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LA GRANDE ALLIANCE

ENGINEERING CONSULTING SERVICES

Transportation Infrastructure Program
Feasibility Study, Phase I
Cree Land Use Study - Waswanipi
Technical Report

Consultant Reference: LGA-1-WW-S-SCL-RT-0001-00

2024-03-27

Vision Eeyou Istchee
• Connect • Develop • Protect

Stantec ▮ DESFOR ▮ SYSTRA

with subconsultant KPMG

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Transportation Infrastructure Program Feasibility Study, Phase I

CREE LAND USE STUDY - WASWANIPI TECHNICAL REPORT

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1. INTRODUCTION

1.1 LA GRANDE ALLIANCE

La Grande Alliance (LGA) program is a plan to protect, connect and develop the Eeyou-Istchee Baie-James territory. It includes a study of a transport development that encompasses a renewal of existing Cree Community roads, the implementation of a north-south link Matagami to the James-Bay area and finally, a deep-sea port. It materialized in 2018 when the Grand Council of the Cree (GCC) and the Governement du Québec (GQ) signed a memorandum of understanding for the study. The study has involved the Cree First Nations communities from the beginning of the initiative to ensure community engagement, and respect for the traditional way of life and values. The study is overseen by the Cree Development Corporation (CDC) on behalf of the Cree Nation Government (CNG).

The CDC, on behalf of the GCC/CNG and the GQ, has been mandated to oversee the study. In turn, they have assigned Vision Eeyou Istchee (VEI), a consortium formed by STANTEC, DESFOR and SYSTRA, to carry out a Feasibility Study on the technical, socio-environmental and economic components in Phase I of the LGA infrastructure program, covering years 1-5 from the beginning of construction. The CDC appointed WSP to perform a pre-feasibility study of Phases II-III of the program (covering years 6-15 and subsequently years 16-30).

Phase I of LGA includes:

- Upgrades to the access roads between the Billy-Diamond Highway (BDH) and the Cree communities of Waskaganish, Eastmain and Wemindji.
- Upgrade to the access road between the Route du Nord (RDN) and the Cree community of Nemaska.
- Construction of a new secondary access road to Mistissini via the RDN.
- A railway line following, as much as possible, the Billy-Diamond Highway between the town of Matagami and KM257 (Rupert River bridge) of the Highway.
- A return to service for the railway line between Grevet (Lebel-sur-Quévillon) and Chapais (approximate distance of 225 km).
- Trans-shipment areas along the Billy-Diamond Highway and the Grevet-Chapais railway corridors, specifically one located at KM257.

Among the tasks to achieve the stated objectives of the Feasibility Study for Phase I — Infrastructure, a socio-environmental feasibility study was conducted. This study included a Cree Land Use Study among the communities potentially impacted by the proposed Infrastructures, including Waswanipi.

1.2 SOCIO-ENVIRONMENTAL FEASIBILITY STUDY

Development projects cannot be carried out without bringing changes in the environment and to the social environment. The James Bay and Northern Québec Agreement (JBNQA) was established in 1975 to ensure, among other things, that development in the Cree territory is carried out taking into account the protection of the environment and the maintenance of land use by Cree communities for the practice of their traditional activities. The JBNQA also provides a pathway for Cree in the decision-making as part of the environmental assessment process under Chapter 22 of the Agreement.

This Environmental and Social Feasibility Study is an important tool to guide future developers wishing to carry out the Phase 1 of La Grande Alliance. It is an innovative approach that plans to document, upstream of design by future proponents, the expectations and concerns of affected Cree communities, identify key potential land use conflicts

and propose solutions (avoid, mitigate, offset), anticipate key potential impacts and recommend mitigation measures.

The CDC made it clear from the beginning of the LGA process that they wanted local community involvement, and environmental and social criteria evaluated at the same level as technical and financial criteria in the infrastructure design and planning. To meet these principles, VEI did the following:

- Organised internal bi-weekly meetings and direct exchanges between colleagues to share relevant land use and environmental information with the other study teams as it was collected;
- Used an online database (interactive ArcGIS map) to make land use, environmental and technical data accessible to targeted team members:
- Organized a workshop, bringing together tallymen and engineers, to review the potential Billy-Diamond Highway railway alignment, and identify main issues;
- Accommodated the tallymen's recommendations as much as possible.
- Encouraged team members to communicate with the Cree Liaison Officers (CIOs) and have ad-hoc discussions with them.
- Prioritised Cree workers and companies in the organization of field campaigns.
- Invited tallymen and land users to meet the field crews and to participate in fieldwork.
- Reviewed and included information shared by the following organizations:
  - Cree Nation Government (Land Use Planning Commission, including the Protected Areas Working Group and Environment Department);
  - Aanischaaukamikw Cree Cultural Institute;
  - Cree Outfitting and Tourism Association;
  - Cree companies, Cree communities, and the CIOs.

1.3 CREE LAND USE STUDY

As part of the socio-environmental study, the mandate included a Cree land use study which covered each proposed infrastructure's study area. The Cree land use study's main goal is to document the land and resources use in the study areas, so as to better identify and understand potential risks, conflicts and opportunities related to the transportation infrastructures under study. More specific objectives of this research include:

- Collect traditional knowledge regarding the area to inform and improve the design of the potential infrastructures.
- Identify valued sites and sensitive areas to be protected from potential development.
- Gather concerns and recommendations in relation to the proposed infrastructure, as well as concerning the LGA process in general.
- Assess preliminary potential impacts from the construction and operation of the infrastructures.

- Identify any potential cumulative effects from previous project impacts as well as in light of the potential infrastructures.
- Propose solutions to potential conflicts and alternate options.

It is important to keep in mind the following limitations regarding this component of the study:

- Novelty of the Grande Alliance study and approach for land users for whom this consists of the first contact regarding the infrastructure components under study;
- Relatively short time allotted to conduct the interviews and the study;
- Difficulty to obtain data from past studies or projects (e.g. sites of special interest to the Cree identified during forestry management exercise, as per the Paix des Braves);
- Difficulty to reach and meet all the potentially affected land users;
- Reluctance from certain land users to participate in the study because they do not want their participation to be interpreted as consent to the proposed infrastructure or to LGA;
- Reluctance from certain land users to share specific information about their activities;
- "Consultation fatigue" of certain land users who have shared their knowledge repeatedly;
- Potential loss of precision due to translation (Cree-English/English-Cree).

Is should be seen as a first general picture of the land and resources use in the study areas, to be completed in future stages of the process, rather than a complete list of land use features and recommendations. Indeed, it should be noted that the approach adopted by the LGA team is very innovative in engaging land users and community members from the start of the planning process, before the final infrastructure design. If some of the proposed infrastructure works go ahead, engagement with community members will continue and data will be refined.

The present report presents the results of the Cree Land Use Study conducted in the community of Waswanipi.

2. METHODOLOGY

The approach and methodology adopted for the Cree land use study, as well as the consent forms and interview grid were reviewed by and discussed with the CIOs.

2.1 STUDY AREAS

The study areas encompassed in the community of Waswanipi are a buffer of 5 km on either side of the alignments for the potential Billy-Diamond Highway railway and the potential Grevet-Chapais railway (see Map 1). During the interviews with tallymen and land users, if land use activities or features were reported outside the study areas, they were noted as well.

The table below indicates the traplines in Waswanipi potentially touched by each infrastructure.

Table 1 Traplines in Waswanipi Potentially Touched by LGA Phase 1 Infrastructures

Infrastructure	Number of traplines	Trapline Intersected
BDH Railway	7	W13
		W01
		W03
		W07
		54
		52
		W53
Grevet-Chapais Railway	10	W24
		W24A
		W23
		W23B
		W21
		W21A
		W21B
		W20
		W19
		W16

2.2 DATA ACQUISITION AND PROCESSING

2.2.1 Literature review

At the beginning of the study, a review of existing information was conducted. General search by key words was carried out as well as search in specific databases, including:

- Hydro-Québec projects that were subject to an environmental impact assessment (Cherloc);
- Projects evaluated by the COMEX;
- Québec environmental assessment registries (MELCCFP and Bureau des audiences publiques sur l'environnement);
- Canadian impact assessment registry (Government of Canada).

More than 200 documents, concerning at least 40 projects achieved between 1977 and 2021, were consulted. This literature review allowed to collect information about known valued sites and sensitive elements, mainly along the Rupert River on Waskaganish and Nemaska territories. Some information regarding Cree land use near the communities of Waswanipi and Nemaska was also available. However, the literature review also revealed that little information is available for several sectors under study, including:

- Around the community of Wemindji and along the access road;
- Along the Billy Diamond Highway between Matagami and Waskaganish;
- Along the Grevet-Chapais roadbed, except for Lake Opawica area;
- Along the Eastmain access road.

2.2.2 Land user interviews

At the beginning of the study, traplines that could potentially be touched by the proposed works and infrastructures were identified. The VEI team then asked each CIO to validate the identity of each trapline's tallyman and to identify other land users or knowledge holders who should be invited to participate in the Cree land use study. In collaboration with the CIOs, VEI organized information sessions for tallymen and land users in each community potentially affected by LGA Phase 1 infrastructures (eight communities). Tallymen were invited to bring their family members and land users with them. General information on LGA as well as more specific information about Phase 1 studies and the infrastructures that could potentially go through the local traplines were presented and discussed with the attendees.

Sometime after the information session, the tallymen were invited to an individual land use interview in which their family members and land users were also welcomed to participate. The interviews were semi-structured, with open-ended questions, and were conducted mostly in Cree by one of VEI's Cree Liaison Officers and VEI's anthropologist. Large paper maps were used to locate land use features and information shared by the participants. Prior to starting the interview, the participants were asked if they had questions about LGA, and information about LGA and specific infrastructures was presented to those who had not assisted to the information session. The interview questions touched upon the following themes:

- Description of land use activities and features
  - Harvesting activities (hunting, fishing, trapping, and berries, plants and wood gathering);
  - Habitations sites (camp, cabin, seasonal campsite, tent frame, camping area, house, store, old trading post, old campsite and other building);

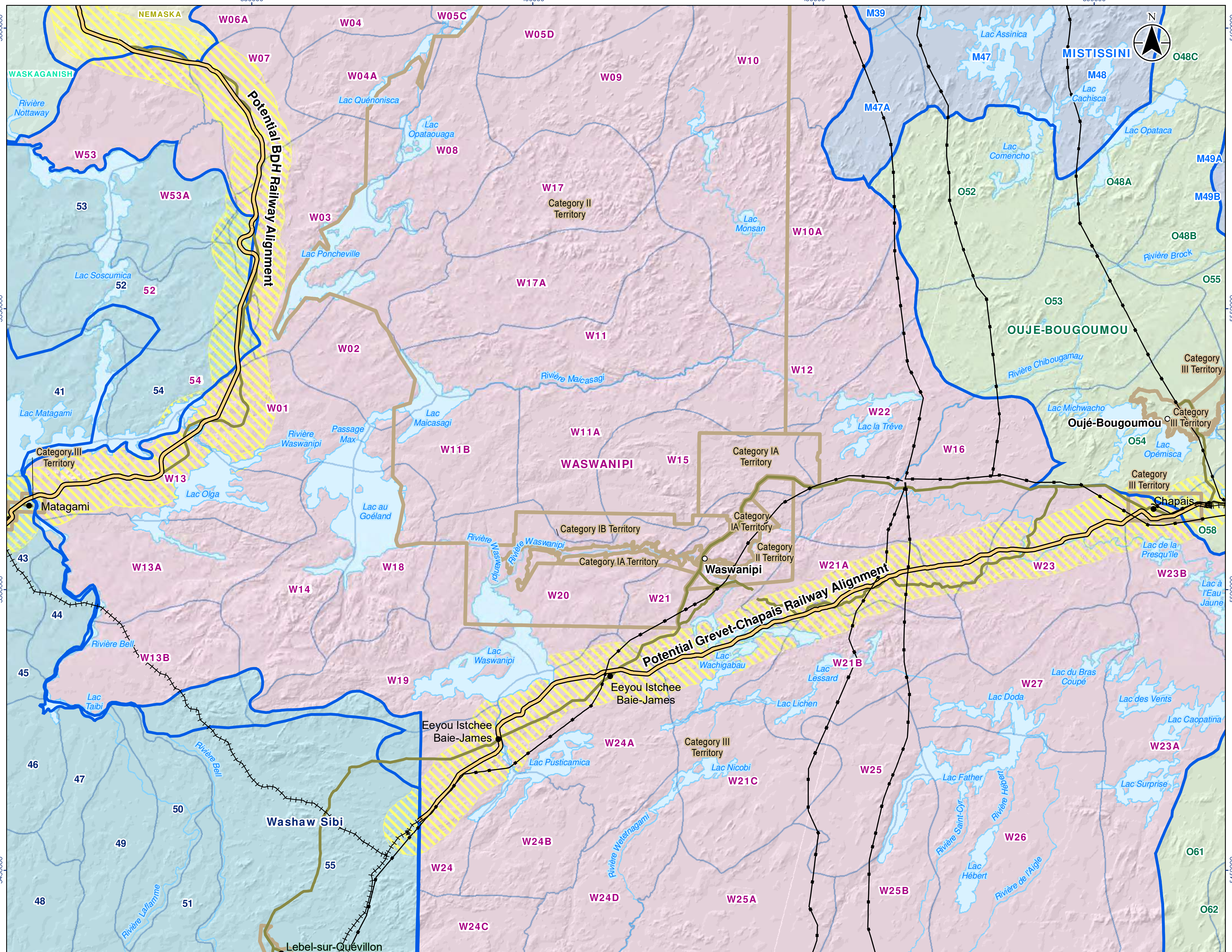
- Trails and travelways (ATV/snowmobile trails, forestry roads, path, boat landing and portages);
- Social and cultural sites (community, gathering, knowledge transfer, historical, archeological, ceremonial, burial or sacred site, picnic area, landmark).

- Environmental information concerning the study area (traditional ecological knowledge)
  - Wildlife:
    - Species present in the study area, quantity, quality, and potential issues.
    - Trails and migration routes, with special attention to roads and alignments crossings.
    - Calving/kidding aresa.
    - Other areas used by moose or caribou.
    - Beaver lodges/ponds.
    - Goose hunting ponds.
  - Fish:
    - Species present in the study area, quantity, quality, and potential issues.
    - Presence of fish, and species, in each watercourse along the alignments.
    - Spawning and rearing areas.
  - Water Resources
  - Wetlands, bogs, swamp areas
  - Invasive species and changes observed in the last 25 years.
- Condition of the existing infrastructures
- Potential effects and recommendations.

Once the interviews notes were compiled, the information collected was integrated into a GIS database specifically created for Phase 1 feasibility study, so it could be shared with the technical and the archaeological teams (note that access was limited to a small number of people).

Validation interviews were organized with the study participants, so they can review the data collected, verify its accuracy, and add precisions if required. The georeferenced database was also used during the validation process, to make sure the land use information was properly located. The interview notes were also read with the participants to validate the accuracy and clarify some information, if needed. The validation process also offered the land users an opportunity to share additional data or express additional concerns and recommendations.

It is important to note that some of the information collected is not presented in this report or is mentioned with very few details to preserve confidentiality and respect its sensitive nature. However, it will be provided to the CDC along with relevant non-disclosure agreements.



Map No.
1

Title

Cree Land Use Study Areas in Waswanipi

Client/Project

Cree Development Corporation
La Grande Alliance – Feasibility Study
Phase 1

Project Location

Eeyou Istchee, Québec

158100425-C0059 REVA
Prepared by Johanne Boulanger on 2024-03-06
Verified by Marie-Hélène Côté on 2024-03-06
Independent Review by Julie Massicotte on 2024-03-06

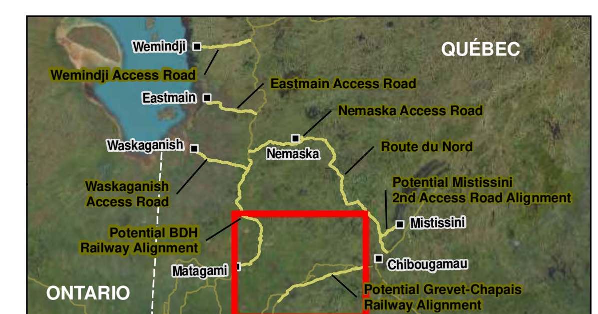
Human Environment Components
- Cree Village
- Locality
- Airport
- Category I, II or III Territory
- Power Line
- Railway

Study Component
- Potential Railway Alignment
- Study Area – 5 km Buffer on Each Side of the Potential Railway

Trapline Limit and Community Name
- Trapline Limit
- Mistissini
- Nemaska
- Ouje-Bougoumou
- Washaw Sibi
- Waskaganish
- Waswanipi

Hydrography
- Body of Water
- Watercourse

Road Network
- Road Network



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Notes
1. Coordinate System: NAD 1983 UTM Zone 18N
2. Geotechnical Investigation: Stantec, 2023
3. Road Network: Adresses Québec, 2021
4. Hydrography: GRHQ, 2017
5. Orthoimagery: ESRI-World Imagery, 2017

0 10 20 km
1:700 000
(At original document size of 11x17)

3. COMMUNITY PROFILE

Waswanipi is located near the confluence of the Opawica, Chibougamau and Waswanipi Rivers. The village was founded as a trading post by the Hudson's Bay Company which closed in 1965, so the residents dispersed until 1978. That year, the new village of Waswanipi was built about 45 km upstream the Waswanipi River from the former location (CFNW, 2022). Waswanipi is the southernmost Cree community and can be accessed by highway Route 113. Waswanipi's territory is divided into 62 traplines covering 37,015 km^2 (CMEB, 2022). As of August 2022, the Cree First Nation of Waswanipi had a total registered population of 2,316, with 1,699 members living on reserve, 496 living off reserve, and 121 living on other reserves or Crown land (CIRNAC, 2022).

The LGA Phase 1 infrastructures located on Waswanipi territory are:

- The southern end of the potential BDH railway alignment;
- Most of alignment of the potential Grevet-Chapais railway

3.1 ISSUES AND VISION

In 2017, the Eeyou Planning Commission undertook a consultation process with Waswanipi community members. The results are presented in the "Report on Community Input on Land Use Planning Goals" (EPC, 2017) and included information on the community's values, issues and vision for the future. Some of it is summarized below:

Issues that Waswanipi faces:

- Forestry
- Non-Cree occupation
- State of animal populations
- Limitations on Cree rights
- State of water resources
- Relationships with proponents
- Mining

Elements of a Waswanipi vision for the future:

- Protection of Waswanipi lands and water
- Greater Cree role in development
- Promotion of Cree language and culture
- Enhance Cree role in governance and lands management

4. RESULTS

The interviews provided a general idea of the land use taking place along the Billy-Diamond Highway and the existing Grevet-Chapais trail as well as their surrounding areas, rather than a complete picture. The number of land users of the study areas, the frequency of their visits and quantity of resources harvested were not estimated since it was not in the scope of the Cree land use study carried out as part of the LGA Phase 1 Feasibility Study. It is worth noting that such an estimation exercise would be a big undertaking since various community members use the lands in proximity to their community's access road.

The land and resources in the study areas are used not only by the tallymen, their family members and land users, but also by other Cree land users and non-Cree land users. Since the BDH provides easy access to the territory, recreative anglers and hunters, as well as cottage owners and tourists also frequent the study area. Also, forestry companies as well as snowmobile and ATV clubs currently share the use of the existing Grevet-Chapais trail. It is also an important artery where residents of the region, Cree and non-Cree, circulate by snowmobile, ATV or vehicle on some sections of the existing Grevet-Chapais trail.

During the interviews, tallymen and land users explained that when the Grevet-Chapais railway was built, the Crees moved their camps and activities away from it. Then, when the railway was decommissioned, they gradually came back in the area and established camps in proximity to the Grevet-Chapais trail to take advantage of the ease of access. Several non-Crees have started to frequent the area and build cottages around the waterbodies for the same reason.

4.1 CREE LAND USE

The potential BDH Railway will be located along the Billy-Diamond Highway between Matagami and Waskaganish (KM257 of the highway at Rupert River bridge). It crosses 13 traplines belonging to the following Cree communities: Washaw Sibi, Waswanipi, Waskaganish, Oujé-Bougoumou and Nemaska. The potential BDH railway crosses seven traplines in Waswanipi (see Table 1, section 2.1). Between November 15 and 17, 2021 and on August 31, 2022 and September 1, 2022, VEI conducted land use interviews with a total of eight participants, which included the tallymen of the seven Waswanipi traplines intersected by the potential BDH railway and a family member.

The potential Grevet-Chapais railway would return to service the decommissioned railway line between Grevet (Lebel-sur-Quévillon) and Chapais over approximate of 225 km. It crosses 13 traplines belonging to the following Cree communities: Washaw Sibi, Waswanipi and Oujé-Bougoumou. The potential Grevet-Chapais railway crosses ten traplines in Waswanipi (see Table 1, section 2.1). Between November 15 and 17, 2021, VEI conducted land use interviews with the tallymen of six Waswanipi traplines intersected by the potential Grevet-Chapais railway. VEI was not able to meet with the tallymen of traplines W19, W21B, W23 and W24A.

4.1.1 Trapline W01

LGA infrastructure component in trapline W01 is the proposed BDH Railway.

The tallyman of trapline W01 reported locations of three Cree camps. The first one is his main camp, located at km 49 along the BDH and composed of two cabins. The second is used for moose hunting and is located near km 56 of the BDH. The last one is the tallyman's projected camp around km 48. He also mentioned extensively using the study area for hunting moose and goose. He specified six locations for moose hunting. Three of them are located along the BDH, and the three others are near Lake Matagami (two areas) and between the BDH and the Waswanipi

river. The three goose hunting areas are located at Lake Matagami and along the Waswanipi river. In addition, the tallyman collects spring water in watercourses on both sides of the BDH, around km 48, including at Canet River.

A spawning area for walleye and whitefish was pointed out by the participants in the Waswanipi river.

Finally, the family graveyard, still visible in the middle of chalets, is located on the shore of Lake Matagami, at the end of the access path from km 40 of the BDH.

4.1.2 Trapline W03

LGA infrastructure component in trapline W03 is the proposed BDH Railway.

During the Cree land use interview, the tallyman shared various locations of Cree camps in the study area. The camp the tallyman mainly uses is located around km 81 of the BDH. Four camps located within the study area belong to family members and friends or can be used during hunting activities. Those camps are all located near the BDH: at km 79, km 83 and two near km 76. Also, two old camps were reported: one on the shore of the lake near km 81 and the other, which is not abandoned, near km 79.

The tallyman collects spring water at Lake Ouescapis and would like to protect the clean water near his camp around km 81. He also mentioned hunting bear in the area of de la Tourbière Lake, and going fishing for walleye and pike in de l'Amphibolite Lake and in the river nearby. He specified that this lake feeds the Nottaway River.

4.1.3 Trapline W07

LGA infrastructure component in trapline W07 is the proposed BDH Railway.

The tallyman of trapline W07 reported three Cree camps within the study area. His main camp, located around km 109 of the BDH, and his brother's camp at km 117 of the BDH. The third one belongs to family members and friends or can be used during hunting activities. It is located near Musky River and includes old tent frames that are still in use.

The participant indicated that there used to be trout in the watercourses around km 109, but not anymore since the construction of the BDH. He also shared moose locations in proximity to the BDH.

Forestry roads present on the trapline are used by the tallyman and land users for transportation. The tallyman uses the one between km 109 and km 114 to access the eastern part of his trapline. Additionally, the road intersecting the BDH at km 106 constitutes a major artery, as it is a multi-use road for different logging companies and it is accessible year-round. A snowmobile trail runs along the BDH and crosses it around km 120, then continues up to the neighbouring trapline. Two portages were identified during the interview process. The first one is a 2 km-long route close to the tallyman's main camp, near km 109 of the BDH, that could be intersected by the potential BDH railway alignment. The second one is approximately 1 km long, located in open terrain further from the BDH, and used by feet when the tallyman goes moose hunting. He clears it as he uses it.

At km 109, an old sand pit from the original construction of the BDH was used as a goose pond before there was vegetation growth. No rehabilitation was done at this pit.

4.1.4 Trapline W13

LGA infrastructure component in trapline W13 is the proposed BDH Railway.

During the Cree land use interview, the tallyman shared the location of two Cree camps within the study area. His main camp is located around km 24 of the BDH. The tallyman's brother stays there and shares access and use with him.

The other camp mentioned, composed of 2 cabins, is located near km 29 of the BDH. Near that camp, an old 3.5 km-long portage, still in use, provides access to Lake Olga. Previously, the tallyman collected his fresh water from that lake and from a stream near km 26, but now he takes it in town.

The tallyman wants to protect a valued area between de BDH (approximately from km 25 to km 28) and Lake Olga.

The tallyman indicated that he goes goose hunting on the north shore of Lake Gabrielle. He also hunts geese at the Waswanipi River, near Lake Olga, and at the mouth of the river. He also mentioned other people harvesting moose in proximity to the BDH.

The Laurier Mountain is found on trapline W13, on the west side of the BDH, and the tallyman indicated its Cree name: “Wishago Uchi”, meaning "Moose Lookout" or "Moose Love Mountain". In a section of the Bell River, the tallyman pointed out a spawning area for sturgeon. Another sturgeon spawning area is located in Lake Matagami.

4.1.5 Trapline 54

LGA infrastructure component in trapline 54 is the proposed BDH Railway.

During the Cree land use interview conducted on September 1st, 2022, the tallyman indicated four locations of Cree camps within the study area. His main camp is located some 60-90 m from the BDH, near km 70, while his summer camp is on an island in Lake Matagami. His main camp is composed of two cabins and a shed as well as a boat ramp to the Nottaway River. His mother’s camp is located close to the BDH, near km 63 and it includes one cabin and two sheds. His father also used to have a camp around km 66 of the BDH, but the tallyman is not sure if it is still there.

The tallyman mainly accesses his trapline using the BDH. Sometimes, he gets to Lake Matagami by boat from the Waswanipi River, sometimes he uses the boat ramp to Lake Matagami located at the municipal campground. Additionally, an ATV and snowmobile trail parallels the BDH, some 60 m from it. It is approximately 5 km long at the moment, but it is not finished. The tallyman would like it to run approximately from km 60 to km 70 of the BDH.

The participant has two main hunting grounds, one located in the southwestern portion of the trapline, in the study area, and another east of the BDH, near km 66. He also traps beaver and snares rabbit along the BDH and he hunts goose in the small bay of Lake Matagami. He fishes sometimes in the small streams, which host pike and walleye, but mostly in Lake Matagami. The lake is a good fishing area for walleye, pike and sturgeon. The tallyman mentioned that non-native moose hunters use the forestry roads present in the area and go hunting on trapline 54.

4.1.6 Trapline W53

LGA infrastructure component in trapline W53 is the proposed BDH Railway.

During the Cree land use interview, the tallyman indicated five locations of Cree camps within the study area. The camp he mainly goes to is located along the BDH, around km 131, at the trapline’s northeastern limit. The other camps mentioned during the interview belong to family members and friends or can be used during hunting activities. N20 tallyman has a camp with permanent cabins at km 132. A cluster of cabins (5) was also reported around km 123 of the BDH.

A highly sensitive area from km 122 to km 132 of the BDH, at the trapline’s northeastern limit, was also reported. The tallyman recommended an alternate alignment to avoid that area.

4.1.7 Trapline 52

LGA infrastructure component in trapline 52 is the proposed BDH Railway.

During the Cree land use interview, the tallyman indicated two locations of Cree camps within the study area. His camp is located along the BDH, around km 76, on trapline W03. The other camp mentioned, between km 78 and 80 of the BDH, belongs to the tallyman's uncle who was the former tallyman.

A snowmobile trail leading to La Tourbière Lake was built with Niskamoon funds. However, transport/forestry trucks rolled on it and destroyed the tracks. A former forestry road is now used by the tallyman as a trail from km 80 of the BDH to the lake.

A burial site of one the tallyman's uncles is located north of La Tourbière Lake.

The tallyman's main harvesting area, "my pantry, source of all the food", includes La Tourbière Lake and surrounding area. The tallyman hunts goose and traps beaver and rabbit in that area. There is no fish in that area nowadays, but there used to be. The tallyman also mentioned a trapping area west of the trail, between the lake and the BDH. He also traps beaver in an area around km 83 of the BDH, and in all the creeks of the area. He also traps marten on trapline 52.

4.1.8 Trapline W24

LGA infrastructure component in trapline W24 is the proposed Grevet-Chapais Railway.

The tallyman of trapline W24 reported during the land use interview that he has a fishing camp close to Lake Burge. The tallyman's nephews have plans to build cabins on that site. Camps belonging to the tallyman's family members and some community members are located just beside the potential railway (less than 60 m), in the Miquelon hamlet, close to O'Sullivan River. There are also several cottages belonging to non-natives in the area.

The trapline was accessible through Lebel-sur-Quévillon, "but it's all brushed in now". Therefore, the access to trapline W24 is from the north all the way down to the southwest end of the trapline, crossing the existing Grevet-Chapais trail. The tallyman and land users use that access road every day, so if the railway is reinstalled, it would block their access south of the railway. An old trail is linking the Lake Burge to the Miquelon hamlet.

The tallyman reported the location of four grave sites around the northern portion of Lake Puskitamika.

The location where the power transmission lines are crossing the west shores of Lake Puskitamika is named Indian Point, also called "the narrows".

The tallyman and his family members fish for walleye, pike and bass in Lake Burge. He also goes fishing on trapline W23A (outside the study area). He hunts moose at several locations on his trapline, near lakes. The tallyman indicated the locations of several spawning areas, one in a tributary of O'Sullivan River and two in the river itself, in the Miquelon hamlet.

4.1.9 Trapline W23B

LGA infrastructure component in trapline W23B is the proposed Grevet-Chapais Railway.

During the Cree land use interview, the tallyman shared the location of one Cree camp within the study area: his camp located on the shore of de la Presqu'île Lake. He has another camp in the southern part of his trapline. Two old camps (more than 50 years old) are located on a small island outside the study area, but very close to its

southern boundary. A third old camp was reported outside the study area, but close to its boundary, on the shore of de la Presqu'Île Lake.

The participant had been using the Grevet-Chapais trail for 12 years when he was met by VEI. He still uses it as an artery to travel by ATV and by snowmobile, though most of that part is practicable by vehicle. He takes the old Lake Shortt road, on about 11 km, and then hits the Grevet-Chapais trail up to Chapais. It is expensive (fuel cost) to reach his camp by vehicle, so travelling by ATV on the Grevet-Chapais trail represents an ease of access to his trapline. However, he indicated that it is dangerous on the trail when crossing forestry trucks, so he drives on the edges. Some parts of the trail are narrow, some are wide, some embankments are high, and there are 30-40 feet slopes in some parts. The tallyman anticipates the loss of an important access to his trapline as a negative effect of the potential railway. An access road/forestry road is parallel to the Grevet-Chapais and 70-tons overloaded trucks travel on that road.

There are various snowmobile and ATV trails funded by Niskamoon on trapline W23B. The tallyman recommended to make a request to Niskamoon for information concerning the trails.

The tallyman hunts and traps while travelling on the Grevet-Chapais trail, but mostly on his trapline. He harvests mainly moose, goose, bear, marten, and beaver. He reported a moose yard on trapline W23B, and indicated that beaver activity near his camp increased to a point where it is damaging the area, flooding over the trail. The tallyman also harvests small game, like rabbit and grouse, but he has competition from local hunters (from Chapais), and even more since the mine has closed.

He fishes various species in de la Presqu'Île Lake as well as in the watercourses on his trapline. Notably, a tributary of the lake is good for fishing brook trout. There is a sewage discharge point (wastewater) from the town of Chapais, so the tallyman doesn't fish in the creeks on the north side of the road (route 113) in that area. He doesn't fish in the southwestern portion of his trapline either to avoid the creeks contaminated by the sludge from a mine tailing ponds.

The tallyman indicated a protected area near the de la Presqu'île Lake and directed VEI to the Waswanipi Forestry Department. The "presqu'île" (peninsula) on that lake is a biological refuge, no logging is allowed. There are all kinds of birds there.

Two gravel pits were mentioned by the tallyman, one near the Grevet-Chapais trail and another south of the transmission lines further east. At the end of the Grevet-Chapais trail, in Chapais, there was a big washout in 2008. That landslide was documented because it was a big one which destroyed parts of the trail and of the road. It was caused by the mine's tailing pond: when it burst, it contaminated the area all the way down to Gull Lake. The rocks in proximity to the landslide turned grey. The beavers used the sludge to build their lodges and they were grey too. In the following months/years, the tallyman observed walleye with warts or scabs in that area.

4.1.10 Trapline W21

LGA infrastructure component in trapline W21 is the proposed Grevet-Chapais Railway.

During the Cree land use interview, the tallyman shared two locations of Cree camps within the study area. His camp is located by Lake Opawica, north of Gull Island (île au Goéland). Old camps are present by the lake, west of Opawica Island, and an approximately 80 years old graveyard, where 6 of the tallyman's family members are buried, was reported in that area as well.

The Grevet-Chapais trail is crossing trapline W21 over approximately 20 km. The tallyman uses it to travel east-west on his trapline. He also uses it as a snowmobile trail during the winter. Forestry roads connecting to the Grevet-Chapais trail are also used: the main ones are intersecting the Grevet-Chapais trail near Lake Billy and between Lake Opawica and Lake Relique. A boat access to travel between Lake Opawica and Lake Wachigabau is located adjacent to the Grevet-Chapais trail, west of Gull Island.

The tallyman indicated that there are a lot of beavers along the Grevet-Chapais trail. He mentioned using the trail for moose and small game hunting in the fall. He pointed out two goose hunting areas, a moose yard, and a woodland caribou area within the general area of Lake Opawica. Additionally, the tallyman shared the location of a fishing area in Lake Washigabau, near the Grevet-Chapais trail, and of a spring water source on a tributary of Lake Shortt.

Several non-cree cabins were reported on trapline W21, around Lake Opawica and south of the Grevet-Chapais trail, in proximity to Lake Barbie. The tallyman also indicated that there is forestry activity taking place north of the study area, and that there have been mining activities on the trapline. One of the tailing ponds from the old mine in Desmaraisville is located near km 188 of the Grevet-Chapais trail, between Bachelor and Opawica lakes.

Two washout (erosion) areas were identified along the Grevet-Chapais trail, in the area of a steel bridge at the eastern extremity of Gull Island and a tributary of Lake Opiwaca on the same island. The latter may be the result of beaver activity.

The tallyman recommended replacing the steel culverts present in a bay of Lake Opiwaca area with plastic culverts and would like the testing of water quality of Lake Opawica and some tributaries.

4.1.11 Trapline W21A

LGA infrastructure component in trapline WA21A is the proposed Grevet-Chapais Railway.

The tallyman reported during the land use interview a total of three camps. His main camp is located west of Lake Lewis near the Grevet-Chapais trail. He also uses a winter camp on the shore of Lake Lapparent. Additionally, the tallyman mentioned his father's camp on the eastern extremity of Lake Lewis, which was abandoned after the rail was decommissioned.

A railway between Chapais and Senneterre was put into service in 1960. The tallyman's family started to use the rail to go to their winter camp. The tallyman indicated forestry roads on the north shore of Lake Lewis near his main camp and a main road to the highway from Lake Shortt.

Two fishing areas are used to fish pike, whitefish, sturgeon, large walleye, one in Lake Lewis and the other in Lake Lapparent.

The tallyman denoted the location of two commercial camps. A camp used by Kruger is located on Lake Relique. This area was heavily used for sending wood to mill in Lac St-Jean. Another camp (Domtar) is located north of Lake Opawica, near Dalime Creek. His residence is located near Lake Shortt, where a mine was located.

4.1.12 Trapline W20

LGA infrastructure component in trapline XX is the proposed Grevet-Chapais Railway.

The tallyman of trapline W20 reported during the land use interview the location of old camp on the shore of Lake Waswanipi which was built before the Grevet-Chapais railway was built. The winter camp was used to access to Lake Taylor.

The tallyman and his family members do not use the Grevet-Chapais trail nowadays as their main camp is located northwest of it.

The Lake Waswanipi is used for fishing walleye, whitefish, pike and sturgeon.

Along the Grevet-Chapais trail, there was the Waswanipi railway station. “Way before the road was built”, it was the way to come to Waswanipi Post (that was located on trapline W20). The tallyman’s late grandfather and father used to be the mailmen and they were picking up the mail at the Waswanipi Station.

4.1.13 Trapline W16

LGA infrastructure component in trapline W16 is the proposed Grevet-Chapais Railway.

The tallyman of trapline W16 reported during the land use interview that his and his family members’ cabins are mostly on the northern end of his trapline, outside the study area. However, his brother’s camp is by the Lake O’Mélia, south of the Grevet-Chapais trail. An old Kruger logging camp used to be on that site. Also, the tallyman’s grandfather had a camp close to the former railway, and he was taking the train from there.

Several trails were cleared by the tallyman’s father around Lake Mechamego. A snowmobile and pedestrial trail from the south shores of the lake leads to south of ruisseau Mechamego, while another runs towards the trapline southwest limit. There is also a portage from the lake to the watercourse west of it. A trail from the eastern portion of the lake is called “Pituwunan”, which means “travelling in between”.

A trail called “Four pipes trail'' was also cleared by the tallyman’s father between Lake Anville and another waterbody located northwest of it. Another, still used and maintained, mainly for rabbit trapping from Lake Houghton leads toward the southwest limit of the trapline. Part of it disappeared because of logging. An old logging road is located along Lake Houghton. The Cree name of that lake was “waapush/wapsh saakahiikan” (rabbit lake). There are also scattered access roads from the forestry companies on trapline W16.

The tallyman indicated that all the Grevet-Chapais trail is used as a transportation way by ATVs and by trucks by Cree hunters going to their hunting territories. It provides an easy access to an area where there is no official road. The trail is blocked as a gate was installed with chains and a block. Someone installed it, but the Crees were not informed. The tallyman considers that his heritage trails are impacted by logging activities.

A child burial site of distant relatives of the family who wintered there along time ago is located near the south shore of Lake Mechamego.

A large sector of the trapline is suitable for moose, as they are seen a lot. The tallyman harvested 11 moose in 3 weeks in that area this fall. He added: “that’s nothing! My dad used to get 40 moose in a week”. The tallyman indicated the location of a moose conservation area which is considered a sacred site and a heritage site. It was designated as such following the Paix des Braves. He also identified a corridor used by moose, year-round. That area is also a trapping area for marten, mink, weasel, otter (shukshish), bear, beaver, and lynx. He used to sell the fur from the animals he was trapping, but now he only traps for the meat. Two goose hunting areas were identified in lakes O’Mélia and Mechamego.

Two woodland caribou migratory routes are also present, one south of Lake Houghton and another east of Lake Mechamego.

The tallyman indicated that there is pike, sucker, red sucker, walleye, whitefish, burbot, and sturgeon in all the watercourses on trapline W16. However, there is no brook trout or lake trout. There used to be brook trout in Lake

Grenier and some of its small tributaries, but it disappeared due to the forestry activities as the lake and streams dried up. According to the tallyman, his brother is fishing primarily walleye in Lake O'Mélia. A rabbit trapping area (wapshugum = rabbit room) was located west of Lake Houghton was used by James Cooper's late.

Land users and "day hunters" hunt along the Grevet-Chapais trail. There is beaver activity throughout the alignment, most creeks intersected by the Grevet-Chapais trail have beaver activity, so people trap them.

All the potential archaeological sites are located on the northern part of the trapline.

Four ages of forestry, or of encroachment, can be observed on trapline W16, phase by phase. The first cycle of logging was done with horses and logs were removed manually. The tallyman indicated that, close to the Grevet-Chapais trail, on the north side of it, is an old logging area, from the 1st wave of commercial logging activities, some 40 years ago. Logging activities took place further north from the Grevet-Chapais trail some 10 to 20 years ago, and now they have expanded in a grid pattern on both sides of it, on approximately one km. Forestry activities are also occurring between lakes Houghton and Mechamego.

4.2 Comments, Concerns and Recommendations

4.2.1 Billy-Diamond Highway Railway

The Cree land use study participants shared information regarding the Billy Diamond Highway Railway. Their comments, concerns and recommendations concerning its potential construction and operation are presented in the table below:

Table 2 Comments, Concerns and Recommendations – Billy Diamond Highway Railway

Alignment / Conception
• Concerns expressed with both the optimized and the preliminary alignment. In small traplines, every part of it is vital. Recommendation to build the railway outside of their trapline. A tallyman expressed that he has already been impacted by the construction of the highway and forest activities. • Alternate alignment was proposed in northeastern limit of trapline W53. • Concerns regarding potential contamination to the creeks intersected by the railway. It could affect the activities on the trapline as there is not a lot of place to relocate them.
Operation and Maintenance
• Concerns on potential contamination and smell produced by the use of chemicals on railway ties and on other wooden components. It could keep the moose away from the area and contaminate the medicinal plants. It could contaminate all the animals and trees, especially like tamarack and cedar, which are medicinal. • Concerns about noise and vibrations near camps. • Concerns about collisions between trains and wildlife, especially moose.
Others
• Camp to be relocated as per tallymen's preference. • The logging companies made a clear-cut the size of a community, and some tallymen are beginning to see the effects on their hunting activities.

- A tallyman is of the opinion that the roads in the region should be paved before building a railway, that something else than a railway should be done with that money.
- The compensation model be different than the Niskamoon model, as it doesn't authorize the tallymen to use machinery. "So many people were trained on heavy machinery, but they cannot work on them".
- Cree youth should be involved in the discussions and decision making regarding LGA.

4.2.2 Grevet-Chapais Railway

The Cree land use study participants shared information regarding the Grevet-Chapais Railway. Their comments, concerns and recommendations concerning its potential construction and operation are presented in the table below:

Table 3 Comments, Concerns and Recommendations – Grevet-Chapais Railway

Alignment / Conception
• The Grevet-Chapais trail is used as an artery to access the territory. The new railway would impact the access to traplines, for some the main access, and consequently the use of the land. • How to make sure that access to the area will not be dangerous for the land users, especially the younger ones? Building a path/access road adjacent to the potential railway could be a solution. • When the railway was decommissioned, no environmental clean-up was done, and some spikes and old rail ties are still found on/in proximity to the Grevet-Chapais trail. • Concerning the general LGA program, the tallyman said "I don't need it. I am pretty sure that the railroads are not going to be for me. That's for something else; they want something else way more expensive than what I got on my trapline". • The tallyman recommends changing the steel culverts in that area and replacing them by plastic culverts. He would also like water quality of Lake Opawica and some tributaries to be tested.
Operation and Maintenance
• Concerns expressed regarding noise. Notably, the CN railway operation was loud and that it disturbed hunting activities. • Concerns regarding the potential impacts of the vibrations caused by the train on spawning grounds, silty soils, animals and vegetation. • Concerns on water contamination at the various river crossings during operation. • Concerns that where the infrastructure/the tracks will be located, all the titles will belong to non-Cree companies and entities in 15-30 years and will impact Crees. • Beaver activity in the area has increased to a point where it is damaging the area, flooding over the Grevet-Chapais trail and sometimes creating washouts because there is no maintenance.
Safety
• Concerns that people will continue to use the railway as a trail, because it is cheaper and more convenient. • Tallyman recalls a train derailment on the Grevet-Chapais line.
Others
• When the Grevet-Chapais railway was converted into an official snowmobile trail, the tallymen had to pay

an annual membership to continue using the trail, even if they were travelling on their own territory. They were also forbidden to circulate with a sled. The obligation to pay a membership to FQCM is still in force, but "they don't harass like they used to do before".

- Other users of the area, like the ones using where graves sites are located, should be met collectively and consulted.
- Perhaps it will mean less traffic from "uninvited guests" on the traplines if it is a railway instead of a trail.
- It was deplored that LGA was "never brought to the Cree population and was discussed behind closed doors".
- There are still aspects and obligations from the Paix des Braves to be fulfilled before new things are promised.
- Niskamoon should be contacted for information on trails.
- Waswanipi Forestry Department should be contacted to have access to forestry maps.

5. REFERENCES

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