of the Cree culture and are practised by all generations. One participant said that, when he was younger, he used to hunt with the Elders from his community and they taught him the traditional knowledge about Cree hunting. Another participant expressed his deep attachment to the land in this way: "I love the land, I love my hunting ground. When I go hunting, I always think of this hunting ground and I want to go there. I'm not alone. The land just calls me. The land calls me and that's my happiness. I'm always happy."

6.2.2 Impacts as noted by participants at the consultation session held in Eastmain

The Eastmain-1-A/Sarcelle/Rupert project was announced soon after completion of the Eastmain-1 project, which had a major impact on the community of Eastmain. Some aspects of the La Grande hydroelectric project as well had specifically affected the land used by the members of this community. Consequently, participants at the 2012 consultation session in Eastmain talked about the observed impacts associated with all these projects. Given that the current project followed so quickly on the heels of the previous one, participants sometimes confused the impacts associated with each of these projects, as if the two projects were one and the same.

6.2.2.1 Environmental impacts

The main environmental impacts mentioned during the consultation session in Eastmain concern hydrology and wildlife.

Three members of the community mentioned changes in water levels as a result of the hydroelectric projects. One person talked about the Eastmain River drying up, saying that the only time there is a significant amount of water in the river is during high tide in James Bay. Another participant spoke of a place where he used to hunt geese, saying that it has completely dried up, to the point where shrubs grow there now. He also said that he had witnessed flooding of vast tracts of land following diversion of the Eastmain River. In addition, a tallyman from Eastmain thinks that 80% of his trapline has been disturbed by all the hydroelectric projects. The changes to his trapline may be largely attributable to the flooding that occurred during construction of the Opinaca and Eastmain-1 reservoirs. Although most of the comments dealt with the observed impacts on water levels, a participant also spoke of how infrastructure construction has destroyed the land: "[…] it seems like everywhere non-Native people worked, where roads were built, that's where the land has really been destroyed."

A participant shared his observations regarding the impacts on wildlife since hydroelectric development began. According to him, moose, beaver and porcupine are smaller now. He also thinks that a lot of fish have died because of the lower water levels in the Eastmain River: he has personally seen fish floating on the surface of the water. Another participant remarked that whereas there used to be an abundance of wildfowl, there is none now on the banks of the Eastmain River and even along the coast. The same participant remarked that there is more

moose in the territory today and, in his opinion, they chase migratory birds away. Moreover, a tallyman has observed a 50% decline in the lake sturgeon population in the Eastmain River near KP 207 since a fish pass was built.

More specifically in relation to the Eastmain-1-A/Sarcelle/Rupert project, a participant said he was astonished to see the almost-sudden disappearance of geese from areas where they were normally found before the project began. A tallyman also talked about the consequences the project has had for beaver, especially with the flooding of their lodges.

6.2.2.2 Sociocultural and economic impacts

As regards the sociocultural impacts of hydroelectric projects, participants at the consultation in Eastmain primarily talked about the constraints on the practice of traditional activities as well as impacts relating to water quality and the opening up of the territory.

Apart from changes in land use by certain animal species, the impacts on traditional hunting, fishing and trapping activities were mentioned in connection with harder access to areas as a result of hydroelectric projects. One participant decried the fact that it is no longer possible to boat in waterways along the coast of James Bay because they are dry now. As well, one participant said it is harder for him to fish now because he lives upstream of the Eastmain River and has to wait until the tide raises the water level before he can put his boat in the water and install his nets.

Another member of the community of Eastmain said it is not as easy as before to cross waterways in winter due to changes in the ice cover since the hydroelectric developments. He and another participant said they can no longer get to their favourite hunting spots. One of them said that he has not yet found an alternative route to his favourite spot. In addition, one of the tallymen spoke of a snowmobile trail that has been impossible to use since a power transmission line was built on his trapline. He said that another trail had been built to remedy the situation, but that it is no longer safe to use that trail to cross waterways. Lastly, another tallyman involved in ice cover monitoring pointed out that his monitoring responsibilities were time-consuming and that the time spent on them is time he would normally spend hunting.

Perceived changes in water quality were mentioned by two participants. One of them said that now he has to drive to a spot to get water that apparently has not been affected by the hydroelectric developments, whereas he used to get his water supply directly from the Eastmain River. The other one said that he never used to carry water with him when he went fishing, but now he has to, ever since construction of the Eastmain-1 dam.

Three participants mentioned impacts associated with the opening up of the territory by the Eastmain-1 and Eastmain-1-A/Sarcelle/Rupert projects. One of them mentioned that non-Aboriginal hunters coming into the territory to hunt had offended his values with regard to how killed animals should be treated. He said he was shocked to discover headless caribou carcasses left on the ground, something only non-Aboriginal hunters would do, according to him: Cree custom is to use all parts of animals that have been captured or killed through hunting. A tallyman described various thefts and acts of vandalism he had been the victim of, incidents he claimed did not occur before hydroelectric development began and opened up the territory. Another tallyman mentioned that the projects had made it easier to engage in activities on land traditionally used by the Eastmain and Wemindji Crees.

Several participants also talked about the economic benefits derived from the Eastmain-1 and Eastmain-1-A/Sarcelle/Rupert projects. First, a tallyman whose trapline was affected by the hydroelectric projects expressed his gratitude for having gotten jobs and a significant amount of

money from Hydro-Québec to perform various work. However, he said that employment opportunities were steadily declining and he lamented the fact that no transitional measures had been planned: "… it's as if they cut ties and have no interest in me anymore." He also remarked that some of the contracts people got were ending sooner than planned. In his view, many people from his community had huge expectations in terms of economic benefits and that those expectations were not met. Another participant observed that most of jobs created were temporary.

Another participant, who worked at the Eastmain-1 powerhouse for contracting companies and was recently let go, thinks that policies aimed at giving Aboriginal people and non-Aboriginal people equal employment opportunities are not actually applied because, from what she has seen, non-Aboriginal people are given priority when it comes to hiring. She also seemed to be convinced that she and another Cree woman were really let go because of discrimination, even though her employer said it was a question of seniority. Another participant shared the same view, stating that non-Aboriginals would increasingly replace Crees once their employment contract has ended. In addition, the same participant said he perceives a climate of tension between Cree and non-Aboriginal workers in different workplaces.

6.2.2.3 Psychosocial impacts

A number of psychosocial impacts arising from the different hydroelectric projects came to light in the testimonies heard during the consultation in Eastmain. Sadness over losing parts of the territory and aspects of the traditional way of life as well as over the alterations in the environment and natural resources seemed to come through in a number of stories shared by participants. Other emotions expressed in the testimonies heard in Eastmain include bitterness, anger, frustration and anxiety.

One participant expressed sadness over not getting to know the same way of life as his parents and grandparents. He regrets not being able to transmit the knowledge and know-how associated with that way of life to his children and having to tell them stories about certain places and the richness of them, instead of letting them discover them themselves. The same participant had a somewhat fatalistic view of the lasting environmental impacts: "… It doesn't do any good to dwell on the past. What's done is done. Are we wasting our time here? We'll never be able to change things or restore destroyed land to its original state." A tallyman recounted the pain and sadness his parents and grandparents felt when they saw the land being flooded from previous hydro-electric projects. He was deeply affected by seeing his family so distraught and the land change so suddenly: "These are things that affected me, and not just me. Other people feel the same way. … Never again will I see the land in a pristine state like it used to be, before it was destroyed." The feeling of heartbreak over the transformation in the land as a result of hydroelectric projects was also expressed by several people from Eastmain during the 2006 consultation. They had expressed their deep attachment to the land, its resources and the associated way of life.

The same participant said he had a hard time dealing with the flooding of the burial site where his sister's remains are: "… every winter, I'd go to her gravesite. I always used to visit her, but now I can't go there anymore because it's submerged. She's underwater." In reference to the commemorative site developed as part of the compensation measures for the Eastmain-1-A / Sarcelle/Rupert project, he impressed upon the Hydro-Québec representatives that this gesture will never heal the internal wounds inflicted by the destruction of burial sites.

Some members of the community said they felt they had gotten a raw deal, especially in reference to previous hydroelectric projects. One of them put it this way: "… I don't feel I benefited, I didn't benefit from it as much as I should have, as much as I deserved to." Another participant shared the same sentiment: "What I want to say is that we have nothing, we've really lost out in this whole thing. … When you take something away from someone, you should give them something in return." To his mind, the community has not derived sufficient economic benefits from the Eastmain-1-A/Sarcelle/Rupert project and the support measures have not succeeded in addressing the impacts that previous projects have had on the land and its resources. The same participant also has the impression that the Cree representatives made decisions without truly consulting the members of the different communities. According to him, only a minority of Crees benefited significantly from the agreements signed, to the detriment of the rest of the Crees.

Several participants expressed displeasure over the mitigation and compensation measures established under the Eastmain-1-A/Sarcelle/Rupert project. While admitting that he benefited amply from these measures, a tallyman felt that they were not enough to compensate for all the damage done to his trapline. Two people were unhappy with the short duration of certain programs. One of them would have liked the beaver trapping program to have been extended so that members of his community could benefit from it longer. The other one lamented the fact that the fishing assistance program lasted just two years, even though the need is still very much there. He finds it somewhat frustrating to be told that funds have run out when the project appears to be generating enormous revenue for the proponent.

Several participants said they find the eligibility criteria for certain mitigation and compensation measures to be unfair. The president of the local trappers' association as well as another member of the Eastmain community think that people who use traplines located nearer to the coast of James Bay should be eligible for mitigation and compensation measures the same as users of traplines directly affected by hydroelectric projects, because they are impacted by the projects too:

> … me, I get nothing, because I live downstream. … I'm treated differently. … I should be entitled to the same resources. I think it's time for Hydro-Québec and Niskamoon to change their policies and start including us in these restoration measures, and the measures you grant to tallymen in affected areas.

According to another participant, because an agreement was signed by the community of Eastmain, there should be no discrimination between beneficiaries of the various support measures. Moreover, another participant finds it unfair that tallymen are overly compensated compared to other land users.

A number of criticisms were levelled by the president of the local trappers' association regarding the rules of procedure for remedial work. In particular, she deplores the time frames imposed on beneficiaries of compensation measures, claiming that they are not realistic considering that only a few people in the community are qualified to perform this work, that they do not have enough equipment, and that the Cree way of life can mean limited availability of people during certain times of the year.

Another source of frustration expressed by one of the tallymen lies in the lack of consideration of Cree knowledge in the design of certain mitigation measures to protect the Eastmain River sturgeon population. The tallyman lamented the fact that Cree traditional knowledge was not taken into account in developing spawning grounds, which, in his opinion, where destined to fail: "The spawning areas created for sturgeon don't even work, and they cost a lot of money. Cree

know-how and knowledge weren't considered, and the Crees know about lake sturgeon and what its spawning areas are like. The Crees know all that stuff. They know how to take care of these areas." The same tallyman also thinks that the fish pass in the Eastmain River at KP 207 is not only useless, but it also contains pieces of metal that, in his opinion, are likely to injure fish. In his view, Cree knowledge could have been brought to bear in finding a more effective solution.

The same tallyman said he had been experiencing anxiety ever since a Hydro-Québec work camp was built on his trapline. He also said that he clearly notices the presence of workers in this part of the territory, which used to be peaceful.

6.2.3 Concerns expressed

The main concerns expressed by participants were related to the future of Eastmain. First, two participants said they dread the day the various support and compensation measures under the hydroelectric projects end. One of them wondered if new support measures will be put in place when the existing ones end and if, in the short term, more jobs and contracts could go to the members of his community. He was also worried there will be more hydroelectric projects in the future and that they will have significant impacts on the land and its resources. The other person pointed out that the repercussions of the Eastmain-1-A/Sarcelle/Rupert project will continue long after the various funds have been depleted. He wondered what funding sources would be available then for road and trail maintenance as well as for upgrading infrastructure. Lastly, he was concerned for future generations: "… Will you have an answer for the generations to come?"

Another participant expressed concerns about snowmobilers' safety. He said it is hard to change the habits of land users and he fears that some users do not follow the recommendations regarding whether or not it is safe to cross lakes and rivers by snowmobile.

7. WEMINDJI

The consultation session took place at the offices of the Wemindji Band Council on the evening of November 20, 2012. A dozen individuals attended. Five of them, including one woman, took the floor. Two tallymen attended and spoke at the meeting. There are around 1500 people in the community of Wemindji[16].

7.1 Concerns expressed at the public hearings held in 2006[17]

Increased water flow downstream from the diversion bays following diversion of the Rupert River was a concern raised at the public hearings held in Wemindji in 2006. The residents feared that increased turbidity would affect water quality and make it unfit for consumption. Furthermore, participants did not believe that the increased flow would not lead to an increase in water levels of reservoirs and lakes, in particular Boyd and Sakami lakes. Certain tallymen wondered where they would be able to hunt in future because their territory would be flooded by the Eastmain-1-A/Sarcelle/Rupert project.

Several participants expressed concern over the safety of the dams and the possible consequences of events beyond the proponent's control, such as an earthquake or a terrorist act.

Many of the concerns expressed by Wemindji residents focused on fish populations, especially sturgeon, and their spawning grounds. One resident wanted to know if the sills erected on the Rupert River would prevent the sturgeon from reaching their spawning grounds. Lastly, some residents feared that fish and game would lose their flavour.

The Chief of the Wemindji First Nation suggested that a Native Affairs division be created at Hydro-Québec to develop and implement hiring strategies for Crees during hydroelectric development projects in order to increase the Cree share of the workforce. The training for young Crees was also a concern. It was hoped that young Crees would be allowed to benefit from the job opportunities created by the project.

The Crees were disappointed that they were not consulted and invited to share their traditional knowledge. They wanted to be consulted at every project phase, including construction and operation, to ensure their concerns are given due consideration.

7.2 Views expressed by Cree participants at the consultation sessions held in 2012

7.2.1 General comments

During the consultation session held in Wemindji, a person explained the important role that Elders play in the lives of Cree youth. Himself an Elder, the person said he was saddened by the distress and hardships experienced by young Crees. He can see they have a tremendous need to get in touch with the land, learn about the traditional way of life and acquire the necessary

16 Registry of Cree, Inuit and Naskapi beneficiaries of the JBNQA and NEQA, 2013.

17 Provincial Review Committee (COMEX). 2006. *Eastmain-1-A and Rupert Diversion hydropower project. Report by the Provincial Review Committee to the Administrator of Chapter 22 of the James Bay and Northern Québec Agreement*, pp. 147-151.

knowledge to become independent and be able to provide for their needs through subsistence hunting, fishing and trapping. According to this Elder, it is crucial that young Crees develop the skills needed to practise these traditional activities, because they will eventually be responsible for supplying Elders with traditional food when the latter are no longer able. Elders therefore have a tremendous responsibility towards youth by transmitting all of their knowledge about fishing, hunting and trapping. That is why this Elder cannot imagine stopping accompanying young Crees when they travel into the heart of the territory, even if he is no longer physically capable of partaking in certain activities.

Three of the five people who spoke during the consultation session commented on the old way of life, the activities they used to practise and the traditions associated with some of them. Their comments were seen in the context of changes in the way of life in the wake of the hydroelectric projects carried out in the territory.

7.2.2 Impacts as noted by participants at the consultation session held in Wemindji

The majority of participants who spoke during the consultation session talked about the impacts experienced following past hydroelectric projects. Only a few comments dealt directly with the impacts of the Eastmain-1-A /Sarcelle/Rupert project. The participants described the perceived environmental, social and economic benefits of the project, as well as the psychosocial impacts.

7.2.2.1 Environmental impacts

During the public consultation session in Wemindji, most of the participants brought up the environmental impacts associated with previous hydroelectric projects, in particular the La Grande complex. They emphasized the hydrological changes subsequent to these projects, including flooding of the land by construction of the Opinaca reservoir and drying up of several waterways following construction of Dam OA-05 on Trapline VC23. Another impact mentioned was the perceived alteration of water quality following diversion of the Eastmain River.

However, the main impacts raised in relation to past hydroelectric projects were the impacts on wildlife, especially lake sturgeon. Three participants talked about the abundance of sturgeon in the Opinaca River and nearby lakes before the projects and how this species disappeared from the river and lakes after the reservoir was built. According to one participant, there are a lot of sturgeon in the reservoir, but apparently they are no longer able to swim down the Opinaca River because of the dam built on the river when it was diverted.

Another participant remarked that the first hydroelectric projects had major impacts on partridge, beaver, ptarmigan and hare. One participant also remarked that animals have changed since the projects began, but she did not say whether they were changes in the animals' behaviour, appearance or how they live. Another person talked about the impacts on beaver when Sakami Lake and nearby rivers are flooded and beaver lodges are submerged.

Lastly, two participants noted that geese no longer frequent pools they used to flock to before the first hydroelectric projects were carried out. They think that the sand that was–and still is–stockpiled near the ponds for road construction prevents geese from seeing and using the ponds.

As regards the impacts associated specifically with the Eastmain-1-A/Sarcelle/Rupert project, the participants who spoke on the issue referred mainly to the observed changes in hydrology and water levels and the consequences thereof. A tallyman talked about the change in water quality

following the project. He said that, according to some of the Elders, lake sturgeon have disappeared from the Sakami River because of the poor water quality. Moreover, fears about this type of impact were expressed during the 2006 public hearings in Wemindji.

According to another participant, the higher water levels following diversion of the Rupert River killed several trees on the shores of Sakami Lake. The participant said that he witnessed trees being carried away by the current after the river was diverted. He also noted that the water was still flowing in December, whereas before the project it was always frozen at that time of year.

7.2.2.2 Sociocultural and economic impacts

The sociocultural impacts raised by participants in relation to past hydroelectric projects concern traditional hunting, fishing, trapping and gathering practices, food and diet, and maintaining ties of solidarity within the community.

One of the impacts mentioned was the travel constraints caused by the altered flow of various waterways and the effects on ice cover. One of the participants pointed out that these impacts limit young people in learning about and getting in touch with the land: "Young people go hunting and I can't say to them, 'Go ahead, cross wherever you want to hunt!'. You can't cross until you've checked the ice." This person also said that a large snowmobile trail on a river could not be used anymore because the ice cover on the river is too thin in winter now.

Another participant talked about the impact of the first hydroelectric projects on berry picking. She said that all the work had killed the red berry and blueberry bushes in the area where she used to pick berries.

A tallyman talked about the importance of sturgeon in the traditional diet and how the species has become rarer since construction of the OA-05 dam, which has had consequences for the traditional diet. According to this tallyman, the decline of sturgeon in the Opinaca River and nearby waterways has also led to social impacts in that it is no longer possible to share one's harvest with other members of the community; before, species abundance fostered acts of solidarity within the community.

Another aspect addressed in relation to traditional diet was the effects of developments on water quality. Not only did one participant say that he cannot drink water directly from the river anymore, but another claimed that the poor water quality would affect everything that lives in water, which means that food that comes from the land cannot be trusted as much anymore. This same person said that the presence of mercury in the Opinaca reservoir as a result of previous hydroelectric projects is worrisome and makes people wary about eating animals that live in or drink from the reservoir.

As regards the impacts attributed directly to the Eastmain-1-A/Sarcelle/Rupert project, a tallyman mentioned the positive economic impacts, having himself benefited for a long time from the jobs created by the project. He realizes that there is still a lot of work to be done and is confident that tallymen will continue to benefit from the economic spinoffs. However, the same person talked about how the jobs had affected his personal and family life: "My work was really tough. I had children. They were here and I often had to leave them. Sometimes, I would be gone for a month, working."

7.2.2.3 Psychosocial impacts

During the consultation session in Wemindji, the participants expressed a profound sense of loss, trouble breaking with the past, a deep concern about the future, a certain degree of anger and a sense of invasion. These aspects were addressed in connection with past hydroelectric developments as well as the Eastmain-1-A/Sarcelle/Rupert project.

One participant spoke nostalgically of the past, when members of her community lived almost entirely off the land. She expressed sadness at no longer being able to live the way her parents and grandparents did. She also said she is having trouble coping with the forced end to a time when there was happiness and satisfaction in her community. She emphasized the fact that the members of her community seem unhappy now, summarizing her feelings this way: "We've lost everything we had before, before the dams were built. … We loved our land, we loved the food we used to eat and we've learned that what we used to eat helped us a lot."

The sadness expressed by some Wemindji residents was not just about the past, but also about the future. One person said she deeply regretted that her descendants will never know the land the way she did, or the way of life of her forebears. Another participant echoed the same sentiment: "And that affects the population, the people. When their hunting grounds are affected, when they're destroyed, it has a major impact on children too, on grandchildren and on great-grandchildren. It affects them a lot. It upsets them a lot to see what's happened to their land." The same person said he was sad at not being able to feed children properly anymore, not giving them what he called "healthy food" on a regular basis.

Some participants reiterated the same safety concerns as raised during the public hearings in 2006. Two participants feared that hydroelectric infrastructures will collapse during a natural disaster or that the higher water level in some places will become problematic with the effects of climate change: they did not talk about it like it was a simple concern, but rather like a real cause of anxiety.

Anger and frustration are two sentiments manifested in several participants' comments, particularly in relation to the lack or absence of mitigation measures. One participant said he had asked the proponent to implement mitigation measures to remedy some of the impacts of previous hydroelectric projects, but the proponent either ignored or refused to grant his requests. For instance, the participant had asked the proponent to clean up the area along waterways after the land was flooded, but the proponent refused. Another participant said he finds it unfair that he should have to pay to have another shed built considering all the damage caused to his hunting ground by the Eastmain-1-A/Sarcelle/Rupert project. He also decried the fact that no steps were taken to remove the sandbanks that were not used for construction of the James Bay highway or to restore the 20-ft-deep holes dug in the area of Km 434. Lastly, a participant thinks that the proponent lied to them when it said that the water level in Sakami Lake would not be change, because he believes it has. Note that concerns in this regard were also voiced during the public hearings in 2006.

Lastly, a participant said he had the feeling of being invaded since hydroelectric projects began in the territory. He said he really feels the presence of non-Aboriginal people and Crees from other communities who come and hunt on his hunting ground and sometimes commit wrongful acts. The same participant has noticed more snowmobiles driven by non-Aboriginal people passing through the territory since construction of the Sarcelle powerhouse began and he fears that the increase in snowmobilers in the territory will disturb animals and aquatic fauna.

7.2.3 Concerns expressed

Participants at the consultation session in Wemindji voiced a number of concerns. First, two participants spoke of their fears regarding the health effects of power lines on animals and hunters. They believe that electricity from power lines kills wildlife and has adverse effects on humans.

Second, a participant said he does not trust the information received about mercury levels in fish from Sakami Lake. Given the higher water levels in the lake since diversion of the Eastmain River, he thinks it is unlikely that mercury levels have remained low. In addition, he is concerned by the fact that certain measures for monitoring human health effects seem to have ended and that he received no information about the monitoring: "After the first diversion of the Eastmain River, we were told we'd be tested for mercury. Since then, after I started working, I didn't have to go to the clinic or the hospital to be tested for mercury. After the first samples were taken, that was it, they stopped, and I don't know if we had mercury or not."

Another participant said he was worried about the impacts on beaver if certain rivers dry up and he wants these impacts to be more sufficiently documented. Lastly, a tallyman expressed his fears regarding new impacts that could occur after the Sarcelle and Eastmain-1-A powerhouses come on line. The tallyman would like to know the exact changes expected in water levels and ice cover of affected waterways, since he does not feel like he got a clear answer on the matter. He and another participant fear that snowmobilers driving on lakes and the Opinaca reservoir in winter will fall through the ice because it seems more fragile than before.

8. WASKAGANISH

The consultation session took place at the Place de rassemblement de Waskaganish on the evening of November 22, 2012. Fifty people attended the meeting and 21 of them, including one woman, took the floor. Four tallymen from Waskaganish and two tallymen from Nemaska attended the meeting. The director of the local Cree trappers' association and a representative of the Council of Elders were also present, as were the Grand Chief and the Executive Secretary of the Grand Council of the Crees. The population of Waskaganish is around 2 800.[18]

8.1 Concerns expressed at the public hearings held in 2006[19]

Many of the comments at the public hearings in Waskaganish revealed the sadness the Crees feel over the changes to their way of life and the practice of their traditional activities, which form the foundation of the Cree culture. The participants feared that the Eastmain-1-A/Sarcelle/Rupert project would intensify these changes.

Among the losses feared, Waskaganish residents were concerned that fish would stop coming to Smokey Hill due to alterations to the Rupert River. This is one of the most important fishing sites for the Crees, for its spiritual, historical, cultural as well as visual values. With regard to the water quality of the Rupert River, the participants anticipated the inflow of saltwater in the estuary and an impact on young Crees' regular leisure activities, such as swimming and fishing.

There were also concerns about future navigation conditions and winter ice cover. A change in the water level could make it difficult to navigate the Rupert River's estuary and make it more dangerous to cross from one bank to the other during fall and spring.

A high percentage of the residents of Waskaganish believed that the project would have a major impact on animals living in or frequenting the zones affected by the project, including the Rupert River. The disturbance of natural habitats would lead to fewer animals and deforestation of the boreal forest and the Crees felt this would have a negative impact, particularly on birds and caribou.

The Crees agreed that the Eastmain-1-A/Sarcelle/Rupert project could create employment opportunities for young people and members of the community of Waskaganish. However, they hoped that the jobs would not just be temporary ones during the construction phase, but would also be maintained during the operating phase.

The participants in the public hearings said they were saddened at the thought of the Rupert River's being permanently altered. The Crees were preparing themselves for the loss of the river's natural state and the irreversible damage the project would cause. The diversion of the river marked a significant loss for the community.

With the advent of new development projects in the James Bay territory, residents were concerned about growing social problems such alcohol and drug abuse, domestic violence, child neglect, suicide, and so on. Moreover, the very announcement of the project had already noticeably

18 Registry of Cree, Inuit and Naskapi beneficiaries of the JBNQA and NEQA, 2013.

19 Provincial Review Committee (COMEX). 2006. *Eastmain-1-A and Rupert Diversion hydropower project. Report by the Provincial Review Committee to the Administrator of Chapter 22 of the James Bay and Northern Québec Agreement*, pp. 152-159.

impacted the community's social fabric and individuals' health because of the opposing stances adopted by residents, combined with the resulting stress, unease and uncertainty at the thought of the project. The population was deeply divided by the project.

According to some people, the project would reduce the tourism potential of Rupert River because it would no longer be possible to promote the river's natural beauty. The loss of tourism potential would deprive the community of economic spinoffs.

Participants also alluded to the fear that the proponent would plan other hydroelectric development projects in the James Bay territory once this one was completed.

8.2 Views expressed by Cree participants at the consultation sessions held in 2012

8.2.1 General comments

The Crees' contribution to the Eastmain-1-A/Sarcelle/Rupert project was underscored numerous times during the public consultation in Waskaganish. In fact, the executive secretary of the Grand Council of the Crees said that the project could not have been carried out without the Crees' help and that their involvement had been spurred by the fact that they received contracts and jobs. Moreover, some members of the community acknowledged the support and jobs received thanks to the agreements entered into between the Crees and Hydro-Québec. According to one participant, the proponent's willingness to involve the Crees and allow them to derive economic benefits from the project is a substantial improvement over previous hydroelectric projects in the James Bay region. Also, other participants underlined the efforts made by the proponent to work collaboratively with the Crees and consider their concerns. In addition, a number of participants said they appreciated the fact that people from Hydro-Québec come to the consultation sessions organized by COMEX in order to listen to the Crees, take note of what they say and answer their questions. They hope the dialogue will continue for a long time to come.

Some participants also mentioned that the proponent had incorporated Cree traditional knowledge into its studies to gain a better understanding of the territory and its resources: "… everything that was done, such as fish studies, they did a lot of work and so did the Crees, and Cree knowledge was really used to find out where fish live, where they spawn." On the other hand, a member of the community of Nemaska, who attended the consultation in Waskaganish, thought that tallymen should have been consulted more on this project to find ways to minimize impacts on fish. He has observed a significant decline in fish numbers since partial diversion of Rupert River and, in his opinion, tallymen would have known what to do to prevent this from happening.

The Chief of Waskaganish's representative acknowledged that measures had been taken to mitigate the impacts of the Eastmain-1-A/Sarcelle/Rupert project and that tallymen had been consulted on the measures because their deep knowledge of the territory enabled them to anticipate certain impacts. Nevertheless, he said there are still observable impacts despite the mitigation measures. Based on what he has seen, some members of the community are only just beginning to understand the nature and extent of the project's residual impacts, and he feels that efforts could have been made to better prepare them for this situation, as they are greatly affected by it.

There were also comments on the effectiveness of certain mitigation measures. A Waskaganish resident said that while he appreciates the work carried out to increase the water flow in the Smokey Hill area, he does not think it is enough: "I applaud you for this work, but clearly there is still a lot left to be done and the skills and knowledge of engineers and tallymen need to be tapped into to ensure a better weir flow system."

Also, in one tallyman's opinion, the beaver trapping program has not been effective, as it was impossible to trap all of the beaver and a number of them have come back to live in the same place as before:

> You can't just trap them and expect them not to return to the same place. That's how it works with beaver. … where there's a good source of food for beaver, or for any animal for that matter, for moose, that's where they'll survive, where they can find a good source of food. You can't just prevent beaver from living there. And that's how I see the land. Even if you kill them, beaver, you know, they'll come back.

On the other hand, a tallyman from Nemaska testified to the efficacy of a measure he helped implement. He got a mechanical seeding contract to plant exposed banks of the Rupert River and the vegetation has grown well, attracting geese back to the planted areas.

In another vein, a few participants decried the fact that some people who have been affected by the project, in particular people who hunt geese in Rupert Bay, have not been able to benefit from the mitigation and compensation measures offered by the proponent. He hopes these people will be eligible to receive support under the new agreement reached in 2012 (Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project, administered by Niskamoon Corporation) and that the eligibility criteria for mitigation and compensation measures will be amended so that more people affected by the Eastmain-1-A/Sarcelle/Rupert project can receive support:

> What I myself would like is for Niskamoon's existing criteria to be changed for greater effect, so that Niskamoon has a greater effect on its clientele or the people it's attempting to serve. Maybe the project criteria could be broadened … so that all tallymen affected by the project can benefit from mitigation measures as much as possible. Currently, these criteria are so strict that they apply to certain traplines only. So, I'd like to see a lot more done for other trappers on the banks of Rupert River. Let's hope we can change all that to give Niskamoon a broader mission so that it can help more people who are affected by what's happened on Rupert River.

During the consultation session in Waskaganish, many comments dealt with the Crees' sociocultural characteristics and their relationship with the land. Several participants shared memories from their childhood, when they used to go hunting and fishing with older family members and the latter would transmit their knowledge about the land and its resources. Some also described how forest, mining and hydroelectric development in the territory has drastically changed the Cree way of life. For example, one person recounted that grocery stores never used to sell products from the south. The Cree people essentially survived off hunting and fishing. Another participant mentioned that saving money for the future was a foreign concept in traditional Cree culture, as most Crees did not have jobs before the advent of development projects in their territory. Consequently, Elders who are no longer able to hunt and fish need support, because they have no way of providing for their needs.

Although the Crees no longer rely solely on hunting, fishing and trapping for subsistence, many of them, including young people, continue to hunt, fish and trap. As some participants pointed out, responsibility for traplines is still handed down from one generation to the next and is entrusted to tallymen, who could be considered the stewards of traplines and have deep knowledge of them. Lastly, a few participants at the consultation expressed their deep attachment to the land and to the Rupert River: "… one of the reasons we still talk about the river, still talk about the waterfalls, animals and everything on the land is because we're attached to the land the same as our ancestors were."

8.2.2 Impacts noted by participants at the consultation session held in Waskaganish

Although participants who spoke at the public consultation in Waskaganish talked primarily about the impacts associated with the Eastmain-1-A/Sarcelle/Rupert project, there were also comments addressing previous hydroelectric projects.

8.2.2.1 Environmental impacts

Some participants talked about the environmental impacts they have observed since the first hydroelectric projects were carried out in the James Bay region. One of them noted changes in the migratory habits of the Canada goose and snow goose as well as a decline in their numbers in areas the geese used to frequent. Another participant noted that there are no moose on his trapline anymore and he believes it is because of the logging carried out to build the James Bay highway and power transmission lines.

The other environmental impacts mentioned by participants at the consultation session in Waskaganish relate more specifically to the Eastmain-1-A/Sarcelle/Rupert project. As revealed by their testimonies, numerous changes to the community's land have been observed, in particular changes to the visual aspect of the Rupert River and the quality of its water, as well as avian, terrestrial and aquatic fauna.

Ever since the partial diversion of the Rupert River and the construction of hydraulic structures on the river, several members of the community have remarked a significant decline in flow and water levels over several kilometres starting at the river's mouth. This is especially the case at low tide and when the gates of the Rupert dam are closed. Some participants said they hoped work would be done to raise and maintain water levels in the Rupert River: "Ideally, I'd like to see spurs rather than weirs used to control water flow. That would really create a zone with the right water level, but I'm going to rely on tallymen's knowledge in this regard. I'd very much like the water levels there to be as close to normal as possible."

According to two Waskaganish residents, the flow and water levels in the Pontax River are also significantly lower than before. They believe the cause is the work carried out in the Rupert River, as testified by the following excerpt:

> … Pontax River has changed a lot since the dam was built and the river was diverted. And even if they tell us it didn't have any impacts, the fact remains that there's less water flowing down the river, even after a rainfall. I've seen it before, when water levels drop. Water levels are much, much lower today. You can see the mud on the bottom. … I've never seen rocks in the river before, but now I run into them, even when I travel on Pontax River.

Two tallymen have also noted deterioration in water quality. One of them said this: "When you look at the water and how it's used, well, in the past, we made sure water stayed clean, but that's no longer the case. You can't say the water's clean now. It changes as it flows."

According to 10 or so participants who spoke during the consultation in Waskaganish, the Eastmain-1-A/Sarcelle/Rupert project has also had wildlife impacts. First, two participants said that the beaver population has declined sharply as a result of the trapping program carried out before the river's diversion. And the surviving beavers have apparently been affected by the changing water levels in the Rupert River, especially when the level rises after the gates of the Rupert dam are opened and beaver lodges are flooded. A tallyman explained that when this happens, beavers escape onto land and then become easy prey for predators. Then when the water level in the river drops in late fall, beavers have to build new lodges and store new supplies for winter. Note that disturbance of natural habitats and the resulting effects on animal populations were among the concerns expressed during the public hearings in 2006.

Second, several participants have observed a decline in some fish populations since partial diversion of the Rupert River, including lake sturgeon, walleye, lake whitefish and cisco, particularly in the Smokey Hill area. This was actually a fear expressed by residents of Waskaganish during the public hearings in 2006. Only one participant said there were still fish in this area. A tallyman from Nemaska has also noticed injured fish at KP 223:

> My grandchildren go fishing there. They put nets out in October and all of the fish appeared to be squashed or killed, and it was because of the rocks. The rocks are too sharp, and that's what happens to the fish when they arrive at these places. It's as if the fish's stomach was sliced open when they arrive here. You see that sometimes, they have open wounds on their bodies and it makes them weaker.

Lastly, six participants said they had remarked a sharp decrease in the number of snow geese on the shores of Rupert Bay as well as on parts of Trapline R18 in Nemaska. Some participants have observed a change in the geese's migration pattern as well. They say that snow geese do not stop over in the same places as before.

8.2.2.2 Sociocultural and economic impacts

The vast majority of the sociocultural and economic impacts raised by participants at the consultation session in Waskaganish are directly associated with the Eastmain-1-A/Sarcelle/Rupert project.

According to one participant who spoke at the consultation, because the partial diversion is still recent it will take a few years before the members of the community of Waskaganish can grasp the full extent and nature of the project's repercussions. In the opinion of the Grand Chief of the Grand Council of the Crees, however, everyone is already feeling the effects in varying ways. Based on the views of nine participants, it is mostly hunting, fishing and trapping that have been affected since the construction of facilities on the Rupert River: they said that animal species prized by the Crees have disappeared from sites that used to be good for hunting, fishing and trapping. Also, due to the low water levels in the Rupert River, some people can no longer install their fishing nets in their usual spots, including along the shores of Rupert Bay, and have to find new spots to install them now.

Other areas that used to be good for hunting are apparently flooded now at certain times of the year because of the hydraulic structures built on the Rupert River. This hampers hunting activities according to some participants, including this tallyman: "The weirs cause flooding when the gates

are open, and that's bad in my opinion. It affects all hunters who travel to their grounds and who lived to hunt before the land was flooded." The Crees must therefore find new hunting sites. One participant even told the story of how he had had to move around a lot during a hunting trip on a Nemaska trapline because several areas were flooded. A tallyman also talked about an area of his trapline where he used to hunt geese but can't now because it is flooded and the geese don't go there anymore.

In addition, many participants said that travelling in the territory had gotten much harder, especially on the Rupert River since its partial diversion. One of them said he can no longer drive his snowmobile on the river to get to Nemaska in winter because the low water level has changed the ice conditions, making it more dangerous to us as a travel route. In addition, the same participant said that the spring thaw occurs sooner than it used to because the ice cover on rivers is thinner now and breaks more easily. According to another participant, ice jams at the mouth of the Rupert River make it impossible for the Crees to cross by snowmobile during winter. There are only three places along the first 20 kilometres of the river where it is possible to cross safely, but only during a short period. Note that concerns about the project's impact on ice cover were expressed during the 2006 public hearings.

