



ENGINEERING CONSULTING SERVICES

# Transportation Infrastructure Program Feasibility Study, Phase I Cree Land Use Study – Washaw Sibi Technical Report



Consultant Reference: LGA-1-WS-S-SCL-RT-0001-00  
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Stantec | DESFOR | SYSTRA

with subconsultant



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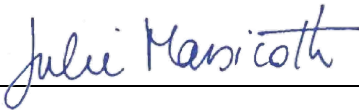
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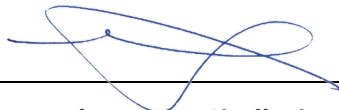
**Émilie Charest, env. spec. M.Env.**  
Environmental Specialist

Reviewed by:



**Julie Massicotte, biol. M.Sc.**  
Project Manager

Approved by:



**Alessandro Cirella, ing.**  
Project Director, VEI



## Document Identification

Transportation Infrastructure  
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**CREE LAND USE STUDY – WASHAW  
SIBI TECHNICAL REPORT**

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## Collaborators

Discipline	Name
Cree Land Use (Stantec)	<ul style="list-style-type: none"> <li>• Marie-Hélène Côté, anthropol. M.A.</li> <li>• David Laroche, anthropol. M.A.</li> </ul>
Mapping and GIS (Stantec)	<ul style="list-style-type: none"> <li>• Johanne Boulanger, tech. geomatician</li> </ul>

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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 Gouvernement 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 Washaw Sibi.

### 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 area, 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).

It 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 Washaw Sibi.



## 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 AREA

The study areas encompassed in the community of Washaw Sibi 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 Washaw Sibi potentially touched by each infrastructure.

Table 1 Traplines in Washaw Sibi Potentially Touched by LGA Phase 1 Infrastructures

Infrastructure	Number of traplines	Trapline Intersected
Potential BDH Railway	3	43
		52
		54
Potential Grevet-Chapais Railway	1	55

### 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:

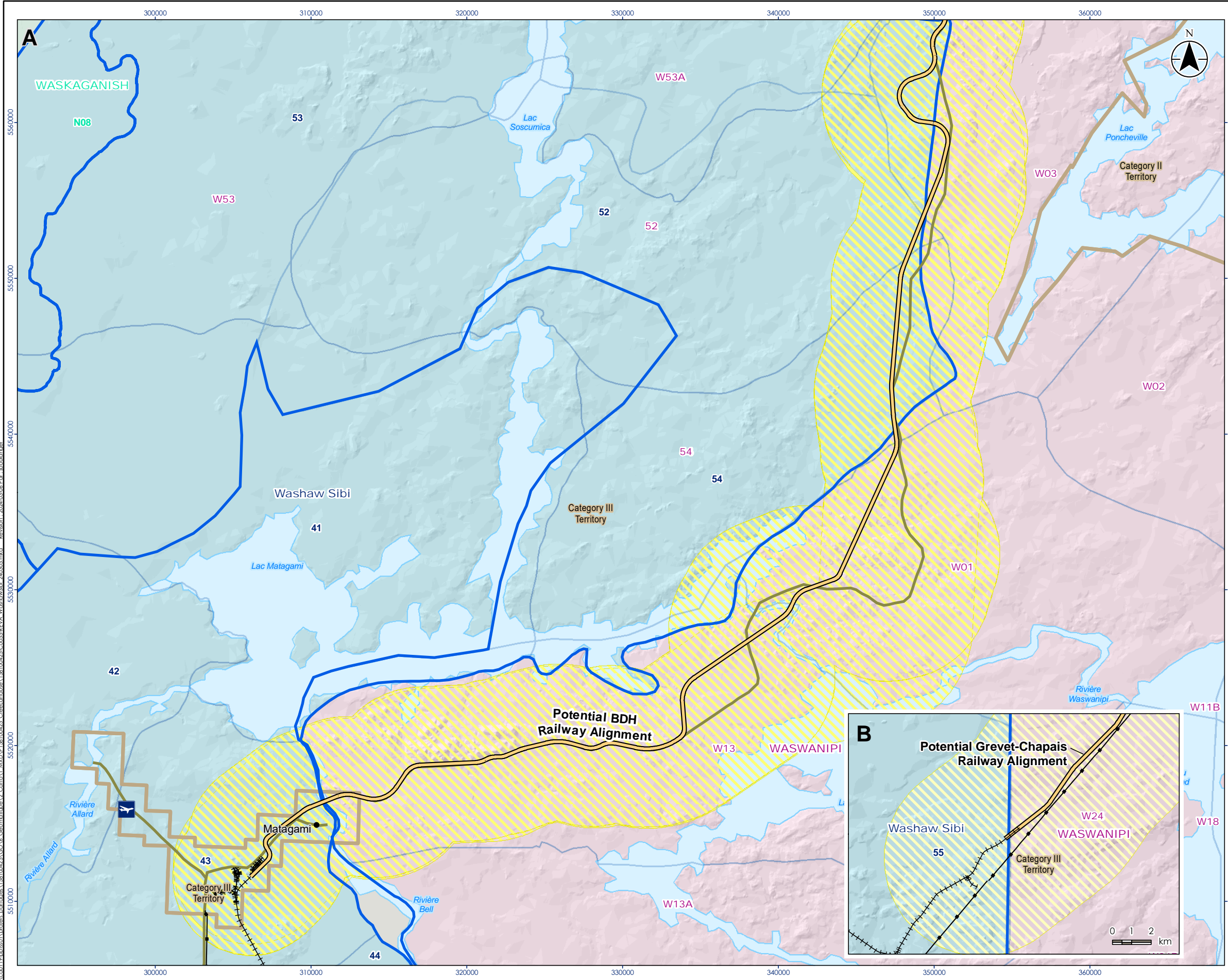
- Description of land use activities and features
  - Harvesting activities (hunting, fishing, trapping, and berries, plants and wood gathering);
  - Habitations sites (camp, cabin, seasonal campsite, tent frame, camping area, house, store, old trading post, old campsite and other building);
  - Trails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

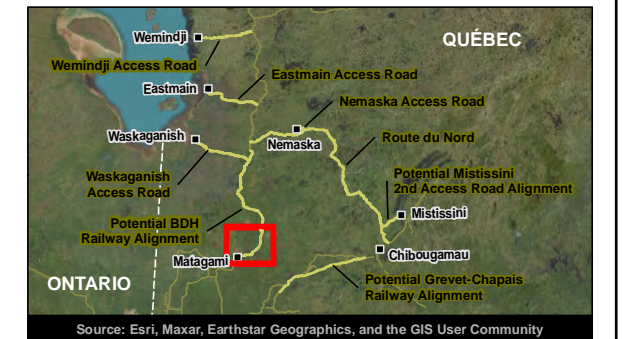
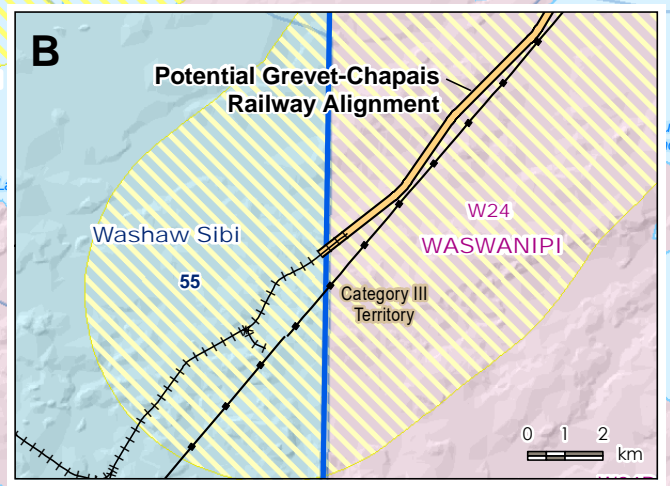
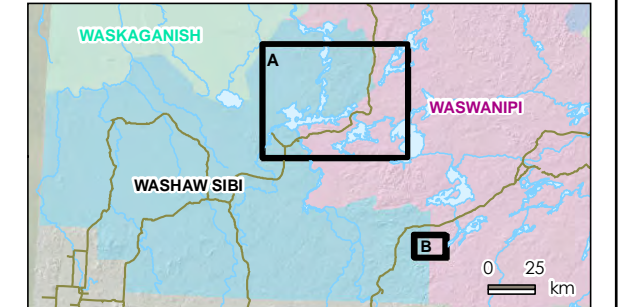
Validation interviews were organized with the study participants, so they can review the data collected, verify its accuracy, and add precisions if required. The georeferenced database was also used during the validation process, to make sure the land use information was properly located. The interview 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 Washaw Sibi  
 Client/Project Cree Development Corporation  
 La Grande Alliance – Feasibility Study  
 Phase 1  
 Project Location 158100425-C0052 REVA  
 Eeyou Istchee, Québec 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
  - Washaw Sibi
  - Waskaganish
  - Waswanipi
- Hydrography**
- Body of Water
  - Watercourse
- Road Network**
- Road Network



