



LA GRANDE ALLIANCE

FEASIBILITY STUDY – PHASE I -
PRE-FEASIBILITY STUDY – PHASES II & III –
TRANSPORTATION INFRASTRUCTURE

**ADDENDUM REPORT - COMMUNITY SOCIAL ECONOMIC
BENEFITS AND IMPACTS**

VERSION: 2.0 - FINAL



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PRESENTED TO:

CREE DEVELOPMENT CORPORATION

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EXECUTIVE SUMMARY

INTRODUCTION

The Cree Development Corporation (CDC), on behalf of the Cree Nation Government (CNG) and the Government du Québec (GQ), mandated Vision Eeyou Istchee (VEI), a consortium composed of Stantec, Desfor, and Systra Canada, as well as WSP Canada and Maamuu Consultants in September 2023 to complement the previously issued Volume 4 Market study, dated April 14, 2023. This volume is part of a series of studies of La Grande Alliance (LGA) transportation infrastructure program. LGA refers to the *Memorandum of Understanding (MOU) on the Cree-Québec Sustainable Infrastructure Program in Eeyou Istchee Baie-James*, signed between the CNG and the Government of Québec (GQ) in February 2020.

The previous Market Survey as well as Regional Economic Assessment (Volume 5 of the LGA Transportation Infrastructure Studies) were mainly developed from a regional economy point of view. This present complementary study is meant as a qualitative and quantitative analysis that disaggregates regional economic information to focus specifically on the local level of Cree communities as well as to visualize potential avenues for sustainable economic growth, within the context of the Grande Alliance proposed infrastructures, specifically for Cree local communities.

The purpose of LGA is to provide a framework for Cree local and regional entities to work closely with relevant Québec government ministries to connect, develop, and protect the territory of the Eeyou Istchee James Bay (EIJB) region of northern Québec in an inclusive and participatory manner and over a 30-year time horizon.

STUDY OBJECTIVES

This addendum's primary objective is to discern the value of an inclusive transportation infrastructure program, empowering Cree communities to forecast economic development and seize regional growth opportunities regarding LGA. More specifically, it delves into the social and economic implications of the transportation components studied, aiming to understand how they may affect Cree communities. Driven by Cree inputs in various reports, the report aims to gain a deeper understanding of economic landscapes, provide insights for decision-making, and integrate Cree traditional practices, particularly land-based activities, into the analysis as much as possible into each Cree community, but also acknowledging the importance of regional development for Eeyou Istchee.

This addendum provides an extensive array of data, including descriptive details and analytical observations concerning the effects of the LGA across the region and its various communities. Firstly, this conclusion will summarize the essential points outlined in this document. Secondly, we will recall the limitations of the report. Finally, recommendations will be offered for future endeavors aimed at comprehensively understanding the Cree economy in correlation with traditional land-based practices.

REGIONAL CREE DEMOGRAPHY AND EMPLOYMENT

A notable aspect of the Cree economy is its demographic trajectory, with the Cree population increasing significantly faster than the Quebec average. Projections indicate that by 2041, the Cree population will reach approximately 23,632 individuals, comprising 66% of the Eeyou Istchee Bay James region's population, up from 58% in 2021. Additionally, the working-age population (15-64) is expected to grow by 28% by 2041, reaching 14,674 individuals. Consequently, the Cree economy will need to create job opportunities at a compound annual growth rate of 1.3% over the next two decades to accommodate this demographic shift.

In Eeyou Istchee, the public sector, including public administration, healthcare, and education, employs 63% of the workforce, while the private sector employs 37% of which construction is by far the main category with approximately 18% of private employment. This public and private employment ratio contrasts sharply with Quebec, where around 63% of workers are employed in the private sector, indicating the need to stimulate private entrepreneurship in Eeyou Istchee in the years to come.

LGA IMPACTS ON CREE EMPLOYMENT

If all phases I, II, and III of LGA ever proceed, the impact on job creation would be substantial. The combined CAPEX for the three phases during the construction period is estimated at \$11.4 billion, with 60% (\$6.8 billion) designated to be directly awarded to Cree entrepreneurs between 2030 and 2044. This proportion is based on the experience of the HQ EM-1A/Rupert Diversion Project, which resulted in 40% of the total project envelope awarded to Crees and Cree businesses. Thus, underlying the assumption is the belief that results from this past project can be significantly improved with the LGA infrastructures. The resulting investment has the potential to generate 38,551 full-time equivalent (FTE) jobs over the course of 15 years, equating to an average of 2,570 jobs per year. During the maintenance phase, another 799 FTE will be created from 2045 to 2074.

The projected growth in employment for Cree workers is ranging from 9,000 jobs in 2030 to 15,000 by 2074. Notably, during the construction phase from 2030 to 2044, employment is expected to peak at 14,000 FTE jobs by 2032, leading to a substantial 77% increase in the standard of living for Cree communities to \$43,000 per capita. Even after Phase III construction would conclude, in 2044, employment levels are expected to remain stable at 11,000 jobs by 2045, resulting from ongoing operation and maintenance of LGA infrastructures. Overall, the LGA would result in a 7.7% increase in sustained employment compared to the scenario without LGA. This would result in an increase in the standard of living by 9.2% compared to the status quo situation. By 2074, the estimated increase in employment would be 5.4%, with a concurrent increase of 6.5% in per-capita income by 2074.

As discussed, the public sector dominates employment in all communities. However, this sector will be unlikely to grow at the same rate as the population, which already has a high percentage of unemployed or underemployed people. The construction industry, especially local demand, is growing. The construction phase of many proposed infrastructures would likely build on this demand. The non-forest resource extraction sector remains relatively small, apart from Wemindji, Oujé-Bougoumou and, to a lesser extent, Mistissini. Cree companies will likely grow in this sector, especially in areas that complement the land-based economy. Finally, manufacturing and regionally oriented services remain sectors that could demonstrate important growth, especially considering increased regional economic integration. However, many of these factors will depend on capacity building and training, so as to strengthen Cree entrepreneurship.

COST OF LIVING

In general, the current cost of living in Cree communities is higher than in neighboring Jamesian communities. Despite the cost of housing being less expensive due to band-owned homes that follow a social housing model, other goods such as food and beverage, transport and communication are more expensive.

The proposed LGA transportation infrastructure is expected to have a minimal impact on food and beverage prices for most communities, except for potentially shortening distribution routes to Nemaska and northern coastal communities if the Route du Nord is improved. However, the extension of the road to Whapmagoostui could have a greater impact on its cost of living, as it would reduce transportation costs and diversify the offer of goods. Gasoline prices, the basis for the transport price index, vary across Cree communities, with coastal communities experiencing higher prices on average than inland communities. The proposed LGA railway may reduce the transportation costs of oil products. Additionally, the construction of a road up to Whapmagoostui is projected to lower overall transportation costs.

Typically, it is anticipated that enhanced transportation systems, improving logistics and the volume of goods transported, would notably lower the cost of living. However, various factors influence prices of goods, such as current retail structure. It is very difficult to accurately predict the effects of the infrastructure for the end user/consumer. While improved transportation networks enhance the efficiency of goods transport, they may not necessarily lead to a reduction in the cost of living. But a better transportation network would at least secure a better supply of goods. Monitoring how the prices of goods and the cost of living evolve will be of paramount importance.

TRADITIONAL CREE LAND-BASED ECONOMY

Our analysis focused on the potential impacts of proposed infrastructure development on the land-based economy within Cree communities, highlighting the need to better understand this multifaceted concept from various perspectives, including resource accessibility, cultural continuity, traditional harvesting practices, sharing and gift economy dynamics, anticipated economic synergies and conflicts, as well as the economic viability of land-based activities.

A significant challenge faced in this task was the lack of a comprehensive, present-day overview and a precise definition of the concepts involved, which are seldom explored in the existing literature. While our analysis explored avenues for sustaining the land-based economy through modern approaches, such as land rehabilitation and cultural tourism, arts and crafts, non-timber forest products, etc., the scarcity of quantitative data led to a predominantly qualitative examination. Consequently, there were repetitions in the discussions as Cree views and aspirations echoed across different communities.

The primary quantifiable data available were derived from the ESP, which revealed a decline in recent years, particularly evident in inland communities, from 2781 participants or 20% in 2014 to 2499 participants or 14% in 2022. However, this decline does not directly indicate a threat to the Cree way of life and cultural continuity, although there are concerns. While the fur commerce downturn has reduced the number of individuals living on the land, approximately 15-19% of Crees in coastal communities still maintain this lifestyle, underscoring its enduring significance. Even those unable to engage in land-based activities extensively aspire to return later in life, reflecting a core Cree value. Insights from discussions with the CTA shed light on the complexity and paramount importance of traditional land-based activities to Cree traditional spirituality, medicine, knowledge transmission through families, and cultural values. Despite evolving dynamics and adaptations, the deep connection to the land remains a fundamental aspect of Cree life. For instance, utilizing helicopters or snowmobiles to reach remote traplines does not diminish one's Cree identity. Nevertheless, concerns have been raised regarding the youth critical responsibility in upholding cultural continuity.

Further in-depth analysis and comprehensive studies are imperative to fully understand and develop the land-based economy in Eeyou Istchee. Gaining deeper insights into the Cree perspective on land-based activities will facilitate striking a balance between mainstream economic endeavors and the intrinsic value of traditional land-based practice.

COMMUNITY PORTRAITS

Each Cree First Nations is unique, and the effects of LGA will be different for each of them, presenting both advantages and disadvantages. While LGA holds the potential for positive economic outcomes, it also raises concerns about increased access to the land by outsiders and by large-scale resource exploitation. Therefore, it is crucial to approach LGA engagement thoughtfully and proactively, with extensive dialogue, before any action is taken. The following summaries offer a glimpse into the unique context of each community.

WHAPMAGOOSTUI

Whapmagoostui, as the sole Cree community that is disconnected from Eeyou Istchee's current road network, faces significant economic challenges compared to other Cree communities. Factors such as a higher cost of living, limited services, and an undiversified economy contribute to these challenges, creating financial constraints for residents. Proposed LGA infrastructure offers potential solutions, including projected cost-savings of up to 66% for travelers, and reduced transportation costs for consumer goods. If implemented, LGA infrastructure could position Whapmagoostui as a transportation hub or an active part of the road network, providing opportunities for local entrepreneurs to benefit from associated infrastructure works and operations.

The anticipated employment opportunities from LGA infrastructure projects could significantly improve the standard of living for its residents, potentially reducing the community's high cost of living to levels comparable to southern Cree communities in the long term. Whapmagoostui stands to gain \$426M in contracts during the construction period from 2030 to 2044. This could create 2,396 FTE jobs across all three phases. Annually, entrepreneurs could secure \$33M in contracts, resulting in 184 FTE jobs for the community. Some other 16 to 35 FTE jobs would be added during the later maintenance period. This means the standard of living is higher by 69.3% in 2032, reaching \$44,476 at the peak year of the construction period, from \$26,278 without LGA,

However, better access to the community through the transportation network may lead to challenges, including the potential weakening of Whapmagoostui's unique identity as an isolated community, or the threat of intrusion into traplines by outsiders. Moreover, the environmental impacts of harbour construction and road network extension could extend to river mouth silting and permafrost melting. Environmental impact management would demand careful monitoring, and the involvement of the community through an engagement process. Effective communication and engagement with community members, particularly land users, are essential to mitigate anticipated impacts and address unforeseen challenges, thereby preserving cultural continuity for future generations.

Ensuring economic participation by local actors and the equitable distribution of benefits to the Inuit community of Kuujuarapik, and other northern communities, is crucial for the success of LGA initiatives. Obtaining and maintaining a Social License to Operate is imperative for the LGA to be positively viewed by Whapmagoostui residents.

CHISASIBI

Chisasibi, despite being the most populous Cree community and playing a vital role in supporting governmental infrastructure and institutions, faces more challenges than the rest of the Cree Nation. This is mainly attributed to its lower participation rate and employment rate among Cree communities. With among the lowest cost of living, especially among the coastal communities, Chisasibi could capitalize on the opportunities presented by LGA to further develop its economy.

However, when considering the expected impact of LGA proposals, Chisasibi's prospects appear promising. Positioned at the center of proposed LGA Phase II and III infrastructure, Chisasibi could take the lead in the construction and operation of these projects. Estimated economic benefits for the community are significant, including over \$2 billion in contracts for local entrepreneurs, and 867 FTE jobs annually during the construction phases. Furthermore, during the operational period, local entrepreneurs could secure \$8.6 million in contracts, supporting 166 FTE jobs per year. Consequently, the LGA is expected to transform Chisasibi's economy, fostering diversification and increased wage-earning opportunities.

While the expected positive effects of proposed infrastructure were explored with the community, opinions regarding the proposed infrastructures vary. Some land users express support for road construction, citing its potential to facilitate access to the land, especially amid evident climate change challenges affecting traditional travel methods. They believe that such infrastructure could help sustain the Cree way of life by providing safe, cost-effective access for future generations. However, others are concerned about the potential negative impacts of infrastructure. A particular concern is that better access to the land also means opening the territory to mining activities. These concerns extend to wildlife preservation, resource stability, and environmental degradation. Many community members emphasize the importance of decision-making processes being led by and for the Cree people, with development initiatives subject to stringent environmental assessment to garner community acceptance. Previous Hydro-Québec development projects have had lasting negative consequences for Cree community members. Chisasibi lost about 10% of its traplines to flooding. Today, there is concern about the physical erosion along the La Grande River.

WEMINDJI

Situated strategically at the heart of LGA, Wemindji has the potential to evolve into a versatile hub for goods destined for northern communities. Enhancements to the access road by paving it would further bolster transportation links, particularly along the existing barge freight corridor from its port to northern Nunavik communities, particularly if no other LGA infrastructures north of Chisasibi are constructed. During the construction phase from 2030 to 2044, local entrepreneurs stand to benefit from over \$573 million in contracts and the creation of 248 FTE jobs annually for 15 years in addition of 47 FTE during the maintenance period. With LGA, the household income would be higher by 74% and 7,4% respectively during the construction and maintenance periods.

It is imperative for the LGA to prioritize the preservation of Eeyou traditional land uses and cultural values. By safeguarding these aspects, LGA can inherently align its objectives with the protection of both Cree culture and the natural environment that sustains it. In Wemindji, concerns have been raised by land users regarding the proposed railway, particularly regarding its potential impacts on wildlife habitats and social dynamics. Many community

members fail to see any direct benefits in the proposed rail transportation infrastructure, in part because there is no explicit possibility to utilize the train for their own purposes.

Yet, in Wemindji, people have ideas for business development, and many of these ideas centered around land-based activities. Community members do see potential synergies that collaboration between communities could materialize to support sustainable economic diversification. This is one perspective that fits well with proposed infrastructure development. By facilitating greater connectivity among CFNs, local entrepreneurs would feasibly be able to leverage traditional land-based activities in collaboration with entrepreneurs in nearby or more distant communities. In this way, the LGA would enable economic development in the realms of traditional land use, helping to ensure the preservation of Cree culture and the natural environment for future generations.

EASTMAIN

Eastmain will partake in all three LGA phases, garnering \$740 million over the project's duration, averaging \$57 million annually. During construction, around 127 FTE jobs are forecasted yearly from 2030 to 2044. However, in the operational phase, Eastmain will oversee Phase II infrastructure from 2040, creating 18 FTE jobs annually. This heightened employment could elevate the standard of living for residents by 71% to \$46,221 per capita by 2032. During Phases II and III, the standard of living is estimated to be 27% higher than without LGA. Additionally, with 80% of Band-owned dwellings, Eastmain boasts the lowest lodging costs, standing at 30% lower shelter costs compared to the Cree average.

The implementation of LGA initiatives would necessitate local conservation and land management capacity to protect environmental health and cultural continuity, tasks that constitute legal obligations under various Agreements and their corresponding Acts, which apply to the LGA process itself. Various tasks are required to fulfill these legal obligations, including environmental monitoring, animal population management, land use licensing, and the training and employment of Cree individuals. Strengthening local capacity to undertake these responsibilities would directly benefit the local labor force.

Land users in Eastmain express growing concerns regarding resource accessibility, and this concern relates directly to the obligations referred to earlier, as they are linked to cumulative impacts on land and resources, such as increased pressure on wildlife. Adding to this is the fact of already present climate change impacts. Many community members fail to see how their land-based activities could benefit from the proposed infrastructures. Yet others view the possibility of infrastructure along the bay as directly beneficial to interconnected communities. Concerns should be properly addressed, and not be displaced by the voices of those who perceive LGA proposals more positively. Addressing concerns would require extensive communication and collaboration with land users to develop mitigation measures and aid with the identifying and building opportunities for local economic initiatives.

Eastmain Cree First Nation shows strong interest in conservation and land management to ensure sustainable land activities. It is important to define long and short-term approaches, including capacity development. Conservation needs could be managed by community members if capacity building is stepped up. In this regard, LGA can generate momentum to foster this local capacity for land management, generating sustainable, well-paid employment, and ensuring the preservation of cultural and environmental resources for future generations.

WASKAGANISH

Waskaganish stands to benefit in many ways from proposed LGA infrastructure development. Enhanced connectivity to other Cree communities, mining sites, Matagami, and Abitibi would create opportunities for local entrepreneurs to participate in works across the region. Additionally, improved access would attract tourists to Waskaganish, giving local entrepreneurs the chance to develop tourism attractions and hospitality services, boosting the local economy.

The construction and operation of Phase I infrastructures such as the upgrade of the access road and the addition of the Billy Diamond Highway Railway (BDHR) represents an opportunity for Waskaganish to develop construction companies and expertise, as well as railway management, operation, and maintenance jobs for the long-term. There is potential to establish logistics and tourism hubs at Waskaganish Junction, leveraging the community's strategic location in relation to Phase I railway operations. The presence of LGA infrastructure is expected to significantly enhance local GDP and employment opportunities in Waskaganish.

Waskaganish stands to secure contracts totaling \$426M over the three construction phases from 2030 to 2044, averaging \$63M annually. This could create an average of 352 FTE jobs yearly over the 15-year period. With LGA, Waskaganish's GDP per capita would be higher by 90% in 2032 during construction, reaching \$38,219 compared to \$20,167 without LGA. Post-construction, GDP per capita is expected to be 23% higher than without LGA by 2045 and 17% higher by 2074. By 2074, LGA is expected to provide 12% more local employment, resulting in a GDP 31% higher than without LGA.

In the current situation, the proposed infrastructure would marginally alter supply chains for Waskaganish, for example the potential for oil products to be transported by railway with transshipment via the access road, so no significant changes in other local prices are anticipated. However, if infrastructures are built, new projects and development could occur, bringing more people and increased economic activities that could bring down local prices and cost of living more significantly. Overall, improved access roads and new railway infrastructure would offer promising economic growth prospects in Waskaganish.

NEMASKA

Nemaska stands as a strategically positioned community at the intersection of coastal and inland Cree communities, with historical involvement in significant developments such as the Hydro-Quebec Eastmain-1/1A/Rupert Diversion projects and current engagement in hard rock lithium mining developments. Proposed LGA infrastructure holds the potential to significantly improve local access roads, particularly the Route du Nord, offering safer, quicker, and more reliable journeys to and from the community. This enhancement would not only better connect Nemaska to other Cree communities but also improve access to work sites within the region, including those related to LGA infrastructure projects, Hydro-Québec infrastructures maintenance and development, and other mining ventures.

Should the LGA options proceed, Nemaska stands to benefit greatly, leveraging its experience in supporting major developments through its construction sector. Entrepreneurs and suppliers in Nemaska could enhance their capacity to serve as providers for LGA-linked infrastructure works, particularly with the presence of railways facilitating more affordable transportation to lithium mining sites, which have partnerships with the community. This would unlock the economic potential of the community, leading to numerous employment opportunities and ultimately improving the standard of living for residents.

Nemaska stands to secure \$316M in contracts over three construction phases from 2030 to 2044. On average annually, the entrepreneurs would earn \$27M in contracts. This could generate 1,774 person-years of employment, equivalent to 136 FTE jobs over the 15-year period. By 2032, GDP per capita could be 64% higher at \$45,388 compared to \$27,234 without LGA. After construction, LGA's impact would maintain GDP per capita 10% above the scenario without LGA by 2045, reaching \$30,476 versus \$27,656. By 2074, GDP could rise by 12% with 5% more local employment (\$29.8M with LGA versus \$26.7M without).

However, the upgrading and paving of Route du Nord may attract outsiders, imposing upon community members the need to closely manage or control access to traplines. Additionally, there are concerns about cumulative environmental impacts, particularly with the concurrent development of lithium mining projects alongside LGA construction. Effectively managing these impacts will require extensive communication and engagement with community members, especially land users, to mitigate anticipated and unforeseen consequences. The way this dynamic is handled will directly impact cultural continuity for future generations. Moreover, ensuring economic participation by local actors will be crucial to reassuring community members that the benefits of infrastructure outweigh any associated costs.

MISTISSINI

Mistissini has been actively involved in various infrastructure projects, contributing significantly to job creation, especially during the construction of the Eastmain 1A-Sarcelle-Rupert complex, where it accounted for 38% of all Cree jobs. For LGA infrastructure construction, Mistissini is expected to create 763 FTE jobs, with contractors receiving about \$136 million annually over 15 years. Participation in LGA operation from 2040 onward is projected to generate 118 FTE jobs annually and award \$6.1 million to local entrepreneurs yearly. This increased employment is expected the standard of living, to be 95% higher to \$48,842 per capita by 2032 during Phase I construction, with a continued impact observed through 2074, maintaining a 7.2% higher compared to the status quo scenario.

Mistissini land users emphasize the importance of effective communication between project proponents and the community before any work commences to maximize economic opportunities and minimize impacts on land use. Like other communities, concerns revolve around issues such as mining development, environmental pollution, and the over-exploitation of wildlife. Additionally, the delineation of trapline boundaries is identified as an important issue to address before embarking on any development projects, as unresolved tensions may arise.

This study underscores that the people of Mistissini have been actively involved in the land-based tourism industry since the signing of the JBNQA and continue to express interest in business development opportunities related to tourism and the preservation of land and culture. This sector can generate income while maintaining a strong connection to the land. LGA studied infrastructures such as the second access road from Mistissini to the Route du Nord as well as an airport will improve connectivity and enhance present economic activity. The businesses in Mistissini are also strongly oriented towards activities such as LGA. The R167 will connect with the Trans-Taiga road allowing a better redundancy and access to traplines but it will open new territory. In fact, there are growing concerns about the increasing presence of non-natives and other users in the area, prompting land users to emphasize the importance of respecting Cree values and way of life. This includes the ability to make a living from the land, which may depend on the implementation of control measures to regulate activities within the territory. It is crucial that any projects or processes align with and respect Cree values and traditions to ensure sustainable development and preservation of the land for future generations.

OUJÉ-BOUGOUMOU

Oujé-Bougoumou, historically the most affected community by mining activities with seven relocations, stands to benefit significantly if LGA options move forward. The LGA infrastructure program is expected to create numerous employment opportunities for Oujé-Bougoumou, which played a minimal role in past Hydro-Quebec developments in Eeyou Istchee. The community's preferred LGA infrastructure options include improving the Route du Nord to enhance travel to Nemaska and coastal communities, thereby boosting social contacts and economic opportunities for Oujé-Bougoumou residents. Additionally, the recommissioning of the GCR will reduce access from outsiders to Oujé-Bougoumou's traplines, while the GCR transshipment yard in Chapais could stimulate economic activities and serve as a strategic hub for the community and Chibougamau-Chapais. The prospect of 45 direct jobs at the transshipment yard is significant for a small-scale community like Oujé-Bougoumou. The construction phase is expected to see the GDP per capita 78% higher than the status quo without LGA. However, the impact on cost of living and the supply chain is challenging to assess, with pricing outcomes being unpredictable. Local economic participation will be crucial for ensuring community members benefit economically.

However, to increase access to the community through linkage with the existing transportation network would pose challenges. While the construction phase may bring an economic boom, long-term sustainability is uncertain, as Oujé-Bougoumou's GDP per capita is projected to decrease constantly without a lasting positive impact on revenue. Environmental impacts, particularly during construction, and potential effects on the cost-of-living and supply chain are difficult to evaluate and may have unpredictable outcomes. Therefore, ensuring economic participation by local actors is the way to ensure that the benefits of infrastructure development outweigh the costs, especially regarding long-term sustainability and environmental preservation.

WASWANIFI

Waswanipi is the southernmost Cree community. It is situated along the R113 between Chapais and Lebel-sur-Quevillon and enjoys accessibility from both the Abitibi and Lac St-Jean regions. With a longstanding history of economic development centered around forestry and its sawmill, the community is well placed to gain significant advantages from LGA infrastructure development, particularly if a transshipment yard is established nearby. The proposed railway alignment, which was studied in collaboration with land users, could also reduce outsider access to traplines, preserving traditional land use.

If LGA options proceed, Waswanipi has good potential to emerge as a transportation hub or to actively participate in railway network operations and maintenance. The sawmill would experience advantages from an interconnection with the GCR, even though the road scenario has the lowest CAPEX to transport wood. As of the time of this report, we are not aware of the developments regarding the sawmill that was recently destroyed by fire.

Waswanipi is poised to gain \$612M in LGA contracts over three construction phases, averaging \$47M annually. This could generate 3,441 person-years of employment or 265 FTE jobs over 15 years. During operation, Phase I contracts could amount to \$49M, creating 31 FTE jobs annually from 2035. These benefits represent 9% of total construction jobs and 4% during operation across Cree communities. LGA significantly enhances Waswanipi's standard of living, with GDP per capita estimated to be 80% higher in 2032 during peak construction (\$42,641 per capita) compared to without LGA (\$23,664). By 2045, GDP per capita remains 5% higher with LGA (\$24,521 versus \$23,357 without). By 2074, with 3% more local employment, GDP would rise by 7% (\$25.9M with LGA versus \$24.1M without), reflecting limited operation jobs for Phases II and III. However, post-construction, the effect on GDP per capita stabilizes.

Entrepreneurs in Waswanipi stand to capitalize on opportunities linked to LGA infrastructure projects, supported by the community's mobility for work in other areas, as indicated by migration rates. The anticipated employment opportunities from LGA infrastructure are considerable.

However, "opening" the territory with a transportation network raises questions about forestry, presenting a crucial decision point for the community regarding preservation versus further economic development. The effects on prices are uncertain, given the established supply chain proximity with Abitibi, potentially marginalizing the impact on shipped goods even from longer distances such as Lac St-Jean, thus questioning the potential improvement in Waswanipi's standard of living. Environmental impacts, particularly during construction and operation, may compromise the pristine nature of adjacent areas, and mitigation for such major impacts would require extensive engagement with community members, especially land users, as this is the way to address anticipated and uncertain impacts. The depth and quality of community and land user engagement will directly influence cultural continuity for future generations.

WASHAW SIBI

Washaw Sibi envision its future location near Matagami, along the BDH. The proposed LGA transportation infrastructure for Washaw Sibi includes enhancing external market access via Phase I of the BDHR and reintegrating the GCR alignment to facilitate rolling stock maintenance at the Matagami yard. The yard stands to aid the future Washaw Sibi community by streamlining the transport of construction materials, cutting expenses, enhancing safety, and speeding up construction. Matagami's proficiency in managing such facilities mitigates operational risks, with upcoming expansions expected to generate 15 to 20 additional jobs.

The proposed LGA transportation infrastructure could offer significant benefits and impacts. This includes employment opportunities during the operation phase and facilitating the transport of bulk materials for building the community. But due to limited information, specific economic opportunities for Washaw Sibi cannot be outlined. However, relocation near Matagami could enable involvement in LGA transportation infrastructure projects like the BDHR and GCR construction and operation. The community also sees potential in four-lane expansion of the BDH for safer travel.

LIMITATIONS OF THIS REPORT

Due to time constraints, this addendum relied substantially on secondary data sources, including the 2021 census, the SPN database, the CNG's Industry and Commerce Department database, and available local data. However, their accuracy and comprehensiveness are not consistent. While we gathered primary data with CIOs, EDOs, and the CTA, these were partial and limited in quantity and quality, limiting the precision of our community profiles. In summary, there are two primary limitations to consider.

First, there are gaps in terms of sturdy and up-to-date secondary data at the community and regional levels. This affected the accuracy of desired deliverables, including business and job numbers, cost of living components, etc. Secondly, certain concepts and aspirations within this study would benefit from standalone analysis and field studies to gather primary data. For instance, understanding the sharing or gift economy in Eeyou Istchee or analyzing the viability of the land-based economy under the Cree worldview would require dedicated studies.

It is a fact that understanding present community situations and their evolution hinges on the reliability of available data, which can be inconsistent due to variations in community size and discrepancies between census and employer data. There is, as a result, uncertainty about initial economic states. The implication is that our insights, which were

gathered during the early stages of the LGA study, may have shifted over time. Updating perspectives may be required.

Given LGA's long-term scope, uncertainties loom regarding future technological, economic, social landscapes, developments in the forestry and mining sectors, and in labor market structures. Proactive engagement of Cree communities and individuals, along with external economic factors like those driven by Quebec's initiatives or industry trends, will significantly shape future outcomes. While transport infrastructure can facilitate social and economic progress, local and regional capacity and initiative, entrepreneurship, innovation, and administrative effectiveness remain pivotal factors in driving sustainable development.

RECOMMENDATIONS

Despite its limitations, this addendum study represents an important first step in documenting community economic development that includes the land-based aspects. To ensure a more comprehensive portrait of the Cree economy, we recommend the following actions:

1. KEEPING AN UP-TO-DATE PRICE INDEX AND COST-OF-LIVING FOR EYYOU ISTCHEE.

Doing so requires recording or tracking prices for specific categories of goods – basket of goods – in a consistent manner, in each Cree First Nation. Having an Eeyou Istchee price index would give the territory the ability to determine more accurately the cost-of-living in each community. Tracking prices in each community would allow local and regional analyses of price changes and their relationship to LGA infrastructure. Similarly, such data collection would help communities understand the effect of their local market structures on prices and on the cost of living. For instance, community-level analyses could explore the effect of entry barriers on entrepreneurship, and the significance of this to competition and price levels.

Similarly, it would be advisable to perform a thorough analysis of the relationship between prices and the quasi-monopolies that commonly result within protected remote markets like those of CFNs. This analysis should identify the extent to which specific entry barriers exist, such as any that are imposed by Band Councils, competition from established businesses, or the lack of access to business loans or capital to start a business.

Data collection about entry barriers could allow in-depth analyses of the difference between LGA employment demand in each community and jobs offered by local businesses. The same is true regarding demand for capacity building programs offered by Cree entities in the territory.

2. INVESTIGATE ENTREPRENEURSHIP IN EYYOU ISTCHEE.

A study could examine the underlying factors contributing to low levels of entrepreneurship in Eeyou Istchee, evidenced by low private sector employment. With or without LGA, entrepreneurship is key for economic development. Cultural, economic, and structural influences that may inhibit entrepreneurial activity, such as barriers of entry, competition from band-owned economic corporations, etc., should be considered. Through qualitative and quantitative analysis, the study can explore barriers to entrepreneurship such as access to financing, regulatory hurdles, infrastructure limitations, and cultural attitudes towards risk-taking and innovation. The study should aim to identify existing successful entrepreneurial ventures and analyze the factors contributing to their success. Recommendations stemming from this research should focus on implementing targeted initiatives to foster entrepreneurship.

3. CONDUCT THE FIRST COMPREHENSIVE STUDY ON ECONOMIC LEAKAGE OF CREE EXPENDITURE WITHIN CREE COMMUNITIES AND THE CREE CONSUMPTION FOOTPRINT IN JAMESIAN MUNICIPALITIES AND IN ABITIBI-TEMISCAMINGUE AND SAGUENAY LAC ST-JEAN MUNICIPALITIES.

This should include public expenditures and public businesses. Despite assumptions of significant economic leakage and footprint, these aspects have not been thoroughly studied. Such a study would offer valuable insights into the potential for economic retention within Cree communities and overall market size. By understanding the flow of money within and outside Eeyou Istchee, the study can identify opportunities to promote local entrepreneurship and economic development. By documenting the economic interactions between Cree communities and surrounding municipalities the study could provide leverage for the Cree Nation in negotiations and partnerships with external entities. Given the lack of prior research in this area,

undertaking such a study would fill a crucial knowledge gap and provide actionable insights to inform economic strategies and policy decisions moving forward.

4. STUDY IN-DEPTH THE PROJECTED EMPLOYMENT DEMAND GAP BETWEEN LGA AND COMMUNITY BUSINESSES.

This analysis should focus on the specific job opportunities expected to arise from LGA initiatives and compare them with the existing employment landscape within Cree communities. The study should assess the training capacities of Cree entities in the area to meet the anticipated demand for skilled labor. By identifying gaps between projected employment needs and current workforce capabilities, the study can help these entities develop targeted training programs to equip community members with the necessary skills to capitalize on emerging job opportunities. Apitsiwiin Skills Development and Cree School Board would most probably have to collaborate as partners, as vocational training and education in Eeyou Istchee is below Jamesian and Quebec standards. Strategic planning to align workforce development initiatives with the evolving demands of LGA projects would need robust data and interpretations, which the study should aim to provide. Strategic planning for capacity development would help ensure that Cree entities are well-positioned to maximize employment benefits and foster sustainable economic growth within the region.

5. DESIGN AND IMPLEMENT RELEVANT STUDIES ABOUT THE CREE PERSPECTIVE ON THE LAND-BASED ECONOMY IN ITS VARIOUS FORMS.

This addendum lacked the time to adequately refine this key concept and to determine how to measure its different elements. Cultural continuity, heritage, harvesting, the gift and sharing economy, are all part of the Cree way of life. The development of Cree-owned businesses is rooted in cultural practices, and economic initiatives such as cultural tourism, the Cree arts and crafts market, etc., have more than an economic purpose, they are key to Cree culture knowledge transfer. A holistic approach to its study is called for. But this is an immense task requiring measuring what is measurable, quantifying or qualifying what is possible. Understanding land-based economic practices and their modern adaptations still depends on access to Cree knowledge. Thus, the design of studies on the Cree land-based economy should yield a holistic, interdisciplinary and complementary approach bringing together Indigenous and non-Indigenous experts, under the leadership of a Cree or Indigenous expert.

Indigenous or Cree scholars, cultural practitioners, and knowledge keepers should lead or at least be closely involved in research about Indigenous or Cree matters. Interpretations of findings in a study featuring Cree knowledge and Cree priorities must be built from the invaluable insights of Cree and Indigenous experts. It is essential to prioritize Cree leadership in research to ensure the adequate management and protection of Cree knowledge, and because the research should serve Cree needs and aspirations. Moving away from the historical trend of non-Indigenous researchers analyzing Cree culture is possible when Cree take the lead in exploring and documenting their own culture. Cree research leadership and protocols are the way to ensure that research outcomes will be more authentic, respectful, and reflective of Cree perspectives and priorities.

6. INVESTIGATE FOOD SECURITY AND HARVESTING FROM THE LAND.

On this addendum study, food security has only been touched upon superficially. Food security should be considered in depth, especially given persistently high food prices across Eeyou Istchee. To begin with, food security should consider what "bush" food contributes, alongside cultural transmission and well-being factors. As pertains to LGA proposals, food security based on "bush" harvesting is a key concern, as new transportation infrastructure may jeopardize it by opening the land to development. For such development to not cause resource and environmental degradation, the land's food security role must be fully understood. The cost of living on the land and the cost of harvesting food are part of that understanding. A study of this kind could provide practical recommendations concerning the ESP as well.

7. LGA CONVERSATION SHOULD CONTINUE SINCE ITS UNDERSTANDING IS STILL LOW IN EYYOU ISTCHEE, COVER MORE LAND USERS AND EXPAND DATA COLLECTION TO YOUTH AND WOMEN WHEN DOCUMENTING LGA, COMMUNITY ECONOMICS, AND LAND-BASED ECONOMY:

- i. Involving youth in the engagement sessions and decision-making process, and enhancing their capacities, is a necessity raised by some community members. For example, organizing focus-group activities exclusively for young people can be beneficial for understanding their needs, aspirations, and reality, and can be motivating for them. Engaging with the youth must find the right tone and being youth friendly by creating a safe space, using humor, memes and games. Engagement should avoid being overly formal even if the subject is serious.
- ii. Women may have a different perspective from men, which is often less recognized. It is important and urgent to continue including them, along with elders, in discussions surrounding projects and the future of their communities. Moreover, involving women in research and discussions will result in a more adequate, comprehensive understanding of the issues at hand.
- iii. Encouraging consultants or other experts to travel to communities and engage on the ground is essential if they are to gain a better understanding of the reality, the possibilities, challenges, interests, and values that are involved in any development activity within a Cree community.
- iv. Time is a significant factor in economic development. However, taking the necessary time to develop projects collaboratively, rather than imposing them, leads to better acceptance because such collaboration will produce a better project, one that integrates into the context and its priorities. Partnering with local experts, like elders, the tallymen, women's groups, youth groups, and with local leaders, should be central to research design.

8. THE CREE LIVING ENVIRONMENT IS TO BE PROTECTED AND SHOULD TAKE PRECEDENCE OVER ECONOMIC BENEFITS; THERE IS A GROWING RECOGNITION OF THE NEED TO BALANCE BOTH IN COMMUNITIES.

In Eeyou Istchee, when there is tension between development projects and concerns about environmental impacts, there are two perceptions. The first is: no matter what we say, they will build it, as it is already decided in advance. The second is: environment always wins in the Cree world. Project discussion workshops or individual/community projects can help better capture aspirations and possibilities by identifying more substantial measures to promote economic activities. Such measures can include business incubators, training, and capacity building in various communities or collaboratively. Intercommunity meetings/workshops can also serve as catalysts for projects and economic activities.

9. DATA COLLECTION ABOUT THE LAND-BASED ECONOMY.

In Eeyou Istchee, community economic development requires a holistic frame, where cultural, social, and economic development go together, and land users and land-based economic activities are at the centre, not the periphery, of economic planning.

To ensure that the economic value of land-based activities is adequately considered, Cree knowledge keepers must be engaged. The recommendations we offer regarding the land-based economy and its continued development defer to Cree land users' ecological and cultural knowledge about what the land provides, and the challenges that are present, such as the impacts that climate change and large-scale projects have had and are having on biodiversity, and on Cree practices.

Being that holistic economic development involves a degree of complexity, we recommend that data collection efforts do two things: one, gather and store information for future analysis and two, use data collection as an opportunity to involve the community in evaluating progress (changes) and setting goals.

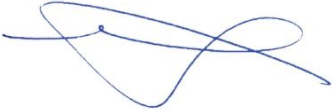

For community engagement to take place, regional and community staff can collaborate to create a data collection strategy contemplating all the aspects that will ensure robust data collection and careful data management (data processing, storing, sharing). In such a potential strategy, gathering land-based economic activity data could be linked or be part of price-index (cost of living) work. For example, the same team could perform both data gathering efforts, and contribute to its interpretation and analysis. As with any effort to sustain a new capacity, such as to record data, a strategy is advisable, which should be determined by the needs and priorities of each community.

10. BUILD LOCAL CAPACITY FOR DATA COLLECTION AND MANAGEMENT.

The Cree Nation is currently working on building a Cree regional research center. This new asset will advance Cree capacity to collect and manage data for the needs and priorities of the Cree Nation. The Cree regional research centre emerged from the recognized need to provide Cree control over sensitive information. With this new capacity, Eeyou Istchee will vastly improve its ability to design data-informed policies at the regional and at the local level. In other words, the territory will be able to better respond to present needs and advance its hopes for the future.

As is frequently noted in past research reports, data gaps are commonly documented in several fields, including community economic development. Data that has been missing relates to indicators we have used in this addendum study, such as entrepreneurship, employment (formal and informal), demand and usage of various programs like income, capacity development, and others. Data such as social exclusion, cultural development, environmental or ecological health are also not consistent or missing. In general, we are optimistic that Cree data collection capacity should improve with time, enabling communities to address better specific policies and programs by relying on more robust data than currently. The idea is that if we have better data in Cree communities and within the Cree nation, those managing programs and services can better plan, implement and evaluate outcomes, improving services to the population and accountability. and unique policy.

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LIST OF ABBREVIATIONS

ABBREVIATION	DEFINITION
\$	Canadian dollar
ATV	All-terrain vehicle
B	Billion
BDH	Billy-Diamond Highway
BDHR	Billy-Diamond Highway Alignment Railway
CAGR	Compound annual growth rate
CBHSSJB	Cree Board of Health and Social Services of James Bay
CCDC	Cree Construction and Development Corporation
CCI	Aanischaaukamikw - Cree Cultural Institute
CDC	Cree Development Corporation
CHESB	Cree Hunters Economic Security Board (previously CHTISB)
CHTISB	Cree Hunters and Trappers Income Security Board (now CHESB)
CIO	Community information officer
CLO	Community liaison officer
CNG	Cree Nation Government
CNYC	Cree Nation Youth Council
COTA	Cree Outfitting and Tourism Association
CPD	Car per day
CSMO	Comité sectoriel de main-d'œuvre de l'industrie des mines
CTA	Cree Trappers' Association
DCI	Department of Commerce and Industry
EDO	Economic development officer
EIJB	Eeyou Istchee James Bay
EIJB RG	Eeyou Istchee James Bay Regional Government
EIRHC	Eeyou Istchee Regional Health Centre
EPC	Eeyou planning commission
ESP	Economic Security Program (previously ISP)
FNQLEDC	First Nations of Quebec and Labrador Economic Development Commission
FS	Feasibility study
FTE	Full-time equivalent
g	Gram
GCC	Grand Council of the Crees
GCR	Grevet-Chapais Railway
GDP	Gross domestic product
GQ	Government of Québec

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

ABBREVIATION	DEFINITION
HBC	Hudson Bay Company
HQ	Hydro Quebec
IMQ	Institut des mines du Québec
ISP	Income security program (now ESP)
ISQ	Institut de la statistique du Québec
JBNQA	James Bay and Northern Quebec Agreement
km	Kilometre
km ²	Square kilometre
KP	Kilometric point
LGA	La Grande Alliance
M	Million
MOU	Memorandum of understanding
MRNF	Ministère des Ressources naturelles et des Forêts du Québec
MTMD	Ministère des Transports et de la Mobilité durable du Québec
MTPA	Million tonnes per annum
NBR	Nottaway-Broadback-Rupert
NDC	Nemaska Development Corporation
OECD	Organization for Economic Cooperation and Development
PEA	Preliminary economic assessment
PPD	Passenger per day
SPN	Société du Plan Nord
StatCan	Statistics Canada
TE	Equivalent territory (territoire equivalent)
TPD	Truck per day
VPD	Vehicle per day

TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	Background	1
1.2	Precursors to La Grande Alliance	1
1.3	Current Eeyou IsTCHEE Context	2
1.4	Study Objectives.....	3
1.5	Study Themes	3
1.6	Report Structure	4
2	METHODOLOGY	5
2.1	Approach and Data Sources	5
2.2	Study Area.....	5
2.3	Socio-Economic Indicators	9
2.4	Economic Opportunities	13
2.5	Land-Based Economy	19
2.6	Cost of Living.....	21
2.7	Workshop and Focus Groups.....	22
2.8	Limitations	23
3	GENERAL OVERVIEW	25
3.1	Context	25
3.2	LGA Components.....	25
3.3	Workshop and Focus Groups.....	30
3.4	Regional Indicators.....	34
3.5	Economic Opportunitles	46
3.6	Land-Based Economy	56
3.7	Cost of Living.....	68
4	WHAPMAGOOSTUI	75
4.1	Context	75
4.2	Indicators	78

TABLE OF CONTENTS

4.3	Economic Opportunities	83
4.4	Land-Based Economy	88
4.5	Cost of Living	94
4.6	Summary	97
5	CHISASIBI	98
5.1	Context	98
5.2	Indicators	101
5.3	Economic Opportunities	105
5.4	Land-Based Economy	110
5.5	Cost of Living	117
5.6	Summary	118
6	WEMINDJI.....	119
6.1	Context	119
6.2	Indicators	122
6.3	Economic Opportunities	126
6.4	Land-Based Economy	131
6.5	Cost of Living	139
6.6	Summary	140
7	EASTMAIN.....	141
7.1	Context	141
7.2	Indicators	144
7.3	Economic Opportunities	148
7.4	Land-Based Economy	153
7.5	Cost of Living	161
7.6	Summary	162
8	WASKAGANISH.....	164
8.1	Context	164

TABLE OF CONTENTS

8.2	Indicators	167
8.3	Economic Opportunities	172
8.4	Land-Based Economy	179
8.5	Cost of Living	185
8.6	Summary	187
9	NEMASKA	188
9.1	Context	188
9.2	Indicators	191
9.3	Economic Opportunities	196
9.4	Land-Based Economy	202
9.5	Cost of Living	207
9.6	Summary	208
10	MISTISSINI.....	210
10.1	Context	210
10.2	Indicators	213
10.3	Economic Opportunities	217
10.4	Land-Based Economy	222
10.5	Cost of Living	228
10.6	Summary	229
11	OUJÉ-BOUGOUMOU	231
11.1	Context	231
11.2	Indicators	234
11.3	Economic Opportunities	239
11.4	Land-Based Economy	245
11.5	Cost of Living	251
11.6	Summary	253

TABLE OF CONTENTS

12	WASWANIPI	254
12.1	Context	254
12.2	Indicators	257
12.3	Economic Opportunities	262
12.4	Land-Based Economy	269
12.5	Cost of Living	274
12.6	Summary	276
13	WASHAW SIBI.....	277
13.1	Context	277
13.2	Indicators	277
13.3	Economic Opportunities	277
13.4	Cost of Living	279
13.5	Summary	280
14	CONCLUSION AND RECOMMENDATIONS.....	281
14.1	Regional Cree Demography and Employment.....	281
14.2	Limitations of this report	288
14.3	Recommendations.....	289
	BIBLIOGRAPHY	292

TABLE OF CONTENTS

APPENDICES

A	Methodological Notes
B	Facilitation Plan Community Pulse Focus Group
C	Facilitation Plan DCI-EDO Workshop
D	Community Pulse Focus Group Report
E	Cree Community Economic Portrait
F	Economic Indicators
G	Prices
H	Cost of Living Survey
I	EDO workshop Community portrait

TABLES

Table 2-1	La Grande Alliance Proposed Transportation Infrastructure found on each Cree Community’s Traditional Territory.....	8
Table 2-2	Assumptions About Shares of Labour and Contracts, Construction Period (2030-2044)	16
Table 2-3	Assumptions About Shares of Labour and Contracts, Operation Period (2035-2074).....	17
Table 2-4	Focus Groups	23
Table 3-1	Length, Cost and Traffic of LGA Transportation Infrastructures.....	27
Table 3-2	LGA Impacts on Communities.....	31
Table 3-3	Land Area and Population by Community, Eeyou Istchee James Bay and Kuujuarapik, 2021	35
Table 3-4	Population Growth Components, Eeyou Istchee and Jamésie, 2016-2021	44
Table 3-5	Health Indicators, Eeyou Istchee compared to the overall Quebec population	45
Table 3-6	Lithium Mining Projects, EIJB	48
Table 3-7	Gold and Copper Mine Projects, EIJB	48
Table 3-8	Legal Structure of Businesses, by Community, Eeyou Istchee, 2023.....	51

TABLE OF CONTENTS

Table 3-9	JCIM Results per Community, Construction Period per Phase (in FTE jobs/year)	53
Table 3-10	JCIM Results per Community, Operation Period, per Phase (in FTE jobs/year)	53
Table 3-11	Activities Related to the Land-Based Economy	58
Table 3-12	Harvesting and Related Activities, Cree Hunters Economic Security Program	61
Table 3-13	Number and Rate of ESP Individual Beneficiaries, per Community, 2014-2022	62
Table 3-14	Price Indices, Cree, Jamesian and Abitibi Communities, 2023	69
Table 3-15	Prices of Grocery Basket of Goods, Quebec, 2022-2023	70
Table 3-16	Food and Beverage Price Indices, Cree Communities, 2010 and 2023	71
Table 4-1	Employment per Sector, Whapmagoostui, 2023	83
Table 4-2	JCIM Results per LGA Phase, Whapmagoostui	86
Table 4-3	Beneficiaries of the Economic Security Program (ESP), Whapmagoostui, 2021-2022	88
Table 4-4	CTA Membership, Number of Trappers who Sold Fur, and Amount Sold during 2012-2020 in Whapmagoostui	89
Table 4-5	Program and Project Offered by the CTA in 2020-2021 and 2021-2022 to Whapmagoostui Members	89
Table 4-6	Commodity Prices, Whamagoostui, Fall 2023	94
Table 4-7	Price Index Comparison, Whapmagoostui, 2023	95
Table 4-8	Impacts of LGA on Freight Shipping Costs	96
Table 4-9	Impacts of LGA on Passenger Travel Costs	96
Table 5-1	Employment per Sector, Chisasibi, 2023	106
Table 5-2	JCIM Results per LGA Phase, Chisasibi	108

TABLE OF CONTENTS

Table 5-3	Beneficiaries of the Economic Security Program (ESP), Chisasibi, 2021-2022	110
Table 5-4	CTA Membership, Number of Trappers who Sold Fur, and Amount Sold during 2012-2020 in Chisasibi	111
Table 5-5	Program and Project Offered by the CTA in 2020-2021 and 2021-2022 to Chisasibi Members	111
Table 5-6	Commodity Prices, Chisasibi, Fall 2023	117
Table 5-7	2023 Price Index Comparison, Chisasibi	118
Table 6-1	Employment per Sector, Wemindji, 2023	127
Table 6-2	JCIM Results per LGA Phase, Wemindji	128
Table 6-3	Beneficiaries of the Economic Security Program, Wemindji, 2021-2022	131
Table 6-4	CTA Membership, Number of Trappers who Sold Fur, and Amount Sold during 2012-2020 in Wemindji	132
Table 6-5	Program and Project Offered by the CTA in 2020-2021 and 2021-2022 to Wemindji Members	132
Table 6-6	Commodity Prices, Wemindji, Fall 2023	139
Table 6-7	2023 Price Index Comparison, Wemindji	140
Table 7-1	Employment per Sector, Eastmain, 2023	149
Table 7-2	JCIM Results per Phase for Eastmain, 2030-2074	150
Table 7-3	Beneficiaries of the Economic Security Program, Eastmain, 2021-2022	153
Table 7-4	CTA Membership, Number of Trappers who Sold Fur, and Amount Sold during 2012-2020 in Eastmain	154
Table 7-5	Program and Project Offered by the CTA in 2020-2021 and 2021-2022 to Eastmain Members	154
Table 7-6	Commodity Prices, Eastmain, Fall 2023	161
Table 7-7	2023 Price Index Comparison, Eastmain	162
Table 8-1	Employment per Sector, Waskaganish, 2023	172
Table 8-2	BDHR Operations at Waskaganish	175

TABLE OF CONTENTS

Table 8-3	Job Creation and Contract Impacts per LGA Phase, Waskaganish.....	176
Table 8-4	Beneficiaries of the Economic Security Program, (ESP), Waskaganish, 2021-2022.....	179
Table 8-5	CTA Membership and Fur Sales, Waskaganish, 2012-2020.....	180
Table 8-6	Number of Members Helped by CTA Programs and Projects, Waskaganish, 2020-2022.....	180
Table 8-7	Commodity Prices, Waskaganish, Fall 2023.....	185
Table 8-8	Price Indices, Waskaganish, 2023.....	186
Table 9-1	Employment per Sector, Nemaska, 2023.....	196
Table 9-2	BDHR Operations at Waskaganish yard and station.....	199
Table 9-3	Job Creation and Contract Impacts per LGA Phase, Nemaska.....	200
Table 9-4	Beneficiaries of the Economic Security Program (ESP), Nemaska, 2021–2022.....	203
Table 9-5	CTA Membership and Fur Sales, Nemaska, 2012–2020.....	203
Table 9-6	Number of Members Helped by CTA Programs and Projects, Nemaska,2020–2022.....	204
Table 9-7	Commodity Prices, Nemaska, Fall 2023.....	207
Table 9-8	Price Indices, Nemaska, 2023.....	208
Table 10-1	Employment per Sector, Mistissini, 2023.....	218
Table 10-2	Job Creation and Contract Impacts per Phase for Mistissini, 2030-2074.....	219
Table 10-3	Beneficiaries of the Economic Security Program (ESP), Mistissini, 2021-2022.....	222
Table 10-4	CTA Membership, Number of Trappers who Sold Fur, and Amount Sold during 2012-2020 in Mistissini.....	223
Table 10-5	Program and Project Offered by the CTA in 2020-2021 and 2021-2022 to Mistissini Members.....	223
Table 10-6	Commodity Prices, Mistissini, Fall 2023.....	228
Table 10-7	2023 Price Index Comparaison, Mistissini.....	229
Table 11-1	Employment per Sector, Oujé-Bougoumou, 2023.....	239

TABLE OF CONTENTS

Table 11-2	GCR Operations at Chapais	242
Table 11-3	Job Creation and Contract Impacts per LGA Phase, Oujé-Bougoumou	243
Table 11-4	Beneficiaries of the Economic Security Program (ESP), Oujé-Bougoumou, 2021-2022.....	246
Table 11-5	CTA Membership and Fur Sales, Oujé-Bougoumou, 2012-2020	246
Table 11-6	Number of Members using Programs and Projects Offered by the CTA, Oujé-Bougoumou, 2020-2022	246
Table 11-7	Commodity Prices, Oujé-Bougoumou, Fall 2023	252
Table 11-8	Price Indices, Oujé-Bougoumou, 2023.....	252
Table 12-1	Employment per Sector, Waswanipi.....	263
Table 12-2	GCR Operations at Waswanipi.....	266
Table 12-3	Job Creation and Contract Impacts per LGA Phase, Waswanipi	266
Table 12-4	Beneficiaries of the ESP program, Waswanipi, 2021-2022	269
Table 12-5	CTA Membership and Fur Sales, Waswanipi, 2012-2020	270
Table 12-6	Number of Members Helped by CTA Programs and Projects, Waswanipi, 2020-2022.....	270
Table 12-7	Commodity Prices, Waswanipi, Fall 2023.....	274
Table 12-8	Price Indices, Waswanipi, 2023.....	275
Table 13-1	BDHR Operations at Matagami	278
Table 13-2	Job Creation and Contract Impacts per LGA Phase, Washaw Sibi	278
Table 13-3	Commodity Prices, Washaw Sibi (Amos), Fall 2023	279
Table 13-4	Price Indices, Washaw Sibi (Amos), 2023.....	280

TABLE OF CONTENTS

FIGURES

Figure 2-1	James Bay Shore, Chisasibi.....	6
Figure 2-2	La Grande Alliance Proposed Transportation Infrastructure	7
Figure 2-3	Cree Local Economic Diversification Components	13
Figure 2-4	Moose Hide Scrapping and Sturgeon Smoking	19
Figure 3-1	Cree Communities, Territory and LGA Proposed Transportation Infrastructure.....	25
Figure 3-2	Potential Traffic Demand for the LGA Railway Infrastructures	29
Figure 3-3	Visual rendering of Community Pulse Focus groups discussion	31
Figure 3-4	Natural growth and Migration, Eeyou Istchee and Jamésie, 2007-2022	44
Figure 3-5	Lithium Hydroxide Price, 2021-2024	49
Figure 3-6	Impacts of LGA on Cree Economy and Standard of Living, 2030-2074	55
Figure 3-7	Number of Adult ESP Beneficiaries by Age Group, Crees, 2020-2021.....	61
Figure 3-8	Number and Rate of ESP Individual Beneficiaries, Cree Communities, 2014-2022.....	62
Figure 3-9	Price Index Scales, Cree, Jamesian and Abitibi Communities, 2023	70
Figure 4-1	Hudson Bay shore Inuksuk, Whapmagoostui.....	75
Figure 4-2	Hudson Bay shore, North of Whapmagoostui.....	76
Figure 4-3	Whapmagoostui Community and Traplines	77
Figure 4-4	Impacts of LGA on GDP and Employment, Whapmagoostui, 2030- 2074	87
Figure 5-1	La Grande River shore	98
Figure 5-2	Chisasibi Community and Traplines	100
Figure 5-3	Impacts of LGA on Chisasibi's Economy and Standard of Living, 2030- 2074	109
Figure 6-1	Maquatua River	119
Figure 6-2	Fur harvest.....	120
Figure 6-3	Wemindji Community and Traplines.....	121

TABLE OF CONTENTS

Figure 6-4	Impacts of LGA on Wemindji's Economy and Standard of Living, 2030-2074	130
Figure 7-1	Mouth of Eastmain River	141
Figure 7-2	Cree Trappers' Association Building in Eastmain	142
Figure 7-3	Eastmain Community and Traplines.....	143
Figure 7-4	Impact of LGA on GDP per capita and Employment, Eastmain, 2030-2074	152
Figure 8-1	Mouth of the Rupert River.....	164
Figure 8-2	Waskaganish Community and Traplines	166
Figure 8-3	Rupert River (Smokey Hill Rapids)	173
Figure 8-4	Community Teepee	177
Figure 8-5	Impact of LGA on GDP per capita and Employment, Waskaganish, 2030-2074.....	178
Figure 8-6	Hesterville Camp	182
Figure 8-7	Cree Trappers' Association Office in Waskaganish	187
Figure 9-1	Champion Lake in Summer	188
Figure 9-2	Champion Lake in Winter	189
Figure 9-3	Nemaska Community and Traplines	190
Figure 9-4	Impact of LGA on GDP per capita and Employment, Nemaska, 2030-2074	201
Figure 9-5	Nemaska Harbour.....	209
Figure 10-1	Community view from Mistissini bridge's approach	210
Figure 10-2	Mistissini Training Centre	211
Figure 10-3	Mistissini Community and Traplines	212
Figure 10-4	Mistissini Bridge.....	220
Figure 10-5	Impacts of LGA on Mistissini's Economy and Standard of Living, 2030-2074	221
Figure 11-1	Aanischaaukamikw Cree Cultural Institute	231
Figure 11-2	Oujé-Bougoumou Band Office.....	232
Figure 11-3	Oujé-Bougoumou Community and Traplines	233
Figure 11-4	Impact of LGA on GDP per capita and Employment, Oujé-Bougoumou, 2030-2074	244
Figure 11-5	Lake Opémisca	248
Figure 12-1	Waswanipi Cultural Village	254

TABLE OF CONTENTS

Figure 12-2	Waswanipi Cultural Village	255
Figure 12-3	Waswanipi Community and Traplines	256
Figure 12-4	Rainbow Elementary School.....	262
Figure 12-5	Impact of LGA on GDP per capita and Employment, Waswanipi, 2030-2074	268

1 INTRODUCTION

1.1 BACKGROUND

The CDC, on behalf of the CNG and the GQ, mandated Vision Eeyou Istchee (VEI), a consortium composed of Stantec, Desfor, and Systra Canada, as well as WSP Canada and Maamuu Consultants in September 2023 to complement the previously issued Volume 4 Market study, dated April 14, 2023. This volume is part of a series of studies of LGA transportation infrastructure program. LGA refers to the *Memorandum of Understanding (MOU) on the Cree-Québec Sustainable Infrastructure Program in Eeyou Istchee Baie-James*, signed between the CNG and the GQ in February 2020.

That previous Market Survey as well as Regional Economic Assessment (Volume 5 of the LGA Transportation Infrastructure Studies) were mainly developed from a regional economy point of view. This present complementary study is meant as a qualitative and quantitative analysis that disaggregates regional economic information to focus specifically on the local level of Cree communities as well as to visualize potential avenues for sustainable economic growth, within the context of the Grande Alliance proposed infrastructures, specifically for Cree local communities.

The purpose of LGA is to provide a framework for Cree local and regional entities to work closely with relevant Québec government ministries to connect, develop, and protect the territory of the Eeyou Istchee James Bay (EIBJ) region of northern Québec in an inclusive and participatory manner and over a 30-year time horizon.

1.2 PRECURSORS TO LA GRANDE ALLIANCE

The Agreements presented below allow the reader to better situate LGA study within the current legal framework in place in the region.

The James Bay and Northern Quebec Agreement (JBNQA), described by many as the “first modern treaty”, was signed in November 1975, by the GQ, the Government of Canada, HQ, the CNG (formerly known as the Grand Council of the Crees) of Québec and the Northern Québec Inuit Association.

The JBNQA created a new legal and, eventually, constitutional framework for, among other things, local self-governance, land management, and the protection of the traditional Cree way of life, as well as for the relationship between Québec and the Indigenous peoples of the James Bay and Northern Québec region. It was the foundation on which Crees laid over 80 subsequent agreements regarding Cree rights, communities’ self-governance, and subsequent development of the territory. The vision of the JBNQA was to provide opportunities to communities to participate in the modern economy while still protecting the traditional way of life for those wanting to pursue it.

The *Agreement respecting a new relationship between the Cree Nation and the Government of Québec* (better known and herein referred to as the *Paix des Braves*), signed in February 2002, is a Nation-to-Nation Agreement between the GQ and the Crees of Québec.

The Agreement is not meant to replace the JBNQA, but rather to build a “development model based on the principles of sustainable development, partnership and respect for the traditional way of life of the Crees, as well as on a long-term economic development strategy, principles which are in conformity with (its) provisions.” The Agreement includes specific modalities with regards to mining, forestry, and hydroelectric development on the territory which seen as the three sectors driving the regional economy at the time of signing. Furthermore, the Agreement is meant to provide greater autonomy to the Crees regarding the way communities will develop in the future. Henceforth, development occurring on Cree traditional lands requires meaningful participation of the Crees at multiple levels, as well as benefit sharing frameworks that see Crees as more than simple stakeholders.

1.3 CURRENT EEYOU ISTCHEE CONTEXT

Almost five decades after the signature of the JBNQA in 1975, the gap between the social and economic conditions of Indigenous and non-Indigenous people in Québec persists as a major social problem. Issues include insufficient housing, chronic unemployment and underemployment, low formal education levels, and disproportionately high levels of incarceration. To combat these problems, many communities are implementing strategies that emphasize self-governance, autonomy, history, culture, spirituality, and identity. As is the case amongst most First Nations, many Crees believe that true economic development must grow from these elements and cannot be in opposition to them.

The EIBJ region is rich in natural resources. Historical development of these resources has resulted in projects often imposed upon Indigenous and non-Indigenous communities alike, for whom the only option was to react. This model is no longer seen as acceptable by the region's population, who demand a greater say in deciding their economic future. Most notably, the cost of living throughout northern Québec is high, with people's daily lives often too dependent on supplies from the south. It is a common desire for this to change.

Over the past 50 years, Cree companies have developed a strong expertise in the building and maintenance of Hydro-Quebec infrastructure mega-projects as well as small-scale residential housing construction programs. Today, Cree entrepreneurs and workers work in a wide variety of civil engineering and construction related fields. Nevertheless, important gaps remain in several economic sectors that continue to impede broader regional economic growth.

Transportation infrastructure, for its part, has developed significantly since 1975, but remains largely undeveloped. In fact, despite the recent investments to repair the BDH, the main regional transportation artery, the overall network remains in a precarious and aging state that hinders regional economic growth:

1. Incomplete road network coverage.
 - One Cree community (Whapmagoostui) remains isolated from the road network.
 - There is currently no north-south connexion between Route 167 and Trans-Taiga road (WSP, 2023e).
2. Existing road network in needs of major maintenance.
 - Three communities (Waskaganish, Eastmain and Wemindji) are serviced with approximately 70 km of unpaved access roads in poor condition (VEI, 2023c)¹.
 - The Route du Nord, which services one community (Nemaska), shows sign of severe deterioration (VEI, 2023c).
3. Existing road network in needs of structural repairs.
 - Recent renovations on the BDH show premature deterioration and remains highly vulnerable to increases in heavy traffic due to a lack of underlying frost protection (VEI, 2023f).

To ensure that Cree local communities' needs and concerns with regards to the economic assessment component of the Grande Alliance studies are strongly considered, Cree leadership recommended a more in-depth look from a community perspective, resulting in this additional report to the Feasibility / Prefeasibility Studies, approved and overseen by the CDC.

¹ References are cited in the Bibliography at the end of the report, before the Appendices.

1.4 STUDY OBJECTIVES

Understanding the value created by an inclusive and comprehensive transportation infrastructure program will allow communities to better predict and plan their economic development and hence access opportunities associated with regional growth.

This purpose of the following community social economic benefits and impacts assessment is to better understand how the components under study may bring opportunities for, and consequences to, Cree entities, communities, and people. To do so, the report has ensured that inputs have been fully driven by and for the Crees, whilst recognizing the importance of regional development for the benefit of all residents on the territory. More specifically, this study attempts:

1. To obtain a deeper comprehension of the economic landscape, challenges, and opportunities arising from the proposed infrastructures;
2. To yield valuable insights that will effectively inform decision-making processes, aid in policy formulation, and facilitate the creation of sustainable strategies;
3. To ensure that the unique Cree traditional way of life, and specifically land-based activities as they currently exist, is considered and integrated as much as possible into this analysis.

1.5 STUDY THEMES

The Grande Alliance is a wide-ranging program encompassing numerous transportation infrastructure components over a very large territory spanning more than 30 years. Understanding the potential economic benefits of these components has therefore required a theme-based approach, based on the priorities identified by the outset by the Cree Development Corporation.

1. Economic Indicators
 - a. Population
 - b. Education and Labour Force
 - c. Employment and Economy
 - d. Income
 - e. Healthcare and Social Services
2. Economic Opportunities
 - a. Diversification / Entrepreneurship
 - b. Job Creation
 - c. Effect on the Local Economy
 - d. Long-Term Sustainability
3. Land-Based Economy
 - a. Cree perspective
 - b. Resource Accessibility
 - c. Cultural Continuity
 - d. Synergies and Conflicts
 - e. Economic Viability
4. Cost of Living
 - a. Price levels
 - b. Study Cases and Pricing Factors
 - c. Traditional Harvesting, Heritage, and Gift Economy

1.6 REPORT STRUCTURE

The report itself is structured as a synthesis around previously described study themes, presented first at a regional level and then at a more local level:

- Chapter 2 discusses the methodology used to analyze the themes at the Cree nation and community levels.
- Chapter 3 provides a general overview of the factors or findings influencing each identified theme, as well as a presentation of global economic conditions within Eeyou Istchee, providing context to the initial analysis of socio-economic benefits and impacts of the LGA for Cree communities.
- Chapters 4 through 13, analyze themes at a community scale, with an emphasis on the advantages and disadvantages of proposed LGA components. These are:
 - Chapter 4 – Whapmagoostui
 - Chapter 5 – Chisasibi
 - Chapter 6 – Wemindji
 - Chapter 7 – Eastmain
 - Chapter 8 – Waskaganish
 - Chapter 9 – Nemaska
 - Chapter 10 – Mistissini
 - Chapter 11 – Oujé-Bougoumou
 - Chapter 12 – Waswanipi
 - Chapter 13 – Washaw Sibi
- Chapter 14 provides conclusions and recommendations.

2 METHODOLOGY

2.1 APPROACH AND DATA SOURCES

The methodology considered in this complimentary study consists firstly of desktop research work utilizing existing studies and data already available from previous LGA deliverables or public documentation, as well as in external studies and data sources. To this were added external studies and data sources not retained as part of the original Feasibility Studies as well as information gathered from a selection of Cree organizations identified as key informants by the study team. These include:

1. Existing relevant academic studies, notably those examining the influence of transportation infrastructure and other determining factors on social and economic development of Indigenous and remote communities, on the cost of living as well as on traditional and land-based economic activities.
2. Data shared by the CNG Department of Commerce and Industry (DCI), including compiled census data, data on active companies on the territory and current jobs profiles in each community, as well as the number of entrepreneurship projects currently financed by the CNG in each community.
3. Public Documents or data known by the consultants including different volumes of LGA feasibility/prefeasibility studies and professional experience from previous projects, including studies for HQ and VIA Rail.
4. Documentation generated as part of Environmental and Social Impact Assessments as well as monitoring for large infrastructure projects in the region in the hydroelectric, forestry, and mining sectors in and near Eeyou Istchee.
5. Projected freight and passenger rail volumes from the original LGA Feasibility Studies – Market Survey. (VEI-WSP (2023).
6. Complementary data from Statistics Canada (StatCan) 2001-2021 censuses, local population forecasts of the Institut de la statistique du Québec (ISQ), data on private and public employers and jobs in each community provided by the Société du Plan Nord (SPN, 2023), and data on the beneficiaries of the Cree Hunters and Trappers Economic Security Program (ESP), previously the Income Security Program (ISP).
7. Information gathered directly from Economic Development Officers (EDOs) for various Cree communities as well as from CNG staff. Specifically, three virtual focus groups workshops were held, as well as complementary interviews with relevant organizations, notably the Cree Outfitting and Tourism Association (COTA), Cree Trappers' Association (CTA) and Apatisiwin Skills Development. Workshops utilized visualization exercises focusing on potential LGA components as well as validation of information and data gathered from various sources.

In addition, the study team utilized on various occasions the input of the Grande Alliance Community Information Officers (CIOs) to compliment, comment and validate information gathered. These people are considered key informants, in understanding the current economic reality of their respective communities as well as to appreciate potential future economic directions for the Cree Nation.

2.2 STUDY AREA

According to the CNG website, Eeyou Istchee, the traditional territory of the Crees², includes Cree communities and over three hundred traplines or traditional family hunting and trapping grounds. The traditional territory is located

² Eeyou (plural Eeyouch, from the coastal dialect, or Eeenou, plural Eeenouch, from the inland dialect) is the generic name in the Cree language that the Cree use to refer to themselves, although they also use the term Cree among themselves. The term Cree has been chosen in this report for ease of reading.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

primarily in the Nord-du-Québec region of EIJB³. It includes the lands on the eastern shore of James Bay and southeastern shore of the Hudson Bay, as well as the lakes and rivers that flow into it.

The territory includes nine Cree communities of Eeyou Istchee: Whapmagoostui, Chisasibi, Wemindji, Eastmain, Waskaganish, Nemaska, Waswanipi, Oujé-Bougoumou and Mistissini. The territory also includes the Washaw Sibi Eeyou Association which is currently based in Pikogan/Amos, although it hopes to build a community closer to Eeyou Istchee in the future.

Studied LGA proposed transportation infrastructure components are identified in Figure 2-2 And as shown in Table 2-1, each community is affected differently depending on which of the proposed LGA transportation infrastructure components is foreseen on its traditional territory.



Credit: Julie Roy, WSP

Figure 2-1 James Bay Shore, Chisasibi

³ It must be noted that since January 2014, the toponym *Eeyou Istchee James Bay* replaced *Baie-James* for the designation of this region.



Figure 2-2 La Grande Alliance Proposed Transportation Infrastructure

Phase I (1-5 years) *

- 1** Roadway: Upgrading and paving of the community access roads for Waskaganish, Eastmain, Wemindji, and Nemaska, and a new access road linking Mistissini to the Route du Nord.
- 2** Route du Nord: Upgrading and paving of the existing road over an approximate distance of 405 km
- 3** Railway: Matagami to Rupert (BDHR)
A proposed railway line following, as much as possible, the BDH starting from Matagami to the km 257 of the BDH (Rupert River Bridge).
- 4** Railway: Grevet to Chapais (GCR)
A return to service for the decommissioned railway line between Grevet (Lebel-sur-Quévillon) and Chapais (approximate distance of 147 km), with a possible spur or modification of the alignment to serve Waswanipi.
- 6** Airport: Mistissini
A new airport in Mistissini.

Phase II (6-15 years) *

- 5** Railway: Rupert to La Grande (BDHR)
A proposed railway alignment following, as much as possible, that of the BDH starting at km 257 (after the Rupert River Bridge, which is the junction point with the railway alignment developed by the Phase I) all the way to La Grande River. The Phase II railway alignment extends over an approximate distance of 340 km.
- 6** Road: La Grande to Whapmagoostui/Kuujuuarapik
A proposed road corridor connecting Chisasibi community access road and Whapmagoostui/Kuujuuarapik, over an approximate distance of 207 km.
- 7** Route 167: upgrading & extension to the Trans-Taiga Road
The first segment consists of upgrading and paving between the Mistissini community access road and the Stornoway Renard Mine access road over an approximate distance of 204 km. The second segment includes an extension towards north to connect with the Trans-Taiga Road near km 408, over an approximate distance of 172 km.

Phase III (16-30 years) *

- 8** Railway: La Grande to Whapmagoostui/Kuujuuarapik (BDHR)
A railway which follows, as much as possible, the projected road leading to Whapmagoostui/Kuujuuarapik (from the junction with the Phase II railway alignment). The Phase III railway alignment extends over an approximate distance of 219 km.
- 9** Port at Whapmagoostui/Kuujuuarapik
A seasonal harbour along the Kuujjuarapik coastline between the Great Whale River's mouth and the entrance of the Manitounuk Strait.

* All dates indicated herein are hypothetical and would begin as of the start of the construction period. This therefore does not include all pre-project phases, most notably the Environmental and Social Impact Assessment that would be required if the infrastructures are pursued.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 2-1 La Grande Alliance Proposed Transportation Infrastructure found on each Cree Community's Traditional Territory

Community	Potential Infrastructure Work	Phase
Whapmagoostui	<ul style="list-style-type: none"> - Road and rail extension - La Grande to Whapmagoostui - Harbour 	II, III
Chisasibi	<ul style="list-style-type: none"> - BDH Railway - Rupert to La Grande - Road and rail extension - La Grande to Whapmagoostui - Route 167 upgrade and extension to Trans-Taiga 	II, III
Wemindji	<ul style="list-style-type: none"> - Wemindji Access Road upgrade and paving - BDH Railway - Rupert to La Grande 	I, II
Eastmain	<ul style="list-style-type: none"> - Eastmain Access Road upgrade and paving - BDH Railway - Rupert to La Grande 	I, II
Waskaganish	<ul style="list-style-type: none"> - Waskaganish Access Road upgrade and paving - BDH Railway - Matagami to Rupert - Route du Nord upgrade and paving - BDH Railway - Rupert to La Grande 	I, II
Nemaska	<ul style="list-style-type: none"> - BDH Railway - Matagami to Rupert - Nemaska Access Road upgrade and paving - Waskaganish Access Road upgrade and paving - Route du Nord upgrade and paving - BDH Railway - Rupert to La Grande 	I, II
Mistissini	<ul style="list-style-type: none"> - Route du Nord upgrade and paving - Mistissini 2nd access Road - Route 167 Upgrade and extension to Trans-Taiga - Mistissini Airport 	I, II
Oujé-Bougoumou	<ul style="list-style-type: none"> - Grevet-Chapais Railway (GCR) - Route du Nord upgrade and paving 	I
Waswanipi	<ul style="list-style-type: none"> - BDH Railway - Matagami to Rupert - GCR 	I
Washaw Sibi	<ul style="list-style-type: none"> - BDH Railway - Matagami to Rupert - GCR 	I

The following sections describe the approach and methodology for each study theme presented previously in the introduction.

2.3 SOCIO-ECONOMIC INDICATORS

2.3.1 OBJECTIVE AND APPROACH

This theme consists of a thorough examination of traditional socio-economic indicators in the context of Eeyou Istchee, disaggregated to the community level but including comparisons with the entire Cree Nation, the Jamesian population, as well as with the overall Quebec population.

The data used is taken primarily from StatCan National Population Census for 2021 (herein referred to as the Census), as compiled by the DCI, as well as historic values for 2001, 2006, 2011, and 2016. The reports include population, age, language, educational attainment, land, labour force, economic structure, evolution of jobs, and income. Other sources have been used for specific indicators:

- ISQ (2021) for population and age forecasts
- Annual reports of the Cree Hunters Economic Security Board (CHESB, 2012-2022) for ESP beneficiaries.
- Previous works done notably by VEI-WSP (2023) and Maamuu (2023).

Since Washaw Sibi is not a registered First Nations community, the Census does not allow describing the community population in any way, nor how many people are included in this community. Despite VEI-WSP's request to obtain data from the Washaw Sibi Eeyou Association, no data was obtained. They have therefore been omitted from the report.

Data has been adjusted for Waswanipi in 2021 to include members of this community who are included in the EIJBRG territory in the 2021 Census. For more details, see Appendix F.

Much of the information derived from the Census is based on the longer questionnaire, which is filled out by a sub-sample of the overall Census population, i.e. a sample of 20% of households. This results in some data under-represented in smaller communities, as the sample size ends up being too small to derive any significant trends.

The socio-economic profile of Cree communities was compared to that of the overall Cree population, the Jamesian population, and Quebec's general population. The data for the Jamesian population were obtained from the Nord-du-Québec health region.

The main characteristics of each community and of the Crees as a whole are presented on a fact sheet especially specifically developed by VEI-WSP for this study. This fact sheet was developed by selecting and processing data from various sources including the StatCan Census (2001-2021), ISQ (2021), CTHISB (2022), DCI (2023a, b) and Société du Plan Nord (SPN) (2023) and reporting them into graphs and tables. These fact sheets are presented on two pages with letters that allow to refer to the appropriate graph. These fact sheets are a key deliverable of this study back to Cree organizations and communities, as they provide a wide range of relevant data in an easy-to-use format to inform decision-making. As such, they will be provided free of charge at the completion of the study.

A detailed table that allows the comparison of the main economic metrics for every Cree community, the overall Cree population, Jamesians, and Quebec's general population is also included in Appendix F.

2.3.2 POPULATION

The population is described as follows:

- Historic total population between 2001 and 2021;
- Forecasted total population between 2021 and 2041;
- Compound annual growth rate (CAGR) in the past and as forecasted;
- Band membership, residents, and non-residents;
- Median ages (2001-2021) and average ages (2021-2041);
- Population by age-group (0-14, 15-24, 25-64, 65 and over);
- Migration, via five-year migrants (i.e. people who live in the community in 2021 but lived in another community in 2016);
- People of Cree origin versus other origins;
- Family, household, and dwelling characteristics.

The population was forecasted by ISQ from the 2016 Census and before, for total population and for age groups. ISQ forecasts are based on short-term (5 years) and long-term parameters (birth rates, migration rates, and age structure). Forecasts based on the new 2021 Census have not yet been published. The ISQ forecasted population of Cree communities in 2021 was 1.9% higher than actual population the count during the 2021 Census. The gap was higher in Chisasibi (ISQ forecast is 7.4% higher than in the Census), in Whapmagoostui (+6.5%) and in Eastmain (+5.2%) while the underestimation of the forecast was more pronounced in Waskaganish (-7.4%) and Waswanipi adjusted estimate (-5.0%). This is a limitation of the Census.

The dynamics of population growth was analyzed at the regional level from ISQ (2023a, b) data on natural increase and migration over the 2007-2022 period. This is the only known source that allows for such an analysis. These data are only available for regional county municipality or equivalent territory (TE) (like Eeyou Istchee and Jamésie) but not at the community/municipality level. Moreover, this analysis did not exist for Eeyou Istchee prior to 2007. These data were compared with the StatCan Census over the 2016-2021 period (2021), but only for net births and incomers since information on deaths and out migrants is not available. Thus, information is only partially analyzed at the community level, based solely in terms of net births and incomers.

The number of members of each community, differentiated as residents and non-residents, are taken from the CHESB annual reports. The number of non-residents is marginal in all communities. Resident member figures for 2016 and 2021 were compared to the Census total population data. In general, the number of resident members is similar to the total population given in the Census for Coastal communities (except Waskaganish) while it is higher in inland communities and Waskaganish, especially in Waswanipi and Waskaganish. The overall gap for all Cree communities is 9.5%.

The ethnic origin of the population is given by the Census. The Cree origin is a variable of the Census and was used as the main proxy. The ethnic origin may be mixed or multiple. The mother tongue was also used as a secondary proxy.

2.3.3 EDUCATION AND LABOUR FORCE

The demographics of education and the labour force are described under the following elements from the 2021 Census:

- Knowledge of languages;
- Education attainment;
- Field of study;
- Working age population and dependency ratio.

The demographic dependency ratio is calculated as the ratio of the number of people of non-working age (usually 0--14 years and 65 years and above) divided by the working-age population (usually 15-64 years old).

2.3.4 EMPLOYMENT AND ECONOMY

The employment and economic structure includes the following components:

- The size of the reference population (15 years old and above), participation in the labour market, employed and unemployed, and the related rates;
- Occupation fields;
- Workers class (permanent temporary, casual, self-employed, or part time);
- Commute destination or work location;
- Employment by economic sector;
- Employment in private and public sector;
- Legal structure of private companies.

The use of the traditional workforce indicators (participation rate = people in labour market / people 15 years old and above; employment rate = employed people / people 15 years and over) must be interpreted carefully because they depend on the age structure, as the elderly are included in the calculation even if they are usually retired from the labour market.

The employment by economic sector is derived from the 2021 Census. For the economic structure of the work locations in the communities, the analysis is based on the combination of DCI (2023) and SPN (2023) employers database, corrected using the EDOs comments compiled as part of the study. Theoretically, the difference between the two sets of data lies in the commuting within the community versus outside the community. In the 2021 Census (based on population location), someone who lives in the community and works outside the community is included while someone living outside the community and working in the community is excluded. In the DCI-EDO-SPN database (based on work location), someone who lives outside the community and works in the community is included while someone living in the community and working outside the community is excluded. When a community is located near or within an urban area, the two types of datasets (population location or work location) tend to be similar, however when a community is remote (like many Cree communities), those two types of datasets tend to be quite different.

The classification of economic sectors is based on the North American Industry Classification System used by StatCan. The public and private sector definitions have been based on the inclusion of educational services, health care, social services, and public administration in the public sector, and the inclusion of other activities in the private sector. For the historic private employment data, the sectors have been aggregated into three groups: retail and local services; agriculture, wood, and mining; and construction and related activities.

The commuting destination (or the work location) may be in the community, outside the community in the region, based on the census division which is Nord-du-Québec for Cree communities, or in Quebec outside the CD/Nord-du-Québec.

2.3.5 INCOME

The income data is based on values in 2019, as the 2021 Census displays data for 2020 and 2019. As 2020 is not a normal year considering the COVID-19 pandemic, data for 2019 was used when available. This is the case for the median and average income, employment and after-tax income, % of government transfers, prevalence of low income, and the Gini index. The Gini index is a measure of equal distribution of income. The distribution of income across the class of income was based on 2020 data.

2.3.6 HEALTHCARE AND SOCIAL SERVICES

In Canada, community profiles of health and social services can be found in the First Nations Regional Health Survey. This survey is coordinated by the First Nations Information Governance Centre and operated provincially by the relevant entity. The last available data is Phase 3, collected in 2015 and reported in 2018, thus the data is fairly outdated. In the current Phase 4, the data in the region of Quebec is currently being collected by the Commission of Health and Social Services of Quebec and Labrador. There are useful indicators that will be reported in later years.

However, because of the JBNQA (Section 14), Cree Nation health services embedded in the provincial ministry of health, via the Cree Board of Health and Social Services of James Bay (CBHSSJB). Their health data is disclosed by the Public Health Department of the CBHSSJB. The indicators date back to 2015. The following indicators exist mostly at the regional level:

- Mortality causes in the population;
- Neonatal mortality rate;
- Diabetes in pregnancy;
- Prematurity rate;
- Youth protection active cases; Sexual transmission infections; General health (self-rate health); General mental health (self-rate health); Lifetime exposure to physical, sexual, and emotional abuses; Usage of alcohol, cigarettes and drugs; Depression/K-10 Kessler scale; Rate of fatal and hospital injuries; Well-being (mental, emotional and spiritual); Diabetic rate and other chronic diseases; Nutrition and food security; Practice of healthy habit activities; Physical activities; Obesity rate; Immunization rate; Healthcare usage in the past 12 months; Housing having moisture or needing major repairs; etc.

The typology of the supply of services in Cree communities was compiled from the CBHSSJB (2023) website.

2.3.7 OTHER INDICATORS

Other indicators have been used for the land-based economy, including the area of category 1A and 1B lands, and of traplines, as well as the number of ESP beneficiaries. Indicators of the cost of living include the monthly rent, the food price index, and the price of gasoline.

2.4 ECONOMIC OPPORTUNITIES

2.4.1 OBJECTIVE AND APPROACH

This theme of Economic Opportunities consists of an understanding of how the implementation of the proposed infrastructure projects could influence overall economic opportunities within Cree communities. Information is presented from a local perspective, appreciating the points of convergence and divergence between the nine communities of Eeyou Istchee, but also geographic axes such as northern vs. southern communities and inland vs. coastal communities.

Five topics are explored: diversification/entrepreneurship, job creation, effects on local economy, and long-term sustainability. Local community development as well as the participation of Cree communities in regional economic development is a central concern in our analyses.

2.4.2 DIVERSIFICATION / ENTREPRENEURSHIP

This topic includes four sections: economic diversification, entrepreneurship, labour market and local supply chain.

2.4.2.1 ECONOMIC DIVERSIFICATION

This activity is intended to assess how LGA can induce new economic activity and diversification in each community for the different economic sectors. Present diversification in each community shall be measured through the distribution of businesses or employment per economic sector. Shares of total employment per sector in the economy might be used as a proxy to measure economic diversification.

Economic diversification is first based on the current economic structure of each community, to which economic activities that can be developed without and with LGA transportation infrastructures are added.

Figure 2-3 identifies the categories of economic activities that allow for local economic diversification. Six categories have been identified. The figure also indicates features of the economic activities that need to be considered regarding desired Cree social and economic development.

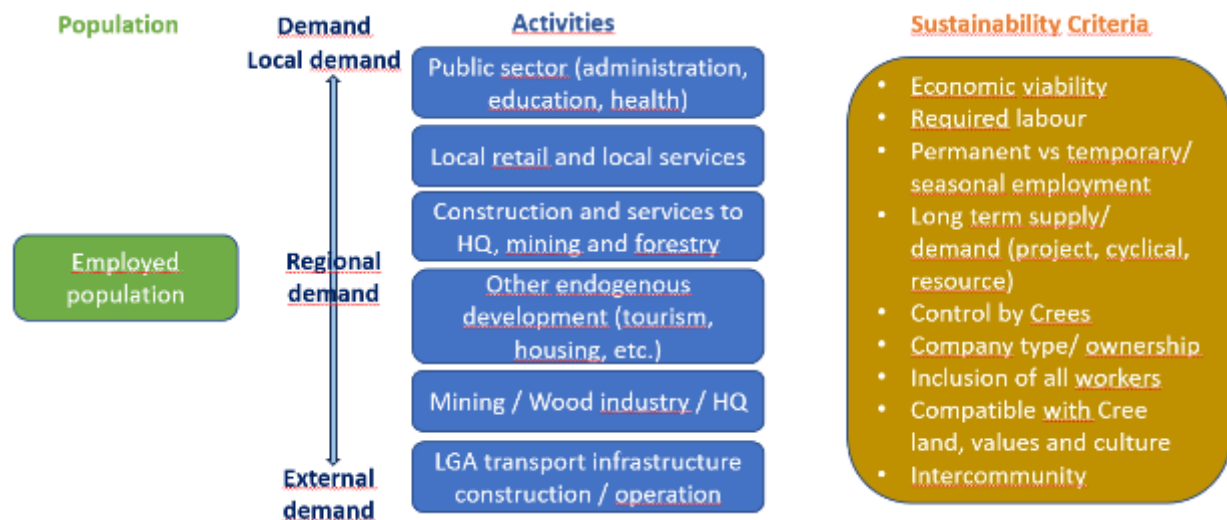


Figure 2-3 Cree Local Economic Diversification Components

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

The current Cree local economies are mostly based on the public sector, including public administration, educational services, and health care and social services. The diversification of local economies involves the development of private companies in other sectors or activities. These sectors may include:

- Retail and local services for the local community market (these are usually medium or small businesses that play a significant role in the satisfaction of communities' needs and the cost of living, they depend on the supply chains, which are determined by transportation mode and route choices). The jobs provided in these sectors depend on population size and on income in the community.
- The jobs in the group of retail and services generate lower hourly rates and represent a substantial share of part-time jobs. They constitute the base to satisfy local needs, are necessary to retain income within the community and allow for employment and inclusion of people with less education.
- Construction and other services for the heavy industry, including HQ as well as the mining and forestry sector. Cree companies and partnerships from some communities have developed experience in this sector, notably during Eastmain-1A project. The development of mine sites and the partnerships between mining companies and communities present an opportunity to enhance this part of the Cree economy. Jobs in this group are well paid but most often temporary. Skills are essential to seize opportunities in this group.
- Other endogenous Cree development that may satisfy external, local/regional, or mixed needs, like the forestry industry with, for example, Cree Lumber in Waswanipi, tourism projects, housing construction, berry harvesting, greenhouse production, etc. This type of activity has not been developed yet in Cree communities. Better transportation infrastructure should help the viability and emergence of such economic activities. The features of these activities, as well as the impact of LGA proposed transportation infrastructure, depend on the specific activities that will be developed.

The potential economic development envisioned in Cree communities, without LGA and with LGA, was discussed during the EDOs workshop.

Crees can also have jobs outside their communities directly in major businesses that constitute the base of the resource extraction economy, notably HQ, mining, and forestry industries. This should be facilitated through Cree community-based business partnerships to favour the employability, the hiring, and the mobility of Cree workers in those companies. Economic opportunities in this group were analyzed in VEI-WSP (2023) LGA market study. The presence of major interregional transportation infrastructure may contribute to the viability or probability of mining projects, for example, while the improvement of the access and regional road network may make easier the mobility of Crees to these sites.

Finally, Cree companies or Cree workers can carry out the construction and operation of LGA proposed transportation infrastructures. This is the analysis discussed in the LGA Job Creation sections.

The current economic structure and diversification of Cree communities have been analyzed using a combination of the DCI (2023a) private job database, corrected with the data given by EDOs during the workshop, and the SPN (2023) employer job database. The SPN database is more precise regarding the number of jobs and includes public employers but missed several local private employers. The DCI database only includes private employers and indicates an interval of jobs for each employer (for example 1 to 4 jobs without specifying if it is 1, 2, 3 or 4 jobs). This was subsequently validated during the workshop with the EDOs.

The study team validated the DCI database during a workshop with community EDOs, adding or removing some companies, specifying the number of jobs. It appeared from the EDOs' corrections to the DCI database that several businesses on this list were, in fact, business projects or closed businesses. The private employers confirmed by the EDOs or remaining in the SPN list were combined to the list of public employers in the SPN list to obtain an aggregated list of employers per community.

The resulting job and business database was then compared to the 2021 Census. The number of businesses and jobs may therefore be overestimated for some communities. Given the three kinds of information aggregated in community employer databases, the resulting global employer database should be regularly reviewed and revised accordingly.

If more jobs are split in several economic sectors or activities, then a local economy tends to be more diversified. Usually, the economy is less diversified if the employment is concentrated in public functions, including public administration, health and social services, and education.

2.4.2.2 *ENTREPRENEURSHIP*

Local entrepreneurship and the ability to seize and benefit from economic opportunities and develop the economy and employment were assessed by combining three different sources: the DCI database, the SPN database, and validation by the EDOs. Specifically, the number of firms and employment per economic sector were used to measure the level of entrepreneurship. Entrepreneurship is assumed to be more developed when there are more private employers, the share of the private sector in employment is higher, and when private companies employ more people on average.

To estimate the share of the private sector, it was assumed that jobs in public administration, health and social services, and educational services lie in the public sector, and those in other sectors are in the private sector. Although this is not true for all employers (for example, a dentist's office is usually private but within the health sector while Canada Post is public and in the transportation sector), the estimate nevertheless holds most of the time. Note that some disparities may be found within data sources, such as employee-based databases (e.g. Census), which measures the proportion of the people who have a job at a specific moment in time, and employer-based databases, which measure the proportion of jobs at a specific moment in time.

The comparison of the number of projects funded by DCI programs between 2012 and 2023 (DCI, 2023b) to the local population was also used as an estimate of entrepreneurship in Cree communities (Niska 2020).

2.4.2.3 *LABOR MARKET*

Some characteristics of employment according to the economic sector have been studied by Apitisiwiin Skills Development of the CNG (ASD) (2021) regarding the global Cree job market in 2019. They give an insight into the sectors demanding employees, the type of job (full-time or part-time / permanent or seasonal). The average annual salaries by sector are found in the Indigenous Peoples Economic Account (StatCan, 2022), such as discussed in section 2.4.5.

2.4.2.4 *LOCAL SUPPLY CHAINS*

Little information is available regarding local supply chains. Nevertheless, regional providers and carriers such as Air Creebec, Kepa Transport, and Petronor have provided some regional information in previous studies (WSP 2016) as well as for the LGA market survey (VEI-WSP, 2023). EDOs also provided qualitative information for some communities during the workshop.

2.4.3 LGA JOB CREATION IMPACT MODEL (JCIM)

This theme deals with the jobs that LGA transportation infrastructure would create during their construction and operation phases. The Eastmain-1A-Sarcelle-Rupert complex's post-project economic impacts, estimated in terms of contracts and jobs per amount of investment by CGW (2015), were used as a starting point to build the Job Creation Impact Model (hereafter JCIM) of the LGA. The construction of the Eastmain-1A-Sarcelle-Rupert complex started in 2007 and ended in 2016. Most of the construction work were completed by 2011. Operation begun as of 2012. In 2002, before the construction begun, the CNG (formerly known as the Grand Council of the Crees) signed an agreement with HQ, the so called Boumhounam Agreement, to set some economic targets for the Crees. According to the Agreement, Hydro-Quebec agreed to hire Cree entrepreneurs and workers to participate in the Eastmain-1A-Sarcelle-Rupert Project, from the preliminary project stages to commissioning. After the construction work, members of Cree communities continue to take part in the environmental studies related to Hydro-Quebec facilities.

During the construction period from 2007 to 2011, Cree entrepreneurs were awarded a total of \$1,024 million (M\$) in contracts which accounted for about 27% of the entire Hydro-Quebec Project. Over the same period, approximately 2,196 FTEs jobs for Cree workers were created on a yearly basis, which accounted for 9.8% of the total job creation, including non-Cree employment. Of this number, Mistissini provided the highest number of workers for the project (38%), followed by Waskaganish (22%).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

During the operation period from 2012 to 2016, Cree entrepreneurs were given higher shares of contracts and employment than during the construction period, 55% and 17% of the total contract and employment respectively. Mistissini and Waskaganish still provided the largest proportions of jobs: 28% and 31% respectively. For further details about job creation and impacts and contracts received, please refer to Appendix A – JCIM section.

Given the increasing willingness of the Cree peoples to be active players in the territory development, the economic benefits for the Crees brought by the proposed LGA infrastructure are expected to be much higher than the ones brought by the Hydro-Quebec Project. Consequently, the following specific assumptions were made on the JCIM.

For the construction period from 2030 to 2044 that includes three phases (Phase I from 2030-2034; Phase II from 2035-2039; and Phase III, from 2039-2044),

- **Contracts Received:** Cree entrepreneurs would receive a minimum of 60% of the total amount of capital expenditures instead of 27% as in the Hydro-Quebec Project. This assumption is hold for all three phases of the construction period;
- **Job Creation:** for every \$1 million dollars (\$M) spent on the LGA infrastructure, there would be 5.62 FTE jobs created. The 5.62 figure is called job multiplier, and it was calculated based on the Indigenous economic data provided by Statistic Canada (see Appendix A – JCIM section for more details). The job multiplier is supposed to remain constant over time for all Cree communities;
- **Shares of Contracts and Job Creation per Community:** each Cree community would provide its share of labour to the project proportionate to their working age population (15 and over). This assumption does not take proximity of the community to the infrastructure into account as it supposes that construction works would be shared based on the labour force and to ensure equity amongst Cree people. However, adjustments were made to take account of the fact that Mistissini and Waskaganish were well positioned due to their developed capacity and experience in this type of project over the years. If using working age population data, Mistissini and Waskaganish are expected to provide respectively 21% and 12% shares of employment. As seen in Table 2-2 however, Mistissini and Waskaganish would provide respectively 26% and 17% shares of employment, meaning 5 percentage points higher. With these adjustments, Chisasibi would still receive the highest share of employment and contracts, 27%, as soon as the construction work starts in 2030.

Table 2-2 Assumptions About Shares of Labour and Contracts, Construction Period (2030-2044)

Community	Share of labour and contracts		
	Phase I (2030-2034)	Phase II (2034-2039)	Phase III (2039-2044)
Whapmagoostui	4%	4%	4%
Chisasibi	27%	27%	27%
Wemindji	7%	7%	7%
Eastmain	4%	4%	4%
Nemaska	3%	3%	3%
Waskaganish	17%	17%	17%
Mistissini	26%	26%	26%
Oujé-Bougoumou	3%	3%	3%
Waswanipi	8%	8%	8%
Total	100%	100%	100%

Sources: ISQ (2021) and VEI-WSP (2024).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

For the operation period, each phase has its own start date until the end year of analysis set in 2074: 2035 for Phase I, 2040 for Phase II; and 2045 for Phase III. The following specific assumptions were made:

- **Contracts Received:** Cree entrepreneurs would receive 80 % of the total amount of operating and maintenance expenditures instead of 55% as in the Hydro-Quebec Project. This assumption is hold for all three phases of the construction period;
- **Job Creation:** direct jobs would be created by the rail operator, while indirect jobs would be created by the Cree entrepreneurs who would receive 80 % of the total contracts as mentioned above. Estimation of direct jobs was based on VEI Team calculation for the Grevet-Chapais and the Matagami-Rupert River rail lines. Estimation of indirect jobs was based on the application of the 5.62 job multiplier figure mentioned above;
- **Shares of Contracts and Job Creation per Community:** for each phase of the LGA, proximity of the community to the infrastructure is the key assumption, meaning that the nearest community would provide generally the highest manpower share subject to its labour force. However, adjustments were made to take the fact that Mistissini and Wakaganish usually stand out in the construction sector into account. For the sake of simplicity, the share of contracts is assumed to be equal to the share of job creation. Table 2-3 provides the shares of contracts received and labour provided by each community per phase. Note that the share of direct job creation is assumed to be equal to the share of indirect job creation. For Phase I, only five communities in the south would carry on the operation and maintenance jobs of the infrastructure. Mistissini is expected to provide its labour and receive some contracts, but due to its far distance to Phase I infrastructure, the community would not take any part. But as soon as Phase II infrastructure is completed, Mistissini together with Wakaganish are assumed to be ones of the principal job takers (24% and 14% respectively) during the operation period, behind Chisassibi (33%). These percentages were calculated based on the number of working age population of the seven communities, excluding Oujé-Bougoumou, Waswanipi, and Washaw Sibi that would not take any Phase II jobs. The same logic applies to Phase III in which only Whapmagoostui, Chisassibi, Wemindji which are close enough to the infrastructure, while Mistissini and Wakawaganish would help them in taking care of the infrastructure. Again, due to its populous work force, Chisassibi would provide the highest share of labour (39%), while Whapmagostui would provide 9%.

Table 2-3 Assumptions About Shares of Labour and Contracts, Operation Period (2035-2074)

Community	Share of labour and contracts		
	Phase I (2035-2074)	Phase II (2040-2074)	Phase III (2045-2074)
Whapmagoostui		7%	9%
Chisassibi		33%	39%
Wemindji		10%	11%
Eastmain		6%	
Nemaska	9%	5%	
Waskaganish	34%	14%	15%
Mistissini		24%	27%
Oujé-Bougoumou	18%		
Waswanipi	9%		
Washaw Sibi	30%		
Total	100%	100%	100%

Sources: ISQ (2021) and VEI-WSP (2024).

2.4.4 EFFECTS OF LGA ON LOCAL ECONOMY

The effects of LGA transportation proposed infrastructure on local community economies were identified qualitatively from discussions with EDOs, from the lessons learned in comparable contexts, and from the experience of the Study Team. It must be remembered that economic development involves a complex series of factors among which transportation and accessibility are mostly a facilitator for potential development but depend largely on the initiatives and decisions made by communities, groups, and individuals.

2.4.5 LONG-TERM SUSTAINABILITY

2.4.5.1 SUSTAINABILITY ASPECTS

Long-term sustainability is a major concern for any community, and particularly important for Cree communities as well as for the Grande Alliance overall approach. Long-term sustainability might be estimated considering the following:

- Communities' livelihood and development goals;
- Number of jobs in light of forecasted population growth;
- The level of integration of local economies into regional dynamics;
- The level of robustness and diversification of the economy over a long period versus more and/or less predictable activities;
- GDP or average personal income growth over time;
- Local socio-economic development consistent with the preservation of the environment and cultural heritage;
- Equitable sharing of new wealth among the population.

Information related to community goals will be summarized from official documents, including social and economic development strategies where available. The results from the preceding sections will be used to assess how the projects might stimulate economic growth, create jobs, and foster sustainable development in alignment with community goals.

Future employment needs will be calculated from long-term demographic forecasts for each community, corresponding to the number of people within the 20-64 years for a period until 2061. The potential future evolution of employment by economic sector could be estimated using employment forecasts/estimates combined with broad and reasonable assumptions on the participation of communities in these activities. This estimation will cover the different activity groups including local community services, mining, forestry, other resource projects, tourism, construction, and potential LGA infrastructure.

2.4.5.2 GROSS DOMESTIC PRODUCT

The gross domestic product (GDP) per capita is a standard of living indicator that represents the total market value of the goods and services produced within a country, region, or community. It will be evaluated during all three phases of the construction period, phase 1 from 2030 to 2034, phase 2 from 2035 to 2039, phase 3 from 2040 to 2044. It is used here as a measure of long-term sustainability to see whether LGA would improve the standard of living for Cree population.

First, the GDP without LGA of nine Cree nations was forecasted by combining Indigenous employment and GDP data obtained from the Indigenous Peoples Economic Account (StatCan, 2022) and the Cree employment data obtained also from StatCan. Appendix A presents the estimated Indigenous employment and GDP data per economic sector. As of 2019, the 91,690 Indigenous workers together produced different goods and services valued at a total amount of \$5.4B within Quebec. This number represents roughly 1.26% of Quebec's total GDP in 2019 which stood at \$425.3B. Lessons learned from the data presented in this table tell us that, except for the construction sector, a large proportion of Indigenous entrepreneurs and workers still work in the low value-added and low-paying job sectors such as public sector, retail, accommodation, and food services.

Second, the GDP with LGA was estimated by developing the JCIM stated in the previous section. Since jobs created by the LGA for the Crees would be in the construction sector which was proven to be high-added value and high-paying job sector, the incremental change in GDP brought by the LGA would be attributable solely to the value added generated by the construction sector. In fact, amongst 20 sectors of the economy, the construction sector ranked fourth in terms of GDP generated per employment (\$79,742), behind the real estate, mining, and utilities sectors. This is to say that participating in the LGA would help improve the standing of living for the Crees by a large extent. The construction sector also ranked fourth in terms on employment income employment income (\$56,000 per worker) amongst 20 sectors, behind the mining, utilities, and finance and insurance sectors. In other words. The LGA is likely to attract a pool of existing and new Cree workers to join the construction industry. They could be either unemployed people or people outside the labour force, or workers from other economic sectors looking for better employment opportunities.

Finally, the following assumptions were made to forecast the GDP per capita for both with and without LGA scenarios:

- The employment rate estimated by StatCan per community remains constant over time;
- The real GDP generated per Cree employment is equal to the real GDP generated per Indigenous employment and remains constant over time.

2.5 LAND-BASED ECONOMY

2.5.1 OBJECTIVE AND APPROACH

This analysis seeks to examine how the implementation of the proposed infrastructures could impact the land-based economic activities that hold significance within Cree communities.

First, it was important to define the “land-based economy”. In addition to literature research, this concept was discussed during the workshop held with the EDOs in November 2023, as well as during a meeting held with the CIO and the Community Liaison Officers (CLO) in December 2023 as part of the communication phase. Finally, a CTA group discussion happened on March 21 to discuss about the concept.



Credit: Patricia Raynault-Desagné

Figure 2-4 Moose Hide Scrapping and Sturgeon Smoking

A Cree perspective on economic development and the land-based economy was developed based on a combination of previously published materials and workshops held.

At this stage, land-based economy is an exploratory concept with little available data in Eeyou Istchee. For the land-based economy sections in this study, the outcomes from the social and environmental studies conducted for Phase I and Phases II & III were used. Other information and studies about traditional activities, meaning hunting, trapping, fishing, and gathering, or land-based economy were also considered. For each community, the following were used:

- The Technical Notes 3,5 and 17 of the LGA studies, phases 2 and 3 (WSP, 2023 a, b and c);
- The Socio-Environmental Study Report – Volume 3 of the LGA studies, Phase 1 (VEI, 2023d);
- The Eeyou planning commission (EPC) reports;
- The First Nation websites;
- Focus group and workshop summaries.

Moreover, a literature review complemented that information at community and regional levels, including annual reports from the Cree Hunter and Trapper Economic Security Program (ESP) and the Cree Trapper Association (CTA), and research documents. It should be noted that section 3.6.3 outlines the ESP features since the JBNQA.

2.5.2 RESOURCE ACCESSIBILITY

In the context of the land-based economy, resource accessibility means the possibility to access harvesting areas to obtain healthy wildlife. Calculating income solely in terms of fur sold or meat harvested would not be sufficient to assess the importance of the accessibility to resources. The land-based activities are not only quantifiable in terms of benefits or revenues for an individual. They also contribute to the well-being, not only of the family harvesting the resources, but of a wider group, due to the values of sharing and transmitting knowledge within the communities. Indeed, access to the resources is crucial to sustain the Cree way of life and the land-based economy throughout Eeyou Istchee.

Within the scope of this study, for each community, in the sections “Resource accessibility”, physical access remains the main focus, i.e., the possibility for people to reach the land and the resources to harvest. The aspect of resource abundance and quality is addressed in the sections Synergies and Conflicts.

For each community, the outcomes of the previous LGA engagement activities are mainly used to address these sections.

2.5.3 CULTURAL CONTINUITY

In this report we describe community perceptions of cultural continuity in the form of a brief overview of how communities assess this concern, and their aspirations for the future. This information is mainly based on the EPC reports and on Cree First Nations’ websites. The potential impacts of the infrastructures under study, as anticipated by land users during LGA engagement activities, are presented. Finally, the measures they suggested to alleviate these potential impacts and the opportunities that are foreseeable are presented.

Section 3.6.4 broadly brings together communities’ understanding of their cultural continuity needs, and programs, initiatives or advantages and entrepreneurship opportunities that exist or could be developed to ensure the economic viability a healthy amount of cultural continuity factors.

2.5.4 SYNERGIES AND CONFLICTS

Traditional Cree activities, such as hunting, trapping, harvesting, and fishing, may benefit from economic synergies with the proposed LGA infrastructures development, but may also be in conflict, in association, or dissociated from it. As mentioned above, the data related to potential social and environmental impacts already contained in the Phase I and Phases II & III studies were identified as key information for each community.

Section 3.6.2 outlines the anticipated economic synergies and conflicts between land-based activities and transportation infrastructure for the Cree Nation. Proposed measures documented by the LGA engagement process across Eeyou Istchee are also presented.

Then, land users in each community see potential concerns and opportunities regarding infrastructure and their land use. These distinctions can be quite nuanced. For example, an improved or new road facilitates access to resources for all users, hence the presence of certain fears regarding the reduction in the abundance of resources. First, we present the positive impacts and synergies, then the negative impacts and conflicts with the land-based economy anticipated by the Cree, mainly land users. Suggested measures and opportunities are then described for each community. When the documentation consulted allows it, these anticipated conflicts and synergies are linked to the community aspirations.

2.5.5 ECONOMIC VIABILITY

The incidence of LGA transportation infrastructure on the economic viability of hunting, trapping, fishing, harvesting and other traditional activities, resource preservation, and cultural continuity are qualified through engagement activities during the feasibility/prefeasibility studies and similar case studies.

For each community, their expectations and the obstacles foreseen are presented, based on the documentation consulted (mainly LGA Technical notes and EPC reports).

New avenues for sustaining land-based activities in the future are examined considering the potential for land rehabilitation, cultural tourism, value-added processing, sustainable resource management, and the aspirations of each community. These avenues go beyond traditional activities and enable the Crees to remain connected to the land, which they consider to be of prime importance.

Section 3.6.4 indicates general trends for the Cree communities in the economic viability of land-based activities.

2.6 COST OF LIVING

This analysis is dedicated to uncovering how enhanced connectivity may influence various factors contributing to the overall cost of living for community members. The analysis is done by comparing prices of a “basket of goods” between communities with no road access to those with access to different road networks.

2.6.1 PRICE LEVELS

The cost of living was documented in three ways. First, the price of goods of a predefined basket including 11 grocery items, gasoline (1 litre of regular), and monthly internet, were compiled from local stores in the community. In some communities, the price survey was done in the only store available. In others, two or more options are available. For example, in Waskaganish, the price survey was done in two stores but in Chisasibi, Wemindji and Mistissini, the survey was done only in one shop. The list of items in the grocery basket and the list of stores are provided in Appendix G.

The second way we documented the cost of living involved a workshop with key informants, after which a questionnaire regarding household expenditures was distributed. Although not statistically significant, their answers may be indicative of typical goods and services consumed by Crees, and of the share of the expenditures within and outside a community. The questionnaire and its results are included in Appendix H.

In addition, the cost of living was also documented from secondary data, including the median and average monthly cost of renting a dwelling from a Cree First Nation, as well as the median and average monthly rent and monthly cost of owned dwellings for Jamesian and Abitibi towns, as per the 2021 Census. The prices are compared between Cree communities, as well as with Jamesian and Abitibi communities. To facilitate the comparison across communities, price indices were calculated by dividing the local price by the average of the nine Cree communities. The price index for food and beverages was calculated from the sum of prices of goods.

Emerging findings were validated using similar studies conducted both within and outside Eeyou Istchee. The study by Dagoohékan (2019) on prices in Whapmagoostui with comparison to Chisasibi, Wemindji, and Mistissini was consulted. This study relies mainly on secondary data, and the period of primary data collection is not specified. Price levels for trappers across Cree communities were collected in 2009 and analyzed by Collette and Larivière (2010) (see Appendix F). Côté (2022) and Tremblay (2023) report price levels in different supermarkets in Quebec in February 2022 and August 2023 respectively. The difference in baskets of goods in low-price and regular food chains was compared to the situation observed in Abitibi and Jamesian towns where both types of chains exist, and to include the fidelity program effects. These references helped determine whether the relative differences across communities remain similar over time, regardless of geographic location.

2.6.2 STUDY CASES AND PRICING FACTORS

A review of the few available cost-of-living studies of northern Québec provided limited information concerning community economic profiles and cost-of-living indicators. A study featuring Schefferville region presents an estimation of the Tshiuetin railway's freight costs and their potential impact on food prices. It also presents profiles for Schefferville region (Duhaime et Grenier, 2012). Nunavik cost of living studies (Robitaille, J. et al. 2016, 2018a, 2018b), and a cost-of-living study for Whapmagoostui (Dagoohékan, 2019) were also consulted. Further, we consulted a study which concluded that underdeveloped transportation infrastructure significantly increases the cost of living in remote communities (Chernoff & Cheng, 2023). A price index for Nunavik gave an idea of the effect of federal and provincial food price subsidies on Nunavik's cost-of-living (Lévesque, 2022). Apart from these case studies, we consulted CNG housing and income data. While the data (prices) are outdated, the studies identify some relevant price factors for the context of Eeyou Istchee, such as an estimated relative weight of rail freight costs in relation to prices, latent demand for passenger service, and considerations regarding freight transshipment from trucks to rail.

2.6.3 TRADITIONAL HARVESTING, HERITAGE, AND GIFT ECONOMY

At the time of writing this report, a study specifically answering whether expanded access to the territory will impact the volume of traditional harvesting has not been found. A study that measures or quantifies in dollar terms the sharing or gift economy between community members also has not been found. A study by Péloquin (2012) in Eeyou Istchee does describe what Wemindji hunters understand is behind the decline in their hunting success.

To understand how traditional harvesting, cultural heritage, and the “gift economy” might be affected by LGA connectivity development, available information about Eeyou culture and life on the land was reviewed. We looked at CNG documentation about the ESP, which helps sustain traditional harvesting activity. Two studies that specifically address traditional harvesting were reviewed (Marchand 1994; Péloquin, 2012). These explore the economic significance of harvesting, provide some economic data such as estimated revenues from harvesting, contain historical data about the ISP (now ESP), and describe how traditional harvesting has been impacted by changes in the landscape (development), climate change, and the effects of the resulting adaptations that land users make to deal with these challenges.

The information learned about traditional economic activities through was complemented by workshops with land users and local authorities (EDOs, CIOs, etc.), where these topics were discussed. The information remains qualitative. The mentioned revenue estimates for traditional harvesting were not considered in the analysis of findings.

2.7 WORKSHOP AND FOCUS GROUPS

To complement secondary data with qualitative primary data, a focus group and a workshop were conducted with Community representatives, Cree EDOs, and the DCI respectively at the end of October and the end of November 2023. These activities were held to obtain refined data and local views regarding community economic development and the land-based economy.

2.7.1 COMMUNITY PULSE FOCUS GROUPS

Three virtual focus groups were held to connect with local key informants and CLOs, to help the study team in defining each Cree community’s economy, and to explore how LGA might impact their economic dynamics. An innovative facilitation plan was produced to capture the participants’ views of the Cree economy. Refer to Appendix B. These half-day sessions were held with community cluster as shown in Table 2-4.

Table 2-4 Focus Groups

Community Pulse Focus Group Cree Economic Landscape and Dynamics		
Oct. 31	Nov. 1	Nov. 2
Washaw Sibi Oujé-Bougoumou Waswanipi	Waskaganish Eastmain Wemindji Nemaska Mistissini	Chisasibi Whapmagoostui
14 participants	12 participants	9 participants

2.7.2 WORKSHOP WITH EDOS AND DCI

This workshop, held on November 28 and 29, 2023 in Val d’Or with EDOs and CNG-DCI representatives, served as an opportunity to raise awareness regarding the importance of gathering, keeping, and sharing valuable community statistics and qualitative views about economic development. Prior to the event, a question guide was sent out to EDOs and DCI staff. The goal was to gather all the information relevant to the specific topics of this study, both qualitative by discussion and quantitative with any existing documentation. They were asked to update existing businesses and jobs in each community. This activity allows the completing of SPN and CNG databases.

The workshop gathered mostly qualitative data. The workshop facilitation plan allowed the capture of insights on key indicators (refer to Appendix C). The objectives were:

- To share an overview on the LGA proposed infrastructure preliminary studies and present the mandate of the current study;
- To establish a comprehensive portrait of the actual Cree community economy;
- To envision what the future can be with and without proposed infrastructures;
- To stimulate further discussion around the land-based economy;
- To collect complementary data relevant to the report (for example, monthly expenses, see section 2.6.1).

2.8 LIMITATIONS

The description of the current situation and evolution of each community is subject to the validity and the quality of the available data. It should be noted that, given the size of some communities, there is much discrepancy between the Census data and the data on employers or resident members, and economic sectoral classification. This creates some uncertainty on the knowledge of the initial state of community economies.

It should be noted that many interviews were done towards the beginning of the LGA study, and during this consultation process, views may have changed. That is, certain observations in this study represent viewpoints from the early stages of the discussion that may no longer be current.

It should be noted that the LGA infrastructure program involves a very long-term horizon. This means that there exists a large uncertainty on what the far future shall be, given the possible technological, economic, and social changes over such a long period, notably relating to the development of the forestry and mining sectors, and the

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

structure of the labour market. Furthermore, this future will depend on how Cree communities and individuals are proactive and entrepreneurial, as well as on economic development initiated by Quebec through HQ or the lithium battery industry, or on exogenous factors including the forestry, mining, or technology markets. In any case, it must be remembered that transportation improvements may favour social and economic development, but the determining elements are likely local and regional initiative and entrepreneurship.

3 GENERAL OVERVIEW

3.1 CONTEXT

This chapter presents an overview of the economic issues raised by Grande Alliance that are common to all Cree communities. First, the proposed LGA transportation infrastructure components are briefly described. Then, the most relevant information compiled via workshop and focus groups is presented. The study's four themes – indicators, economic opportunities, land-based economy, and cost-of-living – are analyzed for the Cree Nation, distinguishing community-specific trends wherever relevant. These themes are explored by examining results from previous studies and comparable cases.

The Crees live in nine communities in Eeyou Istchee, apart from the Washaw Sibi Eeyou Association based in Pikogan, Qc. Communities and traplines extend over 400,000 square kilometres (km²), covering most of the recognized territory (Figure 3-1 shows EIJB, including the existing transportation network, and LGA proposed infrastructures). For some communities, such as Chisasibi or Mistissini, the distance from the community to some traplines may be significant, such as those around the Caniapiscou reservoir (e.g. CH-32 and M-01), located at the headwaters of the La Grande hydroelectric complex, in the extreme northeast corner of the territory and poorly served by the existing network.

3.2 LGA COMPONENTS

Various transportation infrastructure components have been presented and analyzed in previously published LGA study feasibility (Phase I) and prefeasibility (Phases II/III) reports. Those studies considered various technical, economic, and socio-environmental issues. A summary of these results is presented below, as well as in Figure 3-1.

The proposed infrastructure has been studied according to a 3-phase time horizon: Phase I (operations starting after 2035), Phase II (2040) and Phase III (2045). Phase I includes infrastructure located in the south of the territory, while Phases II and III extend further to the north.

LGA proposed transportation infrastructure includes local roads, regional roads, railways, a harbour, and an airport. The rationale behind these options may be based, in some instances, on local needs or regional ones in others.

For the road segments:

- The paving of local access roads would improve safety and connectivity of Wemindji, Eastmain, Waskaganish, and Nemaska to other Cree communities as well as to Matagami. The improvement of local access roads aims to better integrate the communities into the regional economy and make journeys safer.
- The new access road to Mistissini should improve the access to the Route du Nord, mining sites, and other Cree communities including Nemaska and Chisasibi. For this community, it is also a safety route redundancy in case of a major fire or other evacuation emergency.
- The improvement of the Route du Nord could improve accessibility to Nemaska. It also plays a regional role and ensures interconnectivity between coastal and inland communities. It could also improve access to lithium sites where short-term projects are underway as well as a shorter route to HQ installations from eastern Quebec Figure 3-1.
- The connectivity and reliability of the road network, as well as telecommunication access over the territory are key elements for the development of tourism in the region.

For railways:

- The Billy-Diamond Highway Railway (BDHR) could mainly allow the transport of heavy freight, mostly from lithium mining sites (planned extraction projects underway) and logging operations in Phase I (and partly Phase II), possibly for iron from sites still in exploration and projects under study (Phase II), and to connect to a harbour in Whapmagoostui (phase III). By diverting freight traffic from the BDH to rail, this infrastructure would contribute to a reduction of safety risks associated with sharing of the roadway between heavy trucks and passenger vehicles as well as the potential deterioration of the BDH roadway, and associated upgrading/rehabilitation life-cycle costs. The railway could also provide passenger transportation within the territory as well as a link to locations in the south (Montreal, Quebec, etc.).
- The GCR would serve mainly for the freight generated by the lumber industry in EIJB (including Cree Lumber) as well as for copper ore from mining sites in the region towards Abitibi. It could also serve as a link in the Canadian Northern Rail Corridor, connecting with the Ontario Northland Railway network to the west and the Qc Rail Project planned between Dolbeau and Baie-Comeau. The railway could also provide passenger transportation within the territory as well as a link to locations in the south (Montreal, Quebec, etc.).

Initially, LGA considered building a deep-water port in Whapmagoostui, connecting marine transportation between the north and the west with the North American railway network via the BDHR. However, because the market survey and cargo forecast study results showed that expected demand in the near and intermediate future was not sufficient to sustain a deep-water port investment, the proposed infrastructure was reduced to a conceptual design of a small craft harbour that would answer immediate community needs, accommodating fishing vessels and transporting goods from sealift vessels to the shore. Considering the recent landslide upstream from the mouth of Great Whale River and the perceived risk of excessive sedimentation at the mouth, the proposed Harbour could be considered as a mitigation measure that provides an alternative to the community if the existing natural beach harbour does indeed become unusable. Note that the chosen site could be scaled up to a deep-water port at the same location in the future should conditions change.

Finally, a new airport in Mistissini was the last element to be considered in the LGA program. This infrastructure would mainly be used for internal transport of Cree patients between Mistissini and Chisasibi, given the construction of a regional hospital in the largest Cree community in the near future.

Table 3-1 summarizes the main economic results from LGA studies for infrastructure component (VEI-WSP, 2023; VEI, 2023c, e; WSP, 2023c, d). Length and capital expenditure (CAPEX) are used as indicators of the scope for each potential infrastructure as well as the financing required. Forecasted traffic both for passengers (in cars per day or in passengers per day) and freight (in trucks per day or tonnes per annum) as well as the identification of the main users (local community, industry, or tourism) are indicators of potential demand.

Overall, the LGA market and economic studies reached the following conclusions:

- The five access roads in Phase I total 356 km on length and their total upgrading cost is estimated at \$692 million (M). Their traffic would remain relatively low and mostly driven by local demand. However, because the goal of these upgrades is focused on regional economic integration, their main justification is one of inclusion and social justice for the affected communities.
- The Route du Nord upgrade in Phase I would span a 406 km and upgrades would cost \$927M. Although the upgrade of this road would significantly increase traffic volumes in the region, these would remain relatively low given the remoteness. Nevertheless, its role as an inter-regional connection makes such upgrades strategic.
- The upgrade and extension of Route 167 (R167) in Phase II covers a length of 510 km (338km of existing road and 172km of new road) for a CAPEX of \$1.1 billion (B). This piece infrastructure would improve access to the northeastern part of Eeyou Istchee currently not well served by the existing network. This road remains very remote and would serve a very low traffic volume. However, the road could provide a redundant north-south corridor, thereby improving the resiliency of the existing road network in the case of major fires or other evacuation emergencies.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

- The length of a new road between La Grande River and Whapmagoostui is estimated at 207 km, avoiding sensitive environmental elements identified in the study (including with land users). Given the nature of the area’s soils and that fact that it would be a new road, the CAPEX is estimated at \$1.4M. The traffic would be nearly entirely local, with mostly community access roads. Considering the remoteness of the community and the low population, the traffic volume would be very low. However, this community remains the only one in the region not presently served by the road network.

Table 3-1 Length, Cost and Traffic of LGA Transportation Infrastructures

Infrastructure	Phase	Length (km)	CAPEX (\$M)	Cars/passengers	Freight	Users
Roads				CPD	TPD	
Waskaganish access road	I	102	213	99	12	Local
Eastmain access road	I	103	179	46	11	Local
Wemindji access road	I	96	185	67	12	Local
Nemaska access road	I	10	23	39	11	Local
Mistissini new access road	I	45	92	.	.	Local
Total – access roads	I	356	692	.	.	Local
Route du Nord upgrade	I	406	927	275	117	Mining, HQ, Crees, tourists
Whapmagoostui Road	II	207	1,428	.	.	Local
R167 upgrade & extension	II	510	1,053	.	.	Local
Railways				PPD	MTPA	Main users
GCR*	I	164	1,231	11	1.01	Lithium/copper (51%), Wood (48%)
BDHR Matagami-Rupert	I	240	2,251	6	1.38	Lithium (75%), Wood (23%)
BDHR Rupert-La Grande	II	340	3,958	.	4.98	** Lithium/iron ore (93%), Wood (6%)
BDHR La Grande-Whapmagoostui	III	219	4,899	.	0.01	
Port						
Whapmagoostui harbour	III	...	57			
Airport						
Mistissini airport	I	...	35.			
CAPEX Capital expenditure. Pass Passengers CPD Cars per day TPD Trucks per day PPD Passengers per day MTPA Million tonnes per annum						
* Including Waswanipi connection under study. ** This traffic continues on Matagami-Rupert segment.						
CAPEX includes contingency, client costs, permits and studies						

Source: VEI (2023c, e), VEI-WSP (2023), WSP (2023c, e).

The viability of railway projects depends on the freight volumes that will use rail, given in millions of tons per annum (MTPA) in Table 3-1. Figure 3-2 indicates the main users of freight rail service on the territory identified from an extensive market survey with 60 organizations. Three forestry operations (indicated in green) could be potential users. With regards to mining, the Rose, Baie-James and Whabouchi lithium projects are fully authorized and can commence building and exploitation in the coming years. Sites in the Chibougamau-Nemaska corridor, whether copper, iron, or lithium, have passed the feasibility study and evaluation process but are in the financing or inception stage. Further north, Corvette, a lithium site in the Grande River (La Grande) valley, is still under exploration, although it shows interesting potential. The Duncan Lake project remains highly uncertain. Note that, at the time of writing, current market conditions are not favorable for many of these projects, although these constantly fluctuate according to global market conditions.

Regarding the two proposed railway lines, the preliminary studies outlined the following elements:

- With a 164-km length, the recommissioning of the GCR would cost \$1.2B. The traffic is forecasted at approximately 1.0 million tonnes per annum (MTPA), approximately half minerals and half lumber. It is considered a useful link to transport wood chips to the Nordic Kraft plant in Lebel-sur-Quévillon as well as lumber from the Cree Lumber plant in Waswanipi (subject to its opening) and wood products from Chantiers Chibougamau, and perhaps from Resolute. Minerals such as copper would likely be shipped to the Horne plant in Rouyn-Noranda as well as lithium spodumene from the Moblan mine site (currently suspended due to the low market price for lithium). It should be noted that the potential traffic originating from the potential Qc Rail project is not considered on the GCR since it is unknown at the time of writing.
- In Phase I, the BDHR would be approximately 240-km long for a CAPEX of \$2.3B. The traffic volume forecasted at 1.6 MTPA, would consist mainly of lithium spodumene (3 sites with 200-300,000 tonnes per annum each), logs for sawmills, and northbound supplies.
- In Phase II, an extended route for Allkem Baie-James's lithium site could add to the traffic in Phase I as well as a share of the 12-MTPA potential output of Duncan Lake iron ore if this site goes into operation, and the Corvette lithium mine site, if the discovery leads to a project. This traffic is more hypothetical.
- There was no projected demand found for railway traffic for Phase III.
- Passengers train stations might be located at Matagami, Waskaganish Junction (intersection of the BDH and Waskaganish road), Desmaraisville (intersection of R113 and the GCR), and Chapais. Given the low population, rail passenger traffic would remain low.
- Revenue from rail traffic would come almost entirely from freight. Given the low traffic, which includes a large uncertainty, the rail infrastructure would require a major public financing to be achieved. Given important technical constraints identified for the BDH, a railway would nevertheless offer an alternative to the significant investment that would be required to address such issues along the highway, especially considering the important increase in freight traffic anticipated from the addition of the recently approved lithium mines.
- If copper and lithium projects become reality, the transportation of ore and spodumene may contribute to the deterioration of the road network, primarily on the Route du Nord, the BDH and R113, and may increase road safety issues regarding the coexistence of large trucks and cars. The railway network may thus reduce the maintenance and rehabilitation costs on the road network (BDH and R113). The Route du Nord would be used in conjunction with the railway lines.

As for Phase III of the BDHR and the harbour in Whapmagoostui, these infrastructures would solely serve local demand.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

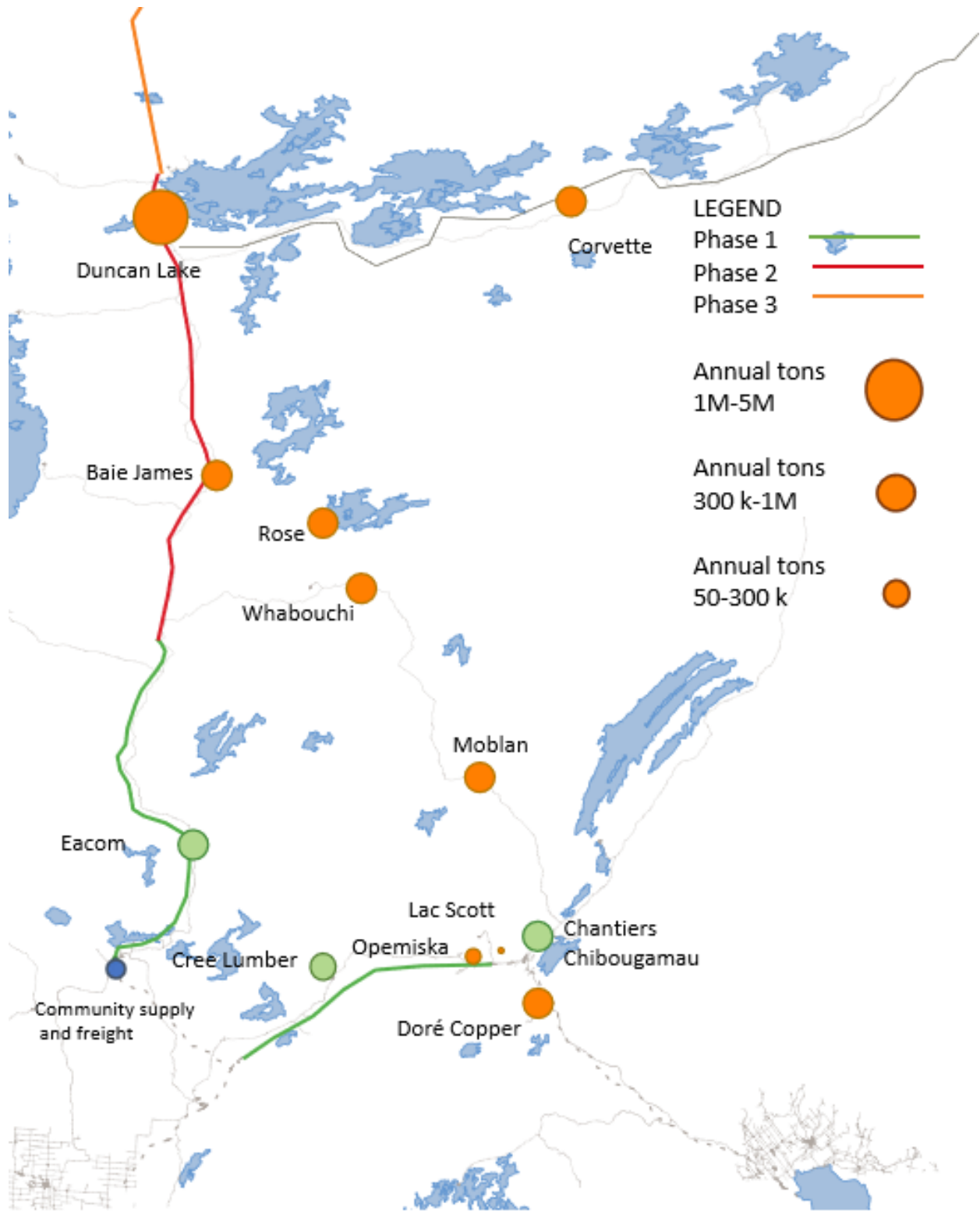


Figure 3-2 Potential Traffic Demand for the LGA Railway Infrastructures

3.3 WORKSHOP AND FOCUS GROUPS

This section encapsulates the key insights derived from a workshop conducted with EDOs focusing on the evolution of the Cree economy in Eeyou Istchee and what they view as the impacts of LGA proposed infrastructures in Cree communities.

The EDOs mentioned that historically, the Cree economy was anchored in traditional activities such as fur trading of beaver pelts, hunting, and conventional exchanges. This economic model was significantly shaped by external demands, notably the Hudson Bay Company's (HBC) demand for fur. Essential traditional skills included crafting snowshoes and canoes, which are central to Cree culture and the traditional Cree way of life. Crees residing on the land actively engaged in the land-based economy, concurrently embracing the traditional Cree way of life. Historical data from ESP beneficiaries in the seventies corroborates this aspect.

The EDOs mentioned that since the seventies, the regional economy has undergone transformation by natural resources exploitation, hydroelectricity, mining, and forestry. The Cree economy is part of this regional shift, but the Crees are not in charge; they are not the main drivers of these sectors. Mining is in the exploration phase of the value chain. Southern communities are increasingly involved in forestry activities. However, local construction, transportation and retail small businesses have seen important growth. There is a mix of people living on the land and people working in public and private organizations. There is more of everything: machinery, capacities, services. There is also a growing emphasis on supporting local businesses to reduce dependency on imported goods from the south of Quebec. For example, there is now cement made in a Cree community.

The EDOs summarized several factors that in their view influence business development in Cree communities, including financial constraints, lack of expertise, political interference, and limited access to resources. The current state and availability of transportation routes is recognized as an issue. EDOs identified initiatives and opportunities for growth, such as training programs, funding sources, and infrastructure development. Group discussions highlighted that there is a cultural difference with the dominant society.

Part of the discussion with EDOs focused on the traditional Cree economy. The Crees do not traditionally perceive wealth in the same manner as Western societies do. Economic wealth is seen as a means. Wealth is to share rather than to accumulate. There is a community vision of well-being. This reflects a difference in the relationship with money, which is still in its infancy for Cree communities, compared to the intergenerational wealth transfer common in Western cultures. Entrepreneurship is underdeveloped. Although the mindset is evolving, and entrepreneurship is growing. Additionally, it was highlighted that the existing economic support systems often fail to adequately address the needs of entrepreneurs, underscoring the limited entrepreneurial capacity within a Cree support system, and challenges already named, such as political interference, competition from Cree community-owned public companies, etc. It is clear that the Cree Nation will be increasingly faced with the need to address the underlying question: Is the current system efficient to support entrepreneurship?

Looking towards the future, the EDOs mentioned a collective aspiration for the Cree economy to achieve greater self-sufficiency and diversification beyond reliance on mineral extraction and other extractive industries. Bolstering local businesses and entrepreneurship to break the cycle of dependency involves new sustainable and culturally sensitive endeavours for land-based economic development. In sum, the future of the Cree economy is likely to be shaped by a combination of digital innovation, Cree nation support, infrastructure development, and community collaboration, with an emphasis on sustainable growth and economic resilience, but all this will always still be based on respect for the land.

As for the impact of LGA on the Cree economy, workshops resulted in a consensus that all the road components of LGA are relevant. The need for wider, up-to-standard access roads matters for safety. It also matters for the anticipated implementation of charging stations for electric vehicles. At the same time, railways were viewed with skepticism. Railway development requires a long timeline to build. There are also doubts about ownership and operation, and these doubts are mostly related to concern about affordability. Moreover, being a passenger on a train would be hard for some Crees who tend to prefer individual travel. The Grevet-Chapais corridor was historically used by Waswanipi Crees and still could be used by them again. Questions were also raised about potential connections eastward to Schefferville, westward to Moose Cree communities in northern Ontario, and a tourism trail.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

According to participants, LGA infrastructure must respect Cree culture and traditions, prioritize hiring Cree women, and bring numerous benefits including better interconnection between Cree communities, improved safety (particularly during winter), enhanced land access considering climate change effects, and economic development opportunities (e.g. outfitting/tourism and shipping). Other possibilities will come with new ideas and innovations by future generations.

EDOs anticipated a reduction in the cost of living and a wider variety of goods through more affordable transportation. Nonetheless, future uncertainty around fluctuating lithium prices and other variables raised important doubts. Overall, while infrastructure development presents significant opportunities for economic growth and community development, addressing weaknesses and threats, such as financial constraints, environmental concerns, and local capacity gaps, is essential to ensure sustainable and inclusive development. Collaboration between government agencies, community leaders, and private stakeholders is crucial to overcome these challenges and to realize the full potential of infrastructure investments in Cree communities.

The following image is a visual interactive summary done by artist Paul Messer to capture the Community Pulse focus group discussions between the participants on past, present and future of the Cree economy.



Figure 3-3 Visual rendering of Community Pulse Focus groups discussion

Table 3-2 summarizes the observations shared by participants during workshops in each community. Further details are provided in Appendix D (Community Pulse Focus Groups) and Appendix E (EDO Workshop).

Table 3-2 LGA Impacts on Communities

Community	Impacts
Whapmagoostui	<ul style="list-style-type: none"> — LGA's infrastructure would foster rapid transportation sector growth, driving developments in car dealerships, private transport services, garages, and towing services. — The construction sector is poised for significant expansion, with downstream growth in food, accommodation, and tourism industries. — LGA would bolster the partnership between Whapmagoostui and Kuujjuarapik, enhancing opportunities on Category III lands and improving access to traplines between Chisasibi and Whapmagoostui.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Community	Impacts
Chisasibi	<ul style="list-style-type: none"> – The community suffers from severe land erosion and landslides, damaging infrastructure and causing trauma. – There is little interest in LGA components due to concerns about opening the territory to non-natives, preferring a coastal road for cultural connectivity among Cree communities. – Past transportation projects not led by Cree people have fostered a belief that external management of resources leads to exploitation and negative impacts like increased truck traffic and road damages. – Specific concerns about LGA include the extension of Route 167 to Trans-Taiga road, which could increase truck traffic and hunting, disturbing trapping activities, and raising fears of child abduction. – Despite concerns, potential LGA benefits include increased tourism, educational opportunities for youth, and stronger cultural ties between Cree communities.
Wemindji	<ul style="list-style-type: none"> – A 2011 agreement with Goldcorp Inc. (now Newmont Corporation) created a governance structure to balance tradition with natural resource development. This is an important example to follow for the LGA. – Land users fear more roads from LGA could lead to non-Indigenous settlements on Categories II and III lands, with climate change potentially worsening impacts on wildlife habitats. – Concerns include security, pollution, and increased access issues, with youth expressing more worry than excitement about LGA's implications. – Skepticism exists that economic benefits may not offset negative environmental and social impacts, leaving high uncertainties for critics. – Conversely, without LGA, local business growth and investment risk stagnation, while LGA's infrastructure could boost connectivity and economic opportunities, particularly for Wemindji's forestry and potential harbour development. – Enhanced tourism, supported by the COTA strategy, and land stewardship opportunities could spur economic growth, improve the salary economy, and boost local education and training offerings.
Eastmain	<ul style="list-style-type: none"> – As of 2021, with a population of 924, about 9% are engaged in traditional livelihoods, with local biodiversity reserves playing a crucial role in sustaining these practices. – LGA infrastructure development poses both threats and opportunities, potentially affecting sturgeon habitats and water quality but also offering job opportunities in hydroelectric, mining, and other sectors. – Concerns include the impact of LGA on traditional activities, biodiversity, and the environment, necessitating robust local conservation and land management efforts. – LGA offers the potential for tourism development, improved economic opportunities, and connectivity, yet challenges in financing and capacity building remain, with Indigenous businesses accessing a minimal fraction of available capital in Canada. – Eastmain faces needs for more housing, services, and capacity, with structural issues limiting potential despite natural resource endowments.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Community	Impacts
Waskaganish	<ul style="list-style-type: none"> – LGA offers significant benefits including reduced winter driving stress, improved access to the territory, lower transportation costs for goods, and enhanced mobility for the Crees. – Waskaganish views LGA as an opportunity for creating environmentally respectful companies that prioritize land stewardship and family conciliation, advocating for innovation and the inclusion of artificial intelligence considering the project's long timeline. – Highlighted opportunities include greenhouse operations, sustainable wildlife management, transportation connections, tourism, and construction. – Without LGA, a vicious cycle of increased trucking could exacerbate road damage, safety issues, and environmental impacts, fueled by population growth and the consequent rise in demand for food, fuel, and goods.
Nemaska	<ul style="list-style-type: none"> – The Eastmain 1-A project impacted Nemaska by flooding 346 km² of land, affecting local trap lines and diverting part of the Nemiscau river, despite strong community opposition. – Nemaska is at the forefront of the lithium mining boom with the Wabouchi project, which poses environmental concerns, particularly regarding water contamination and the food chain. – The community anticipates the paving of the Route du Nord, expecting it to boost tourism by improving accessibility. However, the relevance of a train service is questioned due to its alignment with the BDH, and doubts exist about its affordability and necessity given the Cree preference for independent travel. Impacts on traplines, wildlife, and the environment are also anticipated. Easier access would be provided to 15 families by discounted or free passenger train services to facilitate access to goods and lumber for new cabins along the railroad, acknowledging the need for driving to transshipment yards as a trade-off. – LGA infrastructure could benefit Nemaska by fostering growth in mining and forestry sectors, emphasizing the need for more training and accreditation in various fields to support local entrepreneurship and reduce reliance on imported housing solutions. – Potential business opportunities identified include civil works, engineering, concrete and paving, camp maintenance, drilling, transportation, mechanics, and safety and security services.
Mistissini	<ul style="list-style-type: none"> – LGA's new connectivity infrastructure could marginally benefit traditional harvesting due to declining fur prices but offers significant savings on shipping for Cree-owned businesses. – There are potential spinoff opportunities in maintenance, construction, and housing development costs linked to the new infrastructure. – Outfitting businesses could benefit from licensing advantages provided by the JBNQA, integrating Cree knowledge and research involving youth and Elders in planning processes. – Road and potential rail improvements could enable synergies between external investments and benefits for the Mistissini Cree, including direct and indirect economic gains. – A secondary access road utilizing existing forestry paths could extend Mistissini's land access by 42 to 45 km, supporting local energy generation projects like wind farms through enhanced transport efficiency. – Enhanced connectivity could also facilitate access to harbours for shipping and importing goods and improve airport services for passenger and cargo flights.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Community	Impacts
Oujé-Bougoumou	<ul style="list-style-type: none"> – Oujé-Bougoumou is significantly affected by mining activities, uniquely hosting a mining exploration officer within Eeyou Istchee to manage its impacts and opportunities. – Its access road is adapted for oversized forestry trucks, connecting Route du Nord to the Barette-Chapais sawmill, reflecting its position close to economic activities in neighboring Quebec regions. – Among all Cree communities, Oujé-Bougoumou is least impacted by the LGA infrastructure program, with difficulties in identifying relevant infrastructures that could benefit the community directly. – However, there is potential for increased tourism through the paved Route du Nord and the reactivation of the Grevet-Chapais railroad, with an opportunity to develop a tourism route enhancing access to traditional activities, meaning hunting, trapping, fishing, and gathering, and outfitting in Eeyou Istchee. – The LGA project, designed with Cree interests at heart, aims to respect Cree culture and traditions, advocate for the inclusion of Cree women in the workforce, and potentially foster land-based business ventures, such as wild mushroom cultivation and moose farming.
Waswanipi	<ul style="list-style-type: none"> – Economically, Waswanipi has been significantly influenced by the forestry industry, notably through a partnership with Domtar and the historical impact of the Grevet-Chapais railroad, which ceased operation in 1993 and is now a snowmobile path. Land users will be impact again if the railroad is back again. – The potential reactivation of the Grevet-Chapais railroad is seen as beneficial for the local lumber industry, allowing for the export of finished goods, and enhancing Waswanipi's role as a distributor to other Cree communities. – Waswanipi advocates for the inclusion of connections to Schefferville and Moose Creebec in Ontario within the LGA program, aiming to strengthen interconnectivity and relations among Cree communities.
Washaw Sibi	<ul style="list-style-type: none"> – Washaw Sibi was acknowledged as the 10th Cree nation by the CNG in 2003, with its name translating to "the river that runs into the bay." – Recently, the Washaw Sibi Eeyou Association has selected a proposed site for the community behind the golf field in Matagami, located west of the BDH. – The Association supports the expansion of the BDH into a four-lane road, aiming to facilitate safer overtaking of slow-moving vehicles and trucks.

3.4 REGIONAL INDICATORS

3.4.1 POPULATION AND ECONOMY

This section presents the main socio-economic characteristics of the Crees, with comparison with Jamesian communities. These are presented in graphs and short tables. The major demographic and economic trends are identified, and their implications discussed. Please also refer to Appendix F, which details economic indicators for every community and the Crees of Eeyou Istchee with comparison with Jamesians and Quebec. Table 3-3 details community land areas and populations.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 3-3 Land Area and Population by Community, Eeyou Istchee James Bay and Kuujjuarapik, 2021

Community	Land Area (km ²)			Population 2021	
	Land reserved to Cree or Nordic Village (Category 1A Land) <small>(note 1)</small>	Cree Village or Inuit Land (Category 1B Land) <small>(note 1)</small>	Municipality or Community <small>(note 2)</small>	ISQ	Census
Waswanipi	386	213	599	1,827	459 <small>(note 3)</small>
Oujé-Bougoumou	96	...	96	814	797
Mistissini	808	488	1,296	3,858	3,731
Nemaska	98	48	146	843	832
Waskaganish	497	274	771	2,349	2,536
Eastmain	149	318	467	972	924
Wemindji	387	169	556	1,557	1,562
Chisasibi	825	480	1,305	5,356	4,985
Whapmagoostui	191	121	312	1,088	1,022
Crees	3,437	2,111	5,549	18,664	16,848
Lebel-sur-Quévillon			44	2,073	2,091
Matagami			75	1,375	1,402
Chapais			62	1,540	1,468
Chibougamau			695	7,361	7,233
Eeyou Istchee James Bay			283,123	1,028	<small>(note 3)</small> 2,638
Jamesians			284,000	13,377	14,832
Cree and Jamesians	284	3,169	289,549	32,041	31,680
Kuujjuarapik	8	290	297	.	792

Note 1 - The Cree people live on 1A lands (Land reserved to Cree). 1B lands are identified as “villages cris” by the MAMH.

Note 2 - For Cree communities, the community land area has been defined as equal to land 1A and 1B areas.

Note 3 - The populations of Waswanipi and of the territory of the EIJBRG seem to have a change in location or definition between the 2016 and 2021 Censuses.

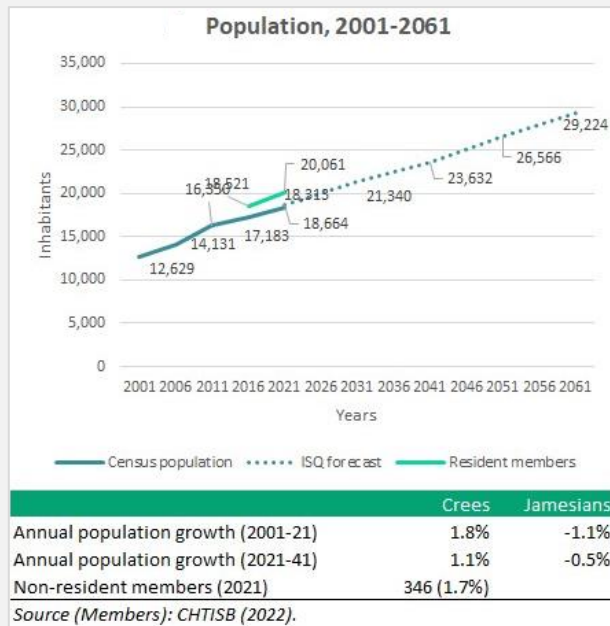
Source: StatCan (2022), ISQ (2021).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

The main characteristics of the population living in Eeyou Istchee are presented below. Note that the data shown represents the 2021 situation as per the StatCan Census data unless otherwise specified.

Population

The total population of EIJB is estimated at 31,680 inhabitants in 2021 according to the Canadian Census (StatCan, 2021). This population includes an estimated 18,313 people living in Cree communities and 13,367 in Jamesian communities. In Eeyou Istchee, Chisasibi is the most populated community with 4,985 people, followed by Mistissini with 3,731 inhabitants. Together, they account for nearly half of the total population of the Cree communities in Eeyou Istchee. Waskaganish, Waswanipi, Wemindji, and Whapmagoostui each have a population of between 1,000 and 2,500 people. Nemaska, Oujé-Bougoumou, and Eastmain are the least populated communities with fewer than 1,000 inhabitants each. There were 20,061 resident members on band lists in Cree communities in 2021. This is 9.5% higher than the population counted in the Census. The gap may be greater in some communities, but it is also sometimes negative, for example in Waskaganish. The population of the Crees in Eeyou Istchee has been rapidly growing, with a compound annual



growth rate (CAGR) of 1.8% per year between 2001 and 2021, a higher rate than the average in Quebec (0.8%). Unlike the Crees, the Jamesian population has been decreasing over the last 20 years with a CAGR of -1.1%. Over the short term (between 2016 and 2021), the rate of increase and decrease has moderate, with a CAGR of +1.1% for the Crees and -0.9% for the Jamesians. According to ISQ projections, this rate of growth is expected to remain constant from 2021 to 2041, and then decrease slightly to 1.0% between 2041 and 2061, resulting in total population of 23,632 inhabitants in 2041 and 29,224 in 2061. The rate of decrease in the Jamesian population is expected to be slow to -0.5%. Overall, the evolution of the Cree population mostly depends on the projected birthrate, while that of Jamesians is mostly explained by economic conditions and regional migration.

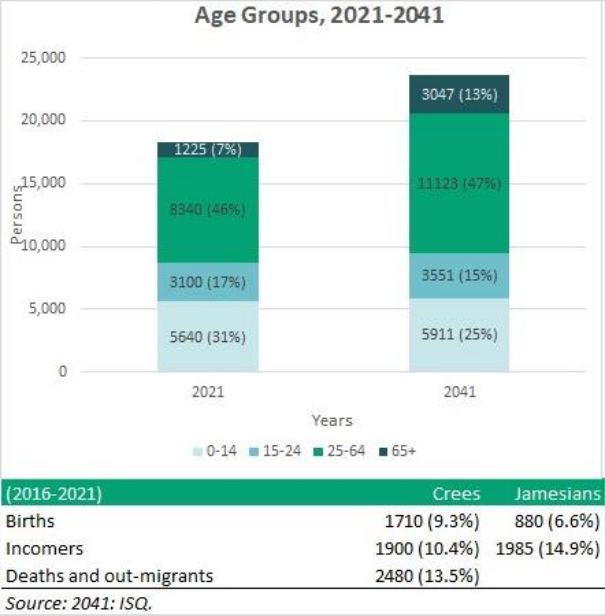
The long-term population growth of the different Cree communities ranges between CAGRs of 1.7% to 2.0%, except for Whapmagoostui, which has seen its population grow more slowly (1.3%). As mentioned above, the recent growth rate has been significantly lower (1.1%), but the range of community growth rates is more spread out, with the 2016-2021 CAGR between 0.1% for Whapmagoostui and 2.4% for Waskaganish. Still using the ISQ projections, the range would be rather wide over the 2041-2061 period (0.7%-1.6%) and narrower thereafter (0.8%-1.1%).

Age Structure

The Cree population is young. According to 2021 Census data, 31% of the Crees are between the ages of 0 and 14 years old while 7% belong to the age group of 65 years old and above. For comparison, the shares of the same age groups are 19% and 16%, respectively, among the Jamesians. Moreover, even compared to the average of Indigenous demography, 0-14 years old stands at 21% of the population, while the Crees are at 31%. However, the ISQ (2021) forecasts that by 2041 the share of the younger age (0-14) group will decrease from 31% to 25%, and the 65+ age group will increase from 7% to 13%. The average age will rise from 30.9 to 34.9 years of age.

Nonetheless, although the Cree population will get older on average, the global growth in population shall have two important effects. Firstly, the working age population (15-64) will significantly grow in numbers, passing from 11,440 people in 2021 to 14,674 in 2041. This means that the Cree economy will need to create jobs at a CAGR of 1.3% per year over the next 20 years. Secondly, the needs in public services will substantially be transformed since the elder population.

will be multiplied 2.5 times over 20 years, and consequently the demand for health services while the number of 0-14 children should remain stable as will the requirements for childcare and schools. Considering the 15-24 group, the demand for higher education should increase slightly.

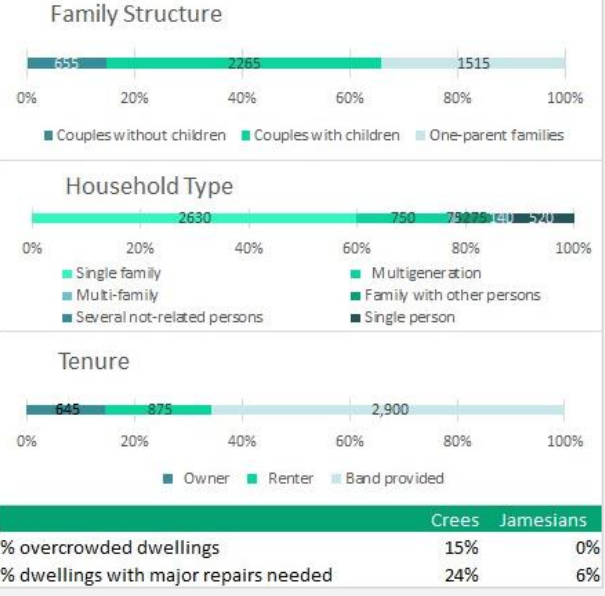


Families, households, and dwellings

A total of 4,435 Cree families reside in Eeyou Istchee. Of these, more than half (2,265 or 52%) are composed of couples with children, and one-third (1,515 or 33%) are led by a single parent. Moreover, 665 (15%) families are couples without children. The family composition of Crees is consistent with its age structure. It is thus very different from that of Jamesian communities, in which couples without children are the most prevalent families (48% compared to 33% for Crees) and the share one-parent families is half as large compared to Cree families (15% against 33%). Jamesian family demographics are comparable to those of Quebec.

The predominant household type in Cree communities is single-family, corresponding to 59% of households, followed by multigenerational households at 17%. The share of one-person households is 12%, while families with non-related persons make up 6% of all households.

The household structure in Eeyou Istchee communities is different from that in Jamesian communities (Jamesian figures are again similar to Quebec) in terms of the prevalence of multigenerational households (17% versus 1%, respectively), of family with non-related persons (6% versus 1%, respectively) and fewer one-person households (12% versus 31%, respectively). Among Cree communities, multigenerational households are more prevalent in Coastal communities.



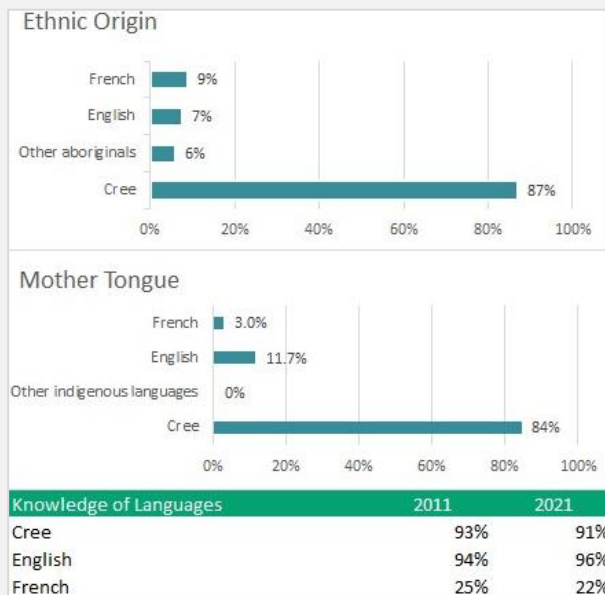
ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Another indicator of economic inequality within Cree communities is the housing situation. In the region, the private housing market remains underdeveloped. Out of the 4,435 dwellings in the Cree communities, 65% are band-rented, 15% are owner-occupied, and 20% are rented on the private market. Waskaganish leads in band-owned dwellings (88%), closely followed by Eastmain (84%). While dwellings are generally of sufficient size, a noteworthy 24% require major repairs. In Eeyou Istchee, affordable rent is attained through band ownership, and this is a major way in which the territory facilitates wealth redistribution. However, as the disrepair rate shows, Cree First Nations themselves face economic inequality in relation to the larger Quebec economy. Communities face the economic challenge of building and repairing more homes. While economic growth would, in theory, resolve this challenge, such a solution would involve distributing new wealth so that all families can participate in, for example, a private housing market or alternatively in accessing affordable, quality housing owned by the Bands.

Ethnicity and Language

The Cree population has a dominant presence in Eeyou Istchee communities. According to the 2021 Census, 87% of the total population of Cree First Nations have Cree origins. In most communities, the share of Cree origin reaches 90%. Oujé-Bougoumou and Waswanipi are exceptions, where about 57% of the population are Cree.

The vast majority of the population (91%) is fluent in the Cree language. The number of Cree speakers has seen a slight decline of two percentage points since 2011, indicating a resilient Cree linguistic heritage across the territory, but calling attention to the need for continued efforts to strengthen knowledge of the Cree language. However, 91% is a great strength compared to the average of only 13% of First Nations people in Canada who declared able to sustain a conversation in their mother tongue. English is the most spoken language in Cree communities as 96% of Cree spoke English in 2021. French was spoken by 22% of Cree people. The French language is more in use in the inland communities located closer to Jamesian municipalities, notably Waswanipi and Oujé-Bougoumou.



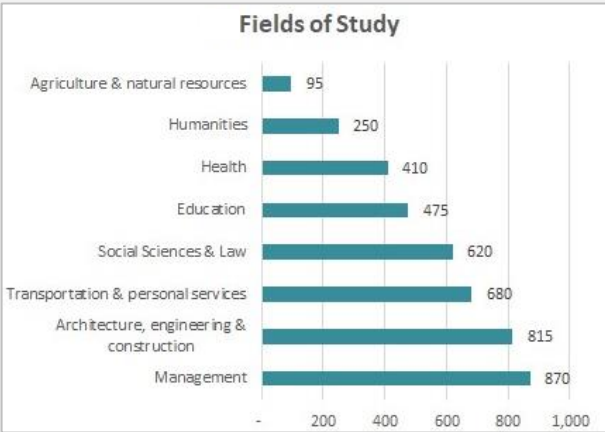
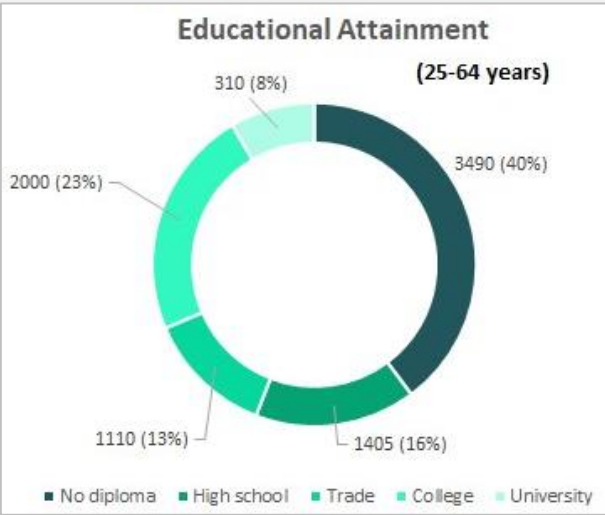
Education

The capacity of the Cree workforce is gaining ground as more people complete secondary and post-secondary programs. The educational profile indicates that nearly 60% of the 20–64-year-old population has achieved a high school diploma. This means that a still sizable portion (40%) of the population lacks formal diplomas. In comparison to Cree, educational attainment in the Jamesian population is significantly higher since the share of people with high school diploma is 75%, and the gap is even greater compared to the Quebec with 83%.

While the CEGEP diploma attainment in Eeyou Istchee (23%) is comparable to that in Jamesian communities (20%) and Quebec (22%), the share of apprenticeship/trade diploma holders in Eeyou Istchee (13%) is much lower than for Jamesians (26%) or the rest of Quebec (19%). Another significant disparity is in university level attainment, where the Crees stand at 9% compared to 30% for Quebec (10% in Jamésie).

This weakness in education may be an obstacle in meeting job requirements in base economic activities such as forestry, mining, construction, or for professional and leadership activities. To mitigate this, student retention should be a primary objective of the Cree nation and Cree communities. Meanwhile, this means that job categories for which lower education levels are sufficient, notably in retail, local services, tourism, and traditional activities are to be developed.

Among the people who pursued studies, the fields of Management, Construction, and Transportation and personal services, social science and law, education, and health. These fields correspond broadly to the Cree economic structure.



ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Land

Eeyou Istchee communities occupy a territory of 3,437 km² on Category 1A lands and 2,111 km² on Category 1B lands, for a total of 5,549 km². The distribution over the local communities is detailed in Table 3-3. The 301 Cree traplines cover a large territory of approximately 405,000 km². Chisasibi, Mistissini, and Whapmagoostui have the largest areas covered by their traplines.

Approximately 2,500 people were beneficiaries of the ESP in 2022. These maintain a lifestyle focused on hunting activities and knowledge of the territory. Chisasibi, Waswanipi, and Mistissini include the largest number of ESP beneficiaries (974, 369 and 358 respectively). This group constitutes a share of 14% of the band members. While the number of ESP beneficiaries has slightly decreased since 2014 (-10%), as the population has greatly increased, the proportion of these traditional members has dropped even more, being 20% in 2014 compared to 14% in 2022. The annual ESP unit allowance amounts to \$18,580 on average.



	Category 1A	Category 1B	Traplines
Land area (km ²)	3437	2111	404651
Crees			
Nb (%) people on ESP Program	2499 (14.3%)		
Avg. annual ESP unit allowance (21-22)	\$ 18,580		

Source: 1. Traplines: CMEB (2022). 2. ESP: CHESB (2022).

Major disparities as the share of population under ESP exist among the Cree communities. While Chisasibi (16%), along with Whapmagoostui (16%), Waswanipi (15%), and Oujé-Bougoumou (14%), have higher rates of ESP beneficiaries, other communities have much smaller shares, notably Nemaska (5%) and Waskaganish (7%). The decrease in this traditional population also differs greatly from community to community. For example, Whapmagoostui and Waswanipi were the top communities as for the percentage of ESP members in 2014 (with 32% and 25% respectively), these dropped to 16% and 15% respectively in 2022. In contrast, the communities with the lowest ESP percentages (5%-10%), have seen their shares remain roughly constant or slightly decreasing or increasing. This is the case for Wemindji, Eastmain, Waskaganish, Nemaska, and Mistissini.

Labour Market

The working age population (15-64 years) was 11,445 people in 2021. According to ISQ (2021) forecasts, it should increase to 14,674 people by 2041, which corresponds to a growth of 28% or 1.3% per year. To maintain the current level of living, the Cree economy must create quality and diverse jobs at least at this rhythm. The dependency ratio (ratio of not working age population, i.e. 0-15 and 65+, over working age population), that is estimated at 0.60 from the StatCan (2021) Census, should remain similar in 2041 (0.61), fewer young being replaced by more elder people.

As of the 2021 Census, the participation and employment rates in Cree population (60% and 56% respectively in 2021) were less than the Jamesian population (65% and 62% respectively) and the Quebec average (64% and 59% respectively). Participation and employment rates have remained rather stable over the last 20 years, with an improvement in unemployment rate between 2016 and 2021. There exist disparities across communities. The employment rate was significantly higher in Nemaska (65%) and was lower in Waskaganish (48%) and in Waswanipi (50%).

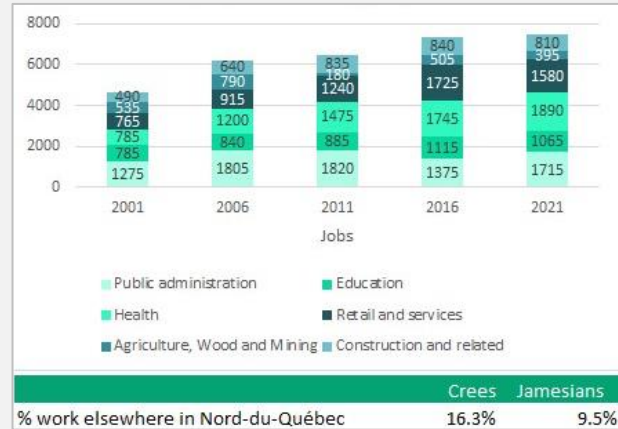


ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

The classes of workers in Cree economy are characterised by a proportion of permanent employees (72%) less than in Jamesian communities (79%), a greater proportion of casual or seasonal workers (16% against 9%) and a lower share of self-employed people (4% against 7%; 12% in Quebec). This could be explained by the economic structure, with more jobs in mining and wood industry for Jamesians, more in construction and retail in Cree communities. Seasonal jobs may also be more suitable with the Cree way of life if someone wants to spend more time in the bush. Casual and seasonal jobs are especially more frequent in Waskaganish and Nemaska (24% and 23% respectively).

Evolution of Employment

According to the 2021 Census, out of some 7,630 employed workers in Eeyou Istchee, 4,845 were in Public administration, Healthcare and social assistance, and Education. These sectors, which can be said public sector, collectively contributed to 63% of employment. The private sector occupied 2,785 workers (37%). The group of Retail and local services generated 1,580 jobs, or the largest part of the private sector. The group of Construction and related activities also provided a substantial number of jobs, followed by the resource group (Agriculture, wood and mining). Since 2001, the overall employment has been increasing, with some slower growth periods. The groups of Education, Healthcare and social assistance, and Retail and local services have been growing while the groups of Public administration and of Construction and related activities have fluctuated and the group of Agriculture, wood and mining has been constant for 10 years.

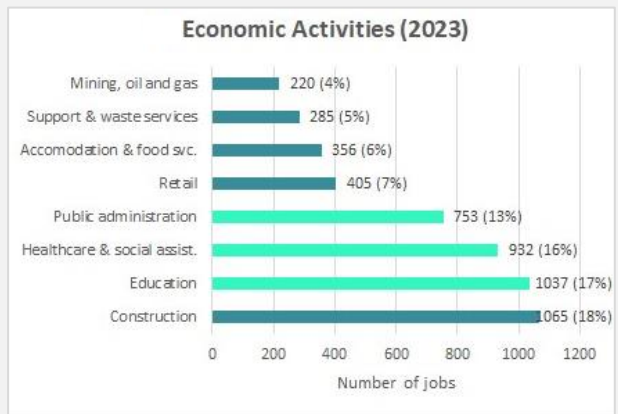


	Crees	Jamesians
% work elsewhere in Nord-du-Québec	16.3%	9.5%

In 2021, Crees worked in another community in Nord-du-Québec in a proportion of 16%, which was higher than Jamesians (10%). This means that Cree workers are ready to be mobile for economic reasons and would be interested in jobs located in EIBJ outside their own community.

Economic Activities

In 2023, as per the employer database combined from DCI (2023), EDOs and SPN (2023), the economic sectors related to the public sector (Education, Healthcare and social assistance, public administration) appear to be the main generators of employment, each of them substantially with 750 to more than 1,000 jobs. Together, they provide 46% of total jobs. Construction is by far the major private sector with approximately 1,065 jobs or 18% of total employment. The major construction companies are listed in Chisasibi. Follow Retail and Accommodation and food services together with 761 jobs (13%).



Source: DCI-EDO (2023a) and SPN (2023).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Main Employers

Unsurprisingly, the major regional employers are the Cree organizations in charge of education and health care, i.e. the CSB and the CBHSSJB which have schools or institutions in all communities, with almost 1,000 employees and more than 600 employees respectively. In public administration, the employment globally generated by the nine Cree communities band councils is estimated at 328 jobs. Other major employers include CBCG and CBCC in construction, and others in various sectors.

Business name	Activity	Jobs
Cree School Board	Education	958
CBHSSJB	Healthcare & social assist.	627
CBDG	Construction	300
Gestion CBCC Inc.	Construction	200
Miyuukaa Corp.	Support & waste services	120
Bell (Telebec) Store	Information & culture	100
Tawich Dev. Corp.	Public administration	100
Synee Drilling Inc.	Mining, oil and gas	90
Chisasibi Cree Nation	Public administration	82
Kiskinchiish Camp Svcs.	Support & waste services	80
Large sector		% jobs
Public Sector		47%
Private Sector		53%
Total		5993

Source: CNG-DCI-EDO (2023) and SPN (2023).

Income

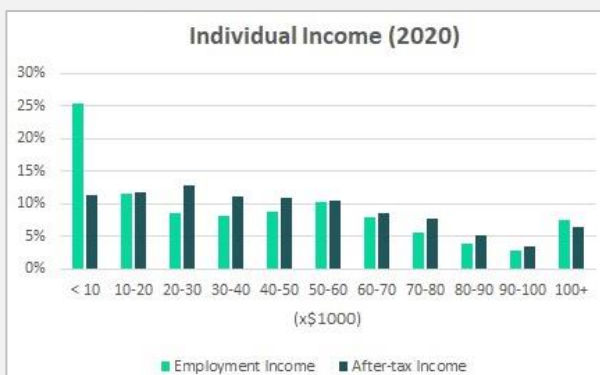
The median total income of Cree individuals was approximately \$36,300 in 2019 (StatCan, 2021) while the average market income (mostly employment) amount to \$38,900. These figures are lower than for Jamesians by 18-19%. This can be explained by the structure of the Jamesian economy which is based on resource and industrial sectors that provide high value added (GDP per job) and well-paid jobs. It should be noted that compared to Quebec, the average market income for Crees was 16% lower. The average market income of Waskaganish inhabitants was significantly lower than the Cree average (-14%). Strengthening community economies and enhancing their integration into the regional economy are requirements to generating economic wealth and higher employment income.

The average after-tax income, which considers taxation and government transfers and corresponds to the money that someone can actually spend or save, was similar for Crees (\$41,300) and Jamesians (\$42,700).

As most people live in Jamésie for economic reasons, government transfers correspond to a share of 14% of their total income against 24% for Cree population. Moreover, their average tax rate is rather high since their income are rather high while Aboriginals who are band members do not pay income tax. The tax/transfer effect is particularly important for very-low-income people (less than \$10,000). Redistribution and tax policies thus play an important role in equating income within communities.

Nonetheless, for comparison and as mentioned before, the annual ESP unit allowance for people who choose the traditional way of living amounts to \$18,580 on average, which is less than half the average after-tax income in the Cree population. As this group is very important for cultural continuity and this lifestyle needs be appealing, one should consider reducing their gap in income.

The distribution of wealth in the Cree economy, measured as the Gini coefficient. The Gini coefficient is a scale from 0 to 1 where the score of '0' is perfect equality of the distribution of wealth (everybody has the same income) and a score of '1' represents a perfect inequality (one person has all the income and others have nothing). Eeyou Istchee scores as moderately unequal, at 0.39 for the market income. This is comparable to Jamesians (0.40) and better than Quebec (0.46). The actual inequality is smaller considering the after-tax income, the Gini



Individual income (2019)	Crees	Jamesians
Median total income	\$ 36,300	\$ 44,700
Average employment income	\$ 38,900	\$ 51,200
Average after-tax income	\$ 41,300	\$ 42,700
Household income (2019)		Jamesians
% of government transfers in income	24%	14%
Prevalence of low income	5%	9%
Gini index, market income	0.39	0.40

index for Crees and Jamesians still comparable (0.25) and lower than for the rest of Quebec (0.28). Gift and sharing habits in Cree communities further redistribute wealth and provide satisfaction of needs, beyond the formal economy. What this says is that Eeyou Istchee is relatively good at sharing its wealth, but more needs to be done to ensure no family is left behind as the Cree economy grows to produce more wealth.

Population dynamic

The main driver of population growth in Eeyou Istchee communities is natality. There were approximately 1,700-1,800 births⁴ in Cree communities between 2016 and 2021, or 361 per year on average. This accounted for 9% of the population in 2021. Over the same period, more than 400 people died (81 per year), resulting in an annual natural increase (births less deaths) of 279 people on average. The number of migrants (people who move to a Cree community⁵), which was 1,850 people from Canada between 2016 and 2021, was comparable to the number of births. Of these migrants, nearly a third moves from one community to another community within Eeyou Istchee (109 per year) while the others (1,305 over 5 years or 261 per year) mostly come from elsewhere in Quebec. Since the number of out migrants (1,355 over 5 years), those who leave Eeyou Istchee to live elsewhere, mostly in Quebec, is similar to the incomers, the net migration factor is very marginal. Nonetheless, this means that migration is a phenomenon as important as natality in the future demographics and thus is to be accounted for. As migration is explained greatly by economic attractiveness or family/personal motives, economic development and the quality of life are objectives the communities and public authorities should pursue.

Over a longer period (2007-2022), the demographic fundamentals have remained, i.e. intense natality, low mortality, and migration equilibrium with fluctuations. Over time, as the population has gradually been getting aged, natality and the number of births has been decreased (although fluctuating since 2015) while mortality and the number of deaths has been increasing, resulting in a long-term fall in natural increase, from +381 people in 2007 to +266 people in 2022. The migration process has usually resulted in an annual decrease by -0 to -100 people (-26 on average).

This demographic dynamic is quite different from that in Jamesian communities. In Jamésie, the more aged population results in a lower natality (approximately 150 births per year, slightly decreasing over time) and higher mortality (approximately 50 per year, slightly increasing over time) and thus a low and decreasing natural increase. As the population lives in these communities for work reasons, the migration elements have more impact. Hence, every year on average, 500-600 people come live in Jamesian communities while 700-800 people leave these communities. The overall result is an average decrease in Jamesian population of 120-133 people every year.

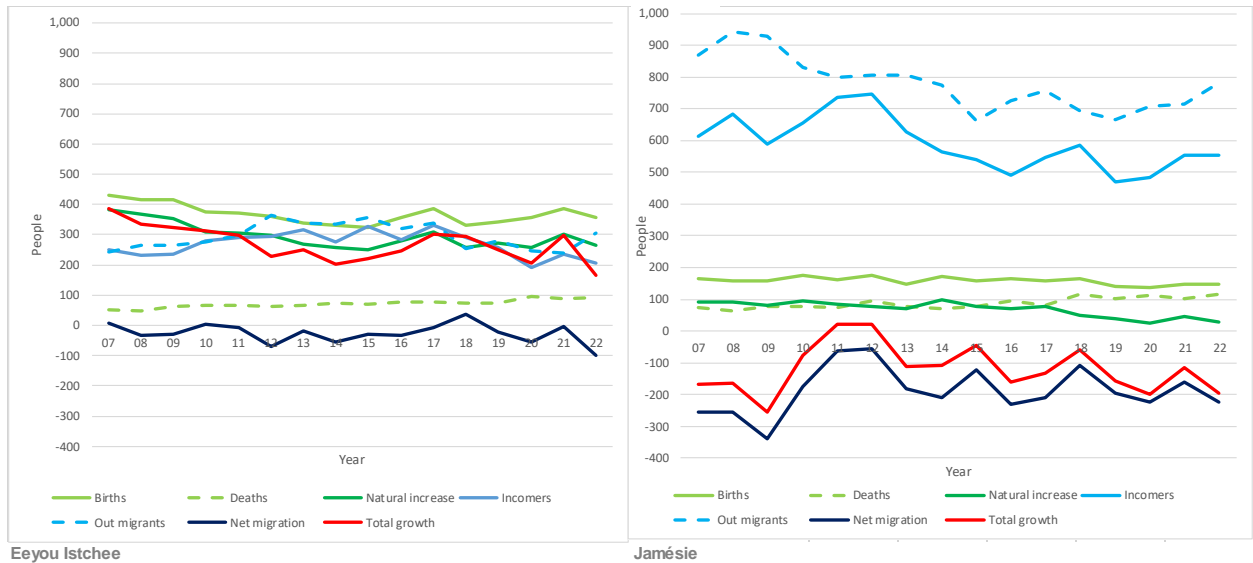
⁴ There were 1,710 people of 0-4 years according to the StatCan (2021) census, corresponding to net births (babies still alive after five years) between June 2016 and June 2021. There were 1,804 cumulative gross births (born babies including those who died over the five-year period) between January 2016 and January 2021, according to ISQ (2023a).

⁵ This excludes people who move within the same community.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 3-4 Population Growth Components, Eeyou Istchee and Jamésie, 2016-2021

2016-2021	5-year period		Annual average	
	Eeyou Istchee	Jamésie	Eeyou Istchee	Jamésie
Births	1,804	749	361	150
Deaths	407	511	81	102
Natural increase	1,397	238	279	48
Incomers	1,305	2,637	261	527
Out migrants	1,355	3,539	271	708
Net migration	-50	-902	-10	-180
Total growth	1,347	-664	269	-133
National incomers*	1,850	...	370	...
Regional migrants	545	...	109	...
% regional	29%	...	29%	...



Note: Births and deaths over a civil year (01-01 to 12-31), migration on straddling year (ex. 2007 = 2006-2007). Census year period from June to June. Internal (national) migration only. Incomers and out migrants to and from Eeyou Istchee or Jamésie as a whole. National incomers include regional migrants, that is people who have moved from one community to another community within the same TE (for example within Eeyou Istchee).

Source: Compilation from ISQ (2023a, b).

Figure 3-4 Natural growth and Migration, Eeyou Istchee and Jamésie, 2007-2022

3.4.2 HEALTH

At the regional level, the most recent available data comes from the CBHSSJB (2016) Public Health Department report. Although outdated, this portrait is useful in identifying the gaps between Eeyou Istchee and Quebec.

In general, health indicators for the Eeyou Istchee population s important differences compared to the rest of Quebec. Over the 2009-2013 period, life expectancy was 77.6 years compared to Quebec 82.4 from 2009-2013, a significant difference of 4.8 years or -6%. As of 2015, hospitalization rates among Cree communities exceeded the Quebec hospitalization rate by 18%. However, these rates vary greatly from one community to another, with Chisasibi’s rate about 40% above the Quebec rate and Waskaganish at nearly half the Quebec rate. Between 2012 to 2015, 51 hospitalizations occurred due to transport-related accidents, representing 8% of all hospitalizations over that period. Table 3-5 summarizes the gap in key health indicators of Eeyou Istchee compared to Quebec.

Table 3-5 Health Indicators, Eeyou Istchee compared to the overall Quebec population

Indicator	Gap EI vs Quebec	Year
Life expectancy	-6%	2009-2013
Hospitalization rate	+18%	2015
Mortality rate (caused by injury)	+75%	2011
Diabetes (mothers)	7x higher	2015
Sexually transmitted infections	6x to 9x higher	2013

Source: Compilation from CBHSSJB (2016).

Lead contamination comes mostly from ammunition (hunting), which ends up in food.

In 2011, compared to the rest of Quebec, Eeyou Istchee’s average mortality rate following an injury was 2 times higher for men, and 1.5 higher for women. Cancers was the leading cause of death at 15% of overall deaths in Eeyou Istchee. Diabetes is a severe problem and gets more prevalent. By 2014, 25% of people over age 20 had diabetes compared to 7% in 1993. In 2015, mothers from Eeyou Istchee were hospitalized 7.1 times more frequently than mothers from the rest of Quebec for diabetes related conditions. Obesity rates are very high and increasing, from 39% in 1991 to 70% in 2009. Eeyou Istchee had the third highest rate of avoidable deaths among the regions of Quebec, after Nunavik and Jamésie⁶. Dental health remains a considerable challenge in Eeyou Istchee, with a high prevalence of dental cavities among children and a serious need for their urgent treatment. Nonetheless, the dentist coverage per capita (covered by the CBHSSJB) is higher in Eeyou Istchee than in other Quebec regions, notably Montreal.

Food insecurity is a persistent issue, given the cost for food, for example, a basic basket of groceries cost 44% more than in Montreal (+44% in 2015). Physical access to healthy foods varies by Cree community. Inconsistent access to nutritious foods harvested from the land is another determining factor of food insecurity in Cree households. The issue of access to adequate housing represented the principal concern of the people with suicide, addictions, mental health, and other challenges. Overcrowded dwellings (defined as fewer rooms than members of the household) remain frequent in Cree communities (15% in 2021) even if there has been improvement (the rate was 20% in 2011), although still higher than Quebec First nations’ rate.

The CBHSSJB is currently planning the construction of the Eeyou Istchee Regional Health Centre (EIRHC) in Chisasibi. Anticipated to open its doors in 2026, the expansive 23,315 m² building will eliminate the need for residents to seek medical care outside the region. Serving both as a hospital and a community health center, the future EIRHC will amalgamate various services across three key sectors to promote the health and well-being (Miyupimaatisiium) of the served population. These sectors encompass hospital care, including ambulatory activities, diagnostic and therapeutic services, hospitalization, and clinical and administrative support; prevention and social

⁶ Terres-Cries-de-la-Baie-James health region corresponds to Eeyou Istchee and Nord-du-Québec health region corresponds to Jamésie.

services, including the Chisasibi Community Miyupimaatisiun Centre, dental care, and youth protection services. The hospital should carry out more Cree patients to Chisasibi from other Cree communities, mainly by roads, instead of down south in Montreal. At the moment of this report, there is no data regarding the potential impact of more traffic due to the hospital. Evidently, road safety will be an important concern if no changes are made to the current network in light of increased freight traffic along the major roadways.

3.5 ECONOMIC OPPORTUNITIES

3.5.1 CURRENT INDIGENOUS ECONOMIC PORTRAIT

The information presented in this section contextualizes our analyses of by providing some key characteristics of the provincial Indigenous economy. The data analysed comes from the First Nations of Quebec and Labrador Economic Development Commission (FNQLEDC, 2024) whose mandate is to support First Nations economic development representatives and officers in Quebec and Labrador. Note that the Crees of Eeyou Istchee, one of the eleven recognized Indigenous Nations in Quebec, with an overall population of 20,016 in 2021, represent 9.8% of the provincial Indigenous population.

According to the StatCan 2001-2021 census, 205,010 Indigenous people reside in Quebec, or 2.5% of the population. Most of the Indigenous population reported a single Indigenous identity—either First Nations, Métis or Inuk (Inuit). Of the Indigenous population in Quebec, 56.9% (116,555) were First Nations people, 29.8% (61,015) were Métis, and 7.7% (15,800) were Inuit. Within the First Nations population, 53.0% (61,810) had Registered or Treaty Indian status, as defined under the *Indian Act*. The other 47.0% (54,745) of the First Nations population did not have Registered or Treaty Indian status.

While each First Nation has its distinctive identity and culture, there are also some important:

- The population is young. Children aged 14 and younger represented 21.0% of the total Indigenous population, while non-Indigenous children, aged 14 and under accounted for 16.6% of the non-Indigenous population.
- The Band Council governance has many mandates including health, education, and economic development.
- The prevalence of strong cultural values around attachment to and preservation of their lands, culture, and community.
- The imperative to address important historic social and economic inequities.

As players in economic development, Indigenous people are both consumers and producers. The overall lack of data and constant fluctuation of business status makes it difficult to establish and maintain a clear and up-to-date statistical portrait. Nevertheless, FNQLEDC data from 2015 provide an overall portrait that is deemed accurate to the present situation:

- Approximately 1,000-1,500 active business;
- Most are small businesses of less than 10 employees and are focused on local markets;
- Covering multitude of sectors, most notably:
 - Tourism
 - Renewable energies
 - Fisheries
 - Construction
 - Forestry
- Encompassing various economic development models:
 - Community-owned (collective or public ownership)
- Private entrepreneurship (generally less prevalent)
 - Hybrid community-private

With a GDP of \$5.4 billion in 2019, the weight of the Indigenous economy is equivalent to 1,26% of Quebec's GDP in 2019 (\$425B), despite representing 2.5% of the population. The main employers are usually the public sector: band offices, education, health, and social services. The private sector employs a much lower percentage of the workforce compared to the rest of Quebec. The main obstacles to Indigenous economic growth include the legal framework (Indian Act), which limits severely access to capital, lower workforce/entrepreneurial capacity/training, fewer business opportunities and less integration into regional economies. Severe housing shortages also present an important barrier to economic growth. Economic figures for Cree communities tend to be better than other Indigenous groups but continue to lag behind the rest of Quebec, often for the same reasons cited above.

3.5.2 DIVERSIFICATION

The LGA market study (VEI-WSP, 2023) provides a detailed analysis of the different economic sectors in EIJB. Here are some reminders and complements.

3.5.2.1 WOOD INDUSTRY

Cree communities involved in the wood industry are Waswanipi, Mistissini and Oujé-Bougoumou, and to a lesser extent Waskaganish and Nemaska, cumulating some 100 jobs. Note that the commercial forest limit does not extend further north of these communities' traditional territories. The main regional employers in forestry sector in EIJB, which include Chantiers Chibougamau (including Nordic Kraft), Eacom (Interfor), Barrette-Chapais (including Granule 777), Resolute (Comtois), Nexolia, together have approximately 1,400 jobs.

The total annual allowable cut on Category I land is 80,000 m³ (Desfor, 2014) and 1.2 million m³ on Category II lands in EIJB. From the Category II lands, 350,000 m³ are reserved for the Cree according to the Paix des Braves. In total, the allowable cut for Cree communities is approximately 430,000 m³.

The Cree Lumber sawmill in Waswanipi burned in January 2024, nearly a year following its reopening. Major damage to the sawmill was observed and confirmed. At the time of writing, it is unknown whether the sawmill will be rebuilt. The sawmill employed 15 workers, although it had plans to increase operations to 30 employees. There is an opportunity to harvest 95,000 m³ of lumber to potentially address regional housing demand, 5,250 dwellings in the next 15 years (Cree Lumber, 2023). Production is also geared towards the external market, in North America. The potential growth of the new sawmill will depend on the future harvesting levels that have yet to be finalized. Nevertheless, if production increases, it would require agreeing on a balance with land users who often feel that cut rates are too high already.

The 2023 James Bay forest fires had a huge impact on the forestry resource and sector. The total forest landmass burnt in Quebec amounted to 4.7 million hectares, making Quebec's forestry sector the hardest hit in Canada. Researchers at Université du Québec à Chicoutimi believe that around 300,000 hectares of burned forest in Quebec's intensive zone may not be able to regenerate. This is around 37% of the 820,000 hectares of commercial forest lost. Regeneration becomes a problem when wildfires raze forests with coniferous trees under 60 years old. These trees are not sufficiently mature to produce enough seeds for new trees to sprout after a fire. Given the current pace of tree planting, researchers believe it will take at least 6 years to reforest burned-out regions in the intensive zone. The Quebec Forest Industry Council has come up with a preliminary estimate that puts net losses from the wildfires at between \$10.5B and \$13.5B (Desjardins, 2023). According to a study by Natural Resources Canada, climate change is fueling more wildfires, threatening to increase the annual area burned, as dryer and warmer conditions will favour more frequent forest fires. Wildfire season will also last longer than before, and the annual area burned is expected to double in most regions.

3.5.2.2 MINING

With the closing of Glencore and Renard mines, the regional mining extraction activity has slowed down recently. Meanwhile, there are several mining projects underway. The main projects are listed in Table 3-6 for lithium and in Table 3-7 for gold and copper. Thus, there should be major mining activity for the next 20 to 30 years, creating approximately 2,200 direct jobs (at the mine site) plus the indirect jobs (suppliers and transportation) if all these projects are achieved. For comparison, there were 17,711 mining jobs (exploration, construction or operation) in Quebec at the end of 2022. The employment created during construction is also important although the duration of

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

works is usually not more than two years for mines. Nemaska, Eastmain, and Oujé-Bougoumou are particularly closer to these mine sites and could benefit from them while their territory will be more affected by mining operations.

Table 3-6 Lithium Mining Projects, EIJB

Project	Community	Planned Start Date	Construction Phase Jobs	Operation Phase EFT Jobs	Years of Operation
Moblan		-	250 ^e	200 ^e	15 ^e
Rose	Eastmain	2024	300	280	17
James Bay	Eastmain	2027	280 ^e	250	19
Wabouchi	Nemaska	2023	250 ^e	200	26
Total Jobs / average duration		-	1,080	930	19

Sources: Mining companies' website, VEI-WSP (2023).

^e: Estimated measures with no data from a PEA or FS.

Table 3-7 Gold and Copper Mine Projects, EIJB

Project	Main Substance	Planned Start Date	Construction Phase Jobs	Operation Phase EFT Jobs	Years of Operation
Windfall	Gold	2024 ^e	500	400	8
Troilus Gold	Gold	2025 ^e	250 ^e	300 ^e	22
Doré Copper	Copper	2026	150 ^e	321	10
Qc Copper and Gold	Copper	2028	250 ^e	250 ^e	15 ^e
Average/ Total Jobs	-		1,150	1,271	14

Sources: Mining companies' website, VEI-WSP (2023).

^e: Estimated measures with no data coming from a PEA or FS.

A study conducted by the Comité sectoriel de main-d'œuvre de l'industrie des mines (CSMO, 2023) and the Institut des mines du Québec (IMQ) forecasted employment in Nord-du-Québec until 2033, based on three variables: projected mine openings and closings; projections of labour requirements in the exploration and development phases; and labour replacement rate (13.3%). Of the professions, an estimated 56% of jobs are related to vocational training, 19% to college and 14% to university. From this study, 4,000 jobs shall be available in EIJB, 89% of which will come from replacement turnover and 12% from new needs.

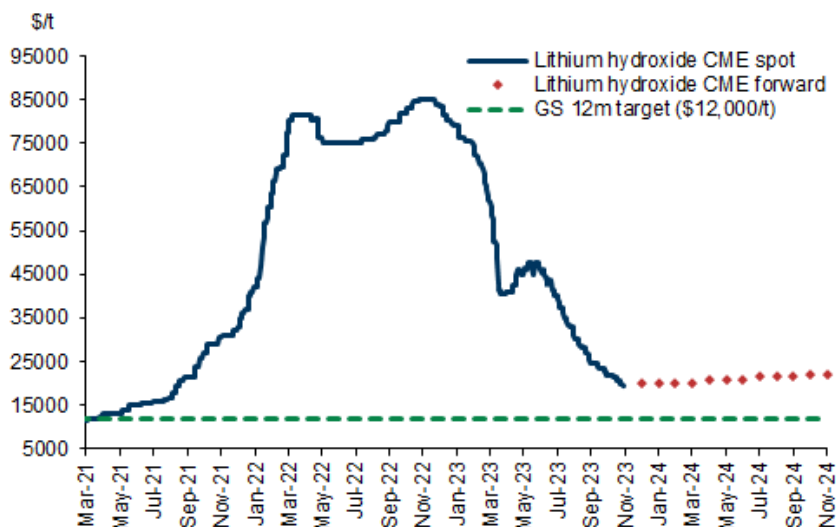
This study is limited to publicly available data and projects deemed to have economic potential. Several risk factors are involved such as social acceptability, ore prices, capital costs, availability of infrastructure, etc.

Lithium is traded in different chemical forms such as lithium carbonate, lithium hydroxide and spodumene concentrate (spodumene). The type of lithium found on the James Bay territory is hard-rock pegmatites, a lithium-bearing mineral known as spodumene. Latin America provides mainly brine lithium extracts VC (2024). Hard rock lithium is around two times cheaper than brine extraction, but the hard rock is three times more carbon intensive than brine. The use of lithium is 80% for electric vehicle batteries. China owns 60% of the global refined lithium supply (FR, 2024). Media and specialized reports highlight that EV sales are expected to increase across the world.

The lithium market has reached a price stabilization cycle after a "euphoric" two-year run (speculative increase), as depicted in Figure 3-5. As of February 2024, lithium hydroxide is traded at around 13,000 \$USD/t and Goldman

Sachs estimates this price should remain flat throughout the year. At present, the lithium price is in contango, meaning that the forward/futures price of lithium (a commodity) is higher than the spot price (price of immediate delivery) Given the cyclical and speculative character of the price level for lithium, it is guaranteed that the current situation will change, and the question is when, in what direction, and how that will affect EIJB lithium mining projects. (GS, 2024).

Exhibit 12: .. and see substantive downside against the forwards which remain in contango



Source: Goldman Sachs Global Investment Research, Fastmarkets, Bloomberg

Figure 3-5 Lithium Hydroxide Price, 2021-2024

There are two projects for vanadium and iron ore, Mont-Sorcier and the Blackrock Metals, located on neighbouring claims at less than 40 km to the east of Chibougamau. These projects are at a more controversial stage, but the latest hope is to start construction in 2024.

Mining construction and extraction creates tension with land-based activities. If the footprint of mines themselves is smaller than that of forestry operation, mining operations often create a larger footprint than forestry operations. This is due to, for example, mineral transportation, residual contamination into the environment, and other long-lasting impacts on the area.

3.5.2.3 TOURISM

The EIJB region presents a diverse array of attractions catering to both the local population and external visitors. Highlighted attractions include the Aanischaaukamikw - Cree Cultural Institute (A-CCI) in Oujé-Bougoumou, the LG1 and LG2 hydroelectric dams in Chisasibi and Radisson areas, and various unique offerings in communities, like Chisasibi's Cree history sites, Wemindji's canoe adventures, and Waswanipi's Cultural Village. Jamesian tourist attractions, including Hélicoptères Canadiens and the Planétarium Quasar, contribute to the region's allure. Ongoing projects, such as the UNESCO Global Geopark feasibility study, underscore a commitment to sustainable tourism development.

The outlook for tourism in EIJB is promising, supported by upgraded transportation facilities, collaborative efforts among Cree and Jamesian communities, free access to lands, increasing interest from local and regional decision makers, and financial support for tourism projects. While hospitality facilities in each community can support tourist services, the region faces challenges, including high transportation costs, safety and mobility concerns, land use conflicts, and a deficient telecommunications network. Addressing these issues, particularly by improving

community access roads and implementing transportation projects, as outlined in the LGA studies, is crucial for enhancing accessibility and broadening the appeal to a diverse audience.

In addition to the tourism landscape, there exists positive collaboration between COTA/Eeyou Istchee Tourism and Tourisme Baie-James (TBJ), with a current strategy focused on three hubs – Inland, coastal, and the BDH. Plans for a new strategy for 2025-2030 are underway, yet challenges persist in identified tourism pillars, access issues, and the expense of marketing. Furthermore, the current state of access roads and their safety hinders tourism development, adding to other barriers for tourism, such as expensive plane tickets, complicated mobility, isolated locations with insufficient services, and limited emergency response resources. Addressing these challenges is paramount to making the region more attractive to tourists.

Tourist activities may create conflicts related to land use or Cree culture. This can result in more direct conflict over resources, for example with outfitters, especially if the number of tourists is excessive. Some fear that tourism contributes to commodifying Cree culture. The development of tourism potential, therefore, must be planned jointly between COTA, TBJ and land users. Such collaboration should be able to strike a balance between economic development and land and culture preservation.

3.5.3 ENTREPRENEURSHIP

3.5.3.1 STRENGTHS AND WEAKNESSES

Cree businesses have developed since the JBNQA, firstly as corporate businesses under the Cree regional authorities, notably Creeco and its affiliates (CCDC, Air Creebec, Valpiro, ADC, EERP) and Petronor, and later by Cree community authorities, for example Tawich in Wemindji and Stajune in Eastmain. These businesses are active in transportation, construction, and support to major industry. Several of them are or began as partnerships with external companies having expertise required to operate in their respective sector. New businesses continue to emerge, for example mining services in Nemaska and training in Oujé-Bougoumou.

Cree collective entrepreneurship has allowed to develop organizational capability and human resource skills in specific economic activities. The partnership approach for larger businesses has been very positive in this way. Nonetheless, in some instances, an important share of the economic impact remains with external partners, restricting training opportunities for Cree workers. Moreover, in the construction sector, most notably large civil works contracts, demand often depends on the presence of large projects on the territory, which can be very cyclical.

Within the communities, individuals start and operate small businesses primarily for local markets, including retail, services, and construction. This form of entrepreneurship remains limited. A major issue is the difficulty of raising equity or obtaining sufficient financing to start a business. On Category 1 lands, it is difficult for Cree entrepreneurs to raise sufficient capital from the mainstream banking system, which demands collateral on loans. This problem is common to all First Nations communities throughout Quebec and Canada.

Furthermore, new businesses often require local administrations approval, which can be an additional entry barrier for new entrepreneurs. While EDOs in every community have a good grasp of their local business environment, they often raise the concern that both community and regional level authorities should not delay business development.

Several technical and financing aid programs exist at the regional and community levels for local entrepreneurs (Section 3.5.3.3). Nevertheless, EDOs state that additional and more diverse tools are needed to support small businesses. Often, business projects are not implemented, remaining at the idea or business plan stages. The historic dependency and strong values based on collective action may curb the emergence of individuals with entrepreneurship spirit and capability.

3.5.3.2 LEGAL STRUCTURE

The distribution of Cree businesses depending on the legal structure is summarized in Table 3-8 (DCI 2023a). Note that this list is not exhaustive, but the proportions presented are reflective of the current reality. Most Cree businesses are sole proprietorship (34%) or corporations (28%). Partnerships are the legal structure for 11% of businesses. There are only a few non-profit organizations and cooperatives. It should be noted that the business

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

structure is unknown for 23% of the businesses. One may suppose that most of them are very small businesses and therefore sole proprietorship.

Table 3-8 Legal Structure of Businesses, by Community, Eeyou Istchee, 2023

Community	Sole proprietorship	Corporation	Partnership	Non-profit	Cooperative	Unknown	Total
Whapmagoostui	10	6	2	0	0	2	20
Chisasibi	18	13	8	3	1	24	67
Wemindji	5	6	2	1	0	0	14
Eastmain	6	10	0	1	0	1	18
Waskaganish	12	14	14	0	0	2	42
Nemaska	16	10	4	1	1	12	44
Mistissini	32	19	8	2	0	4	65
Oujé-Bougoumou	8	16	1	4	0	8	37
Waswanipi	13	5	2	1	0	29	50
Total	120	99	41	13	2	82	357
(%)	34%	28%	11%	4%	1%	23%	100%

Source: Compilation from DCI (2023a).

3.5.3.3 SUPPORT TO ENTREPRENEURS

Niska is a local, regional, and organisational development consulting cooperative that, together with the Cree Women of Eeyou Istchee Association (CWEIA), has produced a study of the entrepreneurial support system in Eeyou Istchee (Niska, 2020). Here is a summary of this study. Note that this reflects the situation in 2018 and things may have changed since.

There are more entrepreneurial support entities at the regional level. Cree Regional Enterprises Company (CreeCo), a holding company for investments made by the Cree Nation of Quebec, has the Community Fund, which offers a maximum funding of \$50,000 aimed at private venture start-ups. Apitisiwiin Skills Development (ASD) of the CNG (known at the time of the study as Cree Human Resources Development) offers services in skills development, employment, and career development. It offers Community Programs which provides funding for institutional vocational training, on-the-job training, training fees, training allowances, and travel expenses. ASD can also fund the salaries of business employees up to 50% in the first year, decreasing thereafter.

The DCI provides financial and technical support to entrepreneurs. The former is offered through the only grant program at the regional level, the Cree Entrepreneurial Assistance Fund (CEAF). The CEAF provides financing and professional and technical support to small and medium businesses. Financing is provided for small, sustainable, and cooperative economy projects, the creation of new businesses, and expansion and consolidation of existing businesses. The grant is the lesser of 40% of the project cost or up to \$100,000.

The Cree Nation Youth Council (CNYC), in partnership with DCI, offers the Micro-Grant Opportunities Fund, which allows Cree youth to test and realize business ventures with micro-grants of up to \$5,000. The Cree Social Economy Regional Table is a stakeholders' table that was created to support the social economy. It can provide funding to social economy projects three funds: Funding for existing SEBs (\$10,000), Funding for Emerging Projects (\$10,000), and Funding for Microbusiness Projects (\$500-\$5000). The Cree Women of Eeyou Istchee Association (CWEIA) does not provide direct funding but supports Cree women entrepreneurs and the social

economy through three orientations: 1) promote and support individual women entrepreneurs, 2) nurture the birth of women collective businesses, and 3) develop social economy initiatives for community development.

The Eeyou Economic Group (EEG) provides professional business services as well as funding through two main programs, the EEG Investment Fund and the Youth Strategy Program. The EEG Board of Directors is made up of the EDOs (and the General Manager, for Chisasibi).

While funding opportunities exist, many problems persist. Firstly, most funding programs do not support microprojects, which is of particular relevance to women entrepreneurs or others who wish to start a side-business or begin their business progressively. Secondly, most programs usually require a 5% to 10% equity contribution for a loan, which is often higher than what some people are able to generate. Lastly, the diversity of funding programs can be confusing as well as an administrative burden for start-ups who must submit multiple applications even if the requirements from one funding structure to another are very similar. EDOs are often responsible for assisting local entrepreneurs, there are often too many challenges to address for one single person.

3.5.3.4 PROPOSED LGA INFRASTRUCTURE EFFECTS

The proposed LGA infrastructure shall allow Cree companies or new entrepreneurs to take the advantage of the business opportunities in three ways:

- to obtain contracts or lead the construction, maintenance, and operation of the proposed LGA transportation infrastructures (this is the topic of Section 3.5.4).
- to obtain contracts from the wood and mining industries that would use the proposed LGA transportation infrastructures and therefore be more efficient, change their logistics process or increase production.
- to enlarge or create new economic activities favoured by a better access to other Cree communities, job sites, and external markets.

The development of mining projects and forestry sector in the study area would act as a leverage for Cree communities to open new business opportunities in improving local supply chain. Transportation companies usually must find new strategies to save transportation costs. When projects are developed, those companies would take advantage of the increased demand for goods and services, and could negotiate discounts from wholesale, and charge transportation services at lower costs.

This is the case proven by the BDH alone built in the 1970s which has helped improve the local supply chain significantly. In fact, the highway is vital for Air Creebec to ship materials from one airport to another, for Kepa Transport to supply essential goods for both Cree and Jamesian communities, for Pétronor to provide fuel, and now for Hydro-Quebec to renovate its infrastructure.

In the same way, the proposed LGA infrastructure would invite more Cree businesses engaged in the wholesale sector such as Petronord headquartered in Chisasibi. Petronord is serving the entire study area, and growing in number and size, and the proposed infrastructure would help the company tighten the link with its partners in the Abitibi region. On the other hand, Kepa Transport is particularly interested in the upgrading of the Route du Nord as well as the road 167 extension to Trans-Taiga. These roads could lead to an improvement in supply chains to carry goods for Cree and Jamesian communities, as well as the forestry and mining sites with future economic growing activities. Moreover, the extension of the road up to Whapmagoostui will change the local supply chain to this community, the road shall be cheaper than water and air transportation.

3.5.4 JOB CREATION IMPACT MODEL (JCIM) RESULTS

The assumptions made in Section 2.4.3 combined with the cost estimation data give estimates of the total potential for jobs, contracts, the local jobs that would be created for residents, and the contracts that would be received by local entrepreneurs. The results of the JCIM discussed earlier are presented in Table 3-9.

For the construction period, a total amount of \$11.4B was estimated as the CAPEX of three phases of the LGA. Of this number, 60% (\$6.8B) is assumed to be directly awarded to the Cree entrepreneurs. This amount will be spent from 2030 to 2044, which would allow to hire 2,570 FTE jobs per year for 15 years. Amongst the three phases of the

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Project, the highest number of jobs created would be during Phase I (3,441 FTE jobs per year) due to the highest amount of CAPEX spent (\$3.1B). From the community perspective, the highest number of jobs created would be for Chisasibi (715 FTE jobs per year), followed by Mistissini (661 FTE jobs per year), and Waskaganish (434 FTE jobs per year). Note that the share of job creation was adjusted for Mistissini and Waskaganish due to their extensive experience in this type of project over the years for HQ.

Table 3-9 JCIM Results per Community, Construction Period per Phase (in FTE jobs/year)

Community	Phase I 2030-2034 (\$3,061M Contracts)	Phase II 2034-2039 (\$2,146M Contracts)	Phase III 2039-2044 (\$1,651M Contracts)	Annual Average 2030-2044 (\$457.2M Contracts)	Share (%)
Whapmagoostui	160	117	92	123	5%
Chisasibi	952	673	520	715	28%
Wemindji	242	167	125	178	7%
Eastmain	145	104	81	110	4%
Nemaska	106	78	61	82	3%
Waskaganish	582	407	313	434	17%
Mistissini	888	620	474	661	26%
Oujé-Bougoumou	101	71	54	75	3%
Waswanipi	265	178	135	193	7%
Total	3,441	2,413	1,856	2,570	100%

For the Operation period, as soon as Phase I infrastructure is commissioning, 322 FTE jobs would be created for the Crees on a yearly basis, starting from 2035. As Phase I's infrastructure is located mostly south, Washaw Sibi could provide up to 100 FTE jobs. When Phase II infrastructure is commissioning in 2040, 284 FTE jobs would be added. The operation of Phase III's infrastructure starting in 2045 would add another amount of 183 FTE jobs for the Crees. Therefore, the peak employment is expected to reach nearly 800 FTE jobs by 2045.

Since Waskaganish is in the middle of the study area and has its proven capacity in past Hydro-Quebec projects, the community would participate in all three phases, and lead in terms of employment (179 FTE jobs per year) and contracts at peak periods from 2045 to 2074. On the other hand, although Mistissini is located far east which is far from most components of the LGA, the community's extensive skill and capacity would contribute a significant share of employment starting from Phase II with 118 FTE jobs at peak periods. Chisasibi would provide the highest number of jobs during both Phase II and Phase III with 166 FTE jobs. Thanks to the road connection created by Phase II, Whapmagoostui would be able to participate in the operation and maintenance of the LGA infrastructure located up north.

Table 3-10 JCIM Results per Community, Operation Period, per Phase (in FTE jobs/year)

Community	Phase I (2035-2074)	Phase II (2040-2074)	Phase III (2045-2074)	Peak Period Employment	Share of Peak Period Employment(%)
Whapmagoostui		19	16	35	4%
Chisasibi		95	71	166	21%
Wemindji		28	19	47	6%
Eastmain		18		18	2%
Nemaska	28	15		43	5%
Waskaganish	112	40	28	179	22%

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Community	Phase I (2035-2074)	Phase II (2040-2074)	Phase III (2045-2074)	Peak Period Employment	Share of Peak Period Employment(%)
Mistissini		69	49	118	15%
Oujé-Bougoumou	61			61	8%
Waswanipi	31			31	4%
Washaw Sibi	100			100	13%
Total	332	284	183	799	100%

3.5.5 LONG-TERM SUSTAINABILITY

By combining the JCIM for both construction and operation periods data, the forecasted employment and resulting GDP per capita of the entire nine Cree communities are presented in Figure 3-6. On the left scale ranging from 0 to 20,000 is presented the forecasted employment, and on the right scale ranging from \$20,000 to \$50,000 per capita is presented the Cree GDP per capita.

As can be seen, Cree employment within Quebec is forecasted to grow from nearly 9,000 jobs in 2030 to about 15,000 by 2074, while the standard of living would increase at a lower pace, from \$24,310 to \$25,398 per capita within the same time frame. The impact of LGA infrastructure is seen to be significant, particularly during the construction period of Phase I's infrastructure beginning in 2030 and ending in 2034. As of 2032, employment would achieve the peak level with 14,000 FTE jobs, an increase of 56% as compared to the status quo. Since so many Cree workers would contribute to the local GDP, the standard of living of the communities would increase by 77% to attain \$43,000 per capita by 2032.

When the construction of Phase II's infrastructure started in 2034, the infrastructure of Phase I would be commissioning by 2035. Between 2034 and 2039, Cree workers and entrepreneurs would be kept busy for both construction work and operation and maintenance (O&M) work. Due to smaller amounts of combined expenditures during that period, employment and standard of living are both lower than the ones estimated for the previous 2030-2035 period. As soon as the construction work of Phase III is completed in 2044, the employment drops to 11,000 jobs by 2045 in which the entire LGA infrastructure is put in operation. This O&M work would allow to keep a significant number of jobs for the Crees. Therefore, the impact of LGA on employment would be 7.7% increase as compared to the level forecasted for the without LGA scenario (10,400 jobs). This would help maintain the standard of living of the Crees 9.2% higher that it was expected to attain without LGA (\$26,881 vs. \$24,628). By 2074, the impact of LGA would still be significant: 5.4% increase in employment level; and 6.5% increase in the standard of living. For community-specific impacts, please see community individual chapters.

It is worth noting that the forecasted GDP did not take either change in labour productivity or changes in the structure of the Cree economy into account. This is a conservative assumption as it was expected the LGA would bring firms and workers closer together (increased productivity), as well as attract new investments in the mining or forestry sectors (change in the structure of the economy). These two factors are very important as they provide more value added to the Cree economy.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

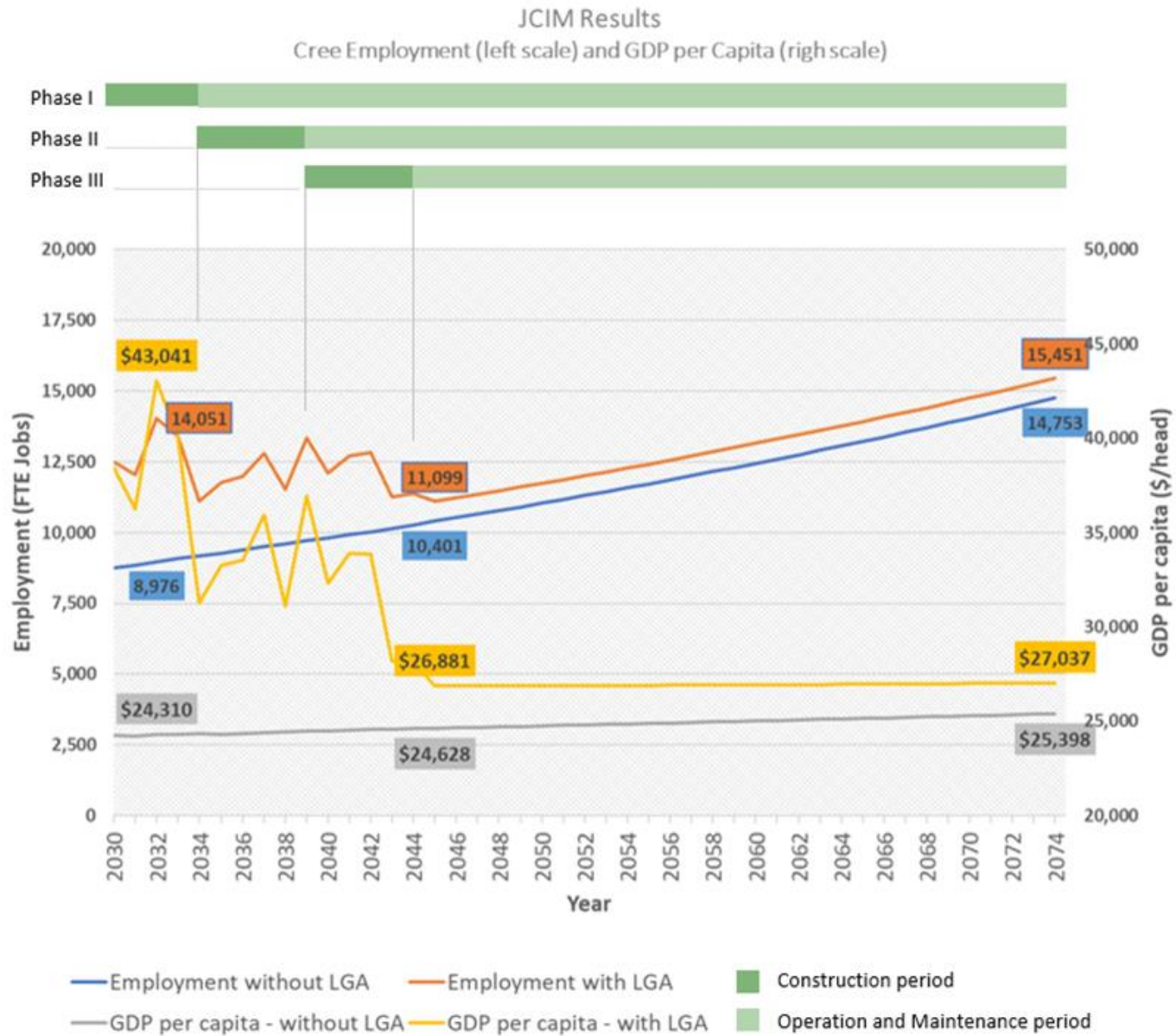


Figure 3-6 Impacts of LGA on Cree Economy and Standard of Living, 2030-2074

3.6 LAND-BASED ECONOMY

3.6.1 CREE PERSPECTIVE

Within the Cree worldview, a land-based economy ponders the importance of land as an asset for economic development, and it is a reason why land rights are critical as negotiated through the JBNQA. Such understanding of the land-based economy was presented in section 28 of the JBNQA:

28.12.3 In general, assistance to Cree entrepreneurs shall expand, develop and diversity opportunities for Cree people to participate in and benefit from the economic Development of the Territory, and particularly in those sectors where Cree skills and resources may contribute to such overall development, such as service enterprises, resource exploration, construction and maintenance work, and natural resