



LA GRANDE ALLIANCE
PROPOSED
INFRASTRUCTURE
PROGRAM
FEASIBILITY
STUDIES

EXECUTIVE SUMMARY

OCTOBER 2023



TABLE OF CONTENTS

INTRODUCTION	3
UNIQUE APPROACH TO STUDYING FEASIBILITY	5
STUDIES	7
INVOLVEMENT OF TERRITORY RESIDENTS	9
SOCIO-ENVIRONMENTAL ELEMENTS BROUGHT INTO THE DESIGN	11
TECHNICAL STUDY	13
Access Roads	13
Road 167 Upgrade & Extension To Trans-Taiga	15
Whapmagoostui /Kuujjuarapik Road	17
Whapmagoostui/ Kuujjuarapik Harbour	19
Grevet-Chapais Railway Line	21
Billy-Diamond Highway Rail	23
MARKET SURVEY	31
PROGRAM BENEFITS AND COSTS	33
NEXT STEPS	37
CONTACT US	39

INTRODUCTION

CONTEXT

“La Grande Alliance (LGA)” describes the joint exercise undertaken by the Cree nation and Quebec governments in the signing, on February 17, 2020, of the Memorandum of Understanding on the Cree-Quebec Sustainable Infrastructure Development Program in the Eeyou Istchee James Bay Region.

Often, development is thrust upon communities where the only option is to react. This scenario makes land use planning very challenging for communities and government officials, strategic infrastructure planning ambiguous for public utilities and government ministries, and investment by the promoters of projects risky and uncertain.

Providing communities with the opportunity to contribute to the planning, design, consideration and evaluation of energy and transportation infrastructure can empower communities and bring predictability on a long-term scale to the region.

In this manner, communities will be able to plan their growth more easily, to deploy resources for protecting the environment and wildlife more efficiently, to work with more certainty on land use planning and to invest in a more secure way.

OBJECTIVES

- **IMPROVE QUALITY OF LIFE**
for Crees and other residents
- **ENSURE SUSTAINABLE DEVELOPMENT**
and long-term protection of the territory
- **INCREASE PREDICTABILITY**
and stability for socio-economic development
- **FACILITATE TRANSPORT**
of passengers, goods and materials



CREE NATION VISION

The Cree Nation proposed this initiative to implement its own vision of how development should proceed in Eeyou Istchee in a way that respects Cree values and the environment.



STUDY IMPLEMENTATION STRUCTURE

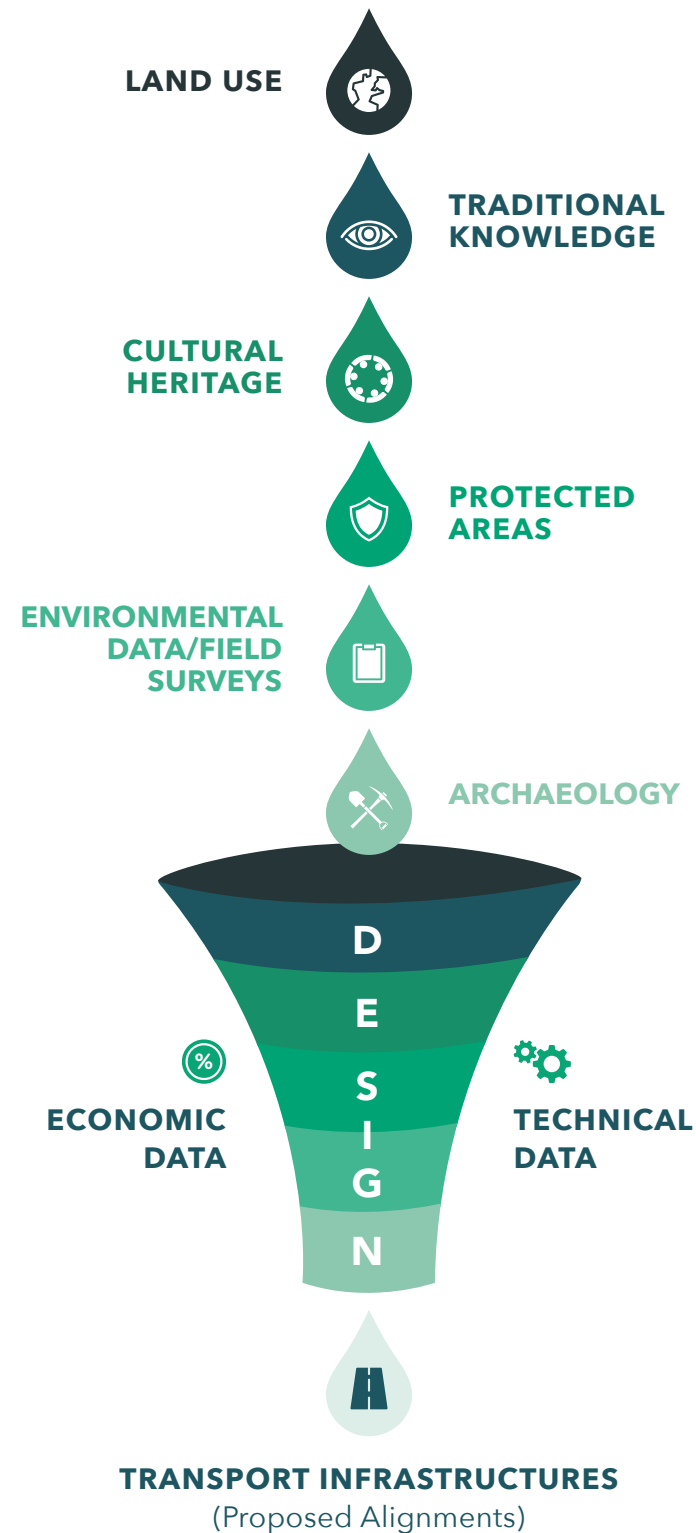


A UNIQUE APPROACH TO STUDYING FEASIBILITY

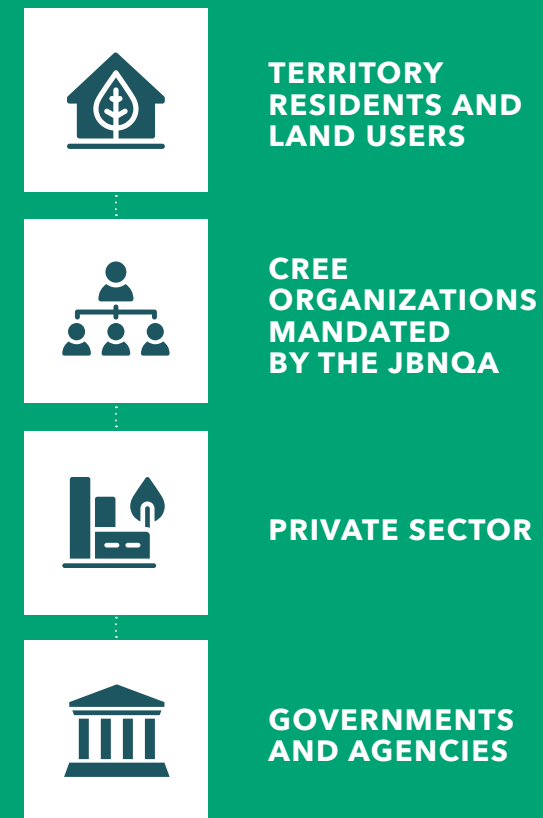
The LGA approach involves communities from the start and considers environmental and social criteria at the same level as technical and financial ones. The studies found herein have put local communities at the center of the development process.

In this sense, La Grande Alliance goes beyond a standard regional plan but rather proposes a new model for how the Cree, Québec and Jamesian populations can work together on enhancing socio-economic development in a sustainable manner that protects and preserves the territory for future generations.

IMPORTANCE OF SOCIAL & ENVIRONMENTAL DATA



PARTICIPANTS IN THE FEASIBILITY STUDIES



CONTRIBUTIONS OF THE STUDIES TO THE CREE NATION

DOCUMENT

and increase awareness about road safety issues

TRANSFER

of knowledge and data consolidation within Cree Nation and with government partners

BEING PREPARED

and informed in the event that a new development project is proposed

STUDIES

The infrastructures examined as part of the Grande Alliance transportation studies are intended to address a specific need or opportunity to fully integrate the regional economy of the Eeyou Istchee/Baie-James region, in particular the Cree communities, in a manner that allows for the sustainable development of its resources.



STUDIED INFRASTRUCTURES

1. Community access roads upgrade and paving
 - Waskaganish
 - Eastmain
 - Wemindji
 - Nemaska
 - Mistissini (addition)
2. Route du Nord upgrade and paving
3. Railway: Matagami to Rupert River
4. Recommissioned railway: Grevet-Chapais
5. Railway: Rupert River to La Grande
6. Road extension to Whapmagoostui
7. Route 167 upgrade & extension
8. Railway: La Grande to Whapmagoostui
9. Seasonal Harbour in Whapmagoostui

FEASIBILITY OR PRE-FEASIBILITY?

Although the work presented in this document is tagged “Feasibility Studies”, not all components have been studied with the same level of detail. Some components, mostly situated in the South of the territory, have been part of a feasibility study, whereas others have gone through a pre-feasibility process. The differences are presented below, but in both cases, further studies would be required if communities decide to go forward with any infrastructure.

FEASIBILITY STUDY



A combination of desktop and field work for data collection



Identifies an optimal alignment based on multicriteria scoring



Margin of error of cost estimate is more accurate, less than 35%

PRE-FEASIBILITY STUDY



Primarily a desktop exercise



Identifies proposed alignments with alternatives that require further investigation



Margin of error of cost estimate is wide, but less than 85%

INVOLVEMENT OF TERRITORY RESIDENTS

Development, regardless of its scale, has an impact on everyone on the territory. This is why the LGA studies have included a broad group of stakeholders in the discussions, to ensure that a wide range of community residents share their views on the proposed infrastructures.

Land users remain the most impacted, as their lifestyle depends on the long-term stability of the land. They are also the holders of Cree culture and detailed information about the territory. Their involvement is therefore critical to the success of a gathering of information as intensive as the LGA studies.

By many accounts, the studies represent the first time that land users are being engaged at this early stage of potential development projects. Their feedback, along with that of other territory residents, informs the ensuing technical studies and ensures that the proposed alignments are as close to a consensus as possible.

Engagement with land users has followed a two-step process:



INFORMATION SESSIONS with tallymen and land users about the study and interviews to determine areas of importance within traplines



VALIDATION INTERVIEWS to confirm collected information and document comments and proposed optimizations on preliminary alignments

CREES ARE INTERVIEWED BY CREES, IN CREE, FOR THE BENEFIT OF THE CREES.

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COMMUNITY ENGAGEMENT (as of September 15, 2023)

Throughout the study phase, Community Engagement actions led to numerous meetings and presentations, including:

- Over 100 questionnaires, posters, info sheets, focus groups, meeting invitations and presentations
- Cree Communities: general assembly, focus groups (chief & councils, youth, elders, women), and land users info sessions
- Jamesian municipalities & localities: Directors general and elected representatives, public sessions (in person and virtual), local stakeholders
- Discussion and engagement with Inuit communities and leadership did not occur during these studies but are mandatory for future steps

	GENERAL ASSEMBLY PUBLIC MEETINGS	FOCUS GROUP	LAND USER MEETINGS & INTERVIEWS	TRAPLINES INCLUDED
Regional Entities	21	3	N/A	N/A
CTA	5	2	N/A	N/A
Whapmagoostui	7	6	17	13
Chisasibi	12	4	37	23
Wemindji	2	1	22	8
Eastmain	4	3	15	4
Waskaganish	5	2	26	8
Nemaska	1	1	28	12
Waswanipi	0	0	3	3
Oujé-Bougoumou	3	0	8	4
Mistissini	3	2	66	19
Washaw Sibi Eeyou Association	1	1	9	4
Total	64	25	231	86

SOCIO-ENVIRONMENTAL ELEMENTS BROUGHT INTO THE DESIGN

Beyond engagement with community residents, other elements have been included in the studies from a socio-environmental standpoint. They can be found in the table on the right.

The LGA process happens at an earlier stage than a standard Environmental and Social Impact Assessment. It means that the studies identify risks and collect information to integrate into the design of studied infrastructures as much as possible.

The elements presented on the right, along with engagement results, have been integrated into the technical study. The technical section includes a few examples of this influence identified by the icon below:



 <p>LAND</p> <p>100+ TRAPLINES</p>	 <p>CULTURE</p> <p>221 ARCHAEOLOGICAL SITES</p> <p>10 HIGHLY IMPORTANT CULTURAL SITES</p>	 <p>STATUS</p> <p>16 SPECIES WITH PROTECTED STATUS</p> <p>32 AT-RISK SPECIES</p> <p>18,000 KM² OF PROTECTED AREAS</p>	 <p>MAMMALS</p> <p>54 TERRESTRIAL MAMMAL SPECIES</p> <hr/> <p>The caribou is an emblematic cervid of northern Quebec</p>
 <p>BIRDS</p> <p>184 BIRD SPECIES</p> <hr/> <p>The Canada Goose is a keystone species in Cree culture</p>	 <p>FLORA</p> <p>BOREAL VEGETATION ZONE</p> <hr/> <p>Dominated by black spruce (<i>Picea mariana</i>)</p>	 <p>FISH</p> <p>30 FRESHWATER SPECIES</p> <p>25 MARINE SPECIES</p>	 <p>CLIMATE</p> <p>8 CLIMATE HAZARDS</p> <hr/> <p>Harsh climate conditions</p>

ACCESS ROADS

LGA has proposed upgrading and paving the community access roads for Waskaganish, Eastmain, Wemindji and Nemaska to provide a modern and reliable link to the existing road network.

The proposal also includes upgrading and paving the Route du Nord, the privileged east-west link on the territory, which has experienced deterioration in the past decades.

The proposed work could upgrade road quality and safety, as well as driving experience, while reducing environmental impact, through the following specifications:

- Corrections of horizontal and vertical curves
- Resurfacing and paving
- Improving pavement markings and signage
- Environmental protection measures
- Trimming of roadside vegetation
- Development of multifunctional trails near communities
- Addition and replacement of crash barriers
- Lane widening
- Ditch cleaning
- Replacement of culverts
- Landscaping
- Addition of parking space along the road



INTEGRATION OF CREE KNOWLEDGE

Discussions with community residents and land users helped the study teams identify some specific issues raised by drivers. Here are some potential solutions:

ISSUES RAISED	SUGGESTED SOLUTIONS
Roadway too narrow when passing vehicles, and narrow and unstable shoulders	Revision of the cross-section of the road
Difficulty parking on the side of the road	Development of access, parking areas and turning areas along the road corridor
Road too narrow near communities and used by pedestrians and hunters	Development of multipurpose trails near communities
Lack of signage (traplines, camps, moose, etc.)	Complete overhaul of signage
Various overflowing culverts and presence of beavers	Replacement of culverts and installation of beaver barriers
Dangerous curves and slopes	Dangerous curves and slopes will be improved, addition of danger signage
Rock near the roadway	Rock inside the lateral clearance of users will be excavated
Loss of visibility due to roadside vegetation	Roadside vegetation trimming
Roadway erosion	Stone embankment stabilization
Dust	Asphalt pavement surfacing

MISTISSINI SECONDARY ACCESS ROAD

A secondary access road for Mistissini has also been proposed and studied, to provide for the safe evacuation of the community as well as to allow easy access to markets further north on the territory.

That study included, among other things:

- INVENTORY OF CROSSINGS
- REPORT ON WILDLIFE
- ARCHAEOLOGY
- DETERMINATION OF RIGHTS-OF-WAY

ROAD 167 UPGRADE & EXTENSION TO TRANS- TAIGA

The proposed extension of Road 167 to connect to the Trans-Taiga Highway could provide a second north-south transportation corridor to serve the eastern part of the territory.

This would significantly reduce travel time between the Mistissini/Chibougamau area to Chisasibi, thereby connecting the two most populous areas of the territory, facilitate interregional connectivity and provide access to currently isolated areas.

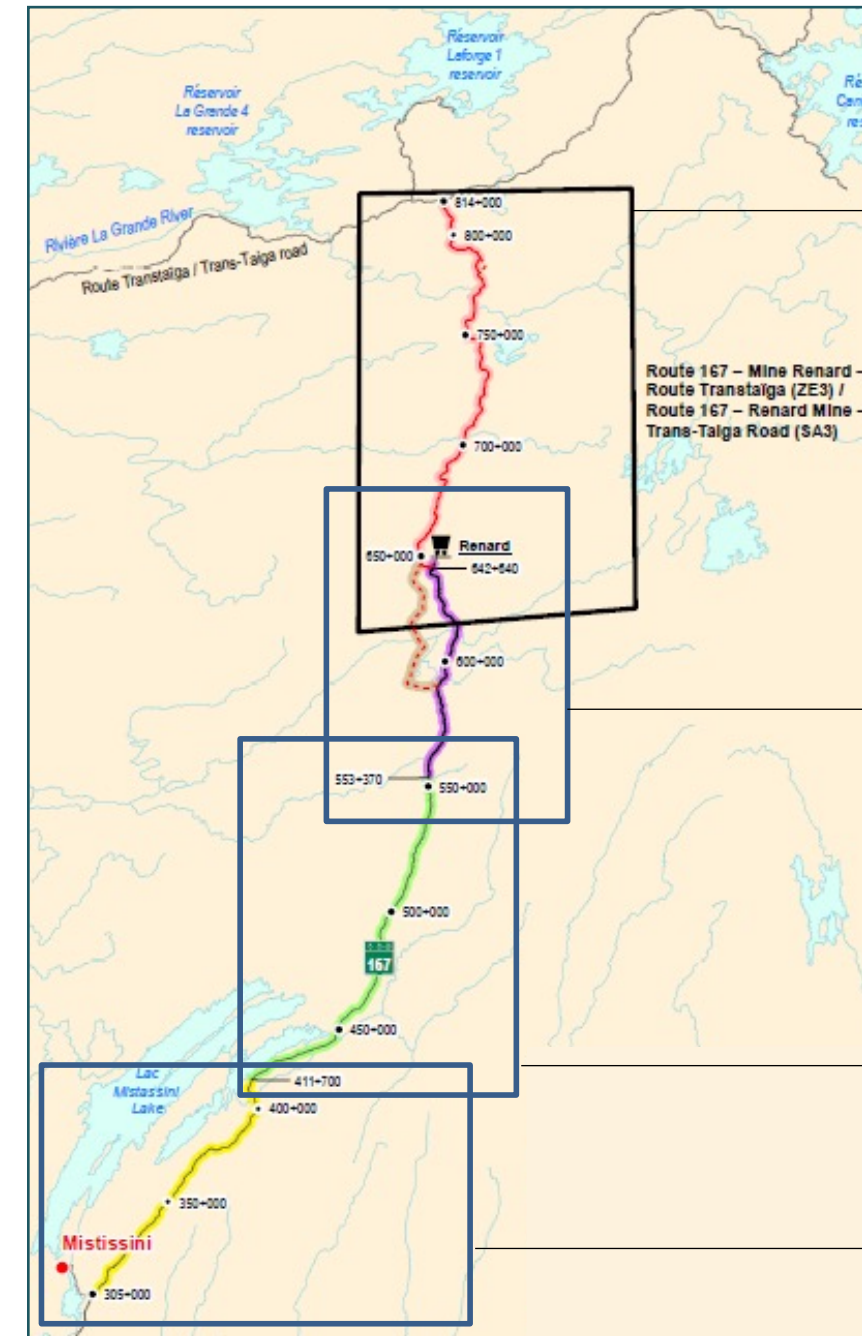
DEVELOPMENT CRITERIA

The pre-feasibility study has demonstrated that it is possible to develop the proposed road infrastructure by following the best technical practices, social-environmental design drivers and in addition, the following criteria:

- Respect, as much as possible, the natural site topography (mountains and plains);
- Consider the overall geology of the study area, including the locations of aggregate material deposits;
- Avoid, as much as possible, lakes and rivers; minimize the length of crossings and bridges where these are unavoidable.
- Avoid, as much as possible, existing and projected Protected Areas (Aawitakuch, Pipunishiwini-Saahkamiishtikw & Hironnelle); minimize encroachment and provide mitigation measures where unavoidable;
- Minimize crossing and impacts on caribou migration corridors;
- Avoid, as much as possible, areas of cultural significance either currently used or archaeological sites; minimize encroachment and/or provide mitigation measures where these are unavoidable;
- Propose, wherever applicable, alignment variants that could minimize environmental footprint, construction cost and impacts on existing camps and facilities.

PROPOSED WORK

The proposed work of Road 167 would involve over 500 km of road and nearly 25 bridges and crossing 15 traplines. The proposed work is divided in 4 sections that go as follows:



SECTION 4 – EXTENSION

- New gravel road (MTQ standards)
- Special attention to caribou
- Route follows ridges, avoids water bodies and crosses rivers at their narrowest point
- Avoid highly sensitive areas and protected areas

SECTION 3 – UPGRADE

Mining Road

- ±1.5m road widening
- Horizontal and vertical curves correction
- Installation of guardrails

SECTION 2 – NO WORK

Deemed in fairly good condition

SECTION 1 – UPGRADE

- Clearing, reinforcement, maintenance and paving

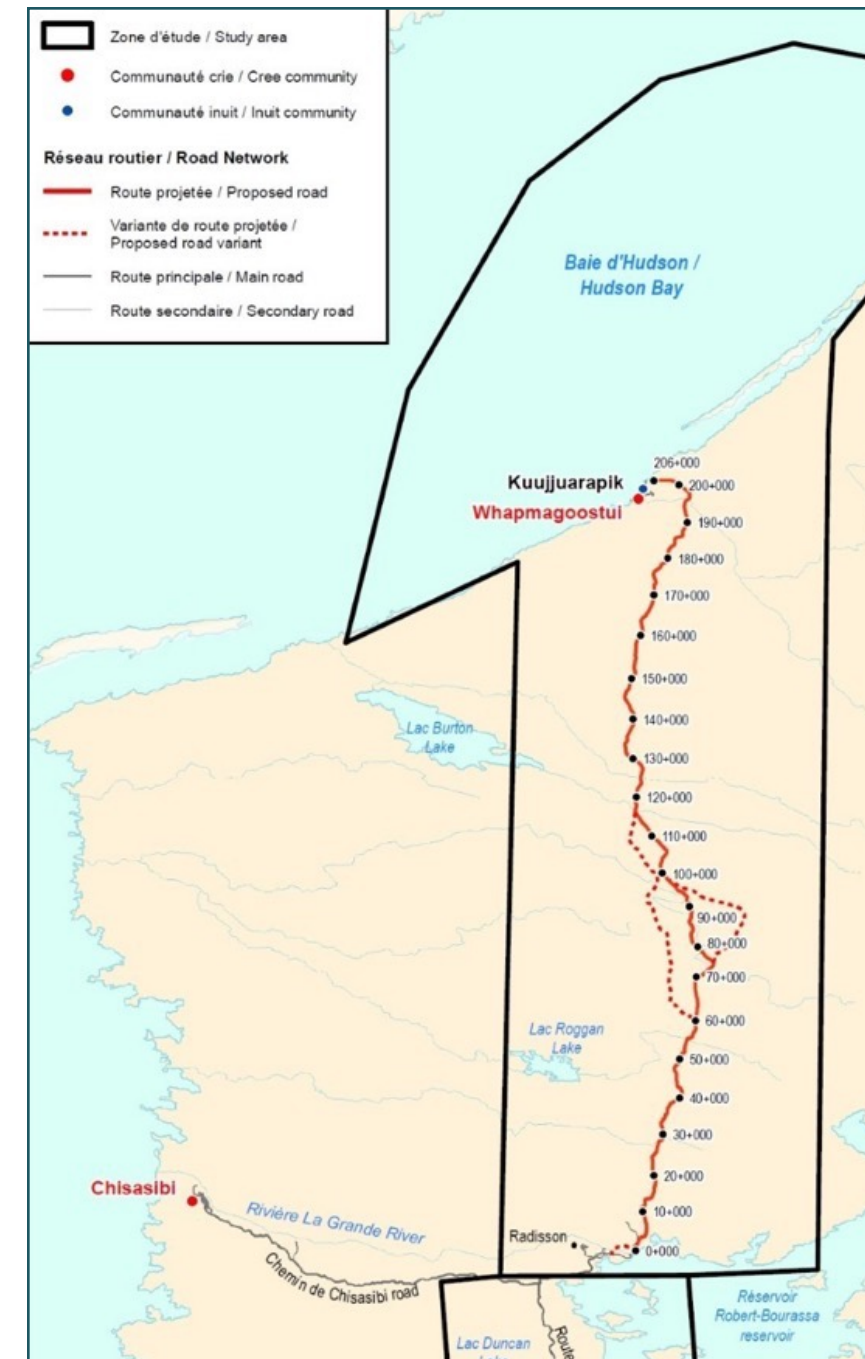
WHAPMAGOOSTUI / KUUJJUARAPIK ROAD

The LGA proposal includes a connection to the communities of Whapmagoostui (Cree)/ Kuujjuarapik (Inuit), thereby providing access to previously isolated communities via the extension of the Billy-Diamond Highway;

ADDED VALUE AND CHALLENGES

- | | |
|-----------------------------------|---|
| CONNECTING | <ul style="list-style-type: none"> • Facilitate journeys between communities |
| IMPROVING | <ul style="list-style-type: none"> • Reduce travel time and cost • Facilitate traplines access (inclusion and tradition) |
| SOCIO-ECONOMIC DEVELOPMENT | <ul style="list-style-type: none"> • Access to isolated areas • Increase employment opportunities • Facilitate access to Cree services |
| ENVIRONMENT | <ul style="list-style-type: none"> • Sinuosity to avoid sensitive areas • Protected Areas preserved • Migratory caribou to be considered |

ROAD STUDY AND PROPOSED ALIGNMENT



PROPOSED FEATURES

207 KM

CROSSES
9 TRAPLINES

STARTS NORTH
OF THE LG-2 SPILLWAY

APPROACHES
COMMUNITY BY THE
NORTH-EAST

60 BRIDGES
OUT OF WHICH 11
ARE MAJOR

450 CULVERTS

WHAPMAGOOSTUI/ KUUJJUARAPIK HARBOUR

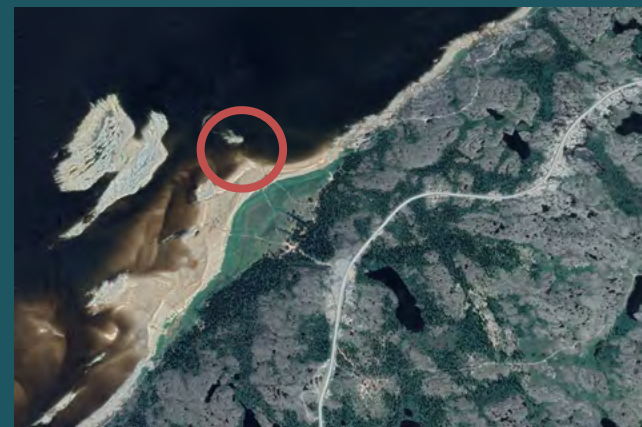
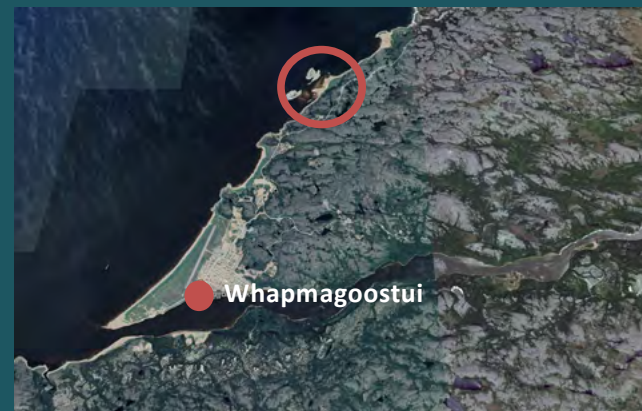
The LGA memorandum of understanding identified the Whapmagoostui area as potential host for a deep-water port. The pre-feasibility study conducted in 2021-2022 proposed changing the deep-water port to a seasonal harbour due to two factors:

1. The market survey and cargo forecast results show that expected demand in short- to mid- term future is insufficient to sustain a deep-water port investment.
2. The recent landslide upstream Great Whale River and the perceived risk of excessive sedimentation could lead to the existing natural beach harbour to become unusable for port purposes.

The study team used 5 technical criteria to identify the most optimal location for the harbour:

- **TOPOGRAPHY**
- **ICE CONDITIONS**
- **WATER LEVELS**
- **SEDIMENTS**
- **METEOROLOGICAL AND OCEANOGRAPHIC CONDITIONS**

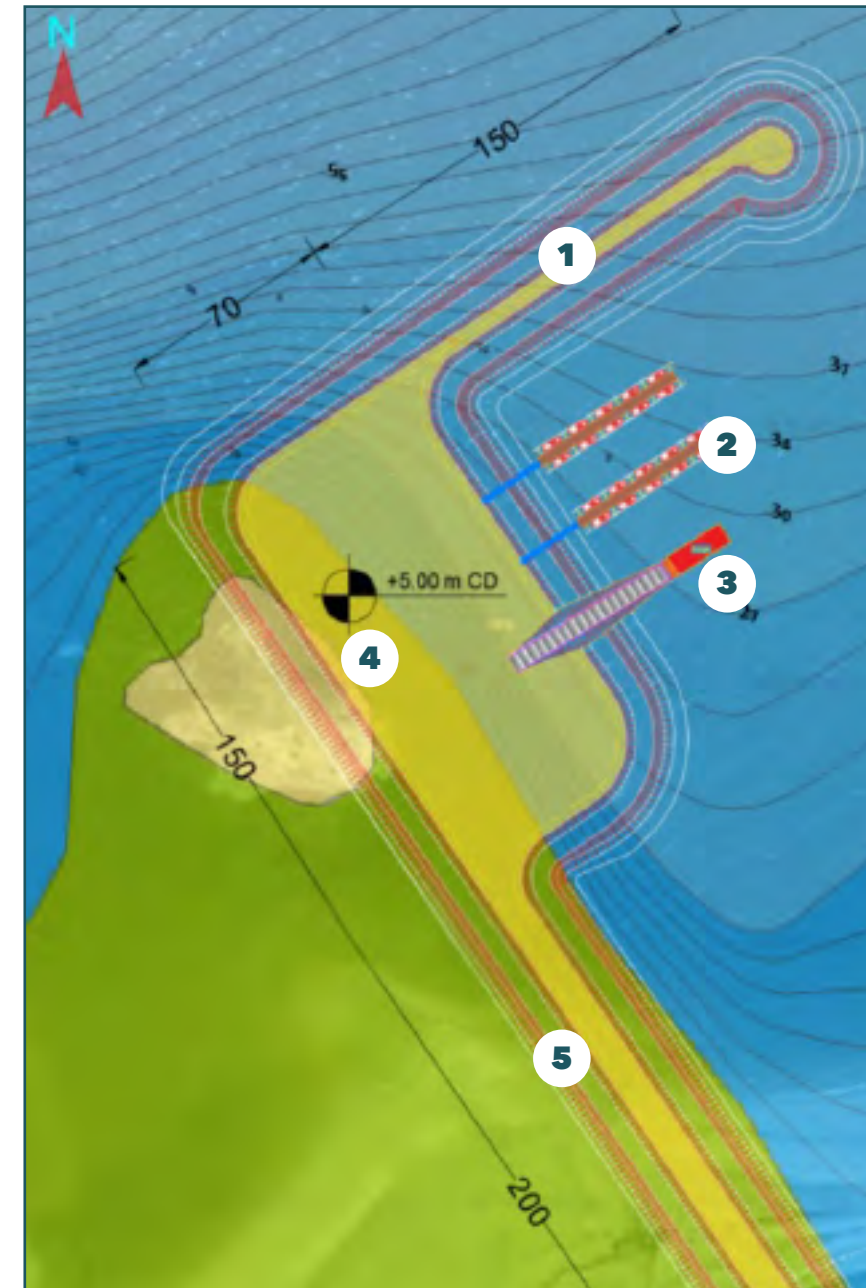
PROPOSED SITE LOCATION



The criteria used to identify the site location also have a reduced effect on the environment:

- Reduced risks of pollution and contamination.
- Reduced frequency of dredging operations.
- Outside of important areas for beluga whales, polar bears, and migratory birds.
- No conservation or protected areas in the vicinity of the proposed site.

POTENTIAL HARBOUR FEATURES



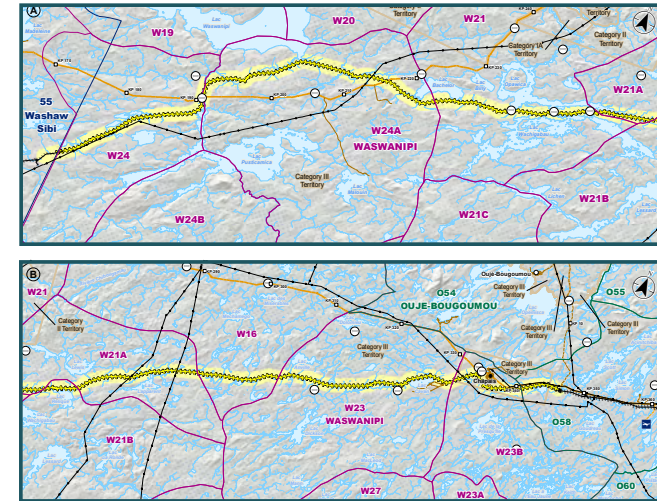
1. **SHORE-CONNECTED BREAKWATER**
TO SHELTER BERTHS FROM WIND AND WAVES
2. **FLOATING WHARVES**
FOR 20 SMALL VESSELS WITH EASY ACCESS
3. **BOAT RAMP**
TO BE USED FOR LOADING OF GOODS AND COMMODITIES VIA DEDICATED BARGES
4. **AN ONSHORE AREA**
TO ACCOMMODATE POTENTIAL ONSHORE OPERATIONS
5. **ACCESS CAUSEWAY**
CONNECTING THE ONSHORE AREA TO THE LOCAL ROADS

GREVET- CHAPAIS RAILWAY LINE

LGA has studied the return to service of the railway line between Grevet and Chapais (about 165 km). The railway line was dismantled in the early 1990s, and the right of way (ROW) is now used for various activities, including a snowmobile/ATV trail and a logging road. These usages would be relocated nearby if the railway would be rebuilt.

Cree traplines that could be impacted by the potential return to service are from Waswanipi, Ouje-Bougoumou and the Washaw Sibi Eeyou Association. They will all have a say in the decision to advance to the next stage of analysis.

PROPOSED ALIGNMENT



The alignment design used LIDAR data and information obtained during site visits. To reduce construction costs, it would follow the existing ROW, however some earthworks would be needed to re-establish the ROW deformed by erosion and surface wear from current usages.

The line has been designed as a Transport Canada Class 3 track, with maximum speeds of 95 km/h (60 mph) for passenger trains and 65 km/h (40 mph) for freight trains.

PROPOSED FEATURES

The re-established railway would require replacement of 4 existing bridges, rehabilitation of 5 existing bridges and 38 level crossings, mostly on minor and forestry roads or trails. It would also include new passenger stations at Chapais and south of Waswanipi.

A transshipment yard in Chapais would be used for loading/unloading trains, storage, maintenance and exchanging traffic with other railways and shippers. The yard would represent 25 of the 44 jobs potentially created to operate the railway.

POTENTIAL FREIGHT TRAFFIC

It is estimated that three days per week, one freight train would perform a round trip between Grevet and Chapais, carrying a mix of the traffic listed below.

COMMODITY	QUANTITY (TONNE PER YEAR)
SPODUMENE CONCENTRATE	200,000
BULK COPPER CONCENTRATE	317,400
WOOD CHIPS	480,400
GOODS	10,000
TOTAL	1,007,800



PROPOSED PASSENGER SERVICE

Studies evaluate that as much as 5,000 annual passengers could use the railway line to travel East-West and reach VIA Rail's network to the south at Senneterre and Chambord.

POTENTIAL PASSENGER NETWORK



POTENTIAL ANNUAL PASSENGER DEMAND FOR RAIL

MATAGAMI - RUPERT	1,700
MATAGAMI - LA GRANDE	7,000
WHAPMAGOOSTUI - LA GRANDE	1,500
GREVET - CHAPAIS	5,000

BILLY DIAMOND HIGHWAY RAIL

PHASE 1

LGA has studied a potential railway that could follow the existing Billy-Diamond Highway corridor, to minimize truck traffic along the highway in the face of future development, as well as to avoid the creation of any new north-south transportation corridor in the region. This, in turn, allows for larger and more contiguous areas to be protected from development outside the corridor of the highway.

The railway could also provide passenger transportation to community members traveling south and to land users getting to their hunting territories. A first phase would cover the portion between Matagami (KM 0) to the Rupert River (KM 257).

ALIGNMENT DEVELOPMENT CRITERIA

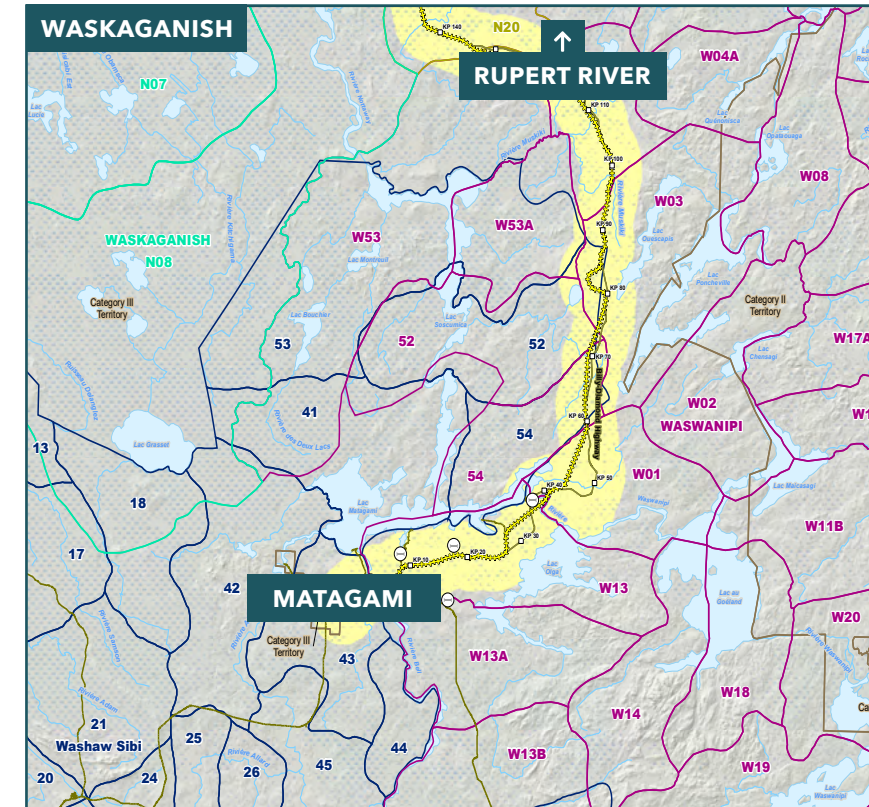
For the proposed Phase 1 railway, two alignments were analyzed:

- **BASELINE:** Maximize length within 100m of center of BD Highway
- **OPTIMIZED:** Minimize travel time and cost

A “Hybrid” alignment was then created, taking the best elements of the two alignments, which will avoid, as much as possible, the following elements:

- **WOODLAND CARIBOU**
- **CAMPS**
- **ARCHAEOLOGICAL SITES**
- **WATER CROSSINGS**
- **PROTECTED AREAS**
- **HUNTING AREAS**

FEATURES



257 KM

CROSSES 12 TRAPLINES

STARTS AT CURRENT END-OF-TRACK IN MATAGAMI

ENDS ACROSS RUPERT RIVER

43% WITHIN 100M OF BD HIGHWAY

2 TRANSSHIPMENT AREAS (MATAGAMI & WASKAGANISH)

POTENTIAL FREIGHT TRAFFIC

It is estimated that freight trains would perform a round trip between Rupert River and Matagami, carrying a mix of the traffic listed below.

COMMODITY	QUANTITY (TONNE PER YEAR)
FORESTRY	318,600
MINING	951,000
OTHERS	111,573
TOTAL	1,381,173

BDHR ALIGNMENT

HYBRID RAILWAY DESIGN CRITERIA

1ST PRIORITY

- Avoid Cree land use areas
- Avoid archaeological sites
- Avoid protected areas (e.g. biological refuges)
- Avoid other highly sensitive areas
- Avoid urban areas
- Maximize length within 200m width of BDH in caribou areas

2ND PRIORITY

- Avoid wetlands/water bodies
- Avoid sensitive flora and fauna locations
- Maximize length within 200m width of BDH outside of caribou areas
- Minimize CAPEX, OPEX

3RD PRIORITY

- Minimize travel time

4TH PRIORITY

- Avoid mining titles
- Avoid forestry titles
- Consider geotechnical opportunities and constraints (weak material, distance to borrow pits)



AVOIDANCE CRITERIA

WOODLAND CARIBOU

The proposed railway alignment was positioned as close as possible to the existing BD road for 100km of the 250km length to avoid entrapping the caribou between the road and rail rights of way

CAMPS

The proposed railway alignment was at least 500m from a camp as long as it did not compromise Caribou or Protected Area criteria. Instances where the Tallymen preferred not to relocate their camp, the railway was moved inland, at the request of the Tallymen. Earthen berms were proposed as noise mitigation along railway ROW for camps 300-500m from railway.

HUNTING AREAS

Railway right-of-way was designed to avoid any of these areas

ARCHAEOLOGICAL SITES

Railway ROW must not touch any site

PROTECTED AREAS

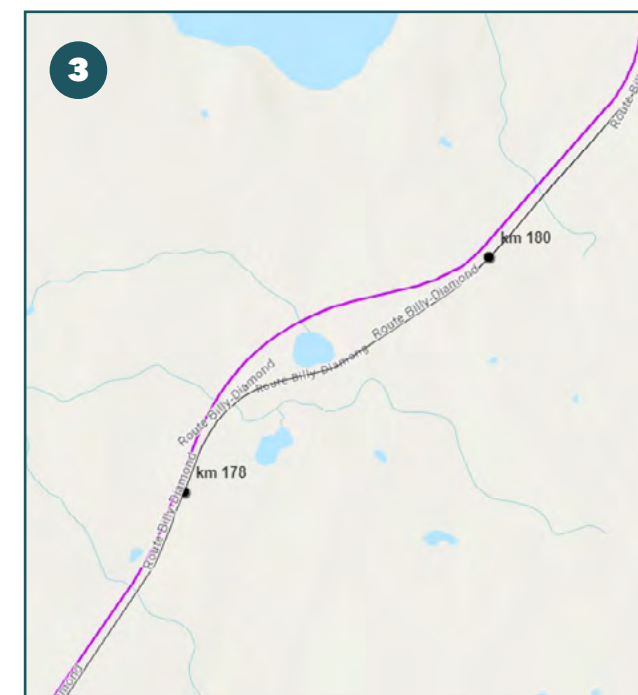
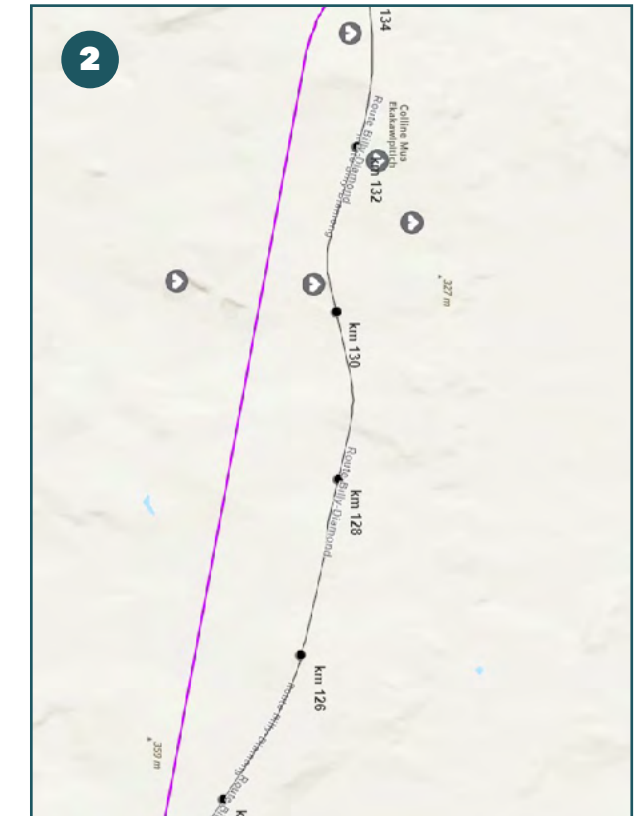
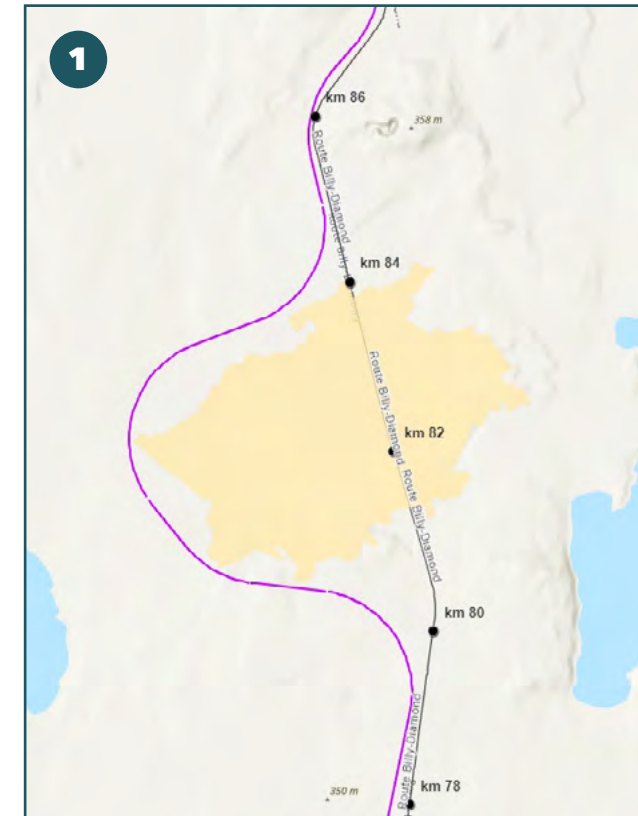
Railway ROW must not touch any of these areas

WATER CROSSING STRUCTURES

Avoid filling in any locations with visible open water (e.g., lakes and wetlands with open water)



ALIGNMENT BYPASSES TO AVOID SENSITIVE AREAS



1. BYPASS OF PROTECTED AREA

2. AVOIDANCE OF LAND USE AREAS

3. AVOIDANCE OF A WATERBODY NEXT TO THE HIGHWAY

PHASE 2

The second phase of the Billy-Diamond Highway Rail would extend the railway from the Rupert river to the turnoff to the Trans-Taiga Highway (KM 544).

FEATURES

340 KM

**CROSSES
20 TRAPLINES**

**STARTS WEST OF
RUPERT RIVER AT PHASE 1 BRIDGE**

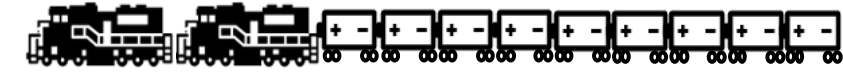
**ENDS 3KM SOUTH OF
LA GRANDE RIVER**

**70% WITHIN 100M
OF BD HIGHWAY**

**3 MAJOR BRIDGES
(EASTMAIN, OPINACA, VIEUX
COMPTOIR)**



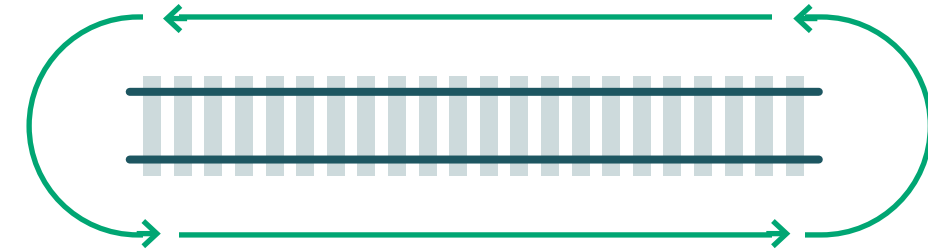
BATTERY LOCOMOTIVE SCENARIO



TRAVEL NORTHBOUND (12 MWH CONSUMED)

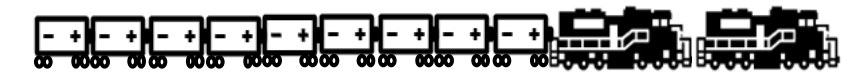


WASKAGANISH
Battery charging
overnight



MATAGAMI
Battery charging
overnight

TRAVEL SOUTHBOUND (22 MWH CONSUMED)



ADVANTAGES OVER DIESEL OPERATION

01

CLEANER

NO GREENHOUSE GAS
EMISSIONS

02

CHEAPER

THAN DIESEL
TO OPERATE

03

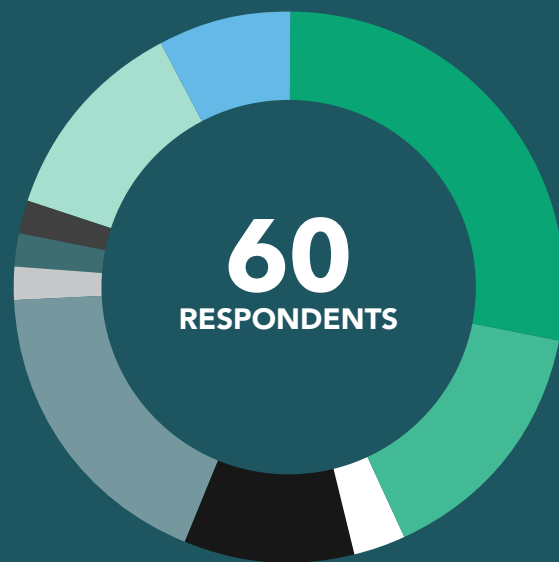
SAFER

NO HANDLING OF
HAZARDOUS MATERIALS

MARKET SURVEY

The objective of the market study is to evaluate the need and potential revenue for the proposed transportation infrastructure by looking at current and future socio-economic conditions, transport network and traffic counts, market survey, similar cases, traffic-revenue forecasts and other aspects.

BREAKDOWN OF MARKET SURVEY RESPONDENTS



- MINING (17)
- TRANSPORTATION (11)
- CONSTRUCTION (9)
- FOREST INDUSTRY (7)
- CREE ECONOMIC DEVELOPMENT OFFICERS (6)
- JAMESIANS (5)
- TOURISM (2)
- INUIT (1)
- ELECTRICITY (1)
- OIL PRODUCTS (1)

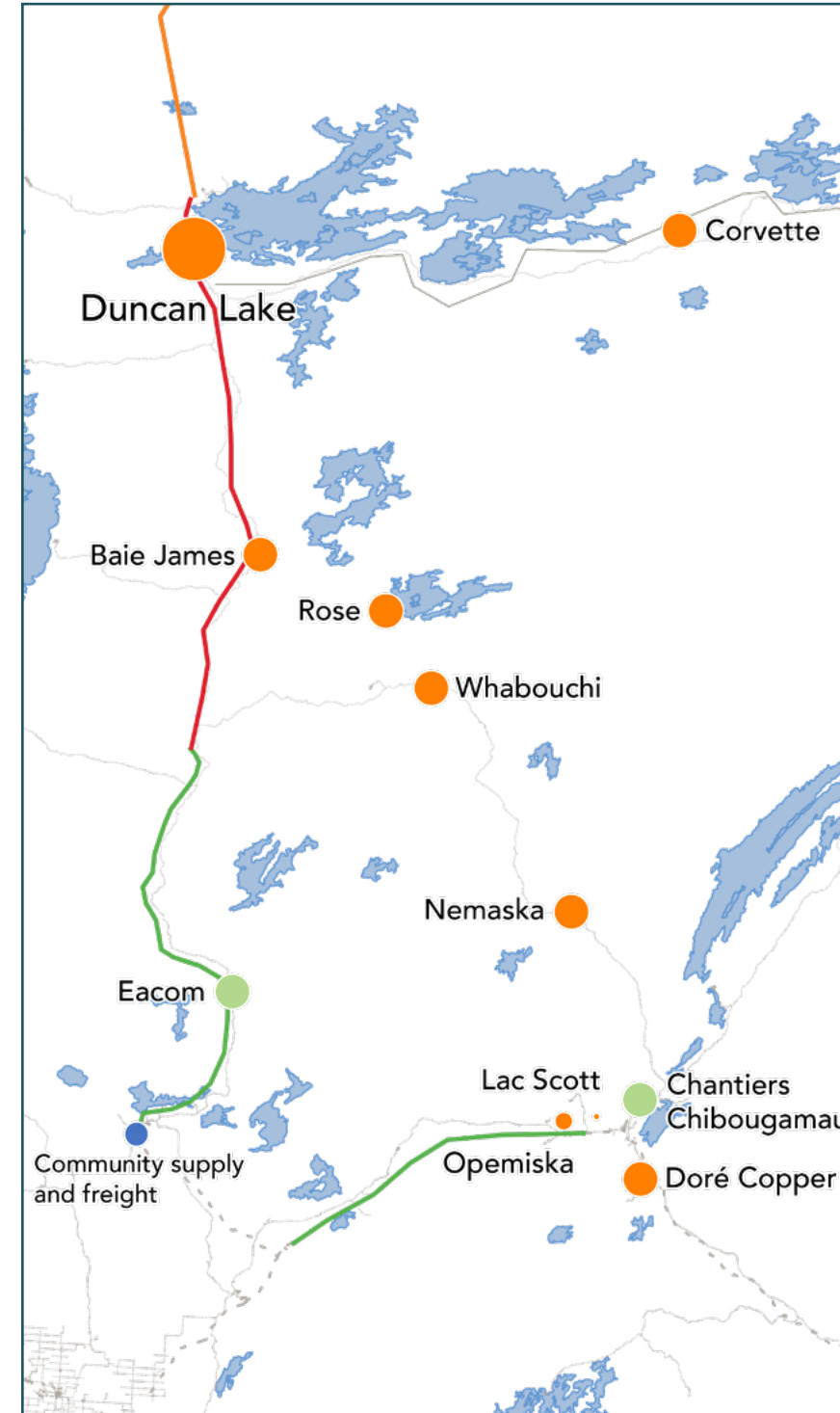
SOCIO-ECONOMIC CONDITIONS

POPULATION TRENDS

- 32,000 inhabitants in 2021, 38,500 in 2051
- Cree population is rising and youth represents 28% of total
- Jamesian population is stable and youth represents 16% of total

FORESEEN ECONOMIC GROWTH PER SECTOR

FORESTRY	Constant, based on set limits
MINING	Potential lithium, iron ore, copper projects
ELECTRICITY	Need for refurbishment and growing demand
CONSTRUCTION	Need for housing, limits to attract workforce
TOURISM	Several projects; limited opportunities



RAIL FREIGHT FORECAST

The studies show that there would already be a demand for rail transportation on the proposed alignments.

LEGEND

- Phase 1
- Phase 2
- Phase 3
- Annual tonnes 1M-5M
- Annual tonnes 250k-1M
- Annual tonnes 50-250k

PROGRAM BENEFITS AND COSTS

The studies have looked at potential benefits that could be created by the proposed infrastructures, and compared them with the potential costs. The table below presents some of the criteria identified.

BENEFITS TO INFRASTRUCTURE USERS	BENEFITS TO THE WIDER COMMUNITY	COSTS
Improved, more efficient and safer infrastructure	Increased contact between different communities and enhanced cultural conditions	Construction pollution
Reduced trucking movements and improvement in quality of life for residents	Reduced transportation costs benefiting local businesses and consumers	Construction of new railway right of way
Improved access to workplaces, services and traplines	Increase in income resulting from the enhanced regional economy	Road and railway maintenance
Facilitate journeys between communities	Increased tourism opportunities	Rolling stock acquisition



EMPLOYMENT OPPORTUNITIES

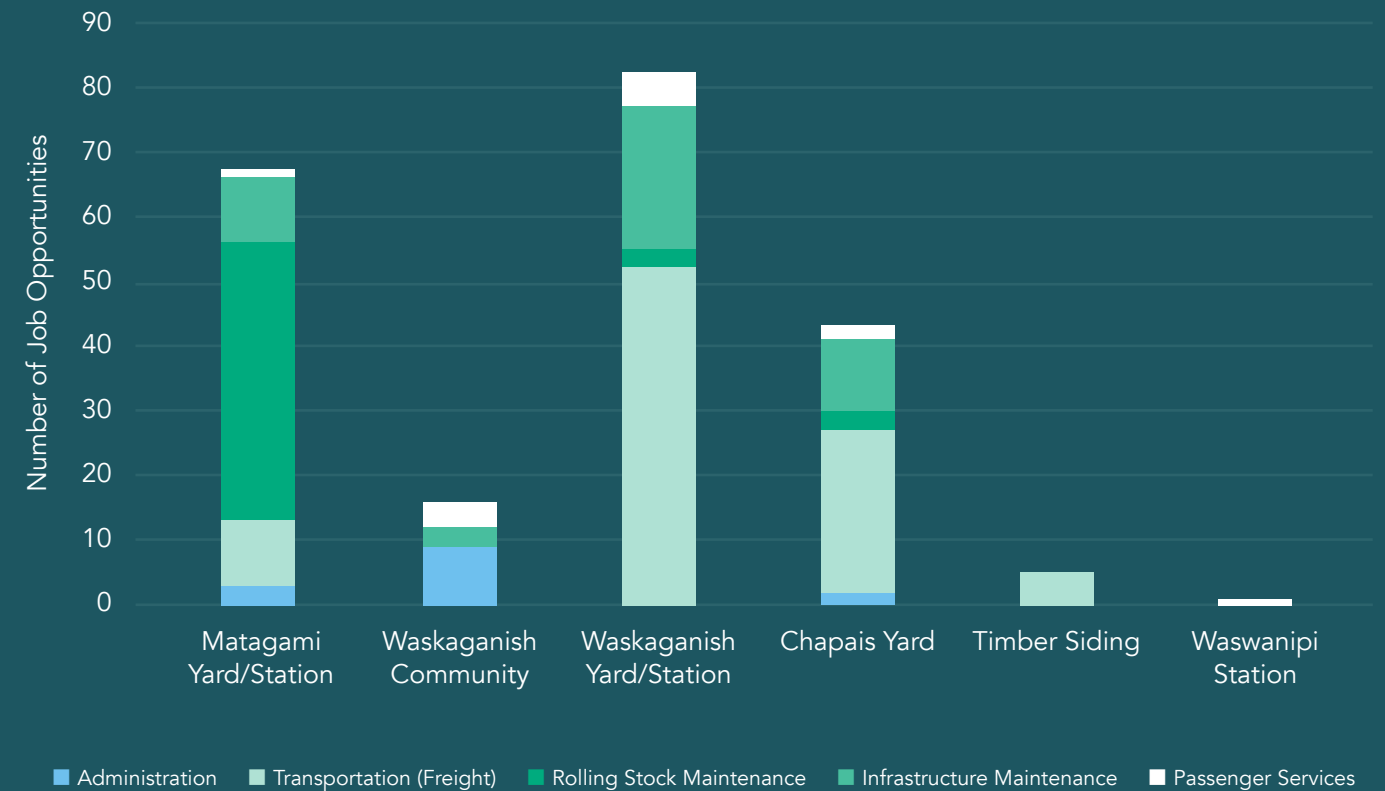
The operations phase of the proposed infrastructures would provide long-term opportunities for the community and allow the development of expertise and skills which require more significant training and experience. In turn, it would allow Crees to become more independent from external expertise.

To develop these opportunities, training and transmission of knowledge will be required for

various positions such as wildlife protection officers, research field assistants, guides, salespeople, machinery operators, drivers and engineers.

The long-term training would ideally take place in the years leading up to the beginning of construction to ensure that there is enough qualified Cree labour to cover the workforce requirements for both the construction and operating phases.

EXAMPLE OF JOB OPPORTUNITIES DURING OPERATIONS OF THE MATAGAMI-RUPERT AND GREVET-CHAPAIS RAILWAYS

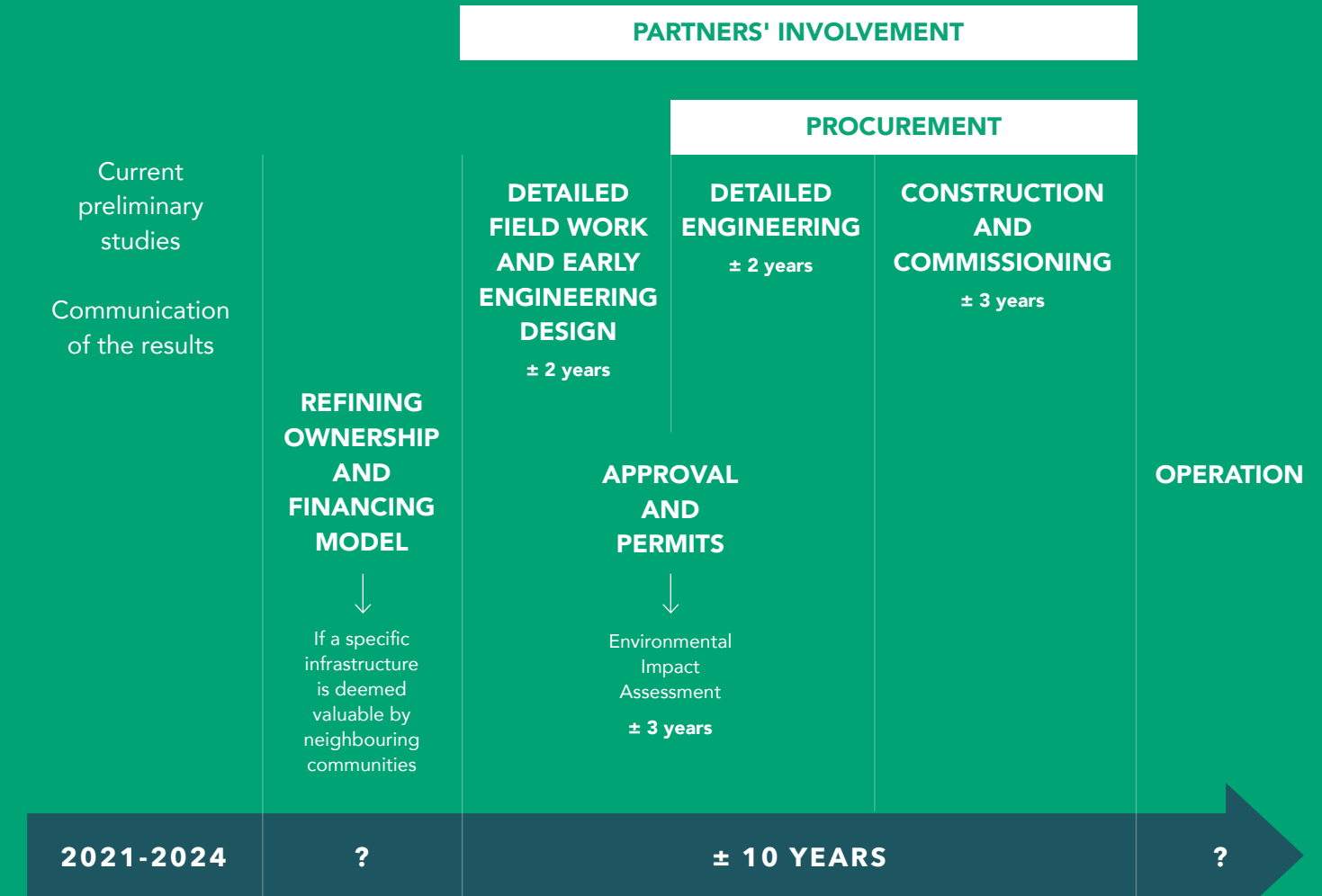
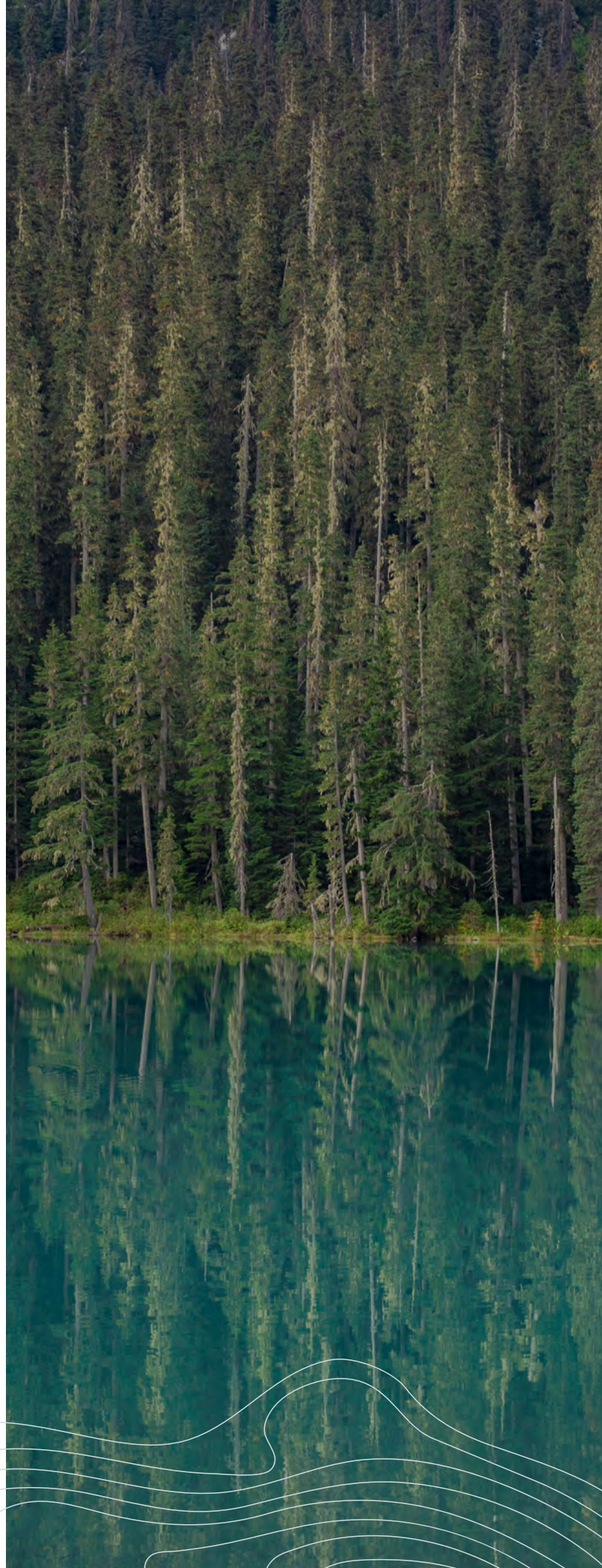


POTENTIAL NEXT STEPS

If the proposed infrastructures (collectively or individually) are deemed valuable by the communities, various steps will be required prior to commencing construction, most notably an environmental and social impact assessment. If approved, construction would likely begin in 2030 at the earliest.

Indeed, the proposed infrastructures are in the early stages of their life cycle, they would each, upon approval, require ten to fifteen years to be developed and built. In addition to the major stages of implementation typical of an infrastructure project, the following recommendations are intended as avenues for reflection and optimization specific to the foreseen La Grande Alliance context and infrastructures:

- Continue engagement efforts
- Carry out rigorous multidisciplinary research on Cree cultural preservation and the Cree way of life
- Planning must strengthen its focus on Cree Knowledge
- Proceed with detailed site collection data and detailed engineering design
- Determine mitigation measures specific to the health of the communities
- Determine mitigation measures specific to the land uses
- Identify and foster jobs and training opportunities



COMMUNICATIONS PROGRAM

<p>IN-PERSON MEETINGS</p> <ul style="list-style-type: none"> • Presentation and Q&A at AGAs • Meetings with local leadership • Local and regional groups (Youth council, CTA, etc.) 	<p>DIRECT COMMUNICATIONS</p> <ul style="list-style-type: none"> • Radio shows • Podcast 	<p>GENERAL VISIBILITY</p> <ul style="list-style-type: none"> • Animated videos • Media articles • Promotional material 	<p>DIGITAL TOOLS</p> <ul style="list-style-type: none"> • Website • Weekly newsletter • Facebook/Instagram ads • Search engine marketing
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