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

Vision Eeyou Istchee  
 Stantec

Scale: 0 4 8 km  
 1:250 000  
 (At original document size of 11x17)

### 3. COMMUNITY PROFILE

Washaw Sibi was recognized as the tenth Cree First Nation at the 2003 Annual General Assembly of the Grand Council of the Crees / Cree Nation Government (CNSW, 2022)<sup>1</sup>. This once semi-nomadic group historically occupied the basin of the Harricana River. Since 2004, the Washaw Sibi Crees have studied various locations to establish their village (Lessard, 2015). The Washaw Sibi Crees' governing body is the Washaw Sibi Eeyou Association, which head office is in Nemaska and its administrative office is in Amos. Their cultural camp is in Joulac, 115 km north of Amos (CNWS, 2022). Washaw Sibi's territory is divided into 55 traplines covering approximately 16,288 km<sup>2</sup> (estimated area based on traplines Shapefiles received from the CNG). As of December 2022, the Washaw Sibi Eeyou had a total of 618 registered members (Andriana Trapper, 2022).

The LGA Phase 1 infrastructures located on Washaw Sibi territory are:

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

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<sup>1</sup> a. The Washaw Sibi community is recognized by the Crees, but is not necessarily legally recognized by the Gouvernement du Québec. In the lens of the study, this community was considered equivalent to all other participating Cree communities. The study team does not allude to make any legal statements regarding their status, but this is rather an initiative to be as inclusive as possible.

## 4. RESULTS

### 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 three traplines in Wash Sibi, namely 43, 52 and 54. VEI conducted land use interview with the tallyman of trapline 43 on June 15, 2022.

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 the trapline 55 in Wash Sibi.

Although listed as a Washaw Sibi traplines, traplines 52, 54 and 55 are currently used by Anishinabe land users. VEI was instructed by the CDC not to interview those land users since no agreement was made with that First Nation for the conduct of the LGA Phase 1 Feasibility Study.

#### 4.1.1 Trapline 43

LGA infrastructure component in trapline 43 is the proposed BDH Railway.

The tallyman of trapline 43 and his wife were interviewed. Their main camp is located at km 208 of Route 109, outside the study area. The tallyman would like to use the various forestry and mining roads that are present in the area to access the territory and conduct harvesting activities, but access was not granted by the owners.

Only the southern portion of the trapline is used by the tallyman and land users as they do not have access to the northern portion. Given all that the tallyman explained (mining and forestry activities, access blocked, water contamination, Matagami's industrial and residential zones, no shooting zone around the airport), he has concentrated his harvesting and land use activities in the southern part of trapline 43 which is outside the study area. He harvests beaver, rabbit, partridge, lynx, moose, wolf, bear, and marten, and sells the fur to Fourrures Grenier.

A communal area is located on the shore of Bell River, between the BDH and Matagami's residential zone. Washaw Sibi and Waswanipi people gather there and fish in the river.

A cemetery was reported along the BDH near km 221. There is also a Native cemetery on an island in Lake Matagami, where the tallyman's father is buried. These areas have been noted in the spatial database held by the VEI.

The tallyman also mentioned a small lake polluted by a mine in the southwestern portion of the study area.

### 4.2 COMMENTS, CONCERNS AND RECOMMENDATIONS

The Cree land use study participant expressed concerns on potential spills from BDH railway construction activities or from a train could contaminate creeks at the crossing. He was particularly concerned by the Bell River, which is valued by land users, but which is already "all black".

## 5. REFERENCES

CMEB - Cree Mineral Exploration Board. 2022. Geotrapline Maps. Online. <http://www.cmeb.org/index.php/maps>

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