According to five participants, including the Chief of Waskaganish's representative, it is also harder to boat on the Rupert River now due to the alterations to the river. The chief's representative had this to say:

> Navigation is difficult now. People often think that navigation is just a matter of water depth. In Waskaganish, it takes decades before you can expertly navigate our bay, because you have to know about winds, tides, waves, water temperature, salinity, the frequency and height of waves, and so forth. All of these things appear to have changed. You know, we used to have a lot of expert navigators and now everyone is reduced to beginner status because of all these phenomena. And it's hard for people to trust in their abilities.

Two other participants said that it was virtually impossible now to travel by boat on the first 20 kilometres of the Rupert River and reach the bay, especially when the tide is going out, because the water level is too low. One of them also remarked on the substantial mud buildup at the mouth of the Rupert River due to the combined effect of tides and low flow rate since the river's partial diversion, which is making navigation as well as fishing very difficult in this sector.

Furthermore, as mentioned by one participant, some members of the community of Waskaganish have to be flown to their trapline by helicopter because of the hydraulic structures on the river. A tallyman from Nemaska also discussed navigation problems created by the dikes built on the Nemiscau River, which have caused the river to dry up in some places.

The lower water levels in Rupert River have also had an impact on the business activities of Cree-owned Norvik Aviation, which flies hunters and trappers from Waskaganish and Nemaska as well as clients of a local outfitting operation to camps. Two participants, including the president and chief executive officer of Norvik Aviation, said that float planes cannot land on the river anymore and have to land on Carole Lake instead.

In addition, three participants who spoke claim that the hunting and fishing problems encountered since partial diversion of the Rupert River have affected the Cree diet, because it is harder to get certain foods that are part of their traditional diet. As one tallyman whose trapline has been affected by the project explained:

> You know, everything that's good for the Crees comes from animals and such. The Crees look for good hunting spots where they can get good food: moose, hare, beaver, and that's how the Crees eat. … Where can we go to find food? … Beautiful areas have been destroyed, areas where animals, wildlife used to live, good areas where these animals used to be found. … All animals go where they can find food, and I want you to understand that. The animals we eat, such as caribou, moose and bear, they're found on dry land, they go where they can overwinter and find food … and that's where hunters go to hunt. It's extremely important for the Crees to be able to hunt, to have hunting grounds that have not been destroyed, so that they can get food to eat.

Another participant also remarked that goose hunting on the coast of Rupert Bay is not nearly as good as it used to be because the geese have gone. Consequently, he can't stock up for winter anymore: "I never have geese in my freezer now, and I'm afraid that, because water levels are getting lower, grass will start growing everywhere geese used to come and feed. Would it be possible to see if something can be done in future to continue attracting geese to the coast of Rupert Bay?"

What's more, certain cultural practices are harder to keep up in their traditional form due to the problems getting "spiritual food," as explained by the Grand Chief of the Grand Council of the Crees:

> When you have "Walking Out" ceremonies (*ehwiiwiithausinanoch*)—I had them for my children—there aren't any geese for these ceremonies either. We can't go get spiritual food, we can't go get beaver in order to plan these ceremonies for our children. It's all been destroyed. We've all suffered the consequences in Cree communities. We can no longer do the things we did in the past, find the food we used to have for the major feasts of yore. People buy bread at the store or buy a turkey. That's the modern feast. We no longer have the traditional meals we used to eat.

Five people also talked about how it's harder to transmit traditional hunting and fishing knowledge and practices now because of the changes to the land since the Rupert's partial diversion, particularly in the Smokey Hill area:

> … Smokey Hill, its condition is permanent now. Work was done in late June, in July and August, an effort was made to repair it, plywood and all sorts of material were brought in. How many years will that continue? Young kids, we can't teach them anything under these conditions. We've lost that forever.

One of the tallyman who attended the consultation remarked that the youth from his community had not acquired the knowledge and skills needed to hunt and fish on their own. When they get to a certain age, he thinks young Crees should have learned enough about hunting and fishing to be able to live off the land.

Some participants addressed the issue of economic spinoffs. Their testimonies indicate that Waskaganish experienced a period of economic prosperity thanks to the Eastmain-1-A/Sarcelle/Rupert project, with businesses starting up and creating jobs for community members. Tallymen whose traplines were affected by the project, along with a number of local businesses, received large sums of money from the proponent to perform various work. Moreover, a Waskaganish resident and a tallyman from Nemaska expressed their gratitude for the jobs and contracts offered to people in their respective communities and hoped they would get more contracts for some of the work still to come.

However, economic development seems to be slowing in Waskaganish now, as expressed by the Chief of Waskaganish's representative at the consultation session: "We used some of the contracts we got to start a business and we were very successful at guaranteeing jobs and business opportunities. In the case of our community, it was intense for three years, but things seem to be nosediving now. The "boom and bust" effect is of serious concern to the community at the moment."

Four participants were eager to talk about the economic benefits of the project relative to its costs to the community, in particular in lost tourism potential of the Rupert River. The executive secretary of the Grand Council of the Crees used the term "costs" in the figurative sense to refer to things the Crees have had to give up and the suffering caused to some by the project's impacts:

> … they say: "Look what we give to the Crees, we give them work, we give them money," and I know how people see us, but they [Hydro-Québec], they don't see what all of this costs us. … so much has been paid that sacrifice, sacrifice is our payment. We pay in terms of suffering and pain and that needs to be written down in COMEX's reports, the huge sacrifices the Crees have made. We've seen what it's cost Hydro to build their dams and the number of employees, but no light's been shed on what the Crees have given up, what the Crees have given to the government so that these projects can be carried out, and I want those sacrifices to be clearly stated in COMEX's report.

Lastly, three participants talked about the social divide caused by the Eastmain-1-A/Sarcelle/Rupert project, the conflict it is creating between family members, as testified by this excerpt:

> What can I tell you about the Rupert diversion! We're suffering the effects in the community, the members of our community are suffering the effects. Some people were for the project, some were against it, and I've witnessed the conflict it's created. It has a social impact, there are social consequences, and I think that the communities have paid the price … And I see the effects, I see the disputes among members of the same family over certain traplines. … in my own family, some were for, you know, we argued at the table. I was accused of being on the side of Hydro just because I belonged to a group that wanted to get contracts to do some of the development work.

According to another participant, the way in which funding is granted for mitigation or compensation measures is partly responsible for tensions in the community, particularly between those who got assistance from Hydro-Québec and those who did not meet the eligibility criteria:

> Because of the conditions that are set, you know, it's a system, in a way you're turning tallymen against each other, they fight each other for the money, whereas all of the tallymen should enjoy the benefits and receive the assistance that is available. I wish the system would cause less division and friction in order to help these tallymen.

8.2.2.3 Psychosocial impacts

The public consultation held in Waskaganish highlighted a number of psychosocial impacts arising from the hydroelectric projects carried out on Cree land over the last few decades.

First, one participant recalled the deep anxiety amongst the local population when the initial hydroelectric projects were announced:

> I remember, at the very first meeting, I was very young at the time and people were told there would be construction work, that dams would be built on certain rivers … And I remember that people weren't listening to each other, everyone was talking at the same

time and everyone was raising their voice and yelling "How am I going to raise my children? That's my subsistence!" Because they knew the land would be flooded, the land they hunted on.

Another participant evoked the suffering of his people triggered by the passing of the *Act approving the Agreement Concerning James Bay and Northern Québec*, the springboard for hydroelectric, mining and forest development in Cree territory:

> I was in the House of Commons, I was there for the reading when the legislation on the James Bay Agreement was passed. We'd come a long way, but at the same time we were suffering, deep down inside we were suffering because we'd given up something that our people loved. They provided for their family's needs through hunting, fishing and trapping and they raised their family, and part of that was lost, and that's a consequence.

Other psychosocial impacts mentioned during the consultation stem specifically from the Eastmain-1-A/Sarcelle/Rupert project. A Waskaganish resident said he was upset when he learned that the project had been green-lighted, because he was already anticipating the negative impacts it would have on his community. Now that the construction phase has been completed, the people of Waskaganish can see how fast the changes occurred, which, according to five participants, is very upsetting for members of the community who experienced the territory before the project and had led a traditional way of life. Now they have to adapt to all the changes, and that is not easy for some people, as this tallyman explained:

> For people who knew what it was like before, you know, they're really affected by all the changes. And the changes didn't happen very gradually. They're happening fast. That's how it impacts us. … It's not something we can put down in writing, it's something people feel in their heart and mind. … people are suffering, especially people who lived the old way of life … You know, it's really a difficult situation for us, an adversity.

In fact, the testimonies of several participants expressed a deep feeling of loss as a result of the changes to the land caused by the project and the impacts on traditional hunting and fishing activities. One person also said he feels sad when he sees the changes in the Rupert River: "… it's not easy dealing with the loss of our river, the construction of the dam on the river. I've often cried thinking of the source the river was for the entire Cree population. That happened to me a lot and now I see the river differently." However, it is important to remember that the same feeling of sadness brought by changes to their way of life and traditional pursuits was also expressed by Cree participants at the 2006 public hearings. Thus, although this is not a gradual impact of the Eastmain-1-A/Sarcelle/Rupert project, the project has probably added to the grief felt by the Crees because it has brought even more changes to the land and the Cree way of life.

Other participants are angry about the construction of hydraulic structures on the Rupert River, because they see how it has affected navigation and fish populations. In addition, a tallyman said he had witnessed mass harvesting of brook trout and roe during a mercury monitoring study conducted on behalf of Hydro-Québec and he was extremely annoyed by that because fish is critical to Cree traditional medicine and healing: "I told them, you're destroying our medicines. Those are traditional medicines to us. When people are sick, fish serves as medicine to heal the illness. When a person is sick, he eats fish, goes to sleep and wakes up healed. Are you going to keep doing that? You're going to deplete the river."

Lastly, one participant at the consultation was outraged at the lack of financial assistance received from the proponent to offset the disturbance on his trapline: "…you know, we lived on the banks of this river and we received a really small share of the financial assistance even though it's our river. I don't know how all that was agreed upon, how it is that things were done that way."

8.2.3 Concerns expressed

The public consultation in Waskaganish gave participants a chance to express their concerns regarding impacts on wildlife, public safety and the future of Cree trappers and youth from the community.

First, the director of the local Cree trappers' association expressed concern over trappers' future:

> … they've suffered a lot of impacts to their traplines from mineral exploration, forestry, sport fishing, hydroelectric dams, and so forth. So we sort of have to look at what the future holds for Cree trappers. The number of trappers is dropping and a lot more than anticipated. We can't expect young people to go out on a trapline and get paid just fifty dollars a day when they can get a full-time job. Okay, so it's impossible to invest a lot in the future, but what does the future hold for them?

Five other people voiced concerns about impacts on the younger generations, especially considering how hard it is to transmit traditional knowledge given the huge changes the territory has undergone. In fact, older participants were worried about what will become of young people if they no longer know how to live off the land and if they have trouble getting paid jobs, as testified by this excerpt:

> You know, me, I never went to school, but I can tell you that I knew how to hunt really well, even if I never went to school. I used to go hunting, it was my job, I used to hunt in the winter, that's what I learned from my father. I learned all that from him when he went hunting, and I have a lot of respect for hunting. … But if there aren't any jobs and if we don't teach young people how to hunt, what's it going to be like for them? I don't have children, but I care about young people. … I learned how to survive, and that's my strength. That's how I got food to eat.

Some participants insisted on reminding the proponent that the people of Waskaganish were promised financial assistance and jobs, and they reiterated their expectations in this regard, particularly for young Crees:

> These young people are facing a situation. They don't seem to be getting the financial assistance they need to deal with the situation. And now they have no way of going back to the past, when things were good. They have no resources, everything's completely changed and the teachings have disappeared along with the rest. … And these young people who won't get to know the traditional way of life and who won't be able to live entirely off the land, it's going to be hard for them. And so I expect something to be done about it.

These participants expected to receive financial assistance to ensure that traditional knowledge can be passed on to young people so that they can hunt, fish and trap off the land like their parents and grandparents did in the past. They also hope that young people will get jobs and derive economic benefits from the Eastmain-1-A/Sarcelle/Rupert project, because that would at least partly make up for the losses suffered by the community.

There were also concerns about the potential impacts on wildlife. One participant said he is afraid that geese will no longer come to Rupert Bay, a traditional hunting site his family has been going to for generations. Two other participants fear that the water quality of the Rupert River has been altered to the point of affecting fish. One of the tallymen at the consultation session said he was worried about the health effects of power lines on moose who feed on his trapline:

> My hunting ground is probably 220 kilometres long and there are six power lines on it. And moose feed on the shrubs that grow under the power lines. And their insides are affected. They have growths on their liver and it wasn't like that before. You know, on my hunting ground, even if there are moose, you know, there's something inside of them that's not right. It's like they have stones inside of them and we blame that on the power lines, because the moose feed under the power lines.

The same tallyman also fears that the Crees will no longer be able to eat so-called "traditional food," such as fish and beaver, which they consider healthy food:

> Traditional food, you know, people used to know that it would be really healthy, they were sure that they could stay healthy by eating that food. And how old will people live if they can't get traditional food from the land anymore? You see fish that are sick now. Even beaver, you can see that they're sick because they're being disturbed. You can see it.

Two members of the community of Waskaganish also said they were worried about people's safety when they travel on the Rupert River, especially because of the ice conditions, which have changed since the river's partial diversion. Three other participants were concerned about people's safety on the Waskaganish road because parts of the road are in bad condition. They expect the proponent to provide financial assistance to repair the road, because the heavy vehicles carrying material used to build hydraulic structures on the Rupert River contributed to the road's deterioration.

Lastly, a participant had mixed feelings about future hydroelectric projects in Cree territory because of the social and cultural costs involved. On the one hand, he recognizes that these projects give Cree communities an opportunity to develop and become independent but, on the other, they also lead to unwanted changes in the Cree way of life, values and cultural practices. In other words, he hopes that his community will develop without having to give up its cultural uniqueness and identity.

9. REVIEW OF THE PUBLIC CONSULTATIONS: PROPONENT'S RESPONSES AND COMEX'S OPINION

Section 9 is divided into eight themes that emerged from participants' questions during the 2012 public consultations: assistance funds and support for Cree communities; hydrological conditions and water quality; land improvements and access; wildlife potential and hunting, fishing and trapping activities; safety and prevention; social environment and health; economic spinoffs; and communication and collaboration between the Crees and the proponent.

For each theme, Hydro-Québec's principal responses to the requests and questions from Crees during the six consultation sessions are summarized. An overview is also provided of the follow-up programs submitted by the proponent in accordance with the conditions of the certificate of authorization. Section 9 concludes with COMEX's opinion on the different points and concerns raised during the consultations. It should be noted that the proponent clarified certain aspects in the supplementary information submitted to COMEX in January 2013. This information, which participants did not receive during the public consultations held in November 2012, is provided in Appendix IV.

Note, however, that certain questions or requests raised by the Crees are not Hydro-Québec's responsibility under the certificate of authorization (e.g. requests for reimbursement for stolen equipment, free access to electricity, use of roads existing prior to the project or built under previous hydroelectric projects). The purpose of this section is not to respond specifically to each request, but rather to report on the proponent's responses and provide COMEX'S general assessment of the principal issues raised during the public consultations.

General considerations

COMEX would again like to underscore that these public consultations stem from the new relationship forged through various agreements signed between the Québec government and the Crees pursuant to the umbrella agreement known as the *Paix des Braves*.

With a view to creating an adequate framework for the Eastmain-1-A/Sarcelle/Rupert project, COMEX recommended numerous conditions for its authorization (Appendix I), including the requirement that the proponent submit environmental and social follow-up studies. The conditions relating to follow-up programs were not all stipulated because of the project's anticipated environmental impacts, but also because COMEX wanted to monitor the project's social impacts and address the population's concerns. In keeping with these conditions, Hydro-Québec carried out detailed follow-up programs for various components of the aquatic, terrestrial and social environments. These programs addressed numerous elements, including ice cover, lake sturgeon and cisco, Cree manpower, etc. The results of the follow-up studies—some of which

are underway, while others will run until 2023—are periodically submitted to COMEX members for information purposes. They are also submitted to the Cree–Hydro-Québec Monitoring Committee as well as to the tallymen and Cree communities concerned. The list of reports on follow-up programs carried out by Hydro-Québec is provided in Appendix V.

Niskamoon Corporation appointed the Monitoring Committee as the preferred forum for matters relating to the environmental follow-up program for the EM-1-A/Sarcelle/Rupert project. The committee is composed of eight Cree members, including representatives of the six communities affected by the project and two regional representatives, and seven members representing different divisions of Hydro-Québec responsible for implementing the follow-up program. Between January 2007 and November 2012, the Committee met 73 times to discuss a wide range of issues relating to the many obligations, guarantees and assurances for Crees set out the Boumhounan Agreement in relation to the project. Needless to say, the goal of the committee is to ensure a meaningful participation by Crees in all aspects of the environmental follow-up program.

Throughout the project's implementation, Hydro-Québec has informed COMEX of the progress in work being carried out, and COMEX members have visited the project site many times. In addition, COMEX has reviewed some 30 requests from the proponent to amend the certificate of authorization and made related recommendations.

COMEX met with the band councils of the six communities on the following dates in preparation for the public consultations:

- Waskaganish, October 16, 2008;
- Nemaska, June 26, 2009;
- Mistissini, November 16, 2009;
- Wemindji, March 29, 2011;
- Chisasibi, October 25, 2011;
- Eastmain, October 26, 2011.

Photo credit: MDDEFP, 2010.

FIELD VISIT

It is important to note that fewer Crees participated in the public consultations held by COMEX in 2012 than in the public hearings held in 2006, which resulted in authorization of the Eastmain-1-A and Sarcelle powerhouse and Rupert diversion. An average of 30 people attended each of the sessions held in 2012. The consultations in Chisasibi and Waskaganish had the highest number of participants and, on the whole, participants were mostly tallymen and their families or individuals and companies that received contracts from Hydro-Québec. In all of the communities, the consultation sessions were attended primarily by people directly affected by the project. Furthermore, the participants who took the microphone talked mainly about the project's negative impacts. Consequently, this report might give the impression that the population is generally unhappy about the project; however, participants' remarks must be seen in the context of the low participation rate. While it would be correct to say that the majority of participants in the community consultations would have preferred that the environment be preserved unaltered, it must also be said that the views expressed during the public consultations do not necessarily represent the views of all the communities, since no survey was conducted to verify such a conclusion.

In COMEX's opinion, the adoption of the Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project (see section 9.1) may have influenced the level of public participation in the Committee's consultations on the Eastmain-1-A/Sarcelle/Rupert project. In all likelihood, the agreement addressed some of the requests that could have made to the proponent.

Cree opposition to hydroelectric development is rooted in the fear created in 1972 by the planned La Grande project (1975), which flooded vast tracts of land and diverted rivers, forever transforming the Crees' ancestral lands and way of life. Crees now believe that hydroelectric development projects have had environmental and social impacts in the form of mercury-contaminated fish, eelgrass decline on the shores of James Bay, changes in bird migration patterns, degradation in water quality, changes in animal behaviour, opening up of the territory, diversification of employment opportunities, and changes in lifestyle, diet and land use. Many people in the Cree communities attribute these changes to hydroelectric projects and talk about the deep sense of loss they feel. Other participants at the consultations mentioned climate change and other complex interactions in the environment as important contributing factors to these disturbances. It goes without saying that, for Cree communities already grappling with population growth, rapid cultural change, the emergence of a new economy and a fluctuating unemployment rate, the project's biophysical impacts have made their reality more complex.

It was clear during the 2012 consultations that participants often had difficulty identifying the exact impacts of the Eastmain-1-A/Sarcelle/Rupert project, since they can be attributed to natural environmental evolution as well as to previous hydroelectric projects, which coincided with the beginning of various changes. COMEX was sensitive to this issue and gained from participants' comments. Recognizing the significant adaptation required of the Cree Nation, COMEX would be remiss not to underscore the resilience revealed through the many testimonies heard during the consultations. The Crees' deep respect for the land and their attachment to the traditional way of life is evident, and COMEX has taken careful note of their determination to maintain their traditions while benefiting from development of the territory.

9.1 Funds and support for Cree communities

Proponent's responses

The Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project was signed in 2012, shortly before the public consultations. It provides for total funding of $2.75 million, indexed annually for the duration of the Rupert diversion, to support the communities most affected by the project, namely, Mistissini, Nemaska and Waskaganish. It does not apply to Eastmain, Chisasibi and Wemindji, which means that those communities are not eligible for financial assistance under the agreement.

During the public consultations held in Mistissini, Nemaska and Waskaganish, Hydro-Québec frequently mentioned the possibility of applying for financial assistance and compensation under the agreement, in particular to compensate for the loss of land as a result of hydroelectric infrastructure and to offset the project's impacts on navigation and traditional hunting, fishing and trapping activities. The proponent informed the communities that they could apply to Niskamoon Corporation for funding under the various agreements entered into between the Crees and Hydro-Québec to implement measures aimed at offsetting the impacts of hydroelectric projects in Cree territory.

Although it did not respond concretely to a number of requests made during the consultations in Eastmain, Chisasibi and Wemindji, the proponent mentioned the existence of the Boumhounan Agreement, the Agreement concerning La Sarcelle powerhouse, and $45 million in contracts to during implementation of the Eastmain-1-A/Sarcelle/Rupert project. During the public consultations, Hydro-Québec pledged to work collaboratively with tallymen throughout the

operation phase as well as during the follow-up programs in order to incorporate their knowledge of the territory, get their opinions and involve them as much as possible. The proponent also reminded participants that it is possible for tallymen and other Cree people to acquire surplus equipment from Hydro-Québec, such as building site trailers.

A number of participants said they were worried about the availability of assistance and financial support in future and for future generations, not just for people using traplines on the banks of Rupert River, but for all members of the communities and all traplines, whether directly or indirectly affected by hydroelectric projects. The proponent responded by saying that the Crees would continue to have access to financial assistance under the various agreements entered into between the Crees and Hydro-Québec.

COMEX's opinion

Hydro-Québec has entered into numerous agreements with the Crees to offset some of the impacts of the hydroelectric structures built before and since the signing of the *Paix des Braves* (Appendix II). The amount of funding provided for under these agreements is mentioned in this report solely for information purposes. Funding amounts cover the cost of more mitigation and enhancement measures, but do not take into account the non-monetary benefits expected from the agreements. COMEX notes that measures as well as substantial funding were put in place to mitigate the environmental and social impacts of the Eastmain-1-A/Sarcelle/Rupert project. It is important that the parties concerned use the funding wisely. COMEX does not monitor the implementation of the agreements, and the latter do not release Hydro-Québec from its obligations under the certificate of authorization. Consequently, the proponent must continue to report to COMEX once a year on the work it plans to carry out to implement mitigation measures in relation to the certificate of authorization. Any work that is not authorized under the present project must be submitted to the Administrator in accordance with the JBNQA.

9.2 Hydrological conditions and water quality

Proponent's responses

During the 2012 public consultations, the proponent was asked a number of questions regarding fluctuation in river levels and water quality.

Water-level fluctuations

A participant from Mistissini said he was surprised to note the extremely high water levels in the Misticawissich River in fall 2012 given that Hydro-Québec had apparently said that water levels in this river would be stable for the next 40 years. A participant from Wemindji asked the proponent to explain the extremely high water levels in the Opinaca reservoir in 2012. In addition, Nemaska residents commented on use of the Rupert River as well as the river's water level in spring.[20]

The proponent explained that water levels in the Misticawissich River and Opinaca reservoir normally fluctuate by a few metres during the year and that the year-to-year fluctuation range depends on a number of factors, including the amount of precipitation. However, water levels are

20 Other information regarding water-level and flow fluctuations was requested during the public consultations, but since it pertained more to navigation and fishing conditions, the questions will be dealt with in the relevant sections of this report (9.3 and 9.4).

expected to remain within the limits established for the project. The Hydro-Québec representatives also said that the results of hydrological follow-up studies conducted under the Eastmain-1-A/Sarcelle/Rupert project indicate that water levels in the Misticawissich River and Opinaca reservoir have always been within the normal variation range.

Two members of the community of Waskaganish remarked that water levels in the Pontax River have dropped considerably and they attribute the drop to the Eastmain-1-A/Sarcelle/Rupert project. The proponent replied that no retaining or diversion structures had been built in the Pontax River watershed in connection with this project.

Water quality

Participants from all six communities asked the proponent questions relating to water quality. A number of participants said that they used to be able to drink directly from rivers and lakes, but can't anymore because the quality of river and lake waters has been affected by all the hydroelectric projects carried out in their territory. They said they wanted a natural source of good-quality water, especially when they are at their hunting and fishing camps. Moreover, a few participants at the public consultations asked about the potential human health effects of drinking river and treated water. Some mentioned that members of their community had experienced health problems since they started drinking treated water, i.e. since the advent of hydroelectric projects.

Hydro-Québec reminded the participants that the Cree Board of Health and Social Services of James Bay issued an advisory not to drink water directly from lakes and rivers or, at least, to boil it first to kill any bacteria.

The proponent confirmed that, according to test results and ongoing monitoring, water from the new treatment plant in Waskaganish meets all the regulatory standards respecting drinking water quality. The treatment plant was built as part of the mitigation measures for the Eastmain-1-A/Sarcelle/Rupert project.

In response to the Crees' concerns about changes in water quality in the Rupert River following its partial diversion, expressed prior to the project, the proponent asked the tallymen concerned where they get their water from in the river so that sampling stations could be set up to monitor water quality (22 stations in all). Three additional sampling stations were set up at sites on the Nemiscau River where people said they got water for their personal use. According to the proponent, the results of monitoring conducted thus far show no significant change in any of the three parameters examined (turbidity, colour and suspended matter). Hydro-Québec hand-delivered and explained the results to each of the tallymen concerned, as promised in the environmental impact statement for the project.-

The issue of green and brown algae in the La Grande River was raised numerous times during the consultation session in Chisasibi. A number of participants said they have observed a lot of algae on the banks of the river, upstream from the community of Chisasibi, and some of them think the algae bloom is partly attributable to the polluted river water. The proponent said that large colonies of green and brown algae were indeed observed all along the northeast shore of James Bay during the 2011 follow-up study on common eelgrass, but the reasons for this phenomenon are difficult to determine.

COMEX's opinion

Water-level fluctuations[21]

The public demanded clear explanations from the proponent as to the observed changes in water levels in the project area. Water levels changed in a number of areas following impoundment of the Rupert diversion bays, including in the Misticawissich River sector and the Opinaca reservoir. Hydro-Québec briefly addressed the public's questions, explaining that fluctuations in water level are primarily related to average annual precipitation levels. COMEX thinks that the proponent should give the Crees clearer explanations given that several factors can modify water levels in different contexts. Such factors include the policies and practices for managing water levels in the diversion bays during periods of abnormal precipitation.

In response to observations by Waskaganish residents that the Pontax River is lower than it used to be, Hydro-Québec explains in the supplementary information provided in January 2013 (i.e. following the public consultations) that the level of the river is, in fact, lower, but it is not because of the Rupert diversion structures, but rather because of the long periods of low precipitation in summer from 2010 to 2012.[22]

COMEX is aware that control design for flows downstream of the Rupert River dam and diversion bay water levels may be an abstract concept. Even though, in theory, minimum flow rates have been established for the river and operating levels for diversion bays must be respected, the river and diversion bays are still subject to natural fluctuations and climate change. These year-to-year conditions are a new reality that users must adapt to, as the river and diversion bays will continue to be affected by dam operation and natural fluctuations. Water-level fluctuations generally have positive impacts on ecosystems, such as helping to conserve and renew riparian habitat and move substrate. Water levels in the increased-flow sector are also affected by the new watersheds feeding this sector. Users will have to adapt to the new conditions in this sector as well as in the diversion bays and downstream reach of the Rupert River. In COMEX's opinion, ongoing communication between Cree users and Hydro-Québec must continue, and Hydro-Québec must be especially sensitive to use and safety issues. Explaining phenomena and the results of monitoring studies clearly, using non-scientific language, is of utmost importance.

Water quality

Regarding the questions related to water quality asked by participants at the 2012 public consultations, COMEX notes that, with the exception of the Waskaganish raw water intake, the water quality monitoring conducted by the proponent was limited to the aesthetic quality of water (turbidity, colour and suspended solids) and was based on the assumption that, because it is not treated, river water did not meet safe drinking water criteria even before the project. Consequently, the proponent was not required to make sure that river water was safe to drink untreated, which is why the bacteriological quality of river water was not monitored. Moreover, as previously mentioned, the Cree Board of Health and Social Services of James Bay recommends not drinking lake and river water untreated anywhere, as per the Québec *Regulation respecting the quality of drinking water*, which stipulates that surface water must be treated prior to

21 Questions relating to water-level fluctuations and flow rates in the reduced-flow sector will be addressed in greater detail in sections 9.3 and 9.4, in connection with navigation and fishing conditions.

22 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, pp. 29-30.

consumption. Several participants who spoke during the public consultations said that water doesn't taste the same anymore. Taste is a parameter that is hard to measure, in addition to being subjective. However, the most recent monitoring studies indicate that water quality in low-flow segments of Rupert River is perfectly fine for other domestic uses, as the values obtained for the three parameters studied are close to background values, i.e. the values prior to the river's diversion.[23]

Studies on the visual quality of water in this sector, conducted since 2008 in accordance with Condition 6.6 of the certificate of authorization, point to a slight alteration in water quality in the downstream portion of the river (from KP 108 to the mouth) relative to background values, but no change in the upstream portion (from KP 108 to KP 314). The primary reason for this is that the downstream portion of Rupert River (clay zone) is more prone to erosion than the upstream portion (sand and gravel zone) and is subject to a higher level of suspended solids and turbidity. That said, the changes in water quality in the downstream portion of Rupert River are in keeping with the predictions made in the impact statement for the Eastmain-1-A/Sarcelle/Rupert project. COMEX had deemed these impacts acceptable in light of the planned mitigation measure, i.e. construction of a new drinking water treatment plant in Waskaganish. Water quality monitoring in low-flow segments of the Rupert and Nemiscau rivers will continue until 2016.

Even if, according to Hydro-Québec, the hydraulic structures built on the Rupert and Nemiscau rivers have not affected the bacteriological quality of water in any way, the supplementary information submitted by the proponent following the public consultations mentions that if the community of Nemaska wants to improve the water supply at Vieux-Nemaska and build wells, as requested by members of that community, it can apply for financial assistance under the Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project.[24]

In addition to monitoring in low-flow segments of the Rupert and Nemiscau rivers, suspended solids monitoring was conducted downstream of the instream flow release structures in 2010 and 2011. The results indicate that the average values for suspended solids measured in these spots are altogether comparable to the value measured in 2008 and 2009, prior to diversion bay impoundment. Moreover, in accordance with Condition 6.7 of the certificate of authorization, monitoring was conducted at the raw water intake of the Waskaganish treatment plant in 2010 to monitor raw water quality. This study revealed slight increases in turbidity, true colour and total organic carbon compared to background values. The increases are primarily attributable to bank erosion in the parts of Rupert River not influenced by the weirs built to restore water levels. They are also attributable to higher sediment and organic matter input from downstream tributaries following the river's partial diversion. Even if bank erosion subsides over time, thereby reducing turbidity, the values for true colour and organic matter will still be higher at Waskaganish's water intake. However, the treatment efficiency of the new drinking water plant will not be affected because changes in water quality do not compromise the system's performance or its capacity to provide Waskaganish residents with drinking water that meets quality standards.

As regards the growth of green and brown algae in the La Grande River, the proponent mentioned that members of the community of Chisasibi had raised the issue in 2011, during a meeting of the Hydro-Québec/SEBJ–Chisasibi working group. It said that the causal factors of the algae bloom

23 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 21.

24 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 21.

are not clear, but that phosphorus usually promotes algae growth and that phosphorus and phytoplankton biomass (suspended algae in water) levels in the La Grande River tripled after the Robert-Bourassa reservoir was filled in the early 1980s, but had returned to their initial levels around 10 years later, that is, in the early 1990s. Therefore, the algae bloom observed in 2011 cannot be attributed to the hydroelectric facilities built in the initial phases of the La Grande complex. An increase in phosphorus levels was also noted in the Eastmain-1 reservoir in 2007, but they had returned to their baseline levels by 2008. Therefore, the algae bloom in the La Grande River observed by residents of Chisasibi cannot be attributed to hydroelectric developments in the James Bay region. However, according to the proponent, they may be an impact of climate change.[25] COMEX notes that this is of major concern to the community of Chisasibi. While the algae growth may be a naturally occurring phenomenon (because of climate changes, isostatic rebound, etc.), the possibility that it is caused by human activity must not be dismissed. Upstream users should make sure their installations are effective and observe whether they influence algae bloom, and envisage remedial measures where necessary. The MDDEFP regional office should be informed of the situation where necessary.

Participants at the consultation session in Chisasibi were also concerned about future degradation in the water quality of the La Grande River in the event of leakage or spills of oil or other products used in the maintenance of hydroelectric facilities. One participant in particular said he had noticed oil floating on the river's surface downstream from the LG-1 generating station.

In the supplementary information submitted following the public consultations, the proponent responded by saying that treatment systems have been installed to prevent oil or other chemical products from entering the river. The LG-1 generating station, for example, is equipped with two water/oil separators as well as a septic tank with a prefilter and recirculation filter. Discharges are periodically measured and meet all of the statutory and regulatory requirements.[26] The treatment systems collect substances used in the operation of each generating station, as well as wastewater, and ensure adequate treatment prior to discharge into the environment to prevent water contamination. In addition, Hydro-Québec explained that emergency plans were prepared and employees are trained to respond to accidental spills.

9.3 Land improvements and access

Proponent's responses

Requests relating to land improvements and access made during the 2012 public consultations concerned the preservation, development and maintenance of roads and quad/snowmobile trails, the construction and relocation of camps, and improvement of navigation conditions.

Road preservation, development and maintenance

In the majority of communities where consultation sessions were held, a number of participants asked that roads and trails built under the Eastmain-1-A/Sarcelle/Rupert project be kept and maintained. Hydro-Québec explained that roads and trails built for project needs are normally decommissioned and the land restored to its natural state following project completion; in some

25 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 57.

26 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 59.

cases, however, roads and trails may be kept if so requested by tallymen. An agreement was struck with tallymen that they would be responsible for the maintenance of roads and trails they wish to keep, along with any other roads built or upgraded as part of the mitigation and development measures put in place.

Quad and snowmobile trails

Participants from Mistissini and Nemaska also called for remedial work to upgrade segments of quad trails developed as mitigation or development measures, arguing that the trails are in poor condition and would be hard to use. The proponent explained that the trails had been developed by Cree businesses under contracts awarded by the proponent. When the contract expires, and if tallymen are satisfied with the work performed, Hydro-Québec is no longer responsible for the trail's maintenance and upkeep—a condition set at the outset of the project in 2007. However, the proponent added that if remedial work is needed to improve quad trails so they can be used by Crees to pursue their traditional activities, the Crees can apply to Niskamoon Corporation for funding. Financial assistance is also available from Niskamoon for projects to build new snowmobile and quad trails.

Construction and relocation of camps

During the public consultations in Eastmain, Wemindji and Nemaska, there were a few questions about the construction and relocation of camps. Participants complained about not getting new camps that they claim were either promised or requested. The proponent told one of the participants that he could apply to Niskamoon Corporation for financial assistance. In response to another request in this regard, the proponent told the participant to submit an application under the assistance program set up pursuant to a 2002 agreement between the Crees and Hydro-Québec.

Enhancement of navigation conditions

A number of requests to improve navigation conditions were made during the consultation sessions in Nemaska and Waskaganish. Some participants reported that boating on the Rupert River has been harder since its partial diversion because of the reduced flow, lower water levels and new obstacles, in particular rocky outcrops. Participants even claimed that the first 20 kilometres of the Rupert River are virtually unnavigable now and it is nearly impossible to reach the bay, especially at low tide. Moreover, one participant suggested building a hydraulic structure to raise and maintain water levels in the Rupert River upstream from KP 5 to facilitate boating.

The proponent acknowledges that the reduced flow and lower water levels in the Rupert River have made navigation harder in certain stretches, especially between KP 5 and KP 20. That is why buoys were installed in 2012, with the help of tallymen, to mark navigable channels in the most difficult parts of the river. Buoys will be installed every year by residents of Waskaganish through dedicated funding under the Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project. Signs marking the location of a danger were also posted in approaches to weirs, sills and spurs on Rupert River and nautical charts were produced and disseminated. According to Hydro-Québec, boaters are happy about these measures because they help them to navigate safely on the river. It should also be mentioned that mooring areas, boat ramps and portages have been developed or improved to mitigate the impacts of the river's partial diversion on navigation. In addition to these measures, a navigation and fisheries program was set up in 2010 to help Crees familiarize themselves with the new navigation conditions and

explore new fishing sites. The program, which is subsidized by Hydro-Québec and administered by Niskamoon Corporation, is intended for tallymen (and their families) from Nemaska and Waskaganish whose trapline has been affected by the project. It is expected to run until 2018.

Photo credit: Photo Hydro-Québec, 2012.

WEIR AT KP 223

In response to some participants' comments about the navigational difficulties in Rupert Bay and Rupert River estuary, the proponent mentioned that a committee was formed in summer 2012 to identify and implement measures for improving navigation conditions between this sector of the river and the first rapids (KP 5). Furthermore, pursuant to the Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project signed in 2012, tallymen from Nemaska and Waskaganish can submit projects aimed at improving navigation conditions on their traplines (e.g. removal of rocks in the river, development of new portages or landings) to Niskamoon Corporation for funding purposes. Conditions apply.

COMEX's opinion

Preservation, development and maintenance of roads and quad and snowmobile trails

First, COMEX notes that the proponent has upheld its obligations under Condition 2.7 of the certificate of authorization to decommission temporary roads no longer in use unless the tallymen in question wish to keep them and to submit to the Administrator annual master plans for the redevelopment of the roads. Furthermore, the proponent has built or improved approximately

375 kilometres of access roads[27] to traplines and Cree camps and sent the complete planning of these access roads to the Administrator for authorization, as stipulated in Condition 2.6 of the certificate of authorization. The exact location and nature of these developments were determined following agreements with the tallymen concerned. COMEX thus recognizes the proponent's efforts to improve access to the territory so that the Crees can continue their traditional pursuits. As testified by the 2010-2011 follow-up study on land use, the roads and trails built or upgraded under the Eastmain-1-A/Sarcelle/Rupert project, as well as the snowmobile and quad trails developed as part of mitigation and enhancement measures, appear to have facilitated access to the territory and land use by the Crees, particularly in the Rupert diversion bay and reduced-flow sections.

Although the majority of tallymen and other Cree users appear to be satisfied with the development of access roads, a number of complaints were nonetheless voiced during the 2012 public consultations, particularly in relation to the maintenance of roads and trails developed for the project. COMEX would like to point out that it was determined at the outset of the project that the proponent would be responsible for maintenance of the main roads built for the needs of the project and tallymen and other users would be responsible for maintenance of any decommissioned temporary roads they wish to keep to facilitate access to their traplines. Similarly, the proponent is not responsible for the maintenance of bridges and culverts that were built for the project but are no longer used and have been kept at the request of tallymen. Tallymen are also responsible, by agreement with Hydro-Québec, for maintenance of snowmobile and quad trails developed as land enhancement measures. COMEX notes the contradictory comments made by a few participants who called for access to the territory and road development while at the same time saying they were worried that the territory would be opened up too much.

Construction and relocation of camps

Numerous camps (camps or square tents) were moved or built to replace existing camps that could no longer be used due to flooding, bank exposure or limited access. New camps were moved closer to the initial location, in a place determined by the users concerned so that they could continue practising their activities in their normal spots. For example, three camps located on the Rupert River between KP 5 and KP 20 were moved in 2012 to offset navigational difficulties near the banks.[28] According to the land use follow-up study conducted in 2010-2011, Crees who benefited from this measure are generally satisfied with their new camp. Therefore, in COMEX's opinion, the proponent has met its initial commitments with regard to the construction and relocation of camps during the project's construction.

Enhancement of navigation conditions

Similar measures to those implemented in the reduced-flow section of the Rupert River were also implemented in the diversion bay and increased-flow sections under the Eastmain-1-A/Sarcelle/Rupert project with a view to improving navigation conditions. For example, wood debris was removed from the river, signs marking the location of a danger were posted, "no boating" signs were installed, maps of navigation corridors were produced, boat ramps, mooring areas and

27 Access roads to camps built or upgraded and snowmobile and quad trails developed as part of the project's mitigation and enhancement measures. It does not include roads built for the needs of the project and maintained at tallymen's request.

28 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 33.

portage trails were developed, navigation corridors were marked to create safe boating conditions and facilitate access to camps and areas of interest for wildlife harvesting. Monitoring of navigation conditions in the Rupert diversion bays will continue until 2015 and in the reduced-flow section of the Rupert River, until 2014. COMEX notes that the proponent has satisfied all of the navigation-related conditions stipulated on the certificate of authorization and acknowledges the further measures taken to preserve or improve navigation conditions in the sectors affected by the Eastmain-1-A/Sarcelle/Rupert project.

Photo credit: Photo Hydro-Québec, 2011.

THE RUPERT RIVER NEAR GRAVEL PIT
IN THE REDUCED-FLOW SECTION (NEAR WASKAGANISH)

However, while these measures generally seem to be appreciated by users of the territory, impacts on navigation/boating remain, in particular in the reduced-flow section and mouth of the Rupert River and in Rupert Bay. Monitoring of navigation conditions in this area in 2012 revealed a number of constraints on navigation tied to water-level and flow fluctuations. In some sectors, camps are hard to get to because of high water levels and submerged banks, especially during instream flow release in spring and fall when the control structure is opened. In other sectors, new rocky outcrops and exposed banks resulting from low water levels make access to camps more difficult. Caution and a period of adaptation are thus needed on the part of users, as provided for in the environmental impact statement for the project. In this regard, COMEX would like to underline the proponent's initiative to set up a navigation and fisheries program to help Crees adapt more quickly to the new navigation conditions and enable them to continue practising their traditional activities. That being said, considering that users deem water levels in the Rupert River too low in some spots and too high in others, COMEX thinks that, if the proponent so requests,

an adaptive management approach to instream flows could be envisaged if priority is placed on preserving spawning areas and sustaining fishery resources, including species prized by the Crees.

A participant at the consultation session in Wemindji enquired about the possibility of extending the program to collect wood debris, because he has noticed debris in some of the bays of Sakami Lake, making boating more difficult in this sector. The proponent explained that the purpose of the program was to ensure that navigation corridors used by the Crees in the Boyd and Sakami lakes sector were safe and free of wood debris. With the tallymen's help, ten sites were identified in 2009 and debris was cleared from the navigation corridors concerned in 2010. A detailed characterization of these corridors, carried out with tallymen or their representative during a navigation survey in 2011, showed that there was no need for another program to collect wood debris to ensure boating safety or enable access to campsites on lakeshores.[29]

Land improvements to address bank erosion

Finally, as regards the concerns about bank erosion on the La Grande River that were expressed during the public consultation session in Chisasibi, COMEX acknowledges that remedial work has been carried out or is planned. Note, however, that the proponent has already implemented bank stabilization measures in the La Grande River sector, essentially in response to local concerns. Even though the proponent did not anticipate that the river's increased flow as a result of the Rupert's partial diversion would intensify the bank erosion already begun along the La Grande River, it nevertheless decided to install granular blankets on the left bank of the river in order to curb erosion. The work was to be carried out in three phases, but only the first two have been completed thus far, protecting several kilometres of bank against erosion. The third phase was planned for 2011, but the work could not be carried out for safety reasons. Consequently, a working committee was formed to find an alternative solution. Instead of installing granular blankets, the proponent is supposed to carry out bank stabilization work.

29 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 49.

Photo credit: Photo Hydro-Québec, 2013.

GRANULAR BLANKET ON THE BANKS OF THE LA GRANDE RIVER AT CHISASIBI

With regard to the shoreline erosion on Fort George Island reported by a participant at the consultation session in Chisasibi, the proponent carried out a shoreline characterization and developed a number of stabilization scenarios in 2011. In 2013, the HQ/SEBJ–Chisasibi working group agreed to apply to Niskamoon Corporation for funding. COMEX wishes to remind the proponent that if it decides to perform this work, it must obtain prior authorization in accordance with Section 22 of the JBNQA.

9.4 Wildlife potential and hunting, fishing and trapping activities

Proponent's responses

Numerous questions about the impacts on wildlife (avian, terrestrial and aquatic fauna) and hunting, fishing and trapping activities were raised during the public consultations held in the six Cree communities concerned by the Eastmain-1-A/Sarcelle/Rupert project.

Impacts on aquatic fauna in terms of fishing

During the consultation sessions in Waskaganish, Nemaska, Eastmain and Wemindji, there were a number of requests relating to the project's impacts on fish, especially lake sturgeon, and fishing practices. Numerous participants said they have noticed a decline in lake sturgeon numbers downstream from the diversion points in the Rupert, Eastmain and Opinaca rivers and called for remedial measures given the importance of this species to the Crees.

More specifically, a tallyman from Nemaska requested that a spawning site at the confluence of Rupert River and the Sipastikw branch (KP 281) be restored, claiming that sturgeon no longer spawn there in spring because water levels are much lower since the Rupert's partial diversion. The proponent replied that lake sturgeon is one of the fish species being closely monitored under the follow-up program established for this project. The objective of the program is to verify whether the ecological instream flow regime is effective in preserving spawning areas in the Rupert River and the sustainability of prized fisheries for the Crees. That is why a number of lake sturgeon follow-up studies have been conducted since 2008, in particular on larval drift and juveniles, as well as on the use of natural spawning grounds versus spawning grounds created in the context of this project.

A few members of the community of Wemindji also called for measures to restore the sturgeon population in the Opinaca River. During the consultation session in Wemindji, the proponent explained that a sturgeon study had been conducted in recent years and that the report would be ready soon. The study results should provide a better idea of the status of the sturgeon population downstream from the Opinaca and Eastmain rivers diversion point.[30] If measures need to be taken to restore the sturgeon population in these rivers, Hydro-Québec will pay for them using the Niskamoon-managed funds established by agreements entered into with the Crees—because the population decline would be an impact of phases 1 and 2 of the La Grande complex.

Photo credit: MDDEFP, 2011.

SPAWNING GROUNDS

30 Environnement Illimité inc. 2013. *État des populations d'esturgeon jaune dans la portion aval des rivières Eastmain et Opinaca et potentiel d'aménagement – Travaux 2010-2011*. Report prepared by M. Le Haye, F. Dalbec and M. Gendron for Hydro-Québec Production and Niskamoon Corporation, 67 pages plus 6 appendices.

Participants at the public consultation session in Waskaganish voiced concerns about other fish species as well, claiming to have observed a decline in the walleye, anadromous lake cisco and lake whitefish populations since the Rupert's partial diversion. In response to their concerns, the proponent said that, according to studies conducted in 2009 and 2011 on fish communities and population dynamics in the Rupert reduced-flow section, most species were still abundant even after the diversion. Therefore, "for the time being," no new measures are planned to increase fish populations (in particular cisco, lake whitefish and lake sturgeon), as requested by some participants, because the follow-up studies conducted to date do not show a marked decline in numbers, but rather a change in the species' distribution in the Rupert River. The latter is what has affected fishing. The proponent drew participants' attention to the navigation and fisheries program established in 2010. The purpose of the program is to encourage the Crees to familiarize themselves with the new boating conditions on the Rupert River and find new fishing spots given that some of the good spots are no longer fishable since the river's partial diversion. The program is especially targeted at tallymen from Nemaska and Waskaganish whose traplines have been affected by the project, and their families. Also, the proponent explained that the Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project provides that the navigation and fisheries program will run until 2018. The proponent mentioned that the program provides support to the Crees, through Niskamoon Corporation, to enable them to pursue their traditional activities on the Rupert River.

Impacts on avifauna in terms of hunting

Some members of the communities of Eastmain, Waskaganish and Chisasibi said they have noticed a decline in certain species of geese during migration periods, in particular the snow goose, Canada goose and brant goose, and called for measures to draw them back to areas where they used to be abundant. The proponent explained that the decline was unrelated to hydroelectric projects in the James Bay region, but rather is a result of a change in the birds' migration pattern over the past few decades. Feeding areas were developed in the United States and some parts of southern Québec to address the overabundance of geese and limit the damage they cause to agricultural fields, which has led to a change in the birds' migration pattern. Geese feed so well in winter and early spring that they have enough energy to fly as far as their nesting sites in the north without having to stop in the James Bay region like they did before. The proponent also mentioned that a follow-up program on wildfowl was established for the specific purpose of assessing the Eastmain-1-A/Sarcelle/Rupert project's impact on the abundance and distribution of certain bird species in the Rupert diversion bay and Opinaca reservoir sections as well as along Broadback River and Rupert River (downstream from its diversion point). He went on to say that the results of the follow-up studies conducted to date have been quite positive, as they do not indicate a decline in wildfowl populations since the Rupert's partial diversion and diversion bay impoundment. More wildfowl follow-up studies are planned for 2014, 2017 and 2021. The proponent pointed out that the data collected during these studies will serve to plan new mitigation measures, as needed, to preserve wildfowl populations and goose hunting sites.

At the consultation session in Chisasibi, several questions were asked about the eelgrass decline, which the Crees and their consultants associate with the decline in migratory geese (brant, snow and Canada geese) that were once abundant in their territory. They claim that eelgrass accounts for a large share of geese's diet. However, the proponent pointed out that while eelgrass is indeed an essential food source for the brant goose, this is not the case for the Canada goose or the snow goose. Participants disputed this assertion, stressing the importance of eelgrass for all species of geese found in their territory. The fewer numbers on the east coast of James Bay is due instead to changes in their migration pattern, as previously explained by Hydro-Québec.

In addition, some people from Nemaska linked the project's impacts on goose hunting on the banks of the Rupert River to the higher water levels caused by the opening of the Rupert dam gate in spring and by the weirs. Increasing the Rupert River additional instream flow causes rapid flooding of flats along the banks of the river, chases away geese and floods hunters' decoys and blinds, forcing hunters to move their installations to dryer ground. Participants at the public consultation in Nemaska asked the proponent to open the Rupert dam gates a few days later in spring to favour goose hunting. The proponent pointed out that this request had already been made to the Cree–Hydro-Québec Monitoring Committee and the Rupert River Management Committee. After studying the advantages and disadvantages, the committee members decided not to push back the opening date just yet because changing the ecological instream flow could adversely affect spawning by certain fish species in the Rupert River. Moreover, the proponent reminded the participants that the environmental impact statement predicted that Cree hunters would have to adapt to new hunting conditions following the Rupert's partial diversion.

Impacts on terrestrial fauna

Most of the comments regarding impacts on terrestrial fauna pertained to beaver, particularly among participants at the consultations in Mistissini, Nemaska, Waskaganish and Wemindji. One participant shared his concerns about recovery of the beaver population following the intensive trapping program carried out prior to the Rupert's diversion and diversion bay impoundment. Other participants mentioned that beaver were affected by the water-level fluctuations caused by opening and closing of dam gates, especially along the Misticawissich River (within the Rupert forebay drawdown zone) and in the Rupert reduced-flow section, and some asked if it would be possible to reopen the beaver trapping program. The proponent replied that there were no plans to start a new trapping program, but that a beaver inventory will be conducted in 2014 in collaboration with tallymen. It also mentioned that if users are truly concerned about the beaver situation, they can submit projects to Niskamoon Corporation to obtain funding under the Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project. The proponent also assured participants that their beaver concerns would be raised with the Cree–Hydro-Québec Monitoring Committee and it would assess the need for beaver recovery measures.

COMEX's opinion

Impacts on aquatic fauna

In COMEX's opinion, the proponent has made a significant effort to preserve and ensure the sustainability of lake sturgeon, a highly prized species for the Crees. Follow-up studies have been conducted on sturgeon larval drift as well as on the use of natural and created spawning grounds, in accordance with conditions 5.24 and 5.25 of the certificate of authorization for the Eastmain-1-A/Sarcelle/Rupert project. In addition, the Rupert reduced-flow section has been stocked with lake sturgeon fry every year since 2008, in collaboration with tallymen, who helped choose stocking sites. As well, a voluntary program to report sturgeon catches was established in accordance with Condition 5.26. However, over and above natural fluctuations in the sturgeon population, the success of measures depends on perseverance and collaboration. Close collaboration between the proponent and Cree fishers is crucial to obtaining meaningful results. Considering the long life of lake sturgeon and the species' vulnerability to overfishing, COMEX deems that efforts to guarantee its sustainability will be successful if their duration reflects the species' life cycle and if harvest levels are adjusted in keeping with the river's sustainable yield in the coming years.

After construction of the Eastmain-1-A powerhouse had begun, the residents of Nemaska became concerned about the project's impact on fish, especially sturgeon. There was a widely expressed sentiment that a large percentage of the fish population would be lost because the new river could not support such a high number of fish. In their view, the logical solution was to reduce the sturgeon population to avoid mass starvation of the species and use the flesh, which would otherwise be lost.

In 2009, over 1,500 sturgeon were fished in spawning sites on the river during the Nemaska Lake annual gathering. This heavy catch sounded the alarm among certain members of the Cree community as well as scientists studying sturgeon. The latter were more optimistic, believing that a large number of sturgeon would survive the dam's construction and that the species might even be more prolific than it was under the previous natural conditions.

In 2011, COMEX reviewed a project to build an access road at KP 280 of the Rupert River. Given the potential overfishing of lake sturgeon, the Hunting, Fishing and Trapping Coordinating Committee (HFTCC) was consulted on the advisability of building the planned access road. When the HFTCC decided in favour of the project, the community leaders were asked whether procedures had been established to manage the sturgeon fishery. The request delayed the access road's construction by more than a year. During that year, a conference on the sturgeon fishery was held and public education activities were carried out to explain the species' vulnerability and ask fishers to catch fewer sturgeon from spawning sites and during summer.

Tallymen are responsible for making sure the reduced harvest is respected. The community also launched an awareness program to sensitize community members to the vulnerability of the sturgeon population and limit catches of large specimens. People from other communities who come to Nemaska to fish are asked not to catch a lot of fish because of the sturgeon management program. Some people decide not to fish at all. In addition, tallymen have adopted the practice of their ancestors to follow a four-year rotation of sturgeon fishing sites.

According to monitoring results, these methods have been successful. It will thus be up to resource users, in particular the tallymen concerned, to ensure that this important spawning site continues to be managed responsibly.

As regards the spawning site at the confluence of the Rupert River and the Sipastikw branch mentioned by a tallyman from Nemaska, the 2010 and 2011 follow-up programs showed that the spring instream flow regime had maintained the total larval production of sturgeon in this sector, despite the change in spawning conditions.[31] Spawning sites previously located at the edge of the Rupert River have apparently moved to the middle of the river due to lower water inflow in the Sipastikw branch. Consequently, traditional spear fishing is no longer possible in this sector. However, as mentioned in the supplementary information provided by the proponent, the members of the Cree–Hydro-Québec Monitoring Committee can provide the tallyman with technical support in identifying appropriate remedial measures. The proponent also mentioned the possibility of submitting a project to Niskamoon Corporation under the Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project to maintain traditional fishing activities in this sector. In addition, monitoring of larval drift and the use of sturgeon spawning grounds in the Rupert reduced-flow section will continue until 2014.

31 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 23.

COMEX is aware of the crucial importance of the cisco spawning ground in the Smokey Hill (*Notimeshanan*) sector to the species' conservation in the Rupert River, as well as to the cultural value of Smokey Hill as a fishing site. The abundance of cisco must be maintained, in particular so that the Cree Nation of Waskaganish can continue dip-net fishing, a traditional fishing technique, in the Smokey Hill sector. Fishing success depends not only on the abundance of fish, but also on the pattern of rapids in this sector. Because cisco fishing has become harder due to lower water levels caused by the Rupert's partial diversion, the proponent worked with the Cree users and the local tallymen concerned to develop new dip-net fishing sites in this sector in 2010 (Condition 5.22 of the certificate of authorization). However, given the disappointing results of the 2010 fishing season, new pools and boardwalks were subsequently built on both sides of the river, with assistance from the SEBJ. According to the results of the 2010-2011 follow-up program on Cree land use, the site was easier to access in 2011 and cisco catches were slightly higher than the previous year. The results of the follow-up studies conducted to date show that anadromous lake cisco still inhabit the Rupert River, but not necessarily the sections of the river where the species was traditionally found. It is thus imperative that the Crees continue their efforts to reappropriate this section of the river by adapting to new fishing sites and techniques. Support is available from Niskamoon Corporation under the Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project. It is premature to conclude that the Smokey Hill rock blanket and the conservation of dip-net fishing was a success or not. However, COMEX thinks efforts may be needed to preserve activities at Smokey Hill.

Photo credit: Photo Hydro-Québec, 2011.

TRADITIONAL CISCO FISHING AT THE FOOT
OF SMOKEY HILL RAPIDS IN THE RUPERT REDUCED-FLOW SECTION

Lastly, the proponent promised to apply adaptive management principles to the planned ecological instream flow regime downstream of the Rupert diversion point. Accordingly, the regime will be revised in the event of *a posteriori* impact identification during the numerous environmental follow-up programs or impacts observed by land users. While COMEX took note of the Crees' requests during the public consultations to raise or lower water levels at different times of the year, particularly so as to prevent flooding of goose hunting sites in spring, it feels it would be premature to modify the instream flow regime at this stage of the project. More experience is needed before envisaging modifications. Current flow rates were determined so as to maintain the quality of spawning habitats and ensure sustainability of certain prized fish species for the Crees. For the time being, there is every indication that conditions are conducive to preservation of these species, even if their distribution in the river has changed. The report of the 2011 follow-up study on fish communities and population dynamics in the Rupert reduced-flow section indicates that number yields were higher than in 2009, for all of the most abundant species in the river (walleye, lake sturgeon, lake whitefish and northern pike) as well as for anadromous lake cisco. Further monitoring of fish communities and population dynamics will be carried out in 2016 and 2021 to identify changes in fish communities in the Rupert reduced-flow section (downstream of KP 314) following alterations in the aquatic environment. In COMEX's opinion, if follow-up studies and user observations reveal that the objectives of the ecological instream flow regime have not been achieved, the proponent must envisage measures to improve the situation, including modifying and adapting flow rates so as to guarantee the survival of fish resources, in keeping with Condition 5.18 of the certificate of authorization, which stipulates that such modifications are subject to prior authorization.

In reply to a tallyman who said he has noticed a decline in sturgeon numbers in the Eastmain River since the construction of a fish pass at KP 207 and the development of spawning grounds upstream and downstream from the weir at KP 207, the proponent explained that the complete closure of the Eastmain River at KP 217 under the Eastmain-1-A/Sarcelle/Rupert project had drained a branch of the river immediately downstream of the dam (OA-11) and led to the loss of the sturgeon spawning ground at KP 215 of the Eastmain River.[32] To offset the loss of this spawning site, three sturgeon spawning grounds had been developed and, according to the results of the 2010 follow-up study, sturgeon are using the one developed at the base of the weir at KP 207. So far, the other two spawning grounds have been used by a number of fish species, but not by lake sturgeon. The follow-up study conducted in 2010 shows that only a few of the sturgeon fitted with radio transmitters successfully crossed the fish pass built at KP 207. However, the proponent mentioned that other species successfully crossed the fish pass, namely white sucker, longnose sucker, northern pike and walleye. Note that further monitoring of the fish pass at KP 207 and nearby spawning grounds is planned for 2016.

Impacts on avifauna

As regards the decline in migratory geese populations observed by the Crees of Chisasibi, COMEX notes that the loss of eelgrass beds is of serious concern to this community, as testified by numerous comments made during the consultation session held in Chisasibi. Several participants were unhappy with the conclusions of the eelgrass follow-up program and called for independent studies. The objective of the follow-up program is to monitor changes in eelgrass beds along the northeastern coast of James Bay and communicate the results to the users and

32 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 43.

Cree communities concerned. The most recent report reconfirmed that in 2011, although eelgrass continued to recover from its sharp decline in 1998-1999, there were not as many beds as before the decline. The data collected at sampling stations also reveal wide variations within each study area. Indeed, eelgrass bed recovery along the coast is not uniform. Whereas in some sectors, eelgrass beds are virtually the same as those existing in 1996, in other spots along the coast, eelgrass is slow to regenerate. Generally speaking, eelgrass recovery appears to be slower on the north side of the La Grande River than on the south side.

That being said, the different information contained in the study report and in a document tabled by a participant at the public consultation in Chisasibi clearly show that the Crees and Hydro-Québec have diverging views of the possible causes of the eelgrass decline. According to experts, a combination of factors can have a dominant influence over eelgrass abundance, in particular climate, the substrate, hydrodynamics, salinity and isostatic rebound. However, the same experts consider the most plausible cause of the eelgrass decline in 1998-1999 to be the spread of the wasting disease pathogen *Labyrinthula zosterae*, the same as in other parts of the world. According to the Crees, though, the causative agent of the eelgrass decline is the ecosystem alterations arising from construction of the La Grande complex, and more specifically the decreased salinity along the coast due to greater freshwater input from the La Grande River. While the COMEX members respect the Crees' and experts' respective views, they believe that the causes of the eelgrass decline cannot easily be determined. Two more eelgrass studies are planned for 2014 and 2019. COMEX will monitor the findings of these studies. COMEX would be remiss not to underline the incorporation of Cree traditional ecological knowledge into the proponent's follow-up program on eelgrass beds, which was carried out with the Crees, as stipulated Condition 5.35 of the certificate of authorization.

If the Crees are concerned about eelgrass, they are even more concerned about the decrease in certain migratory geese numbers in areas where these species used to be abundant. In fact, the eelgrass decline should be considered from this perspective. Nevertheless, COMEX thinks that the construction of hydroelectric reservoirs might have contributed to the changes in migration corridors, although, as previously mentioned, it is plausible that other factors might have played a role. In addition, as mentioned in the supplementary information submitted by the proponent following the public consultations, a tallyman from Eastmain stated during the 2010-2011 follow-up on Cree land use that the goose hunt was better in 2011 than in previous years.[33] The proponent also mentions that, according to Canadian Wildlife Service statistics, none of the goose populations hunted by the Crees have declined.[34] COMEX acknowledges the efforts made by the proponent to improve goose hunting conditions in each of the communities concerned by the project, including tree removal in approach corridors, seeding of exposed banks of the Rupert River, and creation of goose ponds and feeding areas. However, as revealed by the 2010-2011 follow-up study on Cree land use, there are differences of opinion on these efforts, particularly among tallymen from Mistissini, Nemaska, Waskaganish and Wemindji. The proponent pointed out that tallymen can apply to Niskamoon Corporation for support under the Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project to help them develop hunting methods adapted to these new conditions.[35]

33 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 42.

34 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 58.

35 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 19.

Nemaska residents also mentioned that certain goose hunting sites located upstream from the weirs at KP 170, 223 and 290 are permanently flooded now. Geese used to stop at these sites during spring migration, but the higher water levels caused by the weirs' construction flooded banks and eelgrass beds that once drew geese. As indicated in the supplementary information submitted by the proponent following the public consultations, the matter was discussed with various tallymen in 2011 as well as during a public hearing held in Nemaska in January 2012. The proponent explained that the SEBJ had broadened the navigation and fisheries financial support program to include goose hunting in order to help the Crees find new hunting sites. As well, a number of mitigation measures were or are being implemented with participation from land users.[36] In short, COMEX notes that because of the higher water levels upstream from weirs, some of the shrub zones on the riverbanks are under water. However, despite these irritants, the hydroelectric structures have had a definite positive environmental impact downstream from the diversion point by maintaining water levels all along the river.

Photo credit: Photo Hydro-Québec, 2012.

WEIR AT KP 223

Lastly, a number of participants at the public consultations again called for a review of the dates on which water is released in spring and fall based on their hunting activities, in particular goose hunting. In COMEX's opinion, the primary objective of instream flows is to conserve suitable fish habitat. Any future modification must be submitted to the Administrator for assessment and it must be demonstrated that the modification in question is environmentally and socially acceptable in terms of impacts on the aquatic environment.

36 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 20.

Impacts on terrestrial fauna

COMEX deems that the intensive beaver trapping program carried out between 2007 and 2009 in anticipation of the potential loss of beaver following the Rupert's diversion and diversion bay impoundment had the expected results. Beaver were harvested from roughly 450 active lodges in the Rupert diversion bays, the downstream reach of the Rupert River and the Boyd and Sakami lakes area. In addition, all of the tallymen concerned by this measure participated in the program and were paid for each beaver lodge where traps were set. According to the report on Cree land use in 2010-2011, the majority of tallymen appreciated the follow-up program, deeming it useful and necessary under the circumstances.

Furthermore, as explained by the proponent, over 150 active beaver lodges were counted on the shores of Boyd and Sakami lakes during the inventories conducted in 2008 and 2009, despite the disturbances to the lakes caused by past hydroelectric projects. According to the proponent, this shows that beaver have adapted to the wide fluctuations in water levels in both of these lakes. Based on this finding, Hydro-Québec assumes that beavers will be able to adapt to the new hydrological conditions in all sectors affected by the Eastmain-1-A/Sarcelle/Rupert project, without threatening their survival.[37] The beaver follow-up program will continue in 2014 and the results will determine whether or not beaver populations are recovering and adapting to the new hydrological conditions.

9.5 Safety and prevention

Proponent's responses

There were several questions during the public consultations relating to the safety of hydroelectric structures and emergency measures plans in the event of a disaster. There were also questions regarding ice cover and snowmobiler safety.

Safety of hydroelectric structures and emergency measures plans

The risk of major breakdowns in hydroelectric facilities and the planned emergency response measures were serious concerns during the public hearings held in 2006, i.e. before construction of the Eastmain-1-A/Sarcelle/Rupert project began. They remained serious concerns during the 2012 consultations, with several participants seeking more information on the chance of a breakdown actually occurring and the planned safety measures, if any. Residents of Nemaska, Chisasibi and Wemindji voiced the fear that their community would be destroyed if retaining structures were to collapse during a natural disaster or as a result of climate change. They wanted to know if the proponent had taken this possibility into consideration during project planning and what emergency response measures would be taken.

The proponent immediately reassured the participants that Hydro-Québec's safety standards for hydroelectric facilities are among the highest in the world and even exceed the standards specified in the *Dam Safety Act*. According to the proponent, the leading cause of rupture of retaining structures is non-compliance with standards and, in this regard, Hydro-Québec meets very high engineering standards. The proponent also said that the Québec regulations under the *Dam*

37 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 11.

Safety Act governing various aspects of the project, in addition to the monitoring carried out by the responsible government departments, already minimize the inherent risks. The second largest cause of rupture is inadequate maintenance and monitoring of retaining structures. Hydro-Québec thinks it has one of the most stringent maintenance and inspection programs around.

In response to concerns about the rupture of retaining structures following an earthquake, the proponent said that the chances of that happening in the James Bay region are next to nil because the region is on the Canadian Shield, a very stable rock formation that is not prone to earthquakes. A participant replied that he remembers an earthquake that shook inland areas in the 1960s. Another participant also wanted to set the record straight in recalling an earthquake that hit just a few years ago, approximately 120 km from the LG-4 powerhouse.

According to the proponent, the only real risk of rupture of retaining structures would be posed by a terrorist attack. And even at that, according to Hydro-Québec, a terrorist attack is not likely to destroy facilities either immediately or completely. The proponent established a set procedure for dealing with such events as well as a direct line of communication with the Ministère de la Sécurité publique, safety administrators in Cree communities, the GCCQ and the CRA for the purpose of receiving and communicating information on any possible threat and deploying the procedure rapidly.

A participant from Chisasibi asked Hydro-Québec about the implementation of a safety measure provided for under the 2004 Agreement Concerning a New Relationship Between Hydro-Québec/SEBJ and the Crees of Eeyou Istchee (2004), which consisted in establishing a high ground park development near Chisasibi. To facilitate evacuation of the population to this temporary park in the event that the safety of retaining structures is compromised, the existing road was to be widened to several lanes. According to the same participant, the Crees lobbied the proponent to widen the road as soon as possible. He wanted to know why it was taking so long to implement this measure. The proponent replied that discussions with the Chisasibi Band Council were progressing and on track to begin developing the shelter and widening the road in 2013-2014.

Ice cover and snowmobiler safety

Tallymen and other land users from Wemindji, Waskaganish and Eastmain voiced concerns about the observed changes in ice cover since partial diversion of the Rupert River and commissioning of the Eastmain-1 and Eastmain-1-A powerhouses. The ice seems to be thinner and weaker than before in some spots, in addition to forming later in winter and melting earlier in spring, making travel by snowmobile more difficult. Some participants at the consultation sessions in these three communities therefore asked that measures be taken to make sure it is safe to drive across certain lakes and rivers by snowmobile, in particular the Rupert River estuary, Sakami Lake and Eastmain River (downstream of the powerhouses).

The proponent addressed each of these sectors during the public consultations as well as in the supplementary information submitted following the consultations. As regards Sakami Lake, the proponent said that sampling is conducted at the snowmobile crossing at KP 50 to monitor changes in ice cover following the Eastmain-1-A/Sarcelle/Rupert project. To date, the sampling results show that the ice is thick enough for snowmobiling from January to March. The proponent also explained that ice conditions on Sakami Lake are influenced primarily by meteorological conditions, not by the increased flow rate stemming from the Rupert's diversion.

According to the proponent, ice cover in the Eastmain River sector began changing after the Eastmain-1 powerhouse came on line in 2006. The high turbine flow and warmer water temperatures prevent ice formation until around KP 190 downstream from the Eastmain-1 and Eastmain-1-A powerhouses. Past that point, ice conditions vary and caution is advised. However, the proponent said there is a safe snowmobile crossing on Eastmain River near KP 173, the ice cover sampling site for the Eastmain-1-A/Sarcelle/Rupert project.

As for the Rupert River estuary, the proponent said that changes in ice cover due to lower water levels and difficulties crossing the estuary by snowmobile were reported during the land use follow-up program carried out in 2010-2011. It also said that the community of Waskaganish has been marking the snowmobile crossing for the last few years and that, in winter 2008, the SEBJ taught members of this community how to assess ice conditions in order to determine where it is safe to snowmobile on the river. These people subsequently took part in the sampling campaigns carried out under the ice-cover follow-up program. As the proponent explained, sampling results were sent to the community on a monthly basis and posted in the Band Council and Cree Trappers' Association offices. However, it is up to the local stakeholders to determine when the snowmobile crossing is open and closed.

COMEX's opinion

Safety of hydroelectric structures and emergency measures plans

Aware of the Crees' concerns about the safety of hydroelectric facilities, COMEX felt it was important to give this aspect due consideration during the review of the Eastmain-1-A/Sarcelle/Rupert project. Condition 7.1 of the certificate of authorization requires the proponent to submit separate emergency measures plans for the construction and operation phases of the project. The plans were submitted in 2007 and 2010, respectively. COMEX also recommended that the proponent reach an agreement with the communities of Nemaska and Waskaganish on measures for monitoring the facilities stipulated in the project and communication measures, as per Condition 7.2 of the certificate of authorization. The emergency measures plans were explained, the contact person for each community, identified, and a communication protocol, defined, during talks between the proponent and the Nemaska and Waskaganish band councils in December 2010.

To reassure the population, Hydro-Québec also set up a program to train and hire Cree workers and include them in its personnel responsible for the planning and implementation of its compliance assurance and inspection activities, as stipulated in Condition 7.3 of the certificate of authorization. As well, every year a number of Cree schools take their students on field trips to visit Hydro-Québec facilities in the James Bay region in order to familiarize young Crees with the hydroelectric developments. Accompanied by a guide, the students can see just how serious Hydro-Québec is about ensuring its facilities are safe. Some 60 Crees work at the hydroelectric facilities as electricians, equipment mechanics, automation technicians, telecommunications technicians or other such trade. They witness Hydro-Québec's stringent application of its hydroelectric structure inspection and compliance assurance program.

As underscored in the environmental review report for this project, COMEX hopes that the proponent's commitment to establish a high ground park development near Chisasibi under the agreement signed between Hydro-Québec/SEBJ and the Crees in 2004 will not be interpreted as a confirmation that retaining structures could actually rupture. In fact, COMEX considers there to be minimal risk of this happening. Moreover, the emergency measures plans submitted in 2007 and 2010 should ensure effective management of such situations. It should also be mentioned

that, according to Natural Resources Canada, the risk of earthquakes in the part of the Canadian Shield where the retaining structures are located is minimal.[38] Hydro-Québec nevertheless monitors earthquake risks and designs its structures accordingly.

Ice cover and snowmobiler safety

During the 2012 public consultations held in Waskaganish, Eastmain and Wemindji, a few participants said they did not feel safe when snowmobiling on certain lakes and rivers because of the change in ice conditions since the Rupert's partial diversion and the commissioning of the Eastmain-1 and Eastmain-1-A powerhouses. COMEX wishes to acknowledge the efforts made by the proponent to help the Crees adapt to the new snowmobiling conditions in every area affected by the project.

Monthly ice charts have been produced and distributed to tallymen through the local representative on the Cree–Hydro-Québec Monitoring Committee. In addition, overflights of the area were conducted in winter with the tallymen concerned, and members of certain communities were trained in how to evaluate ice conditions. Among other things, the proponent said that a tallyman from Wemindji was trained to evaluate the quality of ice cover, and the SEBJ groomed a 40-km-long snowmobile trail on the east shore of the lake starting from the Transtaiga highway to enable the tallyman to get to his camps without having to cross Sakami Lake at KP 50.[39] As well, leaflets were produced and information panels were installed in certain sections of the Rupert River and the diversion bay section to warn snowmobilers about possible changes in ice cover and the danger of driving a snowmobile on frozen lakes and rivers.

During the follow-up program on Cree land use carried out in 2010-2011, a number of tallymen from Nemaska and Waskaganish mentioned that the ice charts had helped them to identify the parts of the Rupert River that were safe to travel on. The proponent said that in 2011 and 2012, the snowmobile crossing was opened for use in early December and that the surveys conducted in the Rupert River estuary show that ice cover regularly gets thicker over winter, exceeding 60 centimetres on average in mid-March.[40] A participant from Waskaganish said that ice jams form in Rupert Bay, impeding travel. According to the proponent, the observations made in this sector during the ice-cover follow-up program corroborate the description of ice dynamics contained in the draft design study. The findings indicate that ice conditions in Rupert Bay are influenced primarily by the ambient temperature, tidal current and wind, and do not appear to be affected by the Rupert's partial diversion.[41] The same follow-up program seems to show that the ice cover in the estuary is still thick enough to support the weight of a snowmobile. Lastly, during the consultation session in Waskaganish, the proponent said that if land users were afraid to cross the river in certain spots, they could apply to Niskamoon Corporation for assistance.

Tallymen from Wemindji and Eastmain, on the other hand, asserted that they do not trust the information on ice charts, especially because, in their view, the charts do not tell them how hard the ice cover is on lakes and river. Moreover, one of the tallymen said he has more confidence in

38 Lamontage, M. *Earthquakes in Canada*. Geological Survey of Canada, Natural Resources Canada. http://nuclearsafety.gc.ca/eng/pdfs/japan-earthquake/March-30-2011-NRCAN-Presentation-Earthquakes-in-Canada_e.pdf, consulted October 22, 2013.

39 Hydro-Québec.2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 50.

40 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 31.

41 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre Complément d'information*, p. 32.

his own assessment of ice conditions when travelling on the Opinaca reservoir than in Hydro-Québec's ice charts. As for Eastmain River, as indicated in the supplementary information submitted by the proponent following the consultations, the surveys conducted at KP 173 show that from January to March the ice cover (over 20 cm thick) is very safe to travel across on a snowmobile and is not influenced by the powerhouses' operation. It is also safe to snowmobile on the river upstream of KP 207 in the Eastmain-1 and Eastmain-1-A powerhouses sector.[42] Furthermore, the follow-up on Cree land use revealed that, despite the safety measures put in place, people are still afraid to snowmobile on Rupert River even though the vast majority of users from Nemaska and Waskaganish do so in order to pursue traditional activities. On the other hand, people generally avoid snowmobiling in the Rupert diversion bay section for fear that the ice cover is unstable due to water-level fluctuations. However, the report on ice-cover follow-up in winter 2011-2012 mentions that a snowmobile crossing at KP 326.5 was characterized in cooperation with the tallymen considered or their representatives.

Moreover, COMEX notes that ice cover monitoring has been conducted every year since 2009, and in every area affected by the Eastmain-1-A and Sarcelle powerhouses and the Rupert diversion, to ensure that the principal snowmobile crossings are safe to use. The monitoring activities were carried out with the Crees and incorporated their traditional knowledge, as per conditions 6.12 and 6.14 of the certificate of authorization. The results of monitoring in winter 2011-2012 show that, in general, changes in ice cover are as predicted in the environmental impact statement. However, the meteorological conditions in some sectors—in particular recurrent mild spells—appear to influence ice cover more than do the various project components. Therefore, in COMEX's opinion, extreme caution should be taken when travelling in winter on water bodies affected by the project, particularly Rupert Bay and diversion bays, especially in the context of climate change. Considering the rapid climate changes that have occurred over the past few decades, ice cover monitoring studies are somewhat limited in scope given that ice conditions largely depend on climate conditions. Users thus need to define their own guideposts over time and travel only where it is safe, in particular using identified snowmobile crossings, while exercising caution. In fact, the proponent worked with the Crees to identify safe crossing routes. Any new information Hydro-Québec has that would help users determine their travel routes should be passed on to those concerned.

Ice cover has been monitored in the Rupert reduced-flow and Rupert diversion bay sections, but another study is planned for 2014 in the increased-flow section of the river. Ice cover will be monitored every year until 2019 in the Rupert River estuary and Rupert Bay. COMEX thinks it is important to continue ice cover monitoring, giving special attention to the part of the estuary across from Waskaganish.

9.6 Social environment and health

Proponent's responses

During the 2012 public consultations on the Eastmain-1-A/Sarcelle/Rupert project, participants asked the proponent a number of questions about the human health, sociocultural and psychosocial impacts of the project.

42 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 41.

Human health

One of the concerns voiced by several participants was mercury contamination of fish in specific lakes and reservoirs. The participants were worried and wanted to know more about the health risks of eating mercury-contaminated fish. Hydro-Québec invited them to consult the booklet published by the Cree Board of Health and Social Services of James Bay (CBHSSJB) indicating the recommended consumption amounts of each fish species based on their mercury uptake according to their position in the food chain. It acknowledged the tighter restrictions in the area of the Robert-Bourassa reservoir and informed the participants about the follow-up programs designed to monitor mercury concentrations in fish inhabiting the different areas.

Hydro-Québec also informed participants that, according to its follow-up studies, mercury levels in cisco (whitefish) from the Eastmain-1 reservoir had dropped in 2011, but had increased in northern pike and walleye. However, there are no restrictions on eating whitefish from Sakami Lake. The proponent also mentioned that the next fish consumption guide would be published in 2013 and would contain recommendations based on the mercury levels measured in summer 2012 throughout the territory covered by the La Grande hydroelectric facilities, including Boyd and Sakami lakes.

Participants at the public consultations also had questions about the human health effects of power transmission lines. Hydro-Québec affirmed that none of the studies it conducted or that were conducted by other bodies, such as the World Health Organization, have established a link between engaging in activities in power line rights-of-ways and human health problems. Hydro-Québec also said that it makes sure that electromagnetic fields within power line rights-of-way remain low so as not to endanger human health, and it encourages the Crees to continue practising their traditional activities near power line rights-of-way. The proponent also offered to get more detailed explanations from Hydro-Québec specialists if participants so wanted. In reply to a participant who said he had felt something fall on him when he was under power transmission lines and wanted to know what it was, the proponent said that if it is humid out and you're underneath a power line, sometimes you can feel little electric shocks, like you do when you come into contact with static electricity. There are no human health risks, however.

Sociocultural and psychosocial impacts

In terms of sociocultural impacts, one of the concerns expressed by several participants during the 2012 public consultations is the observed decrease in the transmission of traditional knowledge and values and hunting, fishing and trapping know-how to young people due to the various obstacles hindering these traditional pursuits since hydroelectric developments began. Because of that, the holders of traditional knowledge and parents of young Crees feel like they have failed their youth. The same feeling came across in testimonies about how hard it is to raise children on a traditional diet now, whereas it was still possible before hydroelectric projects altered the land and its resources.

More specifically, one participant deplored the fact that the "initiation to fishing" program lasted just two years because he has noticed that young people generally do not have the skills needed to fish on their own. The proponent replied that the $24-million fishing fund was depleted. However, he explained that Niskamoon Corporation had identified the same needs and decided to open other funds to fishing-related projects aimed at handing down traditional knowledge to young people.

The fact that they can no longer pass down stories and knowledge about places that have disappeared, and which thereby lose their relevance, seems to have instilled a sense of failure towards the younger generation both in holders of this traditional knowledge and in the parents of the youngest generation. The same feeling came across in accounts about how hard it is now to raise children on a traditional diet, something that was still possible before these development projects.

Another participant said he would like to see new measures put in place to help young people get in touch with the land and learn the traditional way of life of the Cree people so that they have cultural references. Hydro-Québec pointed out that the involvement of young Crees in the follow-up programs, which will continue until at least 2021, provides them with a good opportunity to get to know the land, ecosystems and wildlife. The proponent also informed the participants that the program offered to tallymen and their families in 2011 and 2012 to help them reappropriate the Rupert River and familiarize themselves with the new boating and fishing conditions would be renewed. It went on to say that funding would be made available to tallymen and land users under the Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project for the purposes of sharing traditional knowledge with young Crees. This agreement, which was signed between Hydro-Québec and the communities of Waskaganish, Mistissini and Nemaska, provides that funding will be made available for the duration of the Rupert's diversion. Hydro-Québec suggested that participants share their concerns with the different committees set up, such as the Smokey Hill Liaison Committee or the Cree–Hydro-Québec Monitoring Committee, so that the latter can envisage initiatives promoting the transmission of traditional knowledge of the land and its resources.

Several comments regarding increased access to the territory and the attendant increase in the number of non-Aboriginal hunters in parts of the territory as a result of the James Bay hydroelectric projects were also heard during the 2012 public consultations. Two participants sought information on the hunting and fishing regulations applicable to non-Aboriginal people. Hydro-Québec told participants that if they witness something they think is a violation of the hunting or fishing regulations (e.g. poaching), they can call the *SOS-Braconnage* hotline to request the services of wildlife protection officers at the branch offices in Radisson, Chisasibi and Eastmain.

However, one of the participants explained that reporting violations is difficult because there are not enough wildlife protection officers on the ground. Hydro-Québec replied that sums had been paid under an agreement to facilitate the hiring of wildlife protection officers and the purchase of vehicles (trucks, snowmobiles and ATVs) to enable year-round patrolling in the territory, particularly during hunting season.

As regards the psychosocial impacts mentioned during the public consultations held in 2012, some participants stressed the lack of specific support measures to help Crees in the psychological healing process, especially people who have been hit hard by changes to the land and hunting, fishing and trapping practices as a result of hydroelectric projects. Hydro-Québec suggested that the participants submit proposals in this regard to Niskamoon Corporation under the funding for community projects.

COMEX's opinion

Human health

As regards mercury contamination, mercury levels in fish were monitored from 1978 to 2000[43] in the context of the La Grande project and the results show that the highest levels were reached between 5 and 15 years following construction of the reservoirs. According to research, mercury levels return to their naturally occurring levels between 20 and 30 years following impoundment. Mercury concentrations in fish were also monitored following the Eastmain-1 project, starting in 2007. In 2011 and 2014, the Eastmain-1 follow-up programs were integrated with the follow-up programs required for the Eastmain-1-A/Sarcelle/Rupert project. Conditions 5.3, 5.9, 5.27 and 5.34 of the certificate of authorization for the latter project require the proponent to conduct a detailed follow-up program on mercury levels in fish in the parts of the Rupert, Lemare and Nemiscau rivers located downstream from control structures, in the Rupert diversion bays and in the increased flow segment downstream from the Eastmain-1-A powerhouse. The first report was released in 2011 and other follow-up programs are planned for 2014, 2016 and 2021.

The 2011 study confirmed the assumptions contained in the impact statement. For example, average mercury levels in lake whitefish, lake sturgeon and northern pike in the reduced-flow section of the Rupert River have remained within the range of values measured in the region's natural water bodies. On the other hand, in the section of the Nemiscau River downstream from the diversion structures, mercury levels were higher than those measured for northern pike in natural ecosystems, which, as predicted, points to significant increases in coming years for most fish species found in this area. Based on the results obtained to date in the Rupert diversion bay section, we can also expect to see upward trends in the coming years. In sectors where an increase was observed, mercury levels will be monitored continuously until values return to normal. Monitoring will also continue in areas where recorded mercury levels are virtually the same as those measured in natural water bodies in the region to ensure they remain stable.

COMEX would like to emphasize that the Bouhmounan Agreement established a mercury fund to be used for various types of measures, including access to alternative fishing sites and fish habitat enhancement, with a view to ensuring the Crees can continue to eat fish as part of their diet. As well, the 2001 Mercury Agreement signed between Hydro-Québec, the Cree Regional Authority, the Grand Council of the Crees Eeyou Istchee (GCCEI) and the Société d'énergie de la Baie-James is an extension of the first agreement signed in 1986. The purpose of the agreement is to support public health authorities in the development and delivery of programs designed to manage the risks associated with human exposure to mercury, provide a more efficient framework for cooperation between the signatory parties, and restore and strengthen the Cree fisheries. The Mercury Agreement is administered by the Eeyou Namess Corporation. Finally, Condition 6.4 of the certificate authorization stipulates that the proponent, in collaboration with the CHSSJB, must "submit a report on the evolution of the research on the mercury problem … and on the effectiveness of information campaigns dealing with mercury and fish consumption."

Sociocultural and psychosocial impacts

COMEX is well aware that the hydroelectric projects carried out in James Bay are the root cause of most of the economic change in the territory and have accelerated the rapid cultural change the Cree communities were destined to undergo. The projects opened the territory through their

43 Hydro-Québec Production. 2002. *Évolution des teneurs en mercure dans les poissons*: *rapport synthèse 1978-2000*, 176 pages.

road networks and telecommunications infrastructure. They also flooded large areas of hunting territories and reshaped the natural landscape, in itself the most significant negative impact for most of the Crees affected by the projects. The Crees' practices and way of life have undergone major changes in a very short time, and adapting to the new realities may be a long and difficult process. COMEX notes that many of the impacts mentioned by participants at the 2012 public consultations are attributable to hydroelectric projects carried out before the Eastmain-1-A/Sarcelle/Rupert project. More than ever, the communities concerned, especially those directly affected, are participating in new development projects. For the first time, hunters were involved in the design, construction and monitoring of projects. Even so, cultural changes, regardless of their cause, including the significant environmental impacts of projects, are occurring at unprecedented speed in some communities and add to the sociocultural impacts suffered by other communities.

One of the most important issues for the Crees and for Québec in all of the development projects in James Bay reviewed by COMEX is protection of the Cree traditional way of life as it evolves. In that light, COMEX considers that the real challenge is to ensure the Crees can continue to practise their traditional activities in areas affected by the project and can adapt to the altered environments. The changes brought about by the new hydroelectric developments (Eastmain-1 and Eastmain-1-A/Sarcelle/Rupert project) may lead to a decline in some species and an increase in others as nature seeks to return to equilibrium in the coming years. At the same time, the Cree population has grown from 2 500 at the start of the 20th century to over 17 700 today, and non-Crees are becoming increasingly interested in hunting and fishing in the territory. At this rate, the environment and natural resources may no longer be able to meet the population's needs as they did in the past. New solutions must be found to prevent overharvesting of wildlife.

Several participants at the 2012 public consultations expressed concerns about the impacts of the Eastmain-1-A/Sarcelle/Rupert project as well as previous hydroelectric projects on the hunting and fishing harvests. Some stressed that it is no longer possible to supply every family with traditional food, let alone stock up on food. In addition, one participant mentioned that very little support was available to land users whose trapping territory has not been directly affected by the project. He asked the proponent if any assistance was available to help him be able to hunt more and thereby help the families in his community.

The proponent told the participant that several funds were set up to support trappers and they are administered by Niskamoon Corporation. The supplementary information submitted following the public consultations mentions that the Agreement Concerning a New Relationship Between Hydro-Québec/SEBJ and the Crees of Eeyou Istchee (2004) provides that financial assistance will be available to all land users for the duration of operation of the La Grande complex.[44]

During the public consultation held in Waskaganish, Hydro-Québec mentioned that a special fund was established under the Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project to facilitate boat access to Rupert Bay from Waskaganish. In addition, it says in the supplementary information submitted by Hydro-Québec that Cree users of trapping territories indirectly impacted by hydroelectric developments, i.e.

44 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 34.

territories that have no Hydro-Québec facilities within their boundaries, will have access to financial assistance for projects submitted to Niskamoon Corporation if there is enough funding left over. The Corporation gives priority to users of trapping territories directly impacted by the project.[45]

COMEX acknowledges the efforts made by the proponent to understand the cumulative impacts of all these projects and to take the residual impacts of past projects into account when defining the mitigation, compensation and follow-up measures for the Eastmain-1-A/Sarcelle/Rupert project.

That said, and in light of the knowledge acquired through follow-up studies of past hydroelectric projects and the results of the follow-up programs for the current project, COMEX deems that an in-depth study of the cumulative impacts is in order, as stipulated in Condition 8.1 of the certificate of authorization for the Eastmain-1-A/Sarcelle/Rupert project. Assessment of the cumulative environmental impacts of hydroelectric projects on James and Hudson bays falls under more than one jurisdiction, including the Aboriginal communities concerned, and exceeds the responsibility of a single proponent. Hydro-Québec will be required to contribute to any environmental assessment conducted. However, COMEX notes that, seven years after the project's authorization, no initiative has been taken in this regard.

Furthermore, Condition 9.1 of the certificate of authorization required the proponent to initiate talks with the communities of Chisasibi and Nemaska to identify solutions for reducing the project's cumulative impacts. The same condition also required Hydro-Québec to enter into talks with the community of Waskaganish to explore the possibility of facilitating use of another major river to offset the project's impacts on the Rupert River. Discussions regarding cumulative impacts of hydroelectric development have taken place between the proponent and Chisasibi, Nemaska and Waskaganish through numerous bodies, in particular the Cree–Hydro-Québec Monitoring Committee, and will continue in the coming years. The proponent and the community of Chisasibi, for example, have held talks regarding eelgrass and, more specifically, goose hunting.

As regards sport hunting and fishing by non-Aboriginal workers, the certificate of authorization for the Eastmain-1-A/Sarcelle/Rupert project contains several conditions designed to minimize conflicts over land and resource use. For example, in accordance with Condition 6.26, the proponent established a program for disseminating information on the management and harvesting of wildlife to ensure that non-Aboriginal workers are aware of the regulations governing sport hunting and fishing upon their arrival in the territory. In accordance with Condition 6.27, the proponent also installed signs on existing and new roads indicating the boundaries of Category I and II lands and specifying the hunting and fishing restrictions for non-Aboriginal people on these lands.

The supplementary information submitted following the public consultations mentions that Hydro-Québec funded the operations of Weh-Sees Indohoun Corporation, a body established by the Nadoshtin Agreement to ensure sound wildlife management, jointly with the Québec government's wildlife protection branch, in the area of the Sarcelle powerhouse.[46] The Corporation's mandate was extended under the Boumhounan Agreement, but the Corporation will be dissolved in 2014, one year after the Sarcelle powerhouse comes on line. Hydro-Québec also funded the activities of wildlife protection officers in the area managed by the Weh-Sees

45 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 35.

46 Hydro-Québec. 2013. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Consultation de la population crie – Novembre 2012. Complément d'information*, p. 52.

Indohoun Corporation. The supplementary information submitted by Hydro-Québec also mentions that the wildlife protection branch ensures increased monitoring in the Sarcelle sector during moose hunting season.

Also, in accordance with Condition 6.25 of the certificate of authorization for the Eastmain-1-A/Sarcelle/Rupert project, follow-up of the sport hunting and fishing practised by non-Aboriginal workers present on the various project worksites was carried out every year from 2007 to 2011.

COMEX notes that some of the concerns raised during the public hearings in 2006, such as drug and alcohol abuse, were not mentioned during the 2012 consultations. It is COMEX's belief that the measures established following the advance consultations to mitigate some of the anticipated impacts either prevented or minimized those impacts.

Only Condition 6.2 addressed the project's psychosocial impacts by requiring that the proponent identify the means it intends to take to remedy the problems that are likely to occur in some Cree communities due to the presence of work camps nearby and to intervene, where required, with Cree workers who experience psychosocial problems related to their integration in the work environment. In response to this condition, a social worker was hired to provide support services to Cree workers on job sites. In addition, Cree gathering places were built at three camps, and a coordinator was hired to organize Cree traditional activities. It is possible that these measures have been effective, as there was very little mention of psychosocial problems experienced by workers during the public consultations held in 2012. Drawing on this experience, COMEX notes the positive impacts such measures can have and will strive to ensure that greater consideration is given to psychosocial impacts in future projects submitted for its review.

9.7 Economic spinoffs

Proponent's responses

While a number of participants at the 2012 public consultations said they were grateful for the economic benefits derived from the project, most of the participants that spoke deplored the short duration of jobs, contracts and economic prosperity associated with the Eastmain-1-A/Sarcelle/Rupert project. Some asked about future employment and contract opportunities related to the project. Hydro-Québec assured the participants that the proponent would continue to solicit the collaboration of Crees, in particular tallymen, in the follow-up programs.

Photo credit: Photo Hydro-Québec, 2012.

LA SARCELLE POWERHOUSE

One participant expressly asked that more contracts be awarded to tallymen for mechanical, rather than aerial, seeding of grasses on the banks of the reduced-flow section of the Rupert River. Hydro-Québec replied that areas that are harder to get to have to be seeded by plane, but he did not say if other seeding contracts would be awarded to Crees.

Another participant expressed concern over the loss of the recreational tourism potential of the Rupert River due to the visual impact of its partial diversion, saying that the river represents a major economic development opportunity for his community. Hydro-Québec responded by saying that, in his opinion, the river had not lost any of its recreational tourism potential and that certain sites, such as Smokey Hill, would likely draw a lot of visitors to the area if a tourism product were to be developed around them, because they also offer a unique cultural experience.

COMEX's opinion

The issue of economic spinoffs is central to the review and implementation of all projects of this scale. In COMEX's opinion, the proponent must work in partnership, over the short and long terms, with all bodies that have a human resource mandate, in particular the Cree School Board and Cree Human Resource Development. Construction and subsequent use of project facilities in their territory represent employment opportunities, particularly over the long term, for such things as environmental monitoring, operation of facilities, and integration into the local economy of new Cree-owned businesses. In addition, if Hydro-Québec were to set up administrative facilities in the territory, it would help create long-term employment opportunities. Another measure that would have a positive impact would be to maintain the policy of hiring local workers and Cree entrepreneurs.

COMEX also considers that the Eastmain-1-A/Sarcelle/Rupert project has generated unprecedented economic spinoffs for the Cree Nation in terms of jobs, contracts, development and career training. To ensure that the Crees would derive economic benefits from the project, the Boumhounan Agreement and the Agreement concerning the La Sarcelle Powerhouse fixed a minimum value of contracts to be awarded to Cree enterprises, not including contracts to be negotiated with tallymen. To date, the fixed sums have been largely exceeded. Indeed, whereas

contracts totalling a minimum of $240 million were to be awarded to Cree enterprises during the construction phase of the project, over 30 Cree enterprises received a total of $831 million in contracts between 2007 and 2011, to the mutual satisfaction of the parties.

However, as underlined by a participant at the consultation session in Nemaska, the procedure for awarding contracts to tallymen and local Cree enterprises to carry out mitigation measures was not transparent enough. Moreover, COMEX learned that the dollar value of contracts had been the subject of a confidential agreement reached directly with tallymen and Cree businesses.

In terms of employment, again as provided for under the Boumhounan Agreement, the proponent took various steps to make it easier for Cree workers to obtain certification from the Commission de la construction du Québec (CCQ). Thanks to the proponent's efforts, the CCQ adopted complementary measures to those implemented for the Eastmain-1 project to enable Crees to obtain certificates of competency. The agreement also established a $1.5-million training fund to cover the costs incurred by companies to train Cree workers.

In addition, under the Cree Employment Agreement between Hydro-Québec and the James Bay Cree Nation, the proponent undertook to employ 150 Crees who meet its hiring requirements in permanent positions within Hydro-Québec by March 31, 2017, and to offer employment to, and employ on a first priority basis, Crees who meet its hiring requirements for other available positions. This agreement also provided that Niskamoon Corporation would be paid the sum of $6.7 million per year, in particular to implement French language training and French immersion programs for James Bay Crees seeking employment or who have employment. The proponent also implemented training programs for Cree workers under the Eastmain-1-A/Sarcelle/Rupert project. The programs started in 2007 and will run until 2016.

Follow-up studies on the economic spinoffs of the Eastmain-1-A/Sarcelle/Rupert project were conducted from 2007 to 2011, and others are planned for 2016 and 2021. According to the 2011 study report, Cree enterprises received $831 million worth of contracts between 2007 and 2011 for the construction phase. During that same period, construction operations generated approximately 1 444 jobs for Cree workers, representing 10.7% of the total workforce. According to the 2011 report on the follow-up program on economic spinoffs, the average monthly Cree workforce as a percentage of the total workforce for the project has varied from year to year since 2007, standing at approximately 10% for the period 2007-2011 as a whole. The maximum percentage was in 2007, at 17% Cree employees assigned primarily to tasks relating to construction, janitor work, kitchen work or tree removal or planting. It is also worth bearing in mind that a lot of new Cree enterprises were created in the context of this project and that Cree employers working on the project hired the largest share of the regional workforce, both Aboriginal and non-Aboriginal.

COMEX is nevertheless aware that the project may have created an economic boom and bust effect[47] to the extent that, as the construction phase nears its end, employment opportunities and the possibility of contracts are becoming increasingly slimmer. However, COMEX believes that the experience acquired by Cree enterprises thanks to the project has enabled them to enhance their expertise and structure their operations so as to be able to compete against other companies for contracts in future projects in James Bay or elsewhere. In addition, the experience

47 A period of marked economic slowdown following the completion of work on a project that had initially led to significant and rapid economic growth.

and training they received will serve Cree workers well for a long time to come and be a great springboard for their career development. The expertise acquired could be applied to other projects in the region (national and provincial parks, mines, etc.).

Furthermore, COMEX is aware that working on the Eastmain-1-A/Sarcelle/Rupert project presented huge challenges for several Cree workers, on the personal, family and cultural levels. During the 2012 public consultations, a number of participants who had gotten a job away from their community admitted that they had found it hard to leave their family for the long periods of time required. Others said that working on the project meant breaking with the traditional way of life because they no longer had time to go hunting, fishing or trapping. In addition, a few participants noticed that relations between Crees and non-Aboriginal workers were strained, despite the various mitigation measures implemented by the proponent. Nevertheless, social and environmental follow-up studies conducted as part of the project show that, on the whole, the experience of Cree workers has been positive. COMEX thus applauds the efforts made in this regard and recommends that the measures for facilitating Cree workers' cultural and social adaptation on worksites be continued and strengthened in future projects.

Lastly, COMEX must acknowledge the proponent's efforts to comply with Condition 6.30 of the certificate of authorization, i.e. develop strategies to promote the tourism and recreation activities offered by the Crees in the James Bay territory. A committee composed of representatives of Hydro-Québec, the Cree Outfitting and Tourism Association (COTA) and James Bay Tourism was formed in 2008. The committee has undertaken a number of initiatives, including a joint study on the tourism potential of the Rupert River. In addition, Hydro-Québec and the SEBJ published a folder to inform potential clients of Osprey Excursions and Awashish Outdoor Adventures that their fishing areas still have excellent potential. The Rupert River thus remains a tourist draw and, consequently, there is no question that tourism development can continue to contribute to regional economic diversification.

In accordance with Condition 6.29 of the certificate of authorization, a follow-up program was also carried out in 2011, in collaboration with COTA and James Bay Tourism, to determine the impacts of access roads and opening up of the territory on tourism and vacationing. The next follow-up is planned for 2014. According to the study results, hunting and fishing were the most popular recreational tourism activities in 2011, along with snowmobiling packages. In addition, a comparison of data from 2011 with data from the impact study conducted in 2003 shows that the volume of people visiting the territory for recreational tourism activities is growing slowly. However, new economic development potential related to Aboriginal tourism, nature watching, outdoor activities and adventure tourism is being developed in response to market trends in recent years.

9.8 Communication and collaboration between the Crees and the proponent

Proponent's responses

Several stakeholders at the 2012 public consultations underlined the Cree involvement in every stage of the Eastmain-1-A/Sarcelle/Rupert project. A number of testimonies revealed that these opportunities, in particular during the follow-up studies, had helped promote Cree culture, boosted the self-esteem of those involved and deepened their knowledge of the land and its wildlife resources. Several participants said they hoped that the proponent and the Crees would

continue to work together in this way. One of them asked Hydro-Québec to pledge to maintain these relations and continue communications and effective collaboration with the Crees throughout the operation phase—because the project's impacts will continue to be felt.

Hydro-Québec affirmed that the proponent would continue working with the Crees throughout the various follow-up programs and continue to solicit the Crees' participation, especially participation by tallymen. It went on to say that even if the Société d'énergie de la Baie-James will no longer be present in the territory, communications and collaboration will be maintained through various bodies, including the Cree–Hydro-Québec Monitoring Committee and the Rupert River Water Management Board. The proponent also mentioned that the Monitoring Committee would be going on information tours twice a year and that annual meetings would be held with all tallymen to present the results of follow-up programs.

On the other hand, some participants at the public consultations felt they had not been sufficiently consulted, particularly during the establishment and implementation of mitigation measures. One of these participants stressed that relations between the proponent and the Crees should have been, but were not, mutually beneficial. In his opinion, the reciprocal relationship between the Crees and Hydro-Québec needs to be strengthened. In response to the participant's comments, Hydro-Québec said that the proponent had made a genuine effort to take Cree concerns and knowledge into account in establishing and implementing mitigation measures. It also affirmed that a number of data collection and activity planning methods were modified more than once in response to tallymen's feedback. Hydro-Québec said that, in its opinion, the relationship built during the project *had* been mutually beneficial in the sense that Hydro-Québec has learned a lot from the Crees and even incorporated some of the principles learned from them into its practices, for example by striving to treat animals with greater respect during data collection.

As far as the proponent is concerned, the Boumhounan Agreement signed in 2002 marked the beginning of a new relationship between Hydro-Québec and the Crees, a relationship based on collaboration and mutual respect. The proponent also stated that the project would not have been possible without the Crees' excellent collaboration and that certain aspects of the project were considerably improved thanks to the Crees' input.

COMEX's opinion

COMEX acknowledges that the Eastmain-1-A/Sarcelle/Rupert project enabled the proponent to develop more respectful and collaborative relations with the Crees than during previous hydro-electric projects in the James Bay region. Condition 6.9 of the certificate of authorization required the proponent to establish a mechanism for receiving comments and complaints, and to propose solutions to every problem that may arise relating to the dissatisfaction of land users caused by the project's impacts. No new mechanism was established, as the proponent deemed that the Cree members of the Cree–Hydro-Québec Monitoring Committee could serve as liaison between the members of the different Cree communities and the Hydro-Québec representatives in the event of complaints. The proponent made this decision upon realizing that there were not enough complaints to warrant establishing such a mechanism. One has to wonder if there would have been more complaints if such a mechanism had been established.

A number of bodies will ensure continued communication and collaboration between the Crees and the proponent, including the Cree–Hydro-Québec Monitoring Committee. The latter is responsible for ensuring Cree participation in discussions on environmental matters of importance to the Crees, planning environmental monitoring, coordinating support for the Crees and informing the Cree communities about monitoring, follow-up, programs and mitigation

measures relating to the project. Hydro-Québec's community relations and environment teams will also be maintained. Among other things, these teams are responsible for keeping the Crees informed about Hydro-Québec's operations throughout the James Bay territory. They are also the main channel of communication for lodging complaints about Hydro-Québec activities in the territory and oversees environmental follow-up while ensuring Cree involvement. Niskamoon Corporation, which administers and manages the agreements entered into between the Crees and Hydro-Québec, provides another forum for discussion and cooperation between the Crees and the proponent. Lastly, several sectoral working groups composed of Hydro-Québec and Cree representatives, including the Smokey Hill Liaison Committee and the Waskaganish–Hydro-Québec committee on riparian development, will continue operating beyond 2013. Moreover, the radio show "Hydlo and Friends continues to help build good relations between the proponent and the Cree communities.

However, COMEX noted that the band councils have not been systematically informed of the Cree–Hydro-Québec Monitoring Committee's work and, in this regard, the proponent should henceforth ensure that information is effectively transmitted to them as well.

10. CONCLUSION

COMEX's intention in holding the public consultations in November 2012 was to get the Crees' views on the effectiveness of the mitigation and compensation measures implemented for the Eastmain-1-A/Sarcelle/Rupert project as well as on the anticipated and unforeseen residual impacts of the project. The goal was to supplement the information received from the proponent during the follow-up activities carried out in the construction phase of the project. Whereas the proponent had involved tallymen in the construction phase, to varying degrees and at different times and for difference purposes, the band councils appear to have been much less involved, so COMEX felt it was imperative to give the general Cree population a chance to express its views. Given the Committee's role in the territory, the public consultations provided an opportunity to take into account major issues that did not necessarily come to light during follow-up activities. It is clear to COMEX that Condition 9.2 of the certificate of authorization, which required the proponent to collaborate on these consultations, created an additional incentive for the proponent, despite its initial reticence, to make sure that its mitigation and compensation measures and the quality of its environmental follow-up were effective. The key findings of the consultations are discussed below.

First, the participants at the consultations see this project as a continuation of the major hydro-electric developments previously carried out in the territory. Indeed, very few participants made a distinction between the impacts of the Eastmain-1-A/Sarcelle/Rupert project and those of previous projects. It seems as if, regardless of their magnitude, impacts are deemed worse when the Crees perceive them as further constraints to the practice of traditional activities. In this regard, the public consultations showed the importance of assessing the cumulative impacts of a project as part of the review process. As a permanent review body for development projects in the territory governed by Section 22 of the JBNQA, COMEX is aware of the importance of a comprehensive assessment of this type of impact in time and space. However, it is also aware of the limitations of the existing methodologies and the lingering uncertainties with regard to impact assessment, particularly assessment of social impacts.

Compared to previous projects carried out in the territory, the Eastmain-1-A/Sarcelle/Rupert project included more adequate and an unprecedented number of mitigation and compensation measures, for both environmental and social impacts. Many of these measures are aimed at helping Cree land users reclaim the territory. A new approach was developed and the Crees have benefited from the partnerships built with the proponent, thereby forging a new relationship. It is important that this cooperation between the Cree First Nation and Hydro-Québec continue now that the project has entered the operation phase.

From the project's authorization up until the public consultations in 2012, the proponent was proactive, exceeding the requirements of the certificate of authorization in an effort to minimize the project's impacts and ensure greater Cree involvement in environmental and social follow-up activities. More specifically, the Cree–Hydro-Québec Monitoring Committee was established in 2007 and the Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project was signed just before the 2012 consultations. In all likelihood, Condition 9.2 had a lot to do with the implementation of measures to offset the project's residual impacts and increase the Cree satisfaction rate for the project.

The public consultations also revealed the importance of hunting, fishing and trapping for the Crees. Not only do the project's impacts on the practice of these traditional activities and the creation of easier access to the territory require adaptations to ensure survival of the Crees' relationship with the land, but they also have implications for maintenance of the social fabric and the transmission of Cree culture to future generations. Several testimonies highlighted these impacts as well as the psychosocial impacts of changes to the land and its resources caused by the project. COMEX is therefore sensitive to the feelings of loss and sadness expressed by Cree participants and agrees that they must not be underestimated. For the Crees, the opportunity to express themselves before COMEX and the proponent may have helped reduce the psychological suffering caused by changes to the land as a result of hydroelectric development projects in general and the Eastmain-1-A/Sarcelle/Rupert project in particular.

To date, the results of the various follow-up programs on components of the aquatic, terrestrial and social environments are consistent with the proponent's assumptions during the project planning phase, which proves that impacts were, for the most part, well assessed. The consultations conducted pursuant to Condition 9.2 of the certificate of authorization enabled COMEX to establish that, over and above factual information and scientific data, no major issues have emerged. Without denying the project's significant impacts on the territory and its inhabitants, COMEX believes that the proponent took the necessary measures to mitigate the project's impacts to an acceptable level. In addition, the concept of re-appropriating the territory, which was central to project planning and authorization, made it possible to preserve a valuable environment for land users. In this regard, COMEX finds that, in future, it is up to these same users to continue their efforts to restore and protect this valuable heritage.

Furthermore, the opportunities afforded by the Eastmain-1-A/Sarcelle/Rupert project, in terms of jobs, training and contracts, were made abundantly clear through the testimonies of numerous participants. The Crees who talked about this issue acknowledged that the proponent had gone to great lengths to ensure that Aboriginal communities derive benefit from the project. However, some participants also stressed the limited duration of the project's economic spinoffs and a sense of some inequality in the distribution of benefits between and within the Cree communities. A number of participants also deplored the procedure for determining support measures, such as the carrying out of remedial work, as well as the lack of transparency in the SEBJ's and Niskamoon's granting conditions and procedures.

At the end of the public consultations, it was clear to COMEX that the impacts of major projects such as the Eastmain-1-A and Sarcelle powerhouses and Rupert diversion are not one-time, but rather long-lasting. In this regard, this type of project demands a long-term commitment from the proponent. Moreover, in COMEX's opinion, every project in the James Bay territory must comply with the principles of consultation, compromise, involvement and collaboration with the Cree communities. With that in mind, COMEX believes that Niskamoon Corporation and the Cree–Hydro-Québec Monitoring Committee will have a key role to play in maintaining communication between the Crees and the proponent during the operation phase of the project. In order to play that role successfully, the Cree–Hydro-Québec Monitoring Committee must strive to improve the dissemination of information, and Niskamoon Corporation must be transparent and fair in its actions. For its part, COMEX will pay careful attention to the results of the project follow-up program, which is slated to end in 2023. Furthermore, considering the quality of the work carried out, COMEX thinks that the proponent should disseminate the information contained in the follow-up reports more widely among the Cree and Jamesien communities and the Québec population in general.

COMEX has arrived at the conclusion that putting Condition 9.2 in the certificate of authorization enabled a better understanding of how the Crees see the project's residual impacts and the mitigation and compensation measures put in place. This "post-project" consultation was especially warranted considering the large scale of the project and the societal choice the Crees made during the public hearings held prior to the authorization of the Eastmain-1-A/Sarcelle/ Rupert project:

Development is a fact of modern life that will not go away as it is driven by population growth, economic growth and by technological advancement. Modernity, the changes brought to societies by new proposals and new technologies is something to which all people and all Peoples must adapt. Some will adapt to it by turning their back to it, but it will transform the world around them anyway.[48]

That is why this condition, which had never been imposed before, must remain a unique approach to be envisaged, in varying forms, for future large-scale projects in the territory governed by the JBNQA.

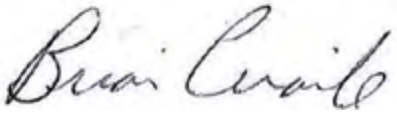
48 Provincial Review Committee (COMEX). 2006. *Eastmain-1-A and Rupert Diversion hydropower project.* Report by the Provincial Review Committee to the Administrator of Chapter 22 of the James Bay and Northern Québec Agreement, p. 434.

This report was approved during COMEX's regular meeting held in Québec City on November 11, 2013, and submitted to Clément D'Astous, Deputy Minister of Sustainable Development, Environment, Wildlife and Parks and Provincial Administrator of the James Bay and Northern Québec Agreement.

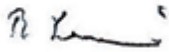
Pierre Mercier
Chairman, Gouvernement du Québec

Philip Awashish
Cree Regional Authority

Daniel Berrouard
Gouvernement du Québec



Brian Craik
Cree Regional Authority



Robert Lemieux
Gouvernement du Québec

Acknowledgements

COMEX would like to thank everyone who attended the public consultations and, in particular, those who participated through an oral or written submission. COMEX also wishes to thank Hydro-Québec for its excellent cooperation during and after the consultations, the band councils and all the people who helped plan the consultations, provided technical support and made sure the sessions ran without a hitch. We are also grateful to everyone involved in the writing and translation of this report.

APPENDICES

APPENDIX I

Certificate of Authorization Issued on November 24, 2006

Développement durable, Environnement et Parcs
Québec

TRANSLATION

Quebec City, November 24th 2006

CERTIFICATE OF AUTHORIZATION

Hydro-Québec
75, boulevard René-Lévesque Ouest, 20e étage
Montréal (Québec) H2Z 1A4

Ref. no.: 3214-10-17

Re: Eastmain-1-A Powerhouse and Rupert Diversion Project

In case of discrepancy,
the French version shall prevail

Ladies and Gentlemen:

Following the tabling of the preliminary information dated November 29, 2002 and received on December 11, 2002 concerning the Eastmain-1-A Powerhouse and Rupert Diversion Project on the territory of the Municipality of Baie-James, in accordance with the social and environmental impact assessment and review procedure stipulated in Chapter II of the Environment Quality Act (R.S.Q., c. Q-2) and after having obtained the recommendation of the Review Committee, I hereby authorize, pursuant to section 164 of the Environment Quality Act (R.S.Q., c. Q-2), the aforementioned holder to carry out the work described below:

- the construction and operation of the Eastmain-1-A powerhouse having a total rated capacity of 768 MW, approximately 500 m to the east of the Eastmain-1 powerhouse, at the outlet of the Eastmain-1 reservoir. The Eastmain-1-A powerhouse comprises three Francis vertical axis units having a capacity of 256 MW each;

- the construction and operation of the Sarcelle powerhouse having a total rated capacity of 125 MW, at the outlet of Opinaca reservoir. The Sarcelle powerhouse comprises three bulb units having a capacity of 41.7 MW each;

- the construction of a rockfill dam, designated as being Structure C-1, at kilometre point KP 314 of Rupert River;

- the diversion of a portion of the waters of Rupert River to the Eastmain-1 reservoir carried out by way of Rupert forebay (to the south) and Rupert tailbay (to the north) which are connected by a tunnel that runs under Sillimanite Lake. The diverted waters of Rupert River will then follow the course of the waters of the Eastmain-1 reservoir up to the mouth of the La Grande Rivière, passing through Eastmain River, Opinaca

reservoir, lakes Boyd and Sakami, the Robert-Bourassa reservoir and La Grande Rivière;

- the creation of Rupert forebay through the construction of a dam on Lemare River, designated as being Structure C-R-21A, and 31 dikes;

- the construction of four canals in Rupert forebay to facilitate the unimpeded flow of water within the bay. Canal S73-1 will serve to transfer the waters from the Rupert River watershed to the head of the Kayechischekaw Creek watershed. Canal S73-3 will serve to transfer the waters from the Kayechischekaw Creek watershed to the Lemare River watershed. Canal S73-4 and Canal S73-4A will serve to transfer the waters between the unnamed lakes and the Lemare River watershed;

- the creation of Rupert tailbay, which extends from the outlet of the transfer tunnel outlet channel, approximately 1 km south of Lake Arques, up to the entrance of the Eastmain-1 reservoir, through the construction of two dams and 41 dikes. The dam designated as being Structure C-108 is located on the southern arm of Nemiscau River (Nemiscau-2), whereas the dam designated as being Structure C-76 is located on the northern arm of Nemiscau River (Nemiscau-1);

- the construction of a water transfer structure between Rupert forebay and Rupert tailbay. This transfer structure includes a tunnel dug approximately 40 m under Sillimanite Lake to connect the Lemare River watershed to the Nemiscau River watershed. The transfer structure includes, upstream from the tunnel, an intake, with a concrete weir, the crest of which is at an elevation level of 303.4 m, and a head pond. An outlet channel, on the downstream side of the tunnel, permits the water flow. Flow rates vary between 100 and 800 m^3/s;

- the construction of six canals in Rupert tailbay to facilitate the unimpeded flow of water within the bay. They are canals 16, 15, 4, 5, C and Z. Canals 16 and 15 ensure the free passage of the waters between the outlet of the transfer tunnel and Lake Arques. Canals 4 and 5 transfer the waters from the watershed of Arques Brook to the Nemiscau River watershed. Canal C transfers the waters from the Nemiscau River watershed to the Eastmain-1 reservoir, via Caché Brook valley. Canal Z facilitates the passage of the waters within Caché Brook valley;

- the construction of a canal and a platform in the right-of-way of Dike C-P-17A west situated north of Lake Cabot. The platform is at level 304.15 m and the canal, at the height of the crest of the watersheds, is about 4 m in depth;

- the construction of a flow control structure (spillway) at KP 314 of Rupert River, permitting the release of the ecological instream flows in Rupert River. Following diversion, the mean annual ecological instream flow of Rupert River, downstream from the Rupert control structure, is 184.7 m^3/s, which corresponds to about 29% of the mean annual flow

under natural conditions. The control structure is designed to discharge a flow of 3 470 m^3/s, namely the likely maximum flood flow;

- the construction of control structures on Lemare River, Nemiscau River (Nemiscau-1 and Nemiscau-2), Arques Brook and Kayechischekaw Brook permitting the release of the natural flows of these watercourses affected by the bays;

- the construction of eight hydraulic structures on Rupert River in order to preserve the river's natural character in the segments that they influence as well as the aquatic habitats found there. The chosen sites are located at KP 290, 2 km downstream from the mouth of Lemare River, at KP 223, 7 km downstream from the mouth of A la Marte River, at KP 170, at the outlet of Lake Nemiscau and a few kilometres downstream from the mouth of Nemiscau River, at KP 110.3, a few kilometres upstream from Oatmeal Rapids (Kamaakwewts), at KP 85, at The Fours Rapids (Kanewshtekaw), at KP 49, at The Bear Rapids, at KP 33, at Plum Pudding Rapids (Kaowpischewaan) and at KP 20.4, a few kilometres downstream from Smokey Hill Rapids (Notimeshanan);

- the construction of a canal with a concrete weir, the crest of which is at the level of 185.2 m, at the outlet of Lake Sakami, in order to adhere to the water levels currently authorized for Lake Sakami under the James Bay and Northern Québec Agreement and the complementary agreements that ensue therefrom;

- a 315-kV transmission line approximately 1 km in length making it possible to connect the Eastmain-1-A powerhouse to the Québec network;

- a 315-kV transmission line approximately 101 km in length making it possible to connect the Sarcelle powerhouse to the Québec network. This line passes to the west of Opinaca reservoir to follow, over a distance of close to 38 km, the corridor of the access road to the Sarcelle control structure. It is then paired with two (25 kV and 735 kV) lines over a distance of about 16 km, up to the access road to Dam 0A-11 on Eastmain River. From there, the route successively follows the right-of-way of a 735-kV transmission line and of a 69-kV transmission line over a distance of 14 km, before following, over a distance of 33 km, the corridor of the Muskeg-Eastmain-1 road;

- a 25-kV transmission line approximately 33 km in length making it possible to connect the Albanel substation to the Rupert workcamp, to the transfer tunnel and to the Lemare River control structure. It runs alongside the circuits 7069 and 7070 maintenance road up to the Rupert workcamp and thereafter continues on to the transfer tunnel by running alongside the access roads to Rupert forebay and to the transfer tunnel. This line supplies the Rupert workcamp and the tunnel worksite during construction work on the project. During the operating phase, the line

will be extended over a length of about 3 km to supply the ecological instream flow release structure of Lemare River;

- a 25-kV transmission line approximately 30 km in length connecting the Albanel substation to the Rupert control structure. This line runs along Route du Nord and the access road to the Rupert control structure;

- the relocation or raising of the base of the towers of three existing 735-kV transmission lines. A total of 8.3 km of lines and nine towers are affected by this work, namely: circuit 7059, at KP 39 of the Rupert tailbay; paired circuits 7069 and 7070 at two locations, namely at KP 51 and at KP 54 of Rupert tailbay;

- the relocation of a stretch of the maintenance road of two paired 735-kV transmission lines through the construction of a connection road with circuits 7069 and 7070 road, beginning at the access road of Rupert tailbay, to a few kilometres north of Nemiscau-2 dam. This connection road, which crosses Rupert forebay at KP 47.5, includes a permanent bridge having a 140 m span resting on four piers in the water;

- the restoration of an abandoned stretch of the maintenance road of the paired 735-kV transmission lines of circuits 7069-7070, at KP 51 of Rupert tailbay, namely at the current crossing point of Nemiscau River. The work consists of removing the culverts and the fill from Nemiscau River. The excavation of the fill is carried out in such a way as to set up a spawning ground on the left shore of the bay, and the surplus materials are used to create an islet near the shore of the future bay;

- the development of eight workcamps to house workers, including three existing workcamps. The existing workcamps are: the Eastmain workcamp, the Nemiscau workcamp and the workcamp at km 257 on James Bay Highway. The five new workcamps are: the Lake Sakami workcamp, the Sarcelle workcamp, the Rupert workcamp, the Lake Jolliet workcamp and the Kauschiskach workcamp;

- the construction of about 255 km of roads and the improvement of about 105 km of roads. To this road network must be added various secondary roads. They include connection roads to the borrow pits and quarries, to the dikes and to the control structures, at the northern tip of the transfer tunnel and at the tunnel's outlet channel. They also include access roads to clearing sites in the bays and surplus excavated material disposal sites. In addition, the setting up of the Sarcelle-Eastmain-1 315-kV transmission line requires the construction of about 110 km of secondary roads located parallel to and near the Sarcelle-Eastmain-1 permanent road;

- the operation of quarries and sand pits identified in the project's impact study;

- the disposal areas for storing approximately 12 million m^3 of surplus materials from excavations. The final choice of the locations of these disposal areas will be made during the project's construction phase. In general, the areas will be located near the extraction sites and, wherever possible, within the planned bays, provided that the relief and drainage conditions are favorable;

- the clearing work associated with roads, workcamps, transmission lines, quarries and sand pits, structure sites and other sites required by the project, as well as in the bays;

- the setting up and operation of jobsite facilities, in each work sector, which are put at the disposal of contractors so that they can have their offices and equipment there. The development of these sites includes, as the case may be, the buildings and equipment found there, including offices, workshops, garages, washroom facilities, fuel depots, vehicle parking areas, concrete plants and crushers;

- the diking up of the bay located at KP 311 of Rupert River, known as Jolly Bay, to make it possible to keep in the bay, at the end of winter, a water level that is conducive to goose hunting and, in summer, an average water level that is similar to that found under natural conditions. The dike crest is designed to permit the passage of all-terrain vehicles;

- bank stabilization work along the left shore of La Grande Rivière. The stabilization work will be done at the following nine locations: at KP 22, KP 20 (three granular blankets), at KP 18, KP 16, KP 14 (two granular blankets) and between KP 13 and KP 10. The proposed stabilization method consists of removing fine materials from the banks located at the foot of the slopes posing a risk and replacing these materials with granular blankets composed of a mixture of sandy gravel, pebbles and small boulders, across the entire width of the bank between the slope and the bed of the river;

- streambank slope stabilization work on the left shore of Rupert River at the level of the Waskaganish drinking water intake. This work includes the extension and reinforcement, in the form of rockfill placed over a distance of about 200 m downstream and 100 m upstream of the water intake, of the protection put in place at the slope when the water intake was built;

- the work required to build a new drinking water treatment plant to serve the community of Waskaganish, including the necessary work at the pumping station.

GENERAL PROVISION

Unless there is an indication to the contrary in the conditions described hereinafter, the project must be carried out and operated in accordance with the following documents, which form an integral part of this certificate of authorization:

Letters:

- letter from Mr. Élie Saheb, of the Société d'énergie de la Baie James, to Ms. Madeleine Paulin, Deputy Minister of the Environment, dated November 29, 2002, concerning the tabling of preliminary information, 2 pages + appendix;

- letter from Mr. Richard Cacchione, of the Société d'énergie de la Baie James, to Mr. Thomas J. Mulcair, Minister of the Environment, dated December 17, 2004, concerning the tabling of the impact study and an application for a certificate of authorization for the project under section 22 of the James Bay and Northern Québec Agreement and under section 154 of the Environment Quality Act, 2 pages;

- letter from Mr. Philippe Mora, of the Société d'énergie de la Baie James, to Mr. Clément Tremblay, Chair of COMEX, and to Mr. Bernard Forestell, Chair of the Federal Review Panel, dated April 29, 2005, concerning the answers to the questions taken under advisement during the technical information meeting held on April 20 and 21, 2005, 1 page + appendix;

- letter from Mr. Philippe Mora, of the Société d'énergie de la Baie James, to Mr. Clément Tremblay, Chair of COMEX, and to Mr. Bernard Forestell, Chair of the Federal Review Panel, dated May 16, 2005, concerning the notice related to the compliance of the project's impact study, 4 pages;

- letter from Mr. Philippe Mora, of the Société d'énergie de la Baie James, to Ms. Madeleine Paulin, Deputy Minister of Sustainable Development, the Environment and Parks, dated December 8, 2005, concerning the tabling of volumes 1 to 7 of the supplement to the environmental impact study, 2 pages;

- letter from Mr. Philippe Mora, of the Société d'énergie de la Baie James, to Ms. Madeleine Paulin, Deputy Minister of Sustainable Development, the Environment and Parks, dated December 21, 2005, concerning the tabling of volumes 8 to 10 of the supplement to the environmental impact study, 2 pages;

- letter from Ms. Laurence Hogue, of Hydro-Québec Équipement, to Ms. Mireille Paul, of the Ministère du Développement durable, de l'Environnement et des Parcs, dated August 7, 2006, concerning

Hydro-Québec's commitments and the supplementary information pertaining to the project, 2 pages + appendices;

Impact study:

- HYDRO-QUÉBEC PRODUCTION, *Centrale de l'Eastmain-1-A et dérivation Rupert, Renseignements préliminaires*, October 2002, 7 pages;

- HYDRO-QUÉBEC PRODUCTION, *Eastmain-1-A and Rupert Division - Environmental impact statement*, 9 volumes, December 2004, pagination by chapter;

- HYDRO-QUÉBEC PRODUCTION, *Centrale de l'Eastmain-1-A et dérivation Rupert, Étude d'impact sur l'environnement, Rapport de synthèse*, December 2004, 177 pages + maps and plates;

- HYDRO-QUÉBEC PRODUCTION, *Environmental Impact Statement Executive Summary*, December 2004, 17 pages;

- HYDRO-QUÉBEC PRODUCTION, *Centrale de l'Eastmain-1-A et dérivation Rupert, Étude d'impact sur l'environnement, Errata en fonction des nouvelles valeurs de biomasse*, 11 pages;

- HYDRO-QUÉBEC PRODUCTION, *Centrale de l'Eastmain-1-A et dérivation Rupert, Complément de l'étude d'impact sur l'environnement, Modifications au chapitre 4, Description du projet*, November 2005, multiple pagination;

- HYDRO-QUÉBEC PRODUCTION, *Centrale de l'Eastmain-1-A et dérivation Rupert, Complément de l'étude d'impact sur l'environnement, Réponses aux demandes de renseignements additionnels de l'administrateur provincial de la Convention de la Baie James et du Nord québécois et de la Commission fédérale d'examen*, 9 volumes, December 2005, pagination by chapter;

- HYDRO-QUÉBEC PRODUCTION, *Supplement to the Environmental Impact Statement – Volume 10 – Summary Report - Update*, December 2005, 226 pages;

- HYDRO-QUÉBEC PRODUCTION, *Centrale de l'Eastmain-1-A et dérivation Rupert, Complément de l'étude d'impact sur l'environnement, Réponses manquantes des volumes 1 à 7*, 2 volumes, December 2005;

- HYDRO-QUÉBEC PRODUCTION, *Environmental Impact Statement – Partial answer to question 272.* January 2006. 22 pages;

– HYDRO-QUÉBEC PRODUCTION, *Centrale de l'Eastmain-1-A et dérivation Rupert, Complément de l'étude d'impact sur l'environnement, Réponses aux demandes de renseignements additionnels de l'administrateur provincial de la Convention de la Baie James et du Nord québécois et de la Commission fédérale d'examen, Suite partielle de la réponse 272 (deuxième partie)*, January 2006, 81 pages;

– HYDRO-QUÉBEC PRODUCTION, *Supplement to the Environmental Impact Statement – Morantz Report (Question 272) -French version.* March 2006. 35 pages;

– HYDRO-QUÉBEC PRODUCTION, *Centrale de l'Eastmain-1-A et dérivation Rupert, Réponses aux requêtes de dépôt de documents avant les audiences publiques*, 2 volumes (Parts 1 & 2), March 2006;

– HYDRO-QUÉBEC PRODUCTION, *Centrale de l'Eastmain-1-A et dérivation Rupert, Complément de l'étude d'impact sur l'environnement, Réponses aux demandes de renseignements additionnels de l'administrateur provincial de la Convention de la Baie James et du Nord québécois et de la Commission fédérale d'examen, Errata et précisions*, April 2006, 23 pages;

– HYDRO-QUÉBEC PRODUCTION, *Centrale de l'Eastmain-1-A et dérivation Rupert, Engagements environnementaux d'Hydro-Québec Production énoncés dans l'étude d'impact et son complément, Mesures environnementales intégrées à la conception du projet, Mesures d'atténuation, de compensation et de mise en valeur, Suivi environnemental,* May 2006, 114 pages + appendix;

– HYDRO-QUÉBEC, MINISTÈRE DU DÉVELOPPEMENT DURABLE, DE L'ENVIRONNEMENT ET DES PARCS, PÊCHES ET OCÉANS CANADA, *Faits saillants, Rencontre*, June 19, 2006, 5 pages;

– HYDRO-QUÉBEC, MINISTÈRE DU DÉVELOPPEMENT DURABLE, DE L'ENVIRONNEMENT ET DES PARCS, MINISTÈRE DES RESSOURCES NATURELLES ET DE LA FAUNE, PÊCHES ET OCÉANS CANADA, *Faits saillants, Rencontre*, September 6, 2006, 6 pages;

– HYDRO-QUÉBEC PRODUCTION, *Centrale de l'Eastmain-1-A et dérivation Rupert, Documents déposés par le promoteur lors des rencontres d'information techniques et des audiences publiques*, DVD;

Sectoral reports:

– AMENATECH INC., *Centrale de l'Eastmain-1-A et dérivation Rupert, Étude relative à l'utilisation du territoire par les Jamésiens, Rapport sectoriel, Rapport présenté à Hydro-Québec*, report prepared for Hydro-Québec, June 2004, 2 volumes;

– ARCHÉOTEC INC., *Centrale de l'Eastmain-1-A et dérivation Rupert, Inventaire archéologique aux sites des ouvrages, Campagne de relevés géotechniques 2002*, report prepared for the Société d'énergie de la Baie James, July 2003, 271 pages;

– ARCHÉOTEC INC., *Centrale de l'Eastmain-1-A et dérivation Rupert, Inventaire archéologique effectué en 2003 du territoire touché par la dérivation Rupert, Rapport de recherches*, report prepared for the Société d'énergie de la Baie James, September 2004, 188 pages;

– ARCHÉOTEC INC., *Centrale de l'Eastmain-1-A et dérivation Rupert, Potentiel archéologique*, report prepared for the Société d'énergie de la Baie James, November 2004, 101 pages + 9 leafs;

– ARCHÉOTEC INC., *Centrale de l'Eastmain-1-A et dérivation Rupert, Inventaire archéologique effectué en 2004 du territoire touché par la dérivation Rupert, Rapport de recherches*, February 2006, 516 pages;

– ARCHÉOTEC INC., *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert, Intervention archéologique effectuée en 2005 sur le territoire touché par la dérivation Rupert, la centrale Sarcelle et la route Eastmain-Muskeg*, June 2006, 3 volumes;

– BERNATCHEZ, L. et R. SAINT-LAURENT, *Centrale de l'Eastmain-1-A et dérivation Rupert, Caractérisation génétique de l'esturgeon jaune et de l'omble de fontaine*, report presented by Université Laval on behalf of the Société d'énergie de la Baie James and Hydro-Québec, December 2004, 50 pages;

– CROP RECHERCHE MARKETING SONDAGES D'OPINION, *Sondage auprès des travailleurs cris de l'Eastmain-1, présenté à Hydro-Québec*, 26 pages;

– CROP MARKETING RESEARCH OPINION SURVEYS, *Étude sur la perception des communautés cries présentée à Hydro-Québec*, 41 pages;

– CURTIS, Mark, *Rupert Diversion, 2002, Fish parasite survey*, McGill University, report prepared for the Société d'énergie de la Baie James and Hydro-Québec, December 2003, 42 pages + 4 appendices;

– DEL DEGAN, MASSÉ ET ASSOCIÉS, *Centrale de l'Eastmain-1-A et dérivation Rupert, Étude de la grande et de la petite faune, Rapport sectoriel, Version finale*, report prepared for Hydro-Québec Production, March 2004, 2 volumes;

– ENVIRONNEMENT ILLIMITÉ INC., *Centrale de l'Eastmain-1-A et dérivation Rupert, Rapport sectoriel, État de référence : esturgeon jaune*, report prepared for the Société d'énergie de la Baie James and Hydro-Québec, December 2003, 124 pages + 4 appendices;

- ENVIRONNEMENT ILLIMITÉ INC., *Centrale de l'Eastmain-1-A et dérivation Rupert, Biefs Rupert et zone à débit augmenté, Aménagements pour l'ichtyofaune, Schéma directeur*, April 2006, 100 pages;

- FORAMEC INC., *Centrale de l'Eastmain-1-A et dérivation Rupert, Avifaune, Oiseaux de proie et espèces à statut particulier*, report prepared for the Société d'énergie de la Baie James, February 2004, multiple pagination;

- FORAMEC INC., *Centrale de l'Eastmain-1-A et dérivation Rupert, Avifaune, Sauvagine et autres oiseaux aquatiques*, report prepared for the Société d'énergie de la Baie James, February 2004, 113 p. + 9 appendices;

- FORAMEC INC., *Centrale de l'Eastmain-1-A et dérivation Rupert, Avifaune, Oiseaux forestiers*, report prepared for the Société d'énergie de la Baie James, February 2004, multiple pagination;

- FORAMEC INC., *Centrale de l'Eastmain-1-A et dérivation Rupert, Végétation et espèces floristiques et fauniques à statut particulier*, report prepared for the Société d'énergie de la Baie James, February2004, 91 pages + 15 appendices;

- FORAMEC INC., *Centrale de l'Eastmain-1-A et dérivation Rupert, Avifaune, Limicoles migrateurs et nicheurs*, report prepared for the Société d'énergie de la Baie James, February 2004, multiple pagination;

- FORAMEC INC., *Centrale de l'Eastmain-1-A et dérivation Rupert, Étude de faisabilité des ensemencements sur les berges de la rivière Rupert*, April 2006, 48 pages + 3 appendices;

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- SERVICES CONSEILS GEEWEHEDIN CONSULTING SERVICES INC., *Enquêtes de perception auprès des chefs de file dans les neuf communautés cries d'Eeyou Istchee, préparées pour le projet de la centrale de l'Eastmain-1-A et dérivation Rupert*, February 2006, 136 pages + 2 appendices;

- TECSULT INC., *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert, Mesures d'atténuation pour l'avifaune et la chasse à la sauvagine, Aménagement de 10 ha de milieux humides pour la chasse à l'oie, Note technique*, report prepared for the Société d'énergie de la Baie James, March 2006, 17 pages + appendix;

- VINCENT ROQUET ET ASSOCIÉS INC., *Centrale de l'Eastmain-1-A et dérivation Rupert, Description du milieu cri*, report prepared for the Société d'énergie de la Baie James, November 2004, 2 volumes.

In case of discrepancy between these documents, the information found in the most recent document shall prevail.

The project must be carried out and operated in accordance with this application for a certificate of authorization and these documents.

The holder of this certificate of authorization must comply with the following conditions:

CONDITIONS OF AUTHORIZATION

The numbering of the conditions follows the sections of the analysis report of the Review Committee (COMEX).

THE PROJECT AND ITS ENVIRONMENT

Design of the structures

Condition 2.1: If the proponent were to close the transfer tunnel between the transfer bays for repair and to direct a portion of the diverted waters to Cabot Lake, it would have to submit, for authorization, a detailed description of this temporary diversion option and the anticipated impacts to the Provincial Administrator (the Administrator) of section 22 of the James Bay and Northern Québec Agreement (JBNQA).

Condition 2.2: The possible extension, up to KP 280, of the temporary access road for the construction of the spur dike of KP 290 must be submitted to the Administrator for authorization. The analysis must include, among other things, the impacts of a possible over-harvesting of fish in the spawning ground sector of KP 280.

Condition 2.3: The proponent shall install prefabricated arches for all stream crossings where the bed conditions do not lend themselves to the installation of culverts.

Condition 2.4: For the restoration or extension of all existing roads, built or maintained by the Municipality of Baie-James or by a band council, the proponent shall plan the work to be carried out for these roads in cooperation with the representatives of the Cree community or the municipality concerned, for all of the project's construction and operation phases.

Condition 2.5: The work to put in place rock blankets shall include a program to restore the riparian vegetation on the banks affected by the construction of roads connecting the various rock blankets.

Condition 2.6: At the request of tallymen, the proponent plans to build or improve more than 100 kilometres of access roads to traplines and Cree camps. As the exact location of these developments and their nature are to be determined following agreements with the tallymen concerned, the proponent shall send the Administrator for authorization the complete planning of these access roads.

Condition 2.7: The temporary roads will be decommissioned unless the tallymen in question wish to keep them. One year after the end of the works, the proponent shall submit to the Administrator for authorization the complete planning for the decommissioning of the roads.

Condition 2.8: One year before the end of the works, the proponent shall submit to the Administrator its complete program planning for the closure of the various components of the work site. This program planning shall include, among other things, the planning for the closure of the work camps and a master plan of the work to restore the areas disturbed by the construction activities, including quarries and sandpits.

Condition 2.9: The final choice of the quarry and sandpit sites that will be used for the construction of roads, dikes, dams and other structures will be made at the time of construction, based on the chosen strategy. The chosen quarry or sandpit sites, other than those located in the impact study, shall be submitted to the Administrator for authorization.

Condition 2.10: In light of the transportation distances, it will not be possible to transport large surplus volumes of excavated materials to the future diversion bays; this will be the case, among others, for the materials

from the Eastmain-1-A powerhouse (2.5 million m^3), the Sarcelle powerhouse (1.1 million m^3), Sakami canal (0.22 million m^3), and the hydraulic structures on Rupert River (0.51 million m^3). These surplus material disposal sites, outside the diversion bays, should preferably be located in sectors affected by construction works and that will be the subject of restoration work. Following consultation of the tallymen concerned, the other disposal sites shall be submitted to the Administrator for authorization.

Condition 2.11: In Rupert forebay, given the possibility of using Lake Cabot for the spilling of water, the navigation corridor to be cleared along the unnamed stream that connects Lake Cabot to Lemare River is the subject of an application for revision by the tallymen of lots M18, M25 and M33. They have asked that the corridor clearing plan take into account the possible increase in flows. The proponent, after having consulted the tallymen, shall submit its final clearing plan to the Administrator.

Condition 2.12: The proponent shall submit to the Administrator for authorization the new solid waste disposal sites including those of the Rupert and Sarcelle workcamps. The proponent must favour the use of already authorized sites and request, where necessary, an extension of the authorization of those sites authorized under the Eastmain-1 project. The construction waste storage and disposal strategy shall be submitted to the Administrator for authorization.

Condition 2.13: The proponent is analyzing the following three options for the management of septic tank sludge: the use of already authorized disposal sites (in Chibougamau, Matagami or Radisson), the opening of so-called new generation disposal sites, and the use of mobile dewatering units. Once the proponent has defined its septic tank sludge management program, it shall submit the plan to the Administrator for authorization.

Condition 2.14: In its impact study, the proponent indicates that the wastewater of the Rupert workcamp will be treated and that the effluent will be discharged in a neighbouring bog. The proponent shall submit to the Administrator for authorization, a follow-up program to evaluate the efficiency of this process.

ANALYSIS OF THE IMPACTS ON THE NATURAL ENVIRONMENT

The following three general conditions apply to all of the sectors affected by the project.

Condition 5.1: The proponent shall submit detailed follow-up programs on the various components of the aquatic and land environments as well as the avian environment (three master plans) for all of the sectors of the study area identified in the documents submitted in support of the

application. The proposed follow-up programs must specify the sampling methods and protocols, the completion schedule and the sectors of the project that will be inventoried. These programs shall explain, among other things, the choice of the final mitigation measures, the location of the wildlife enhancements, and how the integration of data from the observations of Cree hunters will be promoted and made possible.

These programs shall be submitted to the Administrator not later than one year after the start of the work. In addition to ensuring compliance with the commitments made by the proponent, these programs will, among other things, have to take into account the aspects specified in the conditions set out hereinafter. The results obtained within the context of the various follow-up programs will be tabled for comments and will be used to periodically revise the planning of these programs.

When carrying out the follow-up activities, the proponent must make sure that the results are also sent to the Crees and the tallymen. It must devise a procedure for popularizing the results and a method for presenting them by locating them on maps.

Condition 5.2: The proponent shall integrate in its field teams in charge of the sampling campaigns Crees from each of the communities affected by the project. The traditional knowledge of users shall be considered in the preparation and implementation of the follow-up programs.

Condition 5.3: The proponent shall propose an integration of the relevant elements of its project follow-up program with those already planned for the Eastmain-1 development in order to avoid duplication and to promote complementarity and efficiency.

RUPERT DIVERSION BAY SECTOR

Fish

Condition 5.4: To establish a baseline, the proponent shall, not later than six months after the authorization of the project, submit to the Administrator for approval its program for monitoring the fish communities and the population dynamics in the Rupert diversion bays.

Condition 5.5: The proponent shall submit its plan for communicating the results of the sampling campaigns for the characterization of the fish communities and the population dynamics of the Rupert diversion bays, the aim of which is to keep the users of these bodies of water informed. This plan must be submitted to the Administrator for information purposes not later than six months after the authorization of the project.

Condition 5.6: The proponent shall submit to the Administrator for authorization its program to monitor the efficiency of spawning ground enhancements and the physical-chemical conditions of lakes RP062 and Des Champs.

Condition 5.7: If the developed spawning grounds prove to be ineffective for the reproduction of fish species, the proponent shall look for new bodies of water that are more favourable to the populations and where it will carry out the required enhancements. These new enhancements shall be submitted to the Administrator for authorization.

Condition 5.8: The proponent shall submit to the Administrator for authorization a genetic characterization program for brook trout of the Rupert genetic line between Mistassini Lake and Mesgouez Lake in the Rupert River basin by using, among other things, sport fishing catches made at the outfitters operating in the area.

Condition 5.9: The proponent shall submit to the Administrator for authorization a detailed follow-up program on mercury levels in fish meat for the sectors of the Rupert diversion bays. In its program to monitor mercury levels in fish meat, the proponent shall make provision for stations located downstream from the control structures and the Eastmain-1-A powerhouse. These stations must notably make it possible to measure the phenomenon of bioaccumulation in non-piscivorous fish and to evaluate the extent of mercury exports downstream from the structures.

Birds

Condition 5.10: The proponent shall submit to the Administrator for authorization a follow-up program for each of the wildlife enhancements in order to check the use that waterfowl make of these enhancements. This program shall be submitted not later than six months after the authorization of the project.

Condition 5.11: The proponent shall submit to the Administrator for authorization a follow-up program on the evolution of the waterfowl density in the Rupert diversion bay sector in order to check whether this density complies with the objectives indicated in the documents submitted in support of the application. This information may be used in the planning of the required mitigation measures.

Condition 5.12: The proponent shall submit to the Administrator for authorization a follow-up program on the use of nesting boxes for arboreal ducks. This monitoring could be carried out in collaboration with the tallymen concerned and will span a period of at least five years.

Land animals

Condition 5.13: The proponent shall submit to the Administrator for authorization, six months after the authorization of the project, its planned follow-up program for caribou and moose to evaluate their density and abundance in the diversion bay sector. This program must be improved to include a telemetric monitoring of woodland caribou in the various sectors

of the project during the construction and operation phases. The proponent must make an inventory to locate the woodland caribou herds in order to obtain a baseline. The follow-up program will make it possible to measure avoidance during the construction phase, to identify the habitats used during and after the works, and to determine demographic trends.

Condition 5.14: In cooperation with the Cree organizations concerned, the proponent shall monitor the caribou subsistence harvest in the study area.

Condition 5.15: At the time of the impoundment of the diversion bays, the proponent will fly over the boundaries of the diversion bays in order to monitor land animal movements. Afterwards, the proponent shall submit to the Administrator for information purposes a report on the observations made, the problems encountered, and the actions taken, if any.

Condition 5.16: The intensive beaver trapping or relocation program planned in the diversion bays shall be carried out sufficiently ahead of time before the impoundment to permit an adequate effort to trap or relocate the beaver affected by the project. The proponent shall submit to the Administrator a report of its operations for information purposes.

Condition 5.17: The proponent shall prepare a new small mammal inventory in order to improve knowledge on the presence of these species in the study area. For this purpose, it must improve the follow-up program that it plans to carry out in enhanced or stocked wetlands. The proponent shall submit its follow-up program to the Administrator for authorization.

REDUCED FLOW SECTORS: RUPERT, LEMARE AND NÉMISCAU RIVERS

Ecological instream flow regime

Condition 5.18: As the proponent has agreed to an adaptive management of the ecological instream flow regime, it shall propose the necessary modifications to correct the situation if the values or the periods of this regime prove to be incorrectly evaluated with respect to the spawning habitats or do not guarantee the survival of fish resources valued by the Crees. These modifications shall be submitted to the Administrator for authorization.

Fish

Condition 5.19: The proponent shall submit to the Administrator for authorization its follow-up program on the regeneration of aquatic grass beds in the sector downstream from KP314 of Rupert River. The proponent shall include in the monitoring the use and the colonization of grass beds by northern pike and other prey species.

Condition 5.20: The proponent shall submit to the Administrator for authorization a follow-up program on anadromous lake cisco between

KP 13.5 and KP 25.5 of Rupert River. The monitoring shall include the larvae drift in the spring and the population structure of anadromous lake cisco in the fall, as well as a baseline over a 2-year period prior to the partial diversion of the waters of Rupert River. Condition 5.18 on the adaptive management of the instream flow shall be applied to the anadromous lake cisco in addition to the species already contemplated. The monitoring of the migration of anadromous lake cisco shall be prepared in collaboration with the community of Waskaganish and the tallymen concerned.

Condition 5.21: The proponent shall submit for the information of the Administrator, not later than six months after the authorization of the project, a program to promote the voluntary registration of anadromous lake cisco catches downstream from KP25. This program shall begin two years before the diversion of Rupert River and be prepared in collaboration with the community of Waskaganish and the tallymen concerned.

Condition 5.22: The proponent shall submit to the Administrator for authorization any development of a dip net fishing site at Smokey Hill. This development shall be prepared in collaboration with the community of Waskaganish and the tallymen concerned.

Condition 5.23: The proponent shall prepare, in collaboration with the community of Waskaganish, an information program intended for community residents in order to promote, develop and maintain the use of a fishing site at Smokey Hill.

Condition 5.24: The proponent shall submit a follow-up program on the efficiency of the enhancements of spawning grounds located downstream from KP314 of Rupert River. In the event that these enhancements do not meet the objectives set in the documents submitted in support of the application, the planning of corrective measures, ranging all the way up to the creation of new spawning grounds, shall be submitted to the Administrator for authorization.

Condition 5.25: The proponent shall submit to the Administrator for authorization a specific lake sturgeon follow-up program, including larvae drift for this species. Special attention shall be paid to the section of Rupert River located between KP 216 and KP 300.

Condition 5.26: The proponent shall submit for the information of the Administrator a program to promote the voluntary registration of lake sturgeon catches downstream from KP314 of Rupert River. The program shall be planned and carried out in collaboration with the users concerned.

Condition 5.27: The proponent shall submit to the Administrator for authorization a detailed follow-up program on mercury levels in fish meat for the Rupert, Lemare and Menisci rivers sector downstream from the control works. The proponent shall make provision in its follow-up

program on mercury levels in fish meat for stations downstream from the control structures and the Eastmain-1-A powerhouse. These stations must notably make it possible to measure the phenomenon of bioaccumulation in non-piscivorous fish and to evaluate the extent of mercury exports downstream from the structures.

Special-status plant species

Condition 5.28: The proponent shall submit for information purposes a follow-up program on special-status plant species. It will take into account the effect of the seedings where *Gratiola aurea* will have been inventoried.

RUPERT BAY

Fish

Condition 5.29: The proponent shall submit to the Administrator for authorization, not later than one year after the authorization of the project, a detailed follow-up program on total organic carbon (TOC). This program shall provide a baseline on the growth of the longnose sucker in the Rupert River estuary and bay.

Condition 5.30: The proponent shall submit to the Administrator for authorization a detailed follow-up program on saltwater intrusion in Rupert Bay and at the mouth of Pontax River to validate the predictions of the simulation.

INCREASED FLOW SECTOR

Fish

Condition 5.31: The proponent shall submit to the Administrator for authorization a detailed follow-up program on the enhancements of multispecific spawning grounds downstream from the Sarcelle powerhouse.

Condition 5.32: The proponent shall submit to the Administrator for authorization a detailed follow-up program on lake sturgeon populations in the Boyd-Sakami segment.

Condition 5.33: The proponent shall submit to the Administrator for authorization a detailed follow-up program on the preservation of fish populations in the segment of the Eastmain River between KP 193 and KP 217, which takes into account the commissioning of the Eastmain-1-A powerhouse and the results collected within the context of the fish environmental follow-up program downstream from the Eastmain-1 dam.

Condition 5.34: The proponent shall submit to the Administrator for authorization a detailed follow-up program on mercury levels in fish meat

for the increased flow sector. The proponent shall make provision in its follow-up program on mercury levels in fish meat for stations downstream from the control structures and the Eastmain-1-A powerhouse. These stations must notably make it possible to measure the phenomenon of bioaccumulation in non-piscivorous fish and to evaluate the extent of mercury exports downstream from the structures.

JAMES BAY SECTOR

Condition 5.35: The proponent shall carry out, together with the Crees, a long-term follow-up of the state of eelgrass beds along the coast of James Bay, as was done in 2004, in order to contribute to a better evaluation of their condition. The proponent shall submit to the Administrator for authorization its follow-up program one year after the start of the works.

ANALYSIS OF THE STAKES RELATED TO THE HUMAN ENVIRONMENT

General health of the Crees

Condition 6.1: The proponent shall collaborate with the CBHSSJB in the establishment of a follow-up program, the aim of which is to evaluate the effects of its project on certain determinants, to be chosen jointly, affecting the health of the Crees. This program shall be submitted for the information of the Administrator.

Condition 6.2: The proponent shall inform the Administrator, prior to the commencement of the works, of the means that it intends to implement in order to:

- intervene, where required, with Cree workers who experience psycho-social problems related to their integration in the work environment;
- promote social relations between Cree workers and non-Native workers;
- identify the problems that are likely to occur in some Cree communities due to the presence of workcamps nearby and the measures that the proponent intends to put in place to remedy such problems.

Condition 6.3: The proponent shall submit to the Administrator for information purposes, not later than one year after the authorization of the project, a follow-up program dealing with the following three components:

- the project's consequences for Cree workers who take part in it;
- the effectiveness of the measures that the proponent intends to take to promote the integration of Cree workers on its worksites;
- the relations between Cree communities and the workcamps located nearby.

Mercury and health

Condition 6.4: The proponent shall provide the data on the evolution of mercury levels in fish meat stipulated in condition 5.2 and give technical and scientific support to the CBHSSJB. In collaboration with this institution, the proponent shall submit a report on the evolution of the research on the mercury problem in a global health perspective and on the effectiveness of information campaigns dealing with mercury and fish consumption. This report shall be submitted to the Administrator for information purposes.

Condition 6.5: The Mercury Agreement is of a shorter duration than the evolution of mercury levels in the meat of fish found in the reservoirs and bays, and the impacts on health. One year before this Agreement expires, the proponent, in collaboration with the Cree authorities concerned, shall submit for the information of the Administrator a report on the activities governed by the Agreement and a report on the evolution of mercury levels. This report will take stock of the advisability of renewing (or not renewing) the Agreement and of specifying, as the case may be, the objectives and the orientations found in the new agreement.

Water supply

Condition 6.6: The proponent shall implement a follow-up program on the quality of the water of Rupert River by stressing those sectors were Native camps are concentrated in order to determine the evolution of the quality of the water according to the uses. This program shall be submitted to the Administrator for authorization not later than six months after the start of the works.

Condition 6.7: The proponent will do monitoring work to ensure the integrity of the Waskaganish water intake and to prevent the risks of silt build-up associated with a modification of the hydrodynamics of the river or the stability of the banks. The proponent will present, for authorization by the Administrator, not later than six months after the start of the works, a follow-up program and the schedule for bank stabilization work.

Condition 6.8: As for the construction of the new drinking water plant of Waskaganish located on Category I lands, the proponent shall make sure that it has received authorization from the local environment administrator.

Use of the territory by the Crees

Condition 6.9: The proponent, in close collaboration with the Cree authorities responsible, shall ensure the availability of a mechanism for receiving comments and complaints, and shall propose solutions to every problem that may arise relating to the dissatisfaction of territory users caused by the project's impacts.

Impacts on hunting, fishing and trapping

Condition 6.10: The proponent shall submit to the Administrator for authorization its long-term planning of the monitoring work and of the nature of the mitigation and compensation measures that the proponent intends to carry out in collaboration with the tallymen concerned in order to reduce the impacts on their use of the trapline as well as with the community concerned for community sites. This planning shall span a period of not less than 10 years for the affected lots along Rupert River and 15 years for those located around the diversion bays and shall be re-evaluated after these periods. The joint actions planned may include, among other things, participation in monitoring surveys, cleaning of debris and all other measures seeking to increase the knowledge and use of the territory by users. A five-year program including the actions planned annually shall also be submitted to the Administrator for authorization, every 5 years.

Condition 6.11: The proponent shall provide each tallyman with a written document specifying all of the mitigation and compensation measures planned and agreed upon with the tallymen concerning their respective trapline. The proponent shall submit each year, for the information of the Administrator, a report on the agreements reached.

Condition 6.12: The proponent shall integrate in his field teams in charge of carrying out the follow-up program and of mapping the navigation and snowmobile corridors on Opinaca reservoir and lakes Boyd and Sakami members of the communities of Eastmain and Wemindji and notably, the tallymen affected by the project or the users designated by the tallyman. The traditional knowledge of users shall be integrated when preparing and implementing the programs.

Condition 6.13: In addition to the parameters already planned in its program for monitoring the use of hunting grounds during the construction phase, the proponent shall take into account the need, on the part of tallymen, to resort to other traplines to meet their basic food requirements and the means implemented to achieve this goal.

Condition 6.14: The proponent shall monitor the ice coverage in the estuary of Rupert River and on the banks of Rupert Bay. This monitoring shall be carried out in collaboration with tallymen or their representatives. The follow-up program, spanning a ten-year period from the start of the operation of Rupert dam, shall include freeze-up and ice melt periods. It shall be sent to the Administrator for information purposes not later than two years after the authorization of the project.

Condition 6.15: The proponent shall install signs indicating snowmobile crossings along the new access roads built for the project. With the help of the tallymen concerned by the project, the proponent shall also determine the parking sites and areas that can be set up along these roads to reduce

the risks of accident. The proponent shall proceed with the laying out of parking areas.

Navigation

Condition 6.16: The proponent will identify with the tallymen concerned the corridors to be cleared in the diversion bays to permit boat access to the shores of some bays.

Condition 6.17: The navigation maps produced within the context of the project must be available to all users. The proponent must indicate the actions that it plans to take in order to ensure their availability to Cree communities and other users.

Condition 6.18: The "canoe brigade" activity should preferably be maintained during and after the works. Prior to the start of the construction of the hydraulic structures on the Rupert, the proponent must collaborate with the Cree communities to encourage young people to participate in this activity. The proponent must also collaborate in the promotion and continuation of this activity, regardless of the route chosen and the neighbouring rivers used. It will inform the organizers of its involvement.

Navigation in the reduced flow sector of Rupert River and Rupert Bay

Condition 6.19: The follow-up program on the navigation conditions in Rupert River, notably the presence of a minimum depth of 1 metre except in rapids, shall be submitted for authorization to the Administrator at least one year before the start of the operation of Rupert dam.

Condition 6.20: In the bay and the estuary of the Rupert as well as at critical locations along the segments not influenced by a hydraulic structure, the proponent shall mark out a navigation channel. During the first five years following the diversion of a portion of the waters of the Rupert River, the proponent shall pay to hire a person from the community of Waskaganish to mark out the navigation channel.

Condition 6.21: The proponent has undertaken to carry out a study on the navigation conditions in some tributaries of the Rupert including the establishment of a baseline. The baseline shall be submitted to the Administrator for information purposes along with the detailed follow-up program for authorization, at least one year before the start of the operation of Rupert dam.

Condition 6.22: In collaboration with the users concerned, the proponent must improve the portages located along Rupert River in order to make

them safer and usable by the Crees and other users. The required work must be carried out by the Crees of the communities concerned. The proponent must report to the Administrator on the work done.

Navigation in the increased-flow sector

Condition 6.23: The proponent must set up a program to collect wood debris in the increased flow sector. This program must be prepared in collaboration with the Crees in order to have them identify the sectors which they deem a priority and where wood must be collected. The proponent shall hire local manpower to carry out the work.

Condition 6.24: In order to facilitate navigation, the proponent shall map the navigation corridors in the increased flow sector. For this purpose, it must determine, in collaboration with the Crees, the sectors requiring such a mapping.

Use of the territory by the other users

Sport hunting and fishing

Condition 6.25: The proponent shall submit, for the information of the Administrator, not later than six months after the authorization of the project, the detailed follow-up program that it intends to carry out on the sport hunting and fishing practiced by workers present on the various worksites of the project.

Condition 6.26: Following the example of what is planned at the Nemiscau workcamp, the proponent shall establish for the other workcamps of the project, including the Sarcelle, Eastmain, Rupert, Lake-Jolliet and Km 257 workcamps, a program for disseminating information on the management and harvesting of wildlife. The proponent shall make sure that the information on the regulations governing sport hunting and fishing on the territory is provided to the workers upon their arrival on the territory.

Condition 6.27: In collaboration with the responsible authorities, the proponent shall install signs on the new roads of the project and on the existing roads in the study area identifying the boundaries of Category I and II lands, while specifying the hunting and fishing limitations in relation to the Native people.

Condition 6.28: In the event that the mandate of the Weh-Sees Indohoun Corporation is renewed, the proponent shall undertake a study on the satisfaction of the persons responsible for the trapline in this corporation's intervention sector dealing with the assessment of the wildlife enhancement and control work carried out and, where such is the case, suggest methods for reducing the inconveniences identified by the tallymen. This study, including recommendations on the management of wildlife resources after

the construction period, shall be submitted to the Administrator for information purposes.

Tourism and Recreation

Condition 6.29: The proponent shall submit, for the information of the Administrator and not later than one year after the authorization of the project, the detailed follow-up program on the impacts of the presence of access roads and the opening of the territory on tourism and vacationing. This program shall be carried out in collaboration with the "Cree Outfitting and Tourism Association (COTA)" and James Bay Tourism.

Condition 6.30: The proponent shall promote the development of tourism and recreation activities offered by the Crees. For example, during the tourism visits made to the hydroelectric generating stations of James Bay, including those of the La Grande complex, the proponent shall develop strategies to inform tourists of the main tourism and recreation activities offered by the Crees on the territory of James Bay. The proponent shall submit, for the information of the Administrator and not later than one year after the authorization of the project, the strategies chosen to ensure this promotion.

Archaeology

Condition 6.31: For the planned inventories of the areas of archaeological potential that must be carried out prior to the start of the construction work, the proponent shall provide, before the summer of 2007, a report on the inventories carried out in 2006 and a second report, before the summer of 2008, on the inventories envisaged in 2007. These reports will notably have to include an update of the table of Appendix 320 (document RP13, Appendix 2 of the COMEX report) which presents the archaeological data. This table shall make it possible to differentiate the areas of archaeological potential that are in the study area and those affected by the project. The reports shall include a map showing the location of the inventoried areas and a schedule of the construction work carried out. All of this documentation shall be submitted, at the stipulated dates, for the information of the Administrator.

Condition 6.32: The proponent shall do archaeological digs for each site affected by the project including the FkGr-13 prehistoric site along La Grande River. For the duration of the works, an annual report shall be submitted, for the information of the Administrator, to take stock of the archaeological digs carried out.

Condition 6.33: The proponent shall provide, for the information of the Administrator, a report on the archaeological work carried out in the project's road corridors. If the work is not complete, namely if the evaluation of the archaeological potential, the inventories of these areas

and the archaeological digs required have not been carried out, the proponent shall complete them.

Condition 6.34: If, at the time of the final choice of the sites for the workcamps, the archaeological potential of the chosen site has not been examined, the proponent shall evaluate it and carry out the necessary inventories and digs. It shall submit a report on the archaeological work carried out to the Administrator for information purposes.

Condition 6.35: The proponent shall implement measures to enhance the remains discovered during the archaeological research, as the case may be. These measures shall be prepared in collaboration with the Crees. Five years after the impoundment of the diversion bays, the proponent shall submit to the Administrator a report on the implementation of tangible measures put in place.

Burial places

Condition 6.36: Following authorization of the project, the proponent shall begin discussions with the Crees and Niskamoon Corporation in order to identify the burial places affected by the project and to determine, as the case may be, the actions that should be taken to transfer the burial remains and all other measures such as a commemorative ceremony, prior to the start of the construction work, on the identified sites. A report of the activities related to the handling of burial remains will be submitted to the Administrator for information purposes.

Heritage

Condition 6.37: The proponent shall submit to the Administrator for approval its detailed landscape follow-up program. This program shall be of sufficient length to evaluate the impacts a few years after the start of the project's operation phase.

Condition 6.38: If interventions were to be planned in the Gorge, Oatmeal and Smokey Hill rapids, the proponent shall submit them to the Administrator for authorization.

Economic aspects

Condition 6.39: The proponent shall submit to the Administrator for information purposes, the annual report on the economic spinoffs of its project during the construction phase. Special attention shall be paid to the priority given to the hiring of Cree manpower, the means implemented to ensure their integration in the work teams, and the contracts awarded to Cree businesses. The proponent shall also report on the monitoring planned during the operation phase, five years and ten years after the start of this phase.

Condition 6.40: Given the number and dispersion of the workcamps, the proponent shall inform the Administrator of the additional number of Cree employment counsellors that it plans to hire.

Condition 6.41: One year after the start of the works, the proponent shall inform the Administrator of its discussions with the Commission de la Construction du Québec (CCQ) and the results of these discussions concerning Cree access to the jobs available on the worksites.

Condition 6.42: The proponent shall reach an agreement with its Cree partners (Cree School Board, Cree Human Resource Development Agency and Niskamoon Corporation) on the training niches that should be favoured to achieve the employment objectives set in the impact study during the construction and operation phases. To facilitate the diversity of jobs held by the Crees, the authorities responsible must examine the possibility of offering training in fields other than construction: tourism, ecology, for example. The proponent must inform the Administrator on this component one year after the start of works. In addition, the proponent and its partners shall do an annual monitoring of the results of the training programs and inform the Administrator thereof.

SAFETY OF STRUCTURES AND PEOPLE

Condition 7.1: Prior to the start of construction work, the proponent must submit, for the information of the Administrator, its emergency measures plan that is to apply during the construction period. This same measure applies to the emergency measures plan during the operation period and to the stored water management plan. These two documents must be submitted six months before the commissioning of Rupert dam.

Condition 7.2: The proponent must reach an agreement with the communities of Nemaska and Waskaganish on the measures to monitor the facilities stipulated in the project and communication measures, inspired by those of the Agreement concerning a new relationship between Hydro-Québec/SEBJ and the Crees of Eeyou Istchee (document R13, Appendix 2 of the COMEX report). This agreement must be submitted to the Administrator for information purposes.

Condition 7.3: For its inspection and compliance assurance activities related to the project's retaining structures as well as those of the Easmain-1 development and the La Grande complex, the proponent must take measures to train and hire Crees and to include them in its personnel responsible for the planning and implementation of its compliance assurance and inspection activities.

CUMULATIVE IMPACTS

Condition 8.1: The evaluation of the cumulative impacts of the hydroelectric projects of James Bay and Hudson Bay, by reason of their

scope, concerns several jurisdictions and goes beyond the responsibility of one single proponent. The analysis of these impacts cannot be done without setting up a large-scale research and follow-up program carried out by a consortium comprised mainly of government authorities concerned and including participation by academic circles and by all of the stakeholders responsible for this issue which devolves only partially on the proponent. This program should take into account traditional knowledge with a view to better defining the lines of research. As the case may be, the proponent will submit the information collected to the Administrator.

CONCLUSION

Condition 9.1: The proponent shall report to the Administrator on its discussions with the authorities concerned and the communities of Chisasibi, Nemaska and Waskaganish on the subject of potential solutions for reducing the cumulative impacts in the first two villages and the possibility of frequenting another major river for Waskaganish.

Condition 9.2: The proponent must collaborate with COMEX to set up a process for consulting the Cree population. This consultation must take place around 2011, namely between the end of the construction period and before the commissioning of the project. The objective of this process is, among other things, to make known the point of view of the Crees on the effectiveness of the mitigation measures put in place and the means that could be envisaged to deal with the project's residual impacts.

Moreover, this certificate of authorization does not exempt the holder from having to obtain any other authorization required under any Act or any regulation and, as the case may be, those that may be required under Chapter I of the Environment Quality Act.

Translation of the French original signed by

Madeleine Paulin
Deputy Minister

APPENDIX II

Agreements entered into between the Crees and Hydro-Québec

Source: Cree Regional Authority, 2013.

Name of agreement	Date signed
Sakami Lake Agreement	July 4, 1979
La Grande Agreement	November 6, 1986
C.Q.H.-Q Mercury Agreement	November 6, 1986
Opimiscow Agreement	January 8, 1993
Nadoshtin Agreement	February 7, 2002
Boumhounan Agreement	February 7, 2002
Cree Employment Agreement	February 7, 2002
Mercury Agreement	February 7, 2002
Agreement on the Decommissioning of Hydro-Québec/SEBJ "work sites" or installations no longer in service	February 7, 2002
Waskaganish Transmission Line Agreement	February 7, 2002
Whapmagoostui Transmission Line Agreement	February 7, 2002
Agreement respecting Disputes and a Dispute Resolution Committee	February 7, 2002
Agreement concerning the administration of Cree-Hydro-Québec Agreements and the Niskamoon Corporation	August 31, 2004
Agreement concerning a New Relationship between Hydro-Québec/ SEBJ and the Crees of Eeyou Istchee	March 31, 2004
Agreement concerning La Sarcelle Powerhouse	February 17, 2010
Agreement Concerning the Re-Appropriation of Territory Affected by the Eastmain-1-A/Sarcelle/Rupert Project	August 7, 2012

APPENDIX III

Methodology and structure of the report

Methodology

Thematic content analysis is the systematic identification and sorting of themes in a given data set.[49] Analysis of the public consultations thus required a careful reading of the transcripts of the six consultation sessions and the documents submitted by participants in order to identify themes representative of the content and related to the consultation objective. The analysis was performed using NVivo 9 data analysis software, which makes it possible to divide text into segments containing key information and categorize them into corresponding themes (code groupings), thereby facilitating future information retrieval. This coding process revealed the importance of certain elements, in particular by generating cross-cutting themes, that is, the themes that emerged most often during the consultations. Categories containing more than one theme also emerged from the analysis; these categories correspond to the main sections of chapters 3 to 8 of this report. A second analysis was then performed to verify the coding, resulting in the addition, grouping, subdivision or refinement of certain themes in order to shed representative light on the issues raised by the Crees.

Structure of the report

Chapter 2 of this report presents the main issues raised by the Crees during the public consultations. It constitutes a summary of the impacts most mentioned by participants in the communities concerned. Chapters 3 to 8 contain a detailed account of the views expressed during the public consultations held in each of the six Cree communities, namely Mistissini, Nemaska, Chisasibi, Eastmain, Wemindji and Waskaganish. Each chapter begins with an overview of the concerns expressed during the public hearings held in 2006, followed by the views expressed by Cree participants during the consultations held in November 2012, divided into three main sections: general comments, impacts as noted by Cree participants at the consultation session, and the principal concerns expressed in relation to the Eastmain-1-A/Sarcelle/Rupert project. The proponent's responses to the Crees' questions and COMEX's opinion are presented in Chapter 9. The additional light shed by the supplementary information submitted by Hydro-Québec in January 2013 informed COMEX's opinion contained in Chapter 9. The conclusion provides a short assessment of the results of the consultations.

The impacts observed by the Crees have been divided into four categories: environmental impacts, sociocultural and economic impacts, psychosocial impacts and human health impacts. For the purposes of this report, "environmental impacts" means effects on the biophysical environment, including effects on hydrological conditions, water quality, wildlife and wildlife habitat, and vegetation. "Sociocultural and economic impacts" means effects (direct or indirect, positive or negative) on everyday activities (diet, water consumption), land use (travel, hunting, fishing and trapping), community relations (disputes, tension, social division), cultural identity and the transmission of traditional knowledge. This category also includes impacts arising from increased access to the territory and the increase in non-Aboriginal workers in the region, as well as the project's economic spinoffs and costs. Psychosocial impacts include the emotional reaction (anger, sadness, anxiety, worry, feeling of loss, etc.) to the project's impacts on Cree land and communities. Human health impacts include the physical symptoms some participants attribute to the perceived degradation of rivers' water quality and the drinking of treated water.

49 Paillé, P. and A. Mucchielli. 2003. "L'analyse thématique" in *L'analyse qualitative en sciences humaines et sociales*. Paris: Armand Colin, p. 124.

Furthermore, even though many comments were outside the framework of this project, referring more to James Bay hydroelectric developments as a whole, they were made enough times that COMEX deemed it worthwhile to address them in order to properly and meaningfully report the views expressed by participants.

APPENDIX IV

Supplementary information provided by Hydro-Québec following the November 2012 public consultations on the Eastmain-1-A and Sarcelle Powerhouses and Rupert Diversion Project

Source: Hydro-Québec, 2013.

This publication is available in French only.

Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert

Consultation de la population crie - Novembre 2012

Complément d'information

Janvier 2013

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Introduction

Le présent document fait suite à la consultation de la population de six communautés cries (Mistissini, Nemaska, Waskaganish, Eastmain, Wemindji et Chisasibi) menée en novembre 2012 par le Comité d'examen et d'évaluation environnementale (COMEX) dans le cadre de l'achèvement des travaux de construction du projet des centrales de l'Eastmain-1-A et de la Sarcelle et de la dérivation Rupert.

Cette consultation, tenue à la fin du projet, découlait de la condition 9.2 du certificat d'autorisation de construction délivré par le MDDEFP le 24 novembre 2006. Elle avait pour objectifs, entre autres, de connaître le point de vue des Cris sur l'efficacité des mesures d'atténuation mises en place et les moyens qui pourraient être envisagés pour obvier aux impacts résiduels du projet.

Dans chacune des six communautés concernées par le projet, les intervenants, dont certains maîtres de trappages des terrains directement touchés, ont formulé des questions ou exprimé des constats ou préoccupations sur la modification de certaines composantes du territoire et, dans certains cas, sur la nécessité de mesures d'atténuation complémentaires.

À la demande du COMEX, les représentants d'Hydro-Québec, collaborant aux consultations, ont pu fournir les informations en réponse à plusieurs des questions et des préoccupations émises par les participants. Dans quelques cas, des engagements ont été pris par l'entreprise.

Mentionnons que, dans le cadre des activités du comité de suivi, les tournées annuelles continueront et les maîtres de trappage seront rencontrés.

Ce document a pour objectif de fournir des informations additionnelles ou plus précises sur les principales questions et préoccupations émises en relation avec le projet et pour lesquelles des réponses n'ont pu être données ou ne l'ont été que partiellement.

Par ailleurs, l'*Entente concernant la réappropriation du territoire visé par le projet de l'Eastmain-1-A−Sarcelle−Rupert* (ci-après Entente de réappropriation) permet aux maîtres de trappage de soumettre à la Société Niskamoon des projets afin de faciliter la poursuite des activités traditionnelles sur leur terrain de trappage.

Hydro Québec

Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert

Consultation de la population crie - Novembre 2012
Complément d'information

Section 1 - Mistissini

DATE ET HEURE	Le mardi 6 novembre 2012; 19 h 45 à 22 h 19	
LIEU	Gymnase de Mistissini	
ASSISTANCE	Environ 20 personnes (au plus fort) ont assisté à cette séance	
MÉDIAS	Aucun	
ÉQUIPE HQ/SEBJ	**Panel :** Céline Belzile, porte-parole René Dion André Tessier Johnny Saganash Lloyd Mayappo **Gestion :** Jean Matte et Philippe Mora	**Personnes-ressources :** Réal Courcelles Réjean Gagnon Pierre Vaillancourt Michel Traversy Nicolas Noell Jimmy Lavoie
ÉQUIPE COMEX	Pierre Mercier, président Philip Awashish Daniel Berrouard Brian Craik Robert Lemieux	**Personnes-ressources :** Pierre-Michel Fontaine Marie-Michèle Tessier
RÉSUMÉ DE LA SÉANCE	Six personnes sont intervenues au micro (9 questions/sous-questions) dont les préoccupations concernaient l'emploi, l'obtention de contrats en exploitation et le fait que certains travaux n'avaient pas été complétés comme ils l'auraient souhaité. Le chef adjoint a dit qu'il déposerait un mémoire au COMEX.	
PRINCIPAUX SUJETS D'INTERVENTIONS	➢ Emploi et nouveaux contrats en phase exploitation ➢ Niveaux d'eau élevés du bief amont : érosion des berges le long de la Misticawissish et impact sur le castor ➢ Reboisement des chemins d'accès temporaires désaffectés près de la rivière Misticawissich ➢ Inondation d'une section d'un sentier de motoquad près de la Misticawissich	
MAÎTRES DE TRAPPAGE	**Présents :** ➢ Marco Voyageur : M26 ➢ Matthew Iserhoff : M33	**Absents :** ➢ Robert Jimikin : M18 ➢ George Neeposh : M25
AUTRES PRÉSENCES À SOULIGNER :	➢ John Matoush, chef adjoint de Mistissini	
ENGAGEMENTS	➢ Évaluer la demande de M. Robert Coonisish (terrain de trappage M26) de planter des arbres sur les chemins d'accès temporaires désaffectés présents sur le terrain de trappage M26. ➢ Vérifier le problème, mentionné par M. Peter Coonishish-Coon M26, d'inondation d'une section du chemin d'accès maintenue comme piste de motoquad.	

Eastmain-1-A, Sarcelle et dérivation Rupert
Consultation de la population crie
(Condition 9.2 du certificat d'autorisation de construction du MDDEFP)
Complément d'information

Communauté : Mistissini

Intervenant : Robert Coonishish - Utilisateur du terrain de trappage M26

Objet du commentaire : ***Reboisement des chemins d'accès temporaires désaffectés***

Les utilisateurs du terrain M26 ont constaté que des tronçons de chemins d'accès temporaires ayant servi aux travaux de déboisement environnemental le long de la rivière Misticawissich ou à l'aménagement des frayères dans le bief amont n'ont toujours pas fait l'objet de travaux de plantation. Il s'agit de sections localisées au-dessus de la cote maximale du bief amont. Malgré leur demande en ce sens, ils disent qu'ils n'ont pas eu de réponse.

Informations complémentaires :

Les intervenants SEBJ/HQ mentionnent qu'ils n'étaient pas au courant des demandes de travaux de plantation qu'ils avaient faites.

Actions :

Des représentants SEBJ/HQ, accompagnés du maître de trappage ou de son représentant, se rendront sur place en 2013 afin de valider les tronçons à reboiser.

Par ailleurs, la SEBJ planifie pour l'été 2013 l'ensemble des travaux de plantations sur les tronçons des chemins d'accès temporaires dans le secteur des biefs amont et aval, à l'exception de ceux que les utilisateurs auront jugé opportun de conserver pour faciliter leurs activités sur leur territoire.

Référence :

Eastmain-1-A, Sarcelle et dérivation Rupert
Consultation de la population crie
(Condition 9.2 du certificat d'autorisation de construction du MDDEFP)
Complément d'information

Communauté : Mistissini

Intervenant : James Voyageur - Utilisateur du terrain de trappage M26
(Frère du maître de trappage Marco Voyageur)

Objet du commentaire : ***Niveaux hauts du bief amont et ennoiement d'une section nouvellement relocalisée de la piste de motoquad longeant la rivière Misticawissich***

Les utilisateurs ont constaté qu'une courte section de leur piste de motoquad qui avait déjà été modifiée en 2011 était susceptible d'être à nouveau inondée à l'automne 2012.

De plus, les utilisateurs croient que le niveau d'eau maximum atteint en 2012 était plus élevé que ce qui était attendu sur la rivière Misticawissich.

Informations complémentaires :

Niveaux d'eau

Le niveau d'eau maximal du bief amont atteint à l'automne 2012 était à la cote 306,52. Bien qu'élevé, ce niveau était en deçà de la cote maximale prévue dans cette section du bief, soit la cote 306,6 (Réf.1).

Les niveaux d'eau de l'automne 2012 n'étaient pas exceptionnels et se situaient dans la plage normale des variations des niveaux d'eau dans cette section du bief. Ces niveaux observés pourront d'ailleurs être atteints en tout temps dans les années à venir, selon les conditions hydrologiques et météorologiques.

Tronçon inondé de la piste motoquad

Des travaux correctifs avaient été réalisés en 2011 par l'entrepreneur désigné par le maître de trappage dans le but de s'assurer que le tracé de la piste se situerait en dehors de la zone inondée, soit au-dessus de la cote 306,6.

Action :

Des représentants de SEBJ/HQ, accompagnés du maître de trappage ou de son représentant, se rendront sur place au début de la saison de navigation 2013 afin d'évaluer l'état de la piste à l'endroit désigné et, le cas échéant, définir les mesures à prendre.

Référence :

Réf.1 : Page 65 du rapport : HYDRO-QUÉBEC PRODUCTION ET SOCIÉTÉ D'ÉNERGIE DE LA BAIE JAMES (SEBJ). 2012. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Bilan des mesures d'atténuation et de mise en valeur. Volume 1 - Mistissini.* Juin 2012, 79 p.

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Complément d'information

Communauté : Mistissini

Intervenant : Marco Voyageur - Maître de trappage du terrain M26

Objet du commentaire : ***Demande d'un déboisement complémentaire d'une grande baie en bordure de la rivière Misticawissich et d'une aire d'accostage***

Informations complémentaires :

Les utilisateurs du terrain M26 avaient déjà demandé le déboisement de cette baie le 30 octobre 2008 pour accéder à une zone de chasse à l'orignal. L'ampleur des travaux était telle que, pour des raisons économiques, la SEBJ avait refusé. Cependant, la SEBJ proposait au maître de trappage une solution alternative qui fut acceptée, soit :

- le maintien du chemin de construction le long de la Misticawissich, ce dernier longeant et donnant accès à la zone de chasse à l'orignal ;
- l'installation des ponceaux permanents sur la totalité des cours d'eau présents sur ce chemin ;
- la construction de sections additionnelles de pistes de motoquad permettant de contourner les zones ennoyées du bief ainsi que l'aménagement d'une aire d'accostage.

Ces travaux ont été réalisés par un entrepreneur nommé par le maître de trappage et des correctifs ont été apportés à cette piste en 2011 à la demande du maître de trappage.

Actions :

La SEBJ/HQ ne prévoit aucun travail additionnel car :

- la solution alternative mise en place et acceptée par le maître de trappage répond entièrement à l'engagement de l'entreprise de rendre accessible la zone de chasse à l'orignal ainsi que l'accès à son campement ;
- la demande de travaux de déboisement additionnels dans la baie et celle d'une nouvelle aire d'accostage au fond de la baie n'améliorent pas significativement l'accès à la zone de chasse à l'orignal. En effet, l'aire de chasse s'étend sur tout le territoire au nord de la Misticawissich que borde le chemin d'accès maintenu, et ce, depuis l'aire d'accostage existante. De plus, la localisation de l'aire d'accostage à la limite ouest de la baie a été déterminée par l'entrepreneur du maître de trappage (Réf. 1).

Référence :

Réf.1 : Page 67 du rapport : HYDRO-QUÉBEC PRODUCTION ET SOCIÉTÉ D'ÉNERGIE DE LA BAIE JAMES (SEBJ). 2012. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Bilan des mesures d'atténuation et de mise en valeur. Volume 1 - Mistissini.* Juin 2012, 79 p.

Eastmain-1-A, Sarcelle et dérivation Rupert
Consultation de la population crie
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Complément d'information

Communauté : Mistissini

Intervenant : Peter Coonishish-Coon

Objet du commentaire : ***Érosion de certaines sections des berges de la rivière Misticawissich dans le bief Rupert amont***

Les utilisateurs ont constaté de l'érosion sur certaines sections des berges de la rivière Misticawissich à la suite de la création du bief et demandent si Hydro-Québec/SEBJ envisagent d'effectuer des travaux de stabilisation.

Informations complémentaires :

Érosion des berges des biefs

Hydro-Québec avait prévu dans l'étude d'impact que les berges de sable à pente moyenne et forte, comme on en retrouvait le long de la portion inondée de la rivière Misticawissich, allaient subir l'effet de l'érosion par la vague, déstabilisant les talus naturels et entraînant l'éboulement successif des sables. On y mentionnait également que ce phénomène se poursuivrait jusqu'à l'atteinte à moyen et long terme de la pente d'équilibre.

L'impact d'un tel phénomène a été jugé de faible intensité et aucune mesure d'atténuation n'a été retenue (Réf.1).

Action :

La SEBJ/HQ n'a prévu aucun ouvrage de stabilisation des rives des biefs Rupert sensibles à l'érosion par les vagues.

Référence :

Réf.1 : Pages 10-3 à 10-10 du rapport : HYDRO-QUÉBEC PRODUCTION. 2004. *Centrales de l'Eastmain-1-A et dérivation Rupert. Étude d'impact sur l'environnement. Volume 2 - Chapitres 10 à 12.* Décembre 2004, Pagination multiple.

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Consultation de la population crie
(Condition 9.2 du certificat d'autorisation de construction du MDDEFP)
Complément d'information

Communauté : Mistissini

Intervenant : James Voyageur - Utilisateur du terrain de trappage M26
(Frère du maître de trappage Marco Voyageur)

Objet du commentaire : ***Hutte de castor active en bordure des biefs***

À l'automne 2012, les utilisateurs ont observé la présence d'une nouvelle hutte de castors en bordure de la rivière Misticawissich, à l'intérieur de la zone de marnage du bief. Avec la hausse des niveaux d'eau observée en octobre, ils s'inquiètent du comportement des castors et de la survie des jeunes de l'année. Ils se demandent quelle action entreprendre : laisser faire ou procéder au trappage.

Informations complémentaires :

Bien que les variations interannuelles du bief Rupert amont prévues soient de 2,5 m, dans cette portion du bief, les variations annuelles sont plutôt de l'ordre de 1,5 m.
Les variations annuelles et interannuelles des niveaux d'eau du bief Rupert amont s'apparentent à celles qui caractérisaient les lacs Boyd et Sakami avant la dérivation Rupert. Or, lors des inventaires des huttes de castors effectués en 2008 et 2009 en vue du trappage intensif, on a répertorié plus de 150 huttes de castors actives en bordure de ces plans d'eau (Réf.1 à 3).
À partir de constat, on peut présumer que le castor s'adapte à des fluctuations telles qu'on les rencontre dans les secteurs de la rivière Misticawissich et du bief Rupert amont et que sa survie n'est pas compromise.
Il revient donc aux utilisateurs de trapper ou non les castors de la hutte observée.

Actions :

Aucun nouveau programme de trappage n'est prévu par la SEBJ/HQ. Le programme de trappage intensif dans le secteur des biefs a été réalisé tel que prévu au cours des trois années précédant leur mise en eau conformément aux engagements du certificat d'autorisation et tel que convenu avec chacun des maîtres de trappage.

Un inventaire de la population de castor sur les rives des biefs Rupert est prévu à l'automne 2014 en compagnie des maîtres de trappage.

Références :

Réf. 1 - Pages 11 et 19 du rapport : HYDRO-QUÉBEC PRODUCTION ET SOCIÉTÉ D'ÉNERGIE DE LA BAIE JAMES (SEBJ). 2012. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Bilan des mesures d'atténuation et de mise en valeur. Volume 5 - Wemindji.* Juin 2012, 77 p.

Réf. 2 - DEL DEGAN, MASSÉ ET ASSOCIÉS. 2009. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Inventaire du castor. Automne 2008. Lacs Boyd et Sakami, biefs Rupert, section à débit réduit de la rivière Rupert. Rapport d'activités.*
Réf. 3 - DEL DEGAN, MASSÉ ET ASSOCIÉS. 2009. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Inventaire du castor. Septembre 2009. Biefs Rupert, section à débit réduit de la rivière Rupert, lacs Boyd et Sakami. Rapport d'activités. 24 p. et annexe.*

Hydro Québec

Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert

Consultation de la population crie - Novembre 2012

Complément d'information

Section 2 - Nemaska

DATE ET HEURE	Le jeudi 8 novembre 2012; 19 h 40 à 1 h 28	
LIEU	Gymnase de Nemaska (Nemaska Sports Complex)	
ASSISTANCE	Environ 35 personnes (au plus fort) ont assisté à cette séance	
MÉDIAS	Aucun	
ÉQUIPE HQ/SEBJ	**Panel :** Céline Belzile, porte-parole René Dion André Tessier Johnny Saganash Lloyd Mayappo **Gestion :** Jean Matte et Philippe Mora	**Personnes-ressources :** Réal Courcelles Réjean Gagnon Pierre Vaillancourt Michel Traversy Nicolas Noell Jimmy Lavoie
ÉQUIPE COMEX	Pierre Mercier, président Philip Awashish Daniel Berrouard Brian Craik Robert Lemieux	**Personnes-ressources :** Pierre-Michel Fontaine Marie-Michèle Tessier
RÉSUMÉ DE LA SÉANCE	Les intervenants étaient des maîtres de trappage ou des membres de leur entourage/famille. Dix-sept (17) personnes sont intervenues au micro; total de 18 questions/sous-questions. La soirée a commencé par une présentation du chef Matthew Wapachee au cours de laquelle il a demandé aux membres de sa communauté d'exprimer leurs sentiments par rapport au projet. Il a parlé d'un processus de guérison (healing) et d'adaptation à la nouvelle réalité. La plupart des participants ont répondu à l'appel par des témoignages personnels qui comportaient peu de questions, mais faisaient référence à de nombreux changements qu'ils ont perçus sur le territoire au cours des dernières années.	
PRINCIPAUX SUJETS D'INTERVENTIONS	➢ Le poisson et les sites de pêche ➢ La chasse à l'oie ➢ La qualité de l'eau ➢ Les niveaux d'eau et la navigation ➢ L'accès au territoire et l'entretien des pistes de motoquad ➢ Les conflits familiaux ➢ La sécurité des ouvrages	

MAÎTRES DE TRAPPAGE	**Présents :** ➢ Kenny Jolly, R21 ➢ Luke Tent, R18 ➢ Walter Jolly, N25 ➢ Matthew Wapachee (aussi chef de la communauté et président de la Corporation Weh-Sees Indohoun), R19 ➢ Neil Wapachee, R17 ➢ Représentants de la famille Moar, N24 ➢ Sam Mettaweskum, N24A ➢ James Wapachee, R20 ➢ Charles Cheezo, R16	**Absents :** ➢ Andrew Brien, M33 ➢ Abel Wapachee, N23
AUTRES PRÉSENCES À SOULIGNER :	➢ Lawrence Jimiken, représentant cri de Nemaska au Monitoring Committee	
ENGAGEMENTS	➢ Aucun	

Eastmain-1-A, Sarcelle et dérivation Rupert
Consultation de la population crie
(Condition 9.2 du certificat d'autorisation de construction du MDDEFP)
Complément d'information

Communauté : Nemaska

Intervenant : Kenny Jolly – Maître de trappage du terrain R 21

Objet du commentaire : ***Navigabilité du rapide du PK 285 de la Rupert***

M. Jolly explique qu'il a descendu le rapide du PK 285 en embarcation à moteur et qu'il a eu peur à cause du ressaut créé par la présence de roches dans le passage qu'il a emprunté. Il demande si ces roches peuvent être enlevées.

Informations complémentaires :

Dans le cadre du suivi des conditions de navigation sur la Rupert réalisé en 2010 et auquel a participé le maître de trappage, le rapide du PK 285,5 a été caractérisé en embarcation à moteur et déclaré non navigable, bien qu'un corridor en rive nord est praticable.

Dans une entrevue réalisée en octobre 2012 pour les fins du suivi des conditions de navigation, M. Jolly a décrit la situation ainsi : *"There are new rapids at KP 285-286 since the diversion but even before, it was a little rough and shallow there. Bigger rocks are exposed. Boats cannot go into a straight line there anymore. Now the northern shore is used as a natural portage since it is more exposed due to the lower water level. They can drag their canoes along the shore."*

En somme, il existe un passage praticable mais difficile. Au besoin, les embarcations peuvent être hâlées à partir de la berge. Dans ces conditions, aucun nouveau portage n'a été aménagé. Rappelons par ailleurs que le prolongement de la route d'accès au PK 290 par un sentier motoquad jusqu'au PK 279 a été réalisé à la demande des maîtres de trappage riverains pour leur faciliter l'accès au cours aval de la rivière, le tronçon du PK 290 au PK 280 étant ponctué de plusieurs (4) rapides et portages (3).

Action :

Aucune intervention en rivière n'est prévue pour modifier les conditions de navigation dans le rapide.

Référence :

GENIVAR. 2011. Suivi des conditions de navigation. Secteur des rivières Rupert, Lemare et Nemiscau 2010. lots 2 à 4. Décembre 2011. 103 p. et annexes.

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Complément d'information

Communauté : Nemaska

Intervenant : Johnny Trapper - Utilisateur du terrain R16

Objet du commentaire : ***Présence de grosses roches sous le pont du PK 24 de la rivière Nemiscau qui gênent la navigation***

L'intervenant se plaint que des grosses roches ont roulé dans le rapide sous le pont qui enjambe la rivière Nemiscau au PK 24 lors de la construction de l'ouvrage. Ces roches rendent difficile le passage des embarcations.

Informations complémentaires :

Ce problème a été rapporté à la SEBJ à l'été 2011 par feu Sam Cheezo, l'ancien maître de trappage du terrain R16.

Profitant de la présence de machinerie dans le secteur à l'été 2012, la SEBJ a procédé au retrait des roches en présence du nouveau maître de trappage (Charles Cheezo).

Action :

Aucune.

Référence :

Eastmain-1-A, Sarcelle et dérivation Rupert
Consultation de la population crie
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Complément d'information

Communauté : Nemaska

Intervenants : John-Henry Wapachee (R18), Samuel Rabbitskin et Winnie Moar (N24)

Objet du commentaire : ***Déversement du débit réservé printanier et interférences avec des sites de chasse à l'oie***

Les utilisateurs qui pratiquent la chasse à l'oie au printemps se plaignent que le relâchement du débit réservé sur la Rupert a pour effet d'inonder rapidement les platières, de faire fuir les oies et d'ennoyer leurs appelants et caches, ce qui les force à déplacer rapidement et dans certains cas, à quelques reprises, leurs installations plus haut sur la rive.

Informations complémentaires :

L'abaissement des niveaux d'eau dans les secteurs où ils ne sont pas maintenus par des ouvrages hydrauliques a eu pour effet d'exonder des platières dont une grande proportion a été ensemencée, ce qui les rend attrayantes pour les bernaches en migration. Les niveaux d'eau étant plus bas qu'ils ne l'étaient en conditions naturelles, plusieurs chasseurs se sont installés plus loin de la rive et ont été surpris, principalement en 2011, par la montée des eaux suite à l'ouverture de l'ouvrage de débit réservé de la Rupert. L'étude d'impact du projet prévoyait que les chasseurs auraient à s'adapter aux nouvelles conditions de chasse sur la rivière. L'Entente sur la réappropriation du territoire leur offrira, au besoin, un soutien pour développer des stratégies de chasse adaptées à ces conditions.

Les utilisateurs de la rivière ont demandé que le déversement du débit réservé soit reporté de quelques jours pour favoriser la chasse à l'oie.

Cette demande a été soumise aux membres du Comité de suivi et à ceux du Comité de gestion de la rivière Rupert. Après une analyse des avantages et des inconvénients, ces derniers ont convenu de ne pas modifier le régime de débit réservé écologique pour l'instant. En effet, depuis 2010, les suivis sur le milieu aquatique et le poisson ont montré que le régime de débits réservés atteint ses objectifs.

Action :

Aucune.

Référence :

CONSORTIUM WASKA GENIVAR, 2012. *Suivi de l'utilisation du territoire par les Cris 2010-2011.* Pagination multiple et annexes.

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Complément d'information

Communauté : Nemaska

Intervenant : Luke Tent – Maître de trappage R 18, Winnie Moar N 24

Objet du commentaire : ***Ennoiement permanent de sites de chasse à l'oie en amont des seuils des PK 170, 223 et 290***

À l'amont des seuils, les niveaux d'eau sont trop hauts avant et pendant la crue printanière, entraînant l'ennoiement permanent de rives et d'herbiers autrefois exposés à la fin de l'hiver et qui constituaient des zones d'attrait pour les oies en migration.

Informations complémentaires :

Durant l'hiver et au printemps avant l'augmentation du débit réservé, le niveau d'eau à l'amont des seuils jusqu`à la section cible se maintient légèrement sous le niveau moyen d'été (août-septembre). Ce niveau est supérieur à celui observé en conditions naturelles avant la crue (étiage d'hiver). Ainsi, plusieurs sites fréquentés par les oies en migration (rives exposées, embouchures de tributaires, herbiers ceinturant les îles) sont aujourd'hui ennoyés en permanence.

Cette situation a été discutée avec divers maîtres de trappage en 2011 et lors d'une assemblée publique en janvier 2012 à Nemaska. Pour aider les utilisateurs à trouver de nouveaux sites de chasse, la SEBJ a étendu à la période de chasse à l'oie le programme de subvention à la navigation et à la pêche. De plus, diverses mesures d'atténuation ont été réalisées ou sont en voie de l'être par les utilisateurs. Des abris ont également été offerts à la famille Moar pour faciliter la fréquentation d'un site de chasse sur la rivière à la Martre mais la famille n'a pas donné suite à ce jour.

Terrain	Mesure
R16	Construction d'un abri au PK 169 près d'un nouveau site de chasse, déboisement d'aires d'approche à l'embouchure de tributaires et près de tourbières sur le lac Nemiscau
R18	Déboisement d'aires d'approche près d'un étang aménagé dans un banc d'emprunt ainsi qu'à l'embouchure d'un tributaire, construction d'un sentier motoquad pour accéder au tributaire
N24	Déboisement d'aires d'approche près d'une tourbière et construction d'un sentier de motoneige pour accéder au site près du PK 235
R21	Construction d'un abri près d'un nouveau site de chasse au PK 279

Action : Poursuivre la recherche de solutions avec la famille Moar quant à la chasse à l'oie printanière.

Référence :

HYDRO-QUÉBEC PRODUCTION ET SOCIÉTÉ D'ÉNERGIE DE LA BAIE JAMES (SEBJ). 2012. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Bilan des mesures d'atténuation et de mise en valeur. Volume 2 - Nemaska.* Juin 2012, 141 p.

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Complément d'information

Communauté : Nemaska

Intervenant : Stella Moar (N24), Matthew Tanoush

Objet du commentaire : ***Modification de la qualité de l'eau de la Rupert***

De l'avis de plusieurs utilisateurs, la qualité de l'eau de la Rupert s'est dégradée depuis la dérivation. Certains voudraient que des puits soient aménagés notamment au Vieux-Nemaska.

Informations complémentaires :

Compte tenu des inquiétudes exprimées par les utilisateurs en avant-projet relativement à l'évolution de la qualité de l'eau de la Rupert après la dérivation partielle, 22 stations d'échantillonnage ont été établies avec les maîtres de trappage et autres utilisateurs là où ils prélèvent leur eau dans la Rupert et la Nemiscau. La méthode d'échantillonnage et les paramètres mesurés (turbidité, couleur, matière en suspension) ont été expliqués aux participants et les résultats des analyses à l'état de référence leur ont été remis. De plus, des efforts particuliers de vulgarisation des résultats ont été réalisés par le biais de bulletins d'information.

Le suivi de la qualité de l'eau effectué en 2010 montre que, pour la portion de la Rupert comprise dans le territoire de Nemaska, les valeurs obtenues pour les trois paramètres retenus sont très similaires à celles de l'état de référence. Ces résultats ont été remis en main propre et expliqués à chacun des maîtres de trappage concernés, comme on s'y était engagé dans l'étude d'impact (Réf. 1 et 2).

Quant à la préoccupation relative à l'alimentation en eau au site du Vieux Nemaska, l'Entente de réappropriation pourrait être utilisée pour améliorer la situation si la communauté de Nemaska le souhaite.

Action :

Aucune.

Références :

Réf. 1 - WASKA RESSOURCES. 2009. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi de la qualité de l'eau des rivières Rupert et Nemiscau. 44 p. et ann.*

Réf. 2 - WASKA RESSOURCES. 2010. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi de la qualité de l'eau des rivières Rupert et Nemiscau. 33 p. et ann.*

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Complément d'information

Communauté : Nemaska

Intervenant : James Wapachee, maître de trappage R 20

Objet du commentaire : ***Piètre état du sentier motoquad menant au lac Theilhard (3,6 km)***

M. Wapachee se plaint que le sentier présente une faible capacité portante dans une section construite sur tourbière. Il souhaiterait que le sentier soit recouvert de gravier. Une passerelle de bois installée dans la tourbière a également été construite trop près de la surface de l'eau.

Informations complémentaires :

Le maître de trappage a établi le tracé du sentier, s'est vu confier sa construction et a choisi de sous-traiter le contrat à un entrepreneur de son choix. Il n'était pas présent au moment de la réalisation des travaux. Le guide de construction prévoyait la mise en place d'un radier de bois dans les zones de faible capacité portante, ce qui n'a pas été fait. À noter que le déboisement du sentier a été réalisé à l'aide d'une déchiqueteuse, ce qui n'a pas permis la récupération de billes de bois (Réf. 1).

Une fois le projet terminé, le maître de trappage a accepté les travaux tels que réalisés.

Action :

La SEBJ ne compte pas apporter de correctifs au sentier.

Référence :

Réf. 1 - HYDRO-QUÉBEC PRODUCTION ET SOCIÉTÉ D'ÉNERGIE DE LA BAIE JAMES (SEBJ). 2012. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Bilan des mesures d'atténuation et de mise en valeur. Volume 2 - Nemaska.* Juin 2012, 141 p.

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Complément d'information

Communauté : Nemaska

Intervenant : Walter Jolly – Maître de trappage du lot N25

Objet du commentaire : ***Modification des conditions dans le bras Sipastikw et conséquences sur la fraie de l'esturgeon jaune à sa confluence avec la Rupert, au PK 281***

Le maître de trappage a maintes fois rapporté qu'historiquement les esturgeons fréquentaient la confluence du bras Sipastikw et de la Rupert durant la saison printanière. Il exprime sa préoccupation quant à la réduction des apports dans ce bras où l'esturgeon fraie en rive et où une pêche traditionnelle au harpon a déjà été pratiquée.

Informations complémentaires :

Le bras Sipastikw est un embranchement de la Rupert dont la connexion amont se trouve au PK 287 et dont l'exutoire se trouve au PK 281. Depuis la dérivation partielle, le lien hydraulique avec la Rupert au PK 287 n'existe plus et conséquemment l'apport de ce canal au PK 281 a beaucoup diminué, se limitant aux apports de petits tributaires.

Au bras Sipastikw, des observations réalisées entre 2007 et 2009, avant la dérivation, montrent que l'attrait de ce bras pour la fraie en rive de l'esturgeon était très variable (présence irrégulière de géniteurs). Le réchauffement plus hâtif des eaux du bras Sipastikw pouvait favoriser la présence d'esturgeons en rive et permettait la pêche traditionnelle au harpon.

Depuis la dérivation partielle de la Rupert, il apparaît que les nouvelles conditions de fraie et le programme de débit écologique printanier ont permis le maintien de la production larvaire totale d'esturgeons dans ce secteur. Cependant, les sites de fraie qui étaient en rive auparavant se seraient déplacés vers le centre de la rivière Rupert. Ainsi, la pêche au harpon en rive ne serait plus possible dans ce secteur.

Actions :

Le suivi de la dérive larvaire et de l'utilisation des frayères à esturgeon dans la Rupert se poursuit jusqu'en 2014. De plus, le maître de trappage peut compter sur l'aide technique des représentants cris et d'Hydro-Québec sur le Comité de suivi pour l'aider à identifier des mesures appropriées.

Enfin, l'Entente sur la réappropriation permet au maître de trappage de soumettre un projet en lien avec le maintien de ses activités de pêche traditionnelle dans ce secteur.

Références :
Réf. 1 : Pages 11-100 du rapport : HYDRO-QUÉBEC PRODUCTION. 2004. *Centrales de l'Eastmain-1-A et dérivation Rupert. Étude d'impact sur l'environnement. Volume 2 - Chapitres 10 à 12.* Décembre 2004, Pagination multiple.
Réf. 2 : Environnement Illimité Inc. 2011. *Dérive larvaire de l'esturgeon jaune dans la rivière Rupert (secteur à débit réduit)* Rapport d'étude 2010. 65 p. et ann.
Réf. 3 : Environnement Illimité Inc. 2012. *Dérive larvaire de l'esturgeon jaune dans la rivière Rupert (secteur à débit réduit)* Rapport d'étude 2011. 63 p. et ann.

Hydro Québec

Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert

Consultations de la population crie - Novembre 2012
Complément d'information

Section 3 - Waskaganish

DATE ET HEURE	Le jeudi 22 novembre 2012; 16 h 35 à 00 h 15	
LIEU	Waskaganish Gathering Place	
ASSISTANCE	Près de 50 personnes (au plus fort) ont assisté à cette séance	
MÉDIAS	Représentant de la radio locale	
ÉQUIPE HQ/SEBJ	**Panel :** Céline Belzile, porte-parole René Dion André Tessier Johnny Saganash Lloyd Mayappo **Gestion :** Jean Matte et Philippe Mora	**Personnes-ressources :** Réal Courcelles Réjean Gagnon Pierre Vaillancourt Nicolas Noell Michel Traversy
ÉQUIPE COMEX	Pierre Mercier, président Philip Awashish Daniel Berrouard Brian Craik Robert Lemieux	**Personnes-ressources :** Pierre-Michel Fontaine Marie-Michèle Tessier
RÉSUMÉ DE LA SÉANCE	Les interventions, souvent des témoignages personnels, étaient toutes liées à la dérivation de la Rupert et non au complexe La Grande comme ce fut le cas dans d'autres communautés. Trois des huit maîtres de trappage concernés étaient présents dont deux ont témoigné. Mentionnons la présence de Luke Tent et de Walter Jolly, deux maîtres de trappage de Nemaska. Vingt-et-une (21) personnes ont fait 24 interventions au micro.	
PRINCIPAUX SUJETS D'INTERVENTIONS	➢ Les changements relatifs au mode de vie traditionnel des Cris et à la faune ➢ L'importance de la rivière Rupert dans la communauté et la culture crie de Waskaganish ➢ La transmission du savoir traditionnel aux jeunes et l'avenir des jeunes ➢ La participation des Cris au projet ➢ Les programmes d'aide existants et la nouvelle Entente de réappropriation ➢ L'importance de maintenir la collaboration entre Hydro-Québec et la communauté ➢ Le castor ➢ Le poisson ➢ La chasse à l'oie ➢ Les niveaux d'eau et les conditions de glace dans l'estuaire	

MAÎTRES DE TRAPPAGE	**Présents :** ➢ Sanders Weistche, N2 ➢ Allan Georgekish, N1 ➢ Jacob Erless, R4 ➢ Famille Hester, N9	**Absents :** ➢ Willard Stephen, R5 ➢ Clarence Cowboy, R11 ➢ Dondus Hester, R12 ➢ Gordon Blackned, R13
AUTRES PRÉSENCES À SOULIGNER :	➢ Matthew Coon Come, grand chef, Grand Conseil des Cris ➢ John Paul Murdoch, secrétaire exécutif, Grand Conseil des Cris ➢ Ryan Erless, représentant du Chef de la communauté ➢ Bert Moar, directeur, Cree Trappers Association ➢ Luke Tent, maître de trappage du terrain R18 à Nemaska ➢ Walter Jolly, maître de trappage du terrain N25 à Nemaska ➢ Marc Dunn, représentant de Niskamoon	
ENGAGEMENT	➢ Rencontrer le maître de trappage Luke Tent (R18) de Nemaska	

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Complément d'information

Communauté : Waskaganish

Intervenant : James Jonah - Maître de trappage d'un terrain non touché par le projet

Objet du commentaire : ***Effet du projet sur le niveau de la rivière Pontax - Présence d'ouvrages sur la Pontax***

Le maître de trappage croit que des ouvrages ont été installés dans le bassin versant de la rivière Pontax, ce qui aurait occasionné un abaissement du niveau d'eau.

Informations complémentaires :

Aucun ouvrage installé dans le bassin de la rivière Pontax

La superficie du bassin versant de la Pontax est de 8 135 km^2 et aucun ouvrage de retenue ou de dérivation, associé au projet Rupert, n'a été implanté à l'intérieur de ce bassin.

Influence des ouvrages de dérivation de la Nemiscau sur le débit de la Pontax

Au niveau du lac Caumont, une partie des eaux de la rivière Nemiscau s'écoule en direction du lac Champion qui constitue le lac de tête du bassin versant de la rivière Pontax. On estime à environ 19 % le volume moyen annuel d'eau de la rivière Nemiscau s'écoulant en direction de la Pontax via le lac Champion.

Les trois ouvrages installés sur les cours d'eau alimentant la rivière Nemiscau, soit Arques, Nemiscau-1 et Nemiscau-2, ont été dotés de structures qui permettent de restituer à la rivière les apports moyens annuels (15,9 m^3/s) de la portion du bassin versant (905 km^2) se trouvant en amont des ouvrages. De plus, ces trois ouvrages sont opérés de manière à reproduire à l'aval, tout au long de l'année, l'hydrogramme moyen naturel dans la rivière Nemiscau (Réf. :1). Il ne faut pas oublier qu'aux apports régularisés issus des ouvrages de débits réservés s'ajoutent ceux du bassin versant compris entre ces ouvrages et le lac Caumont, soit une superficie de 1 670 km^2 (module de ± 28,9 m^3/s).

Les observations faites par les utilisateurs de la rivière Pontax concernant les niveaux bas de la rivière depuis la fin 2009 sont justes mais explicables non pas par la mise en service des ouvrages de la dérivation Rupert mais par des conditions météorologiques particulières.
En effet, les années 2010 à 2012 ont été marquées par des périodes prolongées de très faibles précipitations estivales. Elles ont donné lieu à des débits et niveaux très faibles non seulement sur la rivière Pontax mais également sur toutes les autres rivières de la région dont, entre autres, les rivières Nottaway et Broadback (voir les quatre figures suivantes).
Ces conditions climatiques se résument ainsi :

- à l'hiver 2009-2010, des précipitations extrêmement faibles et une fonte et une crue de printemps très hâtives et de courte durée se traduisant par des apports naturels qui, sur l'ensemble des bassins versants du territoire, ont été parmi les plus faibles jamais enregistrés ;
- à l'été 2011, une crue très forte jusqu'à la fin juin, suivi d'un été très sec avec à nouveau des apports faibles.

En ce qui concerne les niveaux au lac Champion, on constate que, exception faite de l'année 2010, les fluctuations du niveau de ce lac se situent à l'intérieur de la gamme de fluctuations qui ont caractérisé les années 2002 à 2009, avant la dérivation Rupert.

Référence :
Réf. 1 : Page 12 du rapport : HYDRO-QUÉBEC PRODUCTION ET SOCIÉTÉ D'ÉNERGIE DE LA BAIE JAMES (SEBJ). 2012. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Bilan des mesures d'atténuation et de mise en valeur. Volume 3 - Waskaganish.* Juin 2012, 104 p.

Figure 1

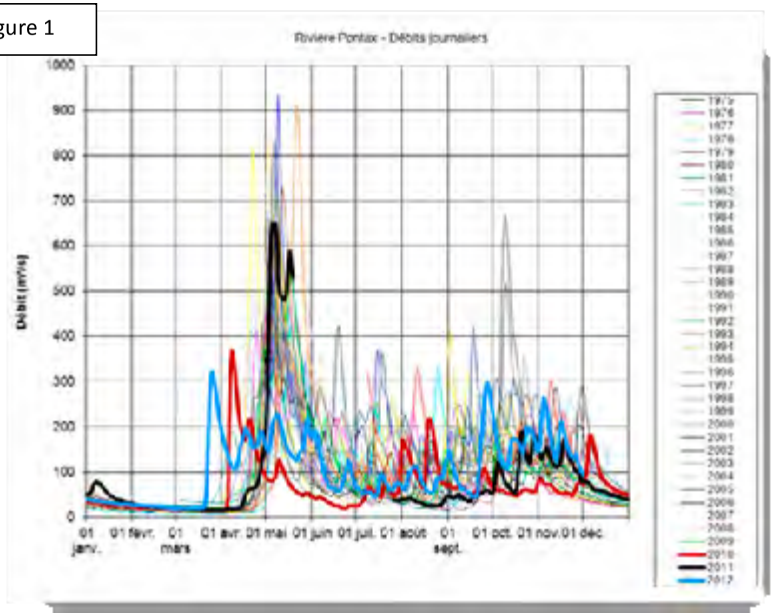


Figure 3

Figure 2

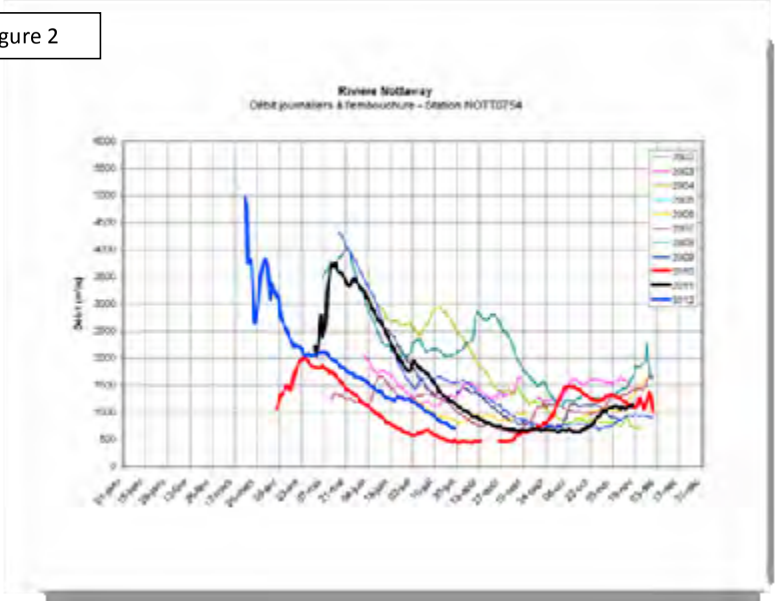
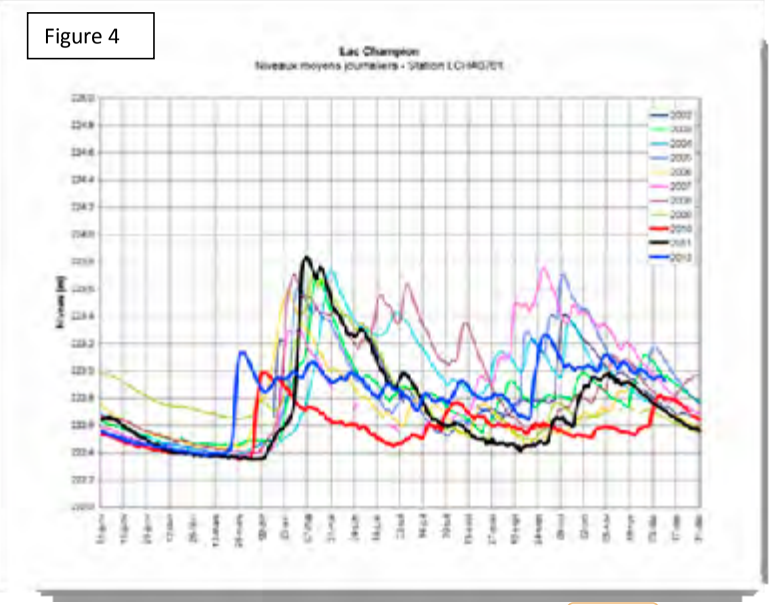


Figure 4



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Eastmain-1-A, Sarcelle et dérivation Rupert
Consultation de la population crie
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Complément d'information

Communauté : Waskaganish

Intervenant : Walter Hester

Objet du commentaire : ***Modification de la couverture de glace dans l'estuaire de la Rupert***

L'intervenant souligne que, depuis la dérivation, la couverture de glace dans l'estuaire de la Rupert a changé et il est préoccupé par la sécurité de l'accès à la rive nord.

Informations complémentaires :

Dans le cadre du suivi sur l'utilisation du territoire, des modifications locales de la couverture de glace ont été mentionnées dans l'estuaire de la rivière Rupert notamment le long de la rive nord (PK 0 à 4) à cause de l'abaissement du niveau d'eau à marée basse. Ces modifications n'entravent toutefois pas les déplacements en motoneige (Réf. 1 à 4).

Relativement à l'accès à la rive nord en motoneige au droit de Waskaganish, aucun problème particulier n'a été rapporté. Depuis plusieurs années, la communauté de Waskaganish fait le marquage de cette traversée et dès l'hiver 2008, une formation a été donnée par la SEBJ à du personnel local sur la méthode d'évaluation de la qualité de la couverture de glace. Ces personnes ont participé depuis aux campagnes d'échantillonnage de la couverture de glace le long de cette traversée réalisées dans le cadre du programme de suivi de la couverture de glace de la Rupert. Les résultats des échantillonnages ont été transmis à la communauté mensuellement et affichés au Conseil de bande et dans les locaux de l'Association des trappeurs. Ce sont cependant des intervenants locaux qui déterminent quand la traversée est ouverte ou fermée aux motoneigistes.

En 2011 et 2012, la traversée a été ouverte à la circulation en motoneige dès le début décembre et les résultats des relevés au site d'échantillonnage montrent que l'épaisseur de la glace croit régulièrement au cours de l'hiver pour atteindre en moyenne plus de 60 cm à la mi-mars.

Action :

Aucune.

Références :

Réf. 1 - AECOM TECSULT. 2011. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi de la couverture de glace (hiver 2009-2010).* 51 p. et ann.
Réf. 2 - GROUPE-CONSEIL LASALLE INC. 2011. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi de la couverture de glace pendant l'hiver 2010-2011*. 82 p. et ann.
Réf. 3 - GROUPE-CONSEIL LASALLE INC. 2011. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi de la couverture de glace pendant l'hiver 2011-2012*. 121 p. et ann.
Réf. 4 - Consortium Waska Genivar, 2012. Suivi de l'utilisation du territoire par les Cris 2010-2011, Pagination multiple et annexes.

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Complément d'information

Communauté : Waskaganish

Intervenant : Ian Diamond

Objet du commentaire : ***Modification de la couverture de glace dans la baie de Rupert***

Selon l'intervenant, suite à la réduction de débit dans la Rupert, la couverture de glace à l'interface entre la baie et la rivière serait humoquée rendant les déplacements plus difficiles.

Informations complémentaires :

Les observations réalisées dans le cadre du suivi de la couverture de glace dans la baie corroborent la description de la dynamique des glaces exposée dans l'étude d'avant-projet. Celle-ci est avant tout contrôlée par la température de l'air, les courants de marée et les vents et n'est pas affectée par la dérivation partielle de la Rupert (Réf. 1 et 2).

La mise en place de la couverture de glace dans la baie de Rupert s'amorce par la formation d'une bande de glace côtière de quelques centaines de mètres de largeur sur les estrans où les courants faibles permettent la formation rapide d'une glace lisse.

Au large de cette bande, la glace en formation est constamment en mouvement au début de l'hiver sous l'effet combiné du vent et des marées. Les vents d'ouest poussent la glace et l'accumulent en hummocks contre la bande côtière déjà formée. Ce mécanisme se poursuit tant que l'amplitude de la marée n'est pas réduite par la formation de la banquise côtière dans la baie James. Les glaces dérivant au centre de la baie de Rupert s'immobilisent et forment un champ de glace qui n'est jamais lisse du fait de son mode de formation.

Action :

Aucune.

Références :

Réf. 1 - AECOM TECSULT. 2011. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi de la couverture de glace (hiver 2009-2010).* 51 p. et ann.

Réf. 2 - GROUPE-CONSEIL LASALLE INC. 2011. Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation *Rupert. Suivi de la couverture de glace pendant l'hiver 2010-2011. 82 p. et ann.*

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Complément d'information

Communauté : Waskaganish

Intervenant : Ian Diamond

Objet du commentaire : ***Construction d'un seuil au PK 5***

L'intervenant croit nécessaire la construction d'un ouvrage hydraulique au PK 5 pour rehausser les niveaux d'eau à l'amont et faciliter la navigation.

Informations complémentaires :

La réduction des débits dans la Rupert a rendu plus difficile la navigation dans la section de la rivière comprise entre les PK 5 et 20. Toutefois, en collaboration avec le maître de trappage du terrain R11, des passages navigables ont pu être identifiés dans les sections les plus difficiles. À l'été 2012, un balisage de ces corridors a été réalisé par la communauté avec l'aide de la SEBJ. Ce balisage a été apprécié des utilisateurs. Signalons que l'Entente sur la réappropriation comprend des fonds pour la mise en place annuelle de ce balisage (Réf. 1).

De plus, les trois campements situés dans ce tronçon de la rivière ont été relocalisés en 2012 pour pallier aux difficultés d'approche de la rive en embarcation.

Actions :

Aucune.

Référence :

Réf. 1 - GENIVAR. 2011. *Suivi des conditions de navigation. Secteur des rivières Rupert, Lemare et Nemiscau 2010. Lots 2 à 4. Décembre 2011*. 103 p. et annexes.

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Complément d'information

Communauté : Waskaganish

Intervenant : James Jonah (maître de trappage de R9) et autres

Objet du commentaire : ***Accès à l'aide ou aux fonds pour les utilisateurs qui se disent impactés mais dont les terrains de trappage ne bordent pas la rivière Rupert***

Informations complémentaires :
Les fonds issus des conventions et ententes entre Hydro-Québec et les Cris sont gérés par deux sociétés :

- la Société Eeyou de la Baie James ;
- la Société Niskamoon.

Les deux sociétés considèrent que tous les Cris sont impactés par le développement hydroélectrique qui a lieu sur le territoire de la Baie James depuis 1975.

Société Eeyou de la Baie James
La Société Eeyou de la Baie James, créée en 1987 dans la foulée de la *Convention La Grande 1986*, a succédé à la SOTRAC, issue de la *Convention de la Baie James et du Nord-Québécois.* Au 31 mars 2012, le capital de cette société s'élevait à plus de 175 M$ et elle avait versé pour le bénéfice de tous les Cris et communautés cries plus de 330 M$ depuis sa création.

Société Niskamoon
La Société Niskamoon gère les fonds issus des conventions et ententes suivantes :

- *Convention Opimiscow*
- *Convention Nadoshtin*
- *Convention Boumhounan*
- *Convention sur le mercure (2001)*
- *Entente concernant l'emploi des Cris*
- *Convention concernant une nouvelle relation entre Hydro-Québec/SEBJ et les Cris de Eeyou Istchee*
- *Entente concernant la réappropriation du territoire visé par le projet de l'Eastmain-1-A/Sarcelle/Rupert*

Depuis 2002, plus de 280 M$ ont été versés pour le bénéfice des Cris et des communautés cries.

Il est à noter que le fonds Hydro-Québec/Eeyou issue de la *Convention concernant une nouvelle relation entre Hydro-Québec/SEBJ et les Cris de Eeyou Istchee* est indexé et versé annuellement tant et aussi longtemps que le complexe La Grande sera en opération pour le bénéfice de tous les Cris et de toutes les communautés cries.

Le fonds d'utilisation continue et de réappropriation issu *de l'Entente concernant la réappropriation du territoire visé par le projet de l'Eastmain-1-A/Sarcelle/Rupert* est indexé annuellement et est versé pour le bénéfice des Cris et des communautés cries de Waskaganish, Nemaska et Mistissini, tant et aussi longtemps que la dérivation Rupert sera en opération.

Eastmain-1-A, Sarcelle et dérivation Rupert
Consultation de la population crie
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Bien que la société Niskamoon considère que tous les Cris de la Baie James sont impactés par le développement hydroélectrique, elle distingue :

- *les terrains de trappage directement impactés, soit :*
  tout terrain de trappage qui accueille une infrastructure physique d'Hydro-Québec comme par exemple : réservoir, barrage, digue, route, ligne, poste, station hydrométrique, rivière à débit augmenté, rivière à débit réduit etc. ;

- *les terrains de trappage indirectement impactés, soit :*
  tous les autres terrains de trappage qui n'ont pas dans leurs limites des infrastructures d'Hydro-Québec.

Dans sa prise de décision à l'effet d'accepter ou non un projet soumis par un utilisateur cri du territoire, la Société Niskamoon donne préséance aux trappeurs directement impactés. Ceux qui sont indirectement impactés voient leurs projets acceptés lorsqu'il reste suffisamment de fonds.

En conclusion :

- *Tous les Cris et toutes les communautés cries ont pu bénéficier de plus de 600 M$ de projets de toutes sortes, financés à même les Fonds provenant d'Hydro-Québec.*
- *Tous les Cris et toutes les communautés cries continueront de recevoir de tels bénéfices tant et aussi longtemps que les installations d'Hydro-Québec seront en opération.*

Action :

Aucune.

Référence :

Hydro Québec

Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert

Consultations de la population crie - Novembre 2012
Complément d'information

Section 4 - Eastmain

DATE ET HEURE	Le jeudi 15 novembre 2012; 18 h 30 à 22 h 35	
LIEU	Bureaux du Conseil de bande d'Eastmain	
ASSISTANCE	Près de 25 personnes (au plus fort) ont assisté à cette séance	
MÉDIAS	Aucun	
ÉQUIPE HQ/SEBJ	**Panel :** Céline Belzile, porte-parole René Dion André Tessier Johnny Saganash Lloyd Mayappo **Gestion :** Jean Matte et Philippe Mora	**Personnes-ressources :** Réal Courcelles Réjean Gagnon Pierre Vaillancourt Nicolas Noell Jimmy Lavoie
ÉQUIPE COMEX	Pierre Mercier, président Philip Awashish Daniel Berrouard Brian Craik Robert Lemieux	**Personnes-ressources :** Pierre-Michel Fontaine Marie-Michèle Tessier
RÉSUMÉ DE LA SÉANCE	Les intervenants ont posé quelques questions, sur des sujets variés, notamment sur les impacts des projets hydroélectriques pour les terrains côtiers. La soirée a commencé par un court mot de bienvenue du vice-chef de la nation crie d'Eastmain, Johnny Tomatuk, au cours duquel il a remercié les représentants du COMEX et d'Hydro-Québec d'être présents. Il a également souligné que les travaux ont eu des impacts sociaux et environnementaux majeurs sur la communauté et a invité les gens à venir prendre la parole pour exprimer ces impacts. Les intervenants étaient des maîtres de trappage et des usagers du territoire d'Eastmain. Neuf (9) personnes ont témoigné. Leurs interventions, pour la plupart, comportaient peu de questions sur le projet.	
PRINCIPAUX SUJETS D'INTERVENTION	➢ Le manque de fonds pour des travaux correcteurs ➢ La disparité du soutien reçu entre les utilisateurs côtiers et les maîtres de trappage impactés ➢ Les impacts des projets hydroélectriques sur les territoires côtiers et sur les terrains de trappage directement touchés ➢ L'état actuel de la chasse, de la migration des oiseaux et de la faune en général	

MAÎTRES DE TRAPPAGE	**Présents :** ➢ Ernie Moses, RE1 ➢ Roderick Mayappo, VC35 ➢ Thomas Mayappo, VC34	**Absents :** ➢ Ted Moses, VC37
AUTRES PRÉSENCES À SOULIGNER :	➢ Johnny Tomatuk, vice-chef de la nation crie d'Eastmain ➢ Marjorie Weapenicappo, présidente de l'Association locale des trappeurs	
ENGAGEMENTS	➢ Aucun	

Eastmain-1-A, Sarcelle et dérivation Rupert
Consultation de la population crie
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Complément d'information

Communauté : Eastmain

Intervenant : Ernie Moses, maître de trappage RE1

Objet du commentaire : ***Modification de la couverture de glace sur la rivière Eastmain et perte d'accès à la rive nord***

La mise en service de la centrale de l'Eastmain-1 et plus récemment celle de l'Eastmain-1-A a eu pour effet de modifier la couverture de glace sur le tronçon de la rivière Eastmain en aval des centrales et de rendre impraticables les trajets de motoneige empruntés antérieurement.

Informations complémentaires :

La modification de la couverture de glace sur le tronçon de la rivière Eastmain à l'aval des centrales de l'Eastmain (PK 204) s'est amorcée dès la mise en service de la centrale de l'Eastmain-1 en 2006. Les forts débits turbinés et la hausse de la température de l'eau empêchent la formation du couvert de glace jusqu'aux environs du PK 190. Plus en aval, les conditions de la couverture sont changeantes et la prudence est de mise. Le suivi de la couverture de glace effectué dans le cadre de ce projet a toutefois permis d'établir qu'une traversée de motoneige sécuritaire peut être empruntée dans les environs du PK 170 du réservoir Opinaca (ancien parcours de la rivière Eastmain).

Le maître de trappage a identifié un site de traversée au PK 173 de l'Eastmain. Ce site a été retenu comme lieu d'échantillonnage pour les fins du suivi de la couverture de glace réalisé dans le cadre du projet de l'Eastmain-1-A.

Les relevés effectués entre 2010 et 2012 montrent qu'entre janvier et mars, les épaisseurs de glace au site de cette traversée sont largement sécuritaires (plus de 20 cm) pour la circulation en motoneige. L'exploitation des centrales n'a pas d'effet sur l'épaisseur de la couverture de glace au site de cette traversée (Réf. 1 à 3). Le maître de trappage pourrait également traverser en amont du PK 207.

Actions : Aucune.

Références :

Réf. 1 - AECOM TECSULT. 2011. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi de la couverture de glace (hiver 2009-2010).* 51 p. et ann.

Réf. 2 - GROUPE-CONSEIL LASALLE INC. 2011. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi de la couverture de glace pendant l'hiver 2010-2011*. 82 p. et ann.

Réf. 3 - GROUPE-CONSEIL LASALLE INC. 2012. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi de la couverture de glace pendant l'hiver 2011-2012. 121 p. et ann.*

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Complément d'information

Communauté : Eastmain

Intervenant : Thomas Mayappo – Maître de trappage du terrain VC34

Objet du commentaire : ***Diminution des populations d'oies (bernache du Canada) en bordure du réservoir Opinaca lors des migrations***

Le maître de trappage s'inquiète des impacts du projet sur la faune, notamment sur la population d'oies.

Informations complémentaires :

Lors des inventaires des populations de la bernache du Canada en 2009 et en 2011, au périmètre du réservoir Opinaca, on a observé respectivement plus de 62 000 et 49 000 bernaches en migration au printemps (Ref.1 et 2).

Les changements observés dans le nombre d'individus dénombrés au printemps 2011 seraient causés par la présence importante de glace sur les grands plans d'eau. Ceci a réduit les possibilités d'alimentation et aurait ainsi modifié les axes de déplacements de la bernache dans ce secteur.

De plus, selon le *United States Fish and Wildlife Service*, lequel recense régulièrement les populations de bernaches, celles-ci seraient demeurées à toutes fins utiles identiques, soit plus d'un million d'individus en 2009 et 2011.

Soulignons que le maître de trappage du terrain VC 34 a affirmé lors des entrevues réalisées dans le cadre du suivi de l'utilisation du territoire que la chasse en 2011 avait été meilleure qu'auparavant.

Action :

Le programme de suivi de la bernache du Canada se poursuivra en 2014 et 2021.

Références :

Réf. 1 : AECOM TECSULT. 2010. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi de la sauvagine 2009. Inventaire de la bernache du Canada. Périodes de migration printanière et de mue dans les biefs Rupert et le réservoir Opinaca.* 45 p. et ann.

Réf. 2 : KAWESHEKAMI ENVIRONNEMENT INC. 2012. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi de la sauvagine 2011. Suivi environnemental en phase exploitation. Inventaire de la bernache du Canada. Rapport préliminaire présenté à Hydro-Québec Production.38* p. et ann.

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Complément d'information

Communauté : Eastmain

Intervenant : Ernie Moses, Maître de trappage du terrain RE1

Objet du commentaire : ***Population d'esturgeon jaune de la rivière Eastmain entre les PK 193 et 217***
M. Moses estime que la population d'esturgeon jaune de la rivière Eastmain est en baisse et, selon lui, les frayères aménagées (PK 203 et 207) et la passe migratoire au PK 207 ne sont pas efficaces.

Informations complémentaires :

Population d'esturgeons de la rivière Eastmain
Selon le savoir traditionnel cri, l'esturgeon jaune n'était pas présent dans la rivière Eastmain, en amont de son point de coupure (barrage OA-11), avant la mise en service du détournement Eastmain-Opinaca-La Grande (1984). Les premières mentions d'esturgeons jaunes dans la rivière Eastmain ont été rapportées par des Cris d'Eastmain en 1992 après la création du réservoir Opinaca et ils provenaient alors vraisemblablement de la rivière Opinaca.

Utilisation des frayères à esturgeon
La fermeture complète de la rivière Eastmain au PK 217 dans le cadre du projet de l'Eastmain-1-A−Sarcelle−Rupert a entraîné un assèchement du tronçon de la rivière immédiatement à l'aval du barrage et la perte de la frayère à esturgeon au PK 215 de l'Eastmain. En compensation de la perte de cette frayère, trois frayères à esturgeon ont été aménagées : l'une en amont du seuil du PK 207, située au PK 0,8 de la rivière à l'Eau Claire, les deux autres en aval, soit au pied du seuil (PK 207) et l'autre au PK 203 de l'Eastmain. Les résultats du suivi de ces frayères montrent que l'esturgeon jaune utilise la frayère à l'aval du PK 207. Les deux autres frayères ont été utilisées par différentes espèces de poisson mais pas par l'esturgeon jusqu'à présent.

Efficacité de la passe migratoire du seuil du PK 207
Un suivi de la passe migratoire est effectué durant les périodes libres de glace (mai à octobre) depuis 2007. Dans le cadre de ce suivi, des esturgeons ont été munis d'émetteurs. Les résultats du suivi de cet aménagement ont révélé que l'esturgeon peut franchir la passe mais jusqu'à présent seulement quelques individus marqués l'ont franchie. Il est à préciser que de 2008 à 2010, d'autres espèces ont aussi franchi avec succès la passe migratoire, soit le meunier noir, le meunier rouge, le grand brochet et le doré jaune. Par contre, il est probable que, suite à la mise en service de la centrale de l'Eastmain-1-A, les niveaux d'eau à l'aval de la passe migratoire seront plus élevés et rendront plus facile le franchissement de la passe par l'esturgeon.

Action : Le suivi de la passe migratoire du PK 207 se poursuivra jusqu'en 2016.

Référence :
Environnement Illimité Inc. 2011. Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert – Suivi de l'esturgeon jaune au PK 207 de la Rivière Eastmain en 2010. Rapport produit par Burton, F., G. Tremblay et M. Simoneau présenté à Hydro-Québec Production. 48 pages.

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Complément d'information

Communauté : Eastmain

Intervenant : Ernie Moses – Maître de trappage du terrain RE1

Objet du commentaire : ***Possibilité de récupérer des roulottes du chantier pour les installer dans la communauté***

Le maître de trappage dit qu'Hydro-Québec devrait lui donner des équipements, dont des roulottes de chantier, pour une somme symbolique de 1 $. Il les donnerait ensuite à sa communauté.

Informations complémentaires :

Les roulottes de chantier, dont Hydro-Québec n'a plus besoin et qui sont déclarées excédentaires, doivent être mises en vente selon des règles de gestion bien établies. Ces règles de gestion ont été définies dans la *Convention Nadoshtin* et reprises dans la *Convention Boumhounan*.

La procédure et l'ordre de préséance pour l'acquisition des biens excédentaires ont été précisés par la Société Niskamoon et appliquée par la SEBJ.

Cette procédure a été présentée au Comité de suivi en juin 2011. De plus, le conseiller cri responsable de son application a rencontré à plusieurs reprises les Conseils de bande des diverses communautés et les maîtres de trappage pour leur expliquer la procédure et les informer des biens excédentaires disponibles. Enfin, un site Internet avec photos des équipements a aussi été mis en onde pour faciliter la diffusion et l'accessibilité de l'information dans les communautés.

Lorsque qu'Hydro-Québec déclare un bien excédentaire, elle doit d'abord l'offrir au prix raisonnable du marché et les Cris ont alors 60 jours, à partir de la date de l'avis de mise en vente, pour s'entendre avec Hydro-Québec.

L'ordre de préséance est le suivant et, à titre d'exemple, pour les biens excédentaires du campement de l'Eastmain :

1. le maître de trappage du terrain RE1, où se situe le campement, a la priorité ;
2. les Cris et entités cries de la communauté d'Eastmain viennent ensuite.

Action :
Aucune.

Référence :

CONVENTION NADOSHTIN. 2002. *Chapitre 16 - Droit de premier refus sur les biens excédentaires d'Hydro-Québec.* 101 p.

CONVENTION BOUMHOUNAN. 2002. *Chapitre 15 - Autres dispositions, article 15,8 - Biens excédentaires.* 97 p.

Hydro Québec

Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert

Consultations de la population crie - Novembre 2012
Complément d'information

Section 5 - Wemindji

DATE ET HEURE	Le mardi 20 novembre 2012; 18 h 55 à 23 h 15	
LIEU	Bureaux du Conseil de bande de Wemindji	
ASSISTANCE	Environ 12 personnes (au plus fort) ont assisté à cette séance	
MÉDIAS	Eleonore Cohen, The Nation	
ÉQUIPE HQ/SEBJ	**Panel :** Céline Belzile, porte-parole René Dion André Tessier Johnny Saganash Lloyd Mayappo **Gestion :** Jean Matte et Philippe Mora	**Personnes-ressources :** Réal Courcelles Réjean Gagnon Pierre Vaillancourt Nicolas Noell
ÉQUIPE COMEX	Pierre Mercier, président Philip Awashish Daniel Berrouard Brian Craik Robert Lemieux	**Personnes-ressources :** Pierre-Michel Fontaine Marie-Michèle Tessier
RÉSUMÉ DE LA SÉANCE	La majorité des interventions ont été faites par les utilisateurs du terrain de trappage VC23. Plusieurs commentaires relevaient du complexe La Grande. L'intervention de James Shashaweskum (VC21) était la seule qui avait un lien direct avec le projet. Cinq (5) personnes ont fait huit (8) interventions qui pour la plupart, comportaient peu de questions, mais plutôt des témoignages.	
PRINCIPAUX SUJETS DES INTERVENTIONS	➢ Les changements relatifs à leur mode de vie traditionnel et à la faune ➢ L'ouverture du territoire et la présence de non-autochtones ➢ Les impacts liés au complexe La Grande ➢ La disparition de l'esturgeon dans une section de la rivière Opinaca en aval du barrage OA-05 ➢ Les niveaux d'eaux et les conditions de glace ➢ Les impacts des lignes de transport d'électricité ➢ La sécurité des gens de la communauté	
MAÎTRES DE TRAPPAGE	**Présents :** ➢ Roderick Georgekish, VC23 ➢ James Shashaweskum, VC21	**Absents :** ➢ Famille Visitor, VC20 ➢ Ronnie Georgekish, VC22 ➢ Frank Visitor, VC28
AUTRES PRÉSENCES À SOULIGNER :	➢ Aucune	
ENGAGEMENTS	➢ Aucun	

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Communauté : Wemindji

Intervenant : James Shashaweskum - Maître de trappage du terrain VC21

Objet du commentaire : ***Présence de débris ligneux dans certaines baies du lac Sakami et possibilités de ramassage complémentaire***

Le maître de trappage a noté la présence d'arbres morts et de débris ligneux au fond de plusieurs baies du lac Sakami situées sur son terrain de trappage et a demandé ce que la SEBJ/HQ envisageait de faire.

Informations complémentaires :

L'objectif principal du programme de ramassage des débris ligneux des lacs Boyd et Sakami était de s'assurer que les couloirs de navigation empruntés par les maîtres de trappage sur ces deux lacs ainsi que les points principaux de desserte étaient sécuritaires et libres de débris ligneux. Il s'agissait donc d'un programme de ramassage sélectif à des fins de navigation spécifiquement.

C'est avec cet objectif que, en juin 2009, les spécialistes HQ/SEBJ ont rencontré les maîtres de trappage dont les terrains recoupent les lacs Boyd et Sakami afin qu'ils identifient les corridors de navigation qu'ils utilisent sur ces lacs ainsi que les endroits qu'ils desservent, notamment les sites de campement. Ils ont survolés l'ensemble de ces corridors et identifiés dix sites où un programme de ramassage de débris ligneux était requis pour faciliter l'accès ou améliorer la sécurité de navigation. Quatre des dix sites d'intérêt ont été identifiés sur le terrain VC21 par le maître de trappage, M. Shashaweskum. Les travaux ont été exécutés en 2010 par l'entrepreneur désigné par ce dernier.

Par ailleurs, en juillet 2012, une carte de navigation a été publiée qui illustre les différents corridors de navigation du lac Sakami, tels qu'ils avaient été déterminés par les maîtres de trappage en 2009, mais en y indiquant les obstacles ou dangers présents dans leur voisinage. La caractérisation détaillée de ces corridors, faite lors d'une campagne de navigation en 2011 en compagnie des maîtres de trappage ou de leur représentant, a permis de démontrer qu'aucun programme de ramassage des débris n'était nécessaire pour assurer la sécurité de la navigation ou permettre l'accès aux sites de campements présents sur les rives (Réf. 1 à 3).

Action :

Aucun autre programme de ramassage n'est prévu, l'ensemble des corridors de navigation étant libre de débris et sécuritaire.

Références :

Réf. 1 : HYDRO-QUÉBEC PRODUCTION ET SOCIÉTÉ D'ÉNERGIE DE LA BAIE JAMES (SEBJ). 2012. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi des conditions de navigation du secteur à débit augmenté. Juillet 2012*. 41 p. et ann.
Réf. 2 : HYDRO-QUÉBEC PRODUCTION ET SOCIÉTÉ D'ÉNERGIE DE LA BAIE JAMES (SEBJ). 2012. *Eastmain-1-A/Sarcelle/Rupert Project. Navigation Corridors - Lac Sakami North.* July 2012.
Réf. 3 : HYDRO-QUÉBEC PRODUCTION ET SOCIÉTÉ D'ÉNERGIE DE LA BAIE JAMES (SEBJ). 2012. *Eastmain-1-A/Sarcelle/Rupert Project. Navigation Corridors - Lac Sakami South.* July 2012.

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Communauté : Wemindji

Intervenant : James Shashaweskum, maître de trappage du terrain VC21

Objet du commentaire : ***Modification de la couverture de glace du lac Sakami au site d'une traversée en motoneige***

L'augmentation des débits suite à la dérivation de la Rupert a modifié la couverture de glace du lac Sakami au site d'une traversée située au PK 50, ce qui rend nécessaire la vérification préalable de la couverture de glace avant de choisir d'emprunter cet itinéraire pour rejoindre les campements situés en rive est du lac.

Informations complémentaires :

Le site de la traversée du PK 50 sur le lac Sakami fait environ 5 km de longueur. Après consultation du maître de trappage, il a été retenu comme lieu d'échantillonnage pour les fins du suivi de la couverture de glace.

Les résultats des relevés montrent que, de janvier à mars, l'épaisseur de la glace y est sécuritaire pour la circulation en motoneige. De plus, l'état de la couverture de glace sur le lac Sakami est surtout influencé par les conditions météorologiques et non par l'augmentation du débit découlant du projet (Réf. 1 à 4).

Signalons qu'en plus de pouvoir faire appel à ses connaissances traditionnelles, le maître de trappage a reçu une formation sur l'évaluation de la qualité du couvert de glace.

Par ailleurs, pour lui permettre d'atteindre ses campements sans avoir à emprunter cette traversée du PK 50 du lac Sakami, la SEBJ a aménagé un sentier de motoneige d'une quarantaine de kilomètres en rive est du lac à partir de la route Transtaïga.

Action : Aucune.

Références :

Réf. 1 : AECOM TECSULT. 2011. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi de la couverture de glace (hiver 2009-2010).* 51 p. et ann.

Réf. 2 : GROUPE-CONSEIL LASALLE INC. 2011. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi de la couverture de glace pendant l'hiver 2010-2011*. 82 p. et ann.

Réf. 3 : GROUPE-CONSEIL LASALLE INC. 2012. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi de la couverture de glace pendant l'hiver 2011-2012*. 121 p. et ann.

Réf. 4 : HYDRO-QUÉBEC PRODUCTION ET SOCIÉTÉ D'ÉNERGIE DE LA BAIE JAMES (SEBJ). 2012. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Bilan des mesures d'atténuation et de mise en valeur. Volume 5 - Wemindji.* Avril 2012, 77 p.

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Communauté : Wemindji

Intervenant : James Shashaweskum, maître de trappage du terrain VC21

Objet du commentaire : ***Taux de mercure dans la chair des poissons des lacs Boyd et Sakami***

Monsieur Shashaweskum s'inquiète de ne pas avoir passé de test quant à son taux de mercure dans les cheveux. Il dit qu'il a participé à toutes les études des milieux biophysiques qui se sont déroulées sur son territoire et ses environs. Il se dit incrédule quant aux conclusions des études et se questionne sur l'absence d'interdiction concernant la consommation de poisson, spécialement pour les lacs Boyd et Sakami.

Informations complémentaires :

Tel que mentionné à l'étude d'impact du projet EM-1-A-Rupert, il n'est pas prévu que les aménagements des biefs Rupert et des centrales de l'Eastmain-1-A et de la Sarcelle augmentent les teneurs en mercure des poissons des lacs Boyd ou Sakami.

Les derniers résultats de suivi datant de 2008 indiquent que les teneurs en mercure des poissons prédateurs (grands brochets et dorés) du lac Sakami étaient encore relativement élevées à cause des aménagements de la phase I du complexe La Grande. Les teneurs n'étaient pas encore revenues aux valeurs initiales. Selon les mesures de 2008, la consommation de grands corégones du lac Sakami est sans restriction, alors que des maxima de deux et un repas par mois sont respectivement recommandés pour les dorés et les grands brochets du lac Sakami.

Un nouveau guide de consommation de poissons pour l'ensemble du complexe La Grande, incluant les lacs Boyd et Sakami, sera produit et diffusé, en 2013, en collaboration avec le Conseil cri de la santé et des services sociaux de la Baie-James. Les recommandations de consommation de poissons qui y seront suggérées seront basées sur les mesures effectuées à l'été 2012. La version anglaise de ce guide sera distribuée à toutes les familles cries et des versions françaises et cries seront également disponibles.

La consommation de poissons des réservoirs et lacs naturels ne constitue pas un risque à la santé à condition de respecter les guides de consommation spécifiques au lieu de pêche.

Action :

Mise à jour et diffusion du guide en collaboration avec le Conseil Cri de la santé et services sociaux en 2013.

Référence :

GÉNIVAR et HYDRO-QUÉBEC. 2010. *Aménagement hydroélectrique de l'Eastmain-1. Suivi environnemental en phase exploitation (2009). Suivi du mercure dans la chair des poissons.* Rapport conjoint d'Hydro-Québec et de Génivar en commandite. 45 p. et ann.

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Communauté : Wemindji

Intervenant : Johnny Georgekish

Objet du commentaire : ***Manque d'agents du MRN pour la surveillance de la chasse sportive***

Monsieur Georgekish s'est dit préoccupé par le manque d'agents de protection de la faune et la difficulté à signaler des infractions pour qu'on puisse y donner suite dans des délais raisonnables.

Informations complémentaires :

Dans la cadre de la *Convention Nadoshtin*, la Société Weh-Sees Indohoun a été mise sur pied pour assurer, en collaboration avec le Ministère des Ressources Naturelles et de la Faune (MRN), une saine gestion des ressources fauniques. En plus des activités de cette Société, Hydro-Québec a financé les activités des agents de protection de la faune du MRN dans le territoire de la société Weh-Sees Indohoun. Les activités de la Société ont été reconduites dans le cadre de la *Convention Boumhounan*. La Société sera dissoute en 2014, soit un an après la mise en service de la centrale de la Sarcelle.

Les activités des agents de la protection de la faune associées à la zone gérée par la société Weh-Sees Indohoun se déroulent tout au cours de l'année. Une présence permanente d'un minimum de deux agents de protection de la faune est prévue pour ces activités et ils résident au campement de l'Eastmain. Ces agents peuvent être rejoints en tout temps par l'entremise du personnel des bureaux de la société Weh-Sees Indohoun ou par la ligne SOS - Braconnage du MRN.

Par ailleurs, soulignons que le Conseil d'administration de la société Weh-Sees Indohoun s'assure, dans le cours de ses activités normales, de transmettre aux agents de protection de la faune les observations et préoccupations des utilisateurs cris lorsque ceux-ci en font part à leurs représentants.

La SEBJ et le Service de Protection de la faune du gouvernement du Québec sont au courant du nombre de chasseurs dans la région de la Sarcelle durant la période de chasse à l'orignal. Aussi, le Service de Protection de la faune assure une surveillance accrue dans ce secteur durant cette période.

Action :
Aucune.

Référence :

Hydro Québec

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Section 6 - Chisasibi

Mise en contexte

DATE ET HEURE	Le mardi 13 novembre 2012; 19 h à 00 h 30	
LIEU	Auditorium de l'édifice Mitchuap de Chisasibi	
ASSISTANCE	Environ 40 personnes (au plus fort) ont assisté à cette séance	
MÉDIAS	Aucun	
ÉQUIPE HQ/SEBJ	**Panel :** Céline Belzile, porte-parole René Dion André Tessier Johnny Saganash Lloyd Mayappo **Gestion :** Jean Matte et Philippe Mora	**Personnes-ressources :** Réal Courcelles Réjean Gagnon Pierre Vaillancourt Nicolas Noell
ÉQUIPE COMEX	Pierre Mercier, président Philip Awashish Daniel Berrouard Brian Craik Robert Lemieux	**Personnes-ressources :** Pierre-Michel Fontaine Marie-Michèle Tessier
RÉSUMÉ DE LA SÉANCE	Les intervenants posaient peu de questions, mais témoignaient plutôt d'impressions négatives liées au complexe La Grande et non relatives au projet de l'Eastmain-1-A-Sarcelle-Rupert. Les intervenants étaient des usagers du territoire de Chisasibi. Dix-huit (18) personnes sont intervenues, pour un total de 23 interventions. La soirée a commencé par une présentation du chef Davey Bobbish au cours de laquelle il a mentionné que le territoire a changé et qu'ils sont là pour en discuter.	
PRINCIPAUX SUJETS D'INTERVENTIONS	➢ La zostère ➢ La chasse à l'oie ➢ Les dépôts d'algues sur les roches en bordure de la rivière ➢ La qualité de l'eau ➢ La santé des gens de la communauté ➢ Les niveaux d'eau ➢ La fragilité de la glace sur la rivière La Grande ➢ L'impact des lignes de transport sur les animaux ➢ La consommation de poisson dans les réservoirs ➢ Le soutien à la communauté ➢ La sécurité des ouvrages	
MAÎTRES DE TRAPPAGE	**Présents :** ➢ John E. Sam, CH33	**Absents :** ➢ Josie Sam, CH35
AUTRES PRÉSENCES À SOULIGNER :	➢ Dr Matthew Coon Come, grand chef, Grand Conseil des Cris ➢ John Paul Murdoch, secrétaire exécutif, Grand Conseil des Cris ➢ Davey Bobbish, chef de Chisasibi	

ENGAGEMENTS	➢ La SEBJ reviendra dans un délai rapide avec les données de 2000 sur les débits. ➢ La SEBJ donnera davantage d'informations sur les algues observées sur les berges de la Grande Rivière.

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Communauté : Chisasibi

Intervenants : William Chishkamish / Conrad Bearskin

Objet du commentaire : ***Présence d'algues vertes dans la Grande Rivière***

Messieurs Chishkamish et Bearskin s'inquiètent de la présence d'algues vertes dans la Grande Rivière en amont de la communauté de Chisasibi et pensent que la pollution est une cause potentielle. Ces algues se retrouvent notamment sur les roches en rive et les rendent glissantes.

Informations complémentaires :

En 2011, M. Chiskamish avait soulevé la question de la présence d'algues vertes lors d'une réunion du Comité conjoint HQ/SEBJ – Nation crie de Chisasibi (*Chisasibi Working Group*). Cependant, en 2012, il mentionnait qu'il n'avait pas noté ce phénomène.

Complexe La Grande phases I et II

Les études environnementales au complexe La Grande ont montré que l'élément nutritif limitant pour les algues sur le territoire de la Baie-James est habituellement le phosphore. Les données du Réseau de suivi environnemental (RSE) du complexe La Grande montrent, qu'à la suite de la mise en eau du réservoir Robert-Bourassa au début des années 1980, les teneurs en phosphore et en biomasse phytoplanctonique (algues en suspension dans l'eau) ont augmenté par un facteur d'environ 3 dans La Grande Rivière. Ces teneurs sont revenues aux valeurs initiales après une dizaine d'années, soit au début des années 1990. Par la suite, au milieu des années 1990, avait lieu la mise en eau du réservoir La Grande 1. Aucune augmentation significative du phosphore et de la biomasse phytoplanctonique n'a été notée car la superficie inondée était trop faible par rapport au grand volume d'eau y transitant.

La présence d'algues observée par MM. Chiskamish et Bearskin en 2011 ne serait donc pas due à l'aménagement des phases I et II du complexe La Grande puisque les teneurs en phosphore et biomasse phytoplanctonique étaient normales à cette période.

Eastmain-1-A, Sarcelle et dérivation Rupert

En ce qui concerne les aménagements du projet Eastmain-1-A-Rupert, une augmentation (par un facteur 3) des teneurs en phosphore a également été observée en 2007 dans le réservoir de l'Eastmain 1 et à son aval immédiat. Une présence d'algues a alors été observée à l'aval de la centrale de l'Eastmain-1. Cependant, dès 2008, les teneurs en phosphore étaient revenues équivalentes aux teneurs initiales et on n'a plus observé de présence d'algues en aval.

La présence d'algues observée par MM. Chiskamish et Bearskin en 2011 ne serait donc pas due au complexe La Grande, ni au projet de l'aménagement hydroélectrique de l'Eastmain-1, ni au projet de l'Eastmain-1-A−Sarcelle−Rupert mais possiblement aux changements climatiques.

Action : Aucune.

Référence :

HYDRO-QUÉBEC PRODUCTION. 2005. *Suivi environnemental du complexe La Grande. Rapport synthèse 1978-2000. Évolution de la qualité de l'eau.* Décembre 2005. 168 p. et ann.

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Communauté : Chisasibi

Intervenants : Roderick Pachanos, George Lameboy et autres

Objet du commentaire : ***Diminution des herbiers de zostères et baisse des captures de bernaches***

Messieurs Lameboy et Pachanos et autres ont fait part de leur insatisfaction quant aux conclusions du programme de suivi associé à la zostère. Ils souhaitent que des études indépendantes soient menées.

Informations complémentaires :
Lors des études relatives au projet de développement du Complexe La Grande (phase I), il avait été convenu de suivre l'évolution des herbiers de zostère à six stations permanentes sur la côte est de la baie James, réparties de part et d'autre de l'embouchure de La Grande Rivière (entre Waskaganish et Cap Hope Islands). Des cartes de distribution ont été produites lors des études de suivi de 1974-1975, 1986-1987 et 1995-1996. Lors du suivi de 1998, un important déclin des herbiers de zostère a été observé.

Dans le cadre du projet de l'Eastmain-1-A−Sarcelle−Rupert, un programme visant à suivre l'évolution des herbiers s'est déroulé en 2009 et en 2011.

Principales conclusions du rapport de suivi 2011 (mai 2012)

- Une tendance à l'augmentation du recouvrement est observée depuis 2004 ;
- le rétablissement de la zostère ne se fait pas de façon uniforme ;
- une prolifération d'algues épiphytes est notée ;
- les spécialistes HQ et les utilisateurs cris ont des avis différents sur les causes possibles du déclin de la zostère depuis 1998 ;
- les Cris associent fortement la présence d'oies migratrices (bernache cravant, oie des neiges et bernache du Canada) aux herbiers de zostères.

Lors d'un atelier tenu à Chisasibi en 2009, des représentants du Service Canadien de la faune ont présenté un bilan des connaissances acquises sur les diverses populations d'oies migratrices. En résumé :

- aucune des populations d'oies chassées par les Cris n'est en déclin ;
- leur présence des oies sur la côte de la Baie James, en moins grand nombre que dans les années 70, s'explique principalement par des changements dans leur patron de migration ;
- les changements résultent de la multiplication des aires d'alimentation aménagées sur leur parcours migratoire pour limiter les dommages causés aux cultures par les oies.

Les participants cris à cet atelier ne partageaient vraisemblablement pas ces constats.

Action Le programme de suivi de la zostère se poursuivra en 2014 et 2019.

Référence :
GENIVAR. 2010. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi de la zostère marine de la côte nord-est de la Baie James. État de référence 2009*. 54 p. et ann.
CONSORTIUM WASKA-GENIVAR. 2011. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi de la zostère marine de la côte nord-est de la Baie James. Rapport d'étude 2011*. 57 p. et ann.

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Communauté : Chisasibi

Intervenant : Willard Napash

Objet du commentaire : ***Présence d'huile à la surface de l'eau à l'aval de La Grande 1***

Monsieur Napash, un travailleur cri d'Hydro-Québec, s'est dit préoccupé des fuites d'huiles possibles dans les installations et d'éventuels déversements d'huiles et produits qu'Hydro-Québec utilise et qui pourraient se trouver dans l'eau de la Grande Rivière, utilisée par la communauté de Chisasibi.

Informations complémentaires :

Hydro-Québec a une accréditation ISO 14001 depuis 2001. L'entreprise maintient des procédures lui permettant de surveiller et suivre ses activités opérationnelles qui comportent des aspects environnementaux notamment celles qui touchent l'utilisation d'huiles et graisses.

Plus particulièrement, La Grande 1 est une centrale avec des systèmes de traitements récents dont l'efficacité est suivie conformément aux exigences légales. Les eaux huileuses sont dirigées vers deux séparateurs eau/huile et les rejets sont conformes.

La centrale est aussi munie d'une fosse septique, avec pré-filtre et filtre intermittent à recirculation, dont les rejets sont mesurés périodiquement et sont en respect des lois et règlements.

Par ailleurs, des plans d'urgence en cas de déversement accidentel sont affichés, des points d'intervention sont identifiés, des équipements requis sont disponibles et le personnel est formé pour intervenir.

Enfin, un Comité de travail permanent, le *Chisasibi Working Group*, existe depuis 1997 et sert de mécanisme de communications et d'échanges entre Hydro-Québec et la communauté de Chisasibi. Son mandat est de discuter des problèmes de la communauté liés à l'exploitation des installations et rechercher, le cas échéant, des solutions acceptables pour les deux parties.

Action :
Aucune.

Référence :

APPENDIX V

Bibliography of follow-up studies conducted by Hydro-Québec for the Eastmain-1-A and Sarcelle Powerhouses and Rupert Diversion Project

Source: Hydro-Québec, 2013.

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Crees (The) of the Waskaganish First Nation. 2008. *Community Fishing Program and Registry along Rupert River Anadromous Lake Cisco and Lake Whitefish*. 26 p. plus appendices

Environnement Illimité. 2008. *Aménagement hydroélectrique de l'Eastmain-1. Suivi de l'esturgeon jaune et des aménagements pour l'ichtyofaune. Travaux 2007*. 124 p. plus appendices

Environnement Illimité. 2008. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi environnemental. Dérive larvaire de l'esturgeon jaune. État de référence (2007). Rivière Rupert (secteur à débit réduit)*. 62 p. plus appendices

Environnement Illimité. 2008. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi environnemental. État de référence. Suivi des juvéniles des espèces cibles dans la zone à débit réduit de la rivière Rupert. Travaux 2007*. 45 p. plus appendices

Environnement Illimité. 2007. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Évaluation du potentiel alimentaire pour l'esturgeon jaune dans le bief Rupert amont. Été 2006. Rapport final*. 28 p. plus appendices

Tecsult. 2008. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi environnemental 2007. Inventaire de la sauvagine dans le secteur des biefs Rupert*. 69 p. plus appendices

Tecsult. 2008. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Suivi environnemental 2007. Synthèse des connaissances sur le caribou forestier*. 67 p. plus appendices

Tecsult. 2006. *Centrale de l'Eastmain-1-A et dérivation Rupert. Inventaire de la sauvagine sur les rivières Broadback, Rupert, Eastmain, Opinaca et Petite rivière Opinaca*. 151 p. plus appendices

Social environment

CROP. 2008. *Centrales de l'Eastmain-1-A, de la Sarcelle et dérivation Rupert. Suivi des conséquences pour les travailleurs cris. Résultats de l'enquête 2007*. 43 p.

GENIVAR. 2008. *Centrales de l'Eastmain-1-A et de la Sarcelle et dérivation Rupert. Étude de suivi des activités de chasse et pêche sportives des travailleurs en 2007*. 49 p. plus appendices

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before diversion of the Rupert River,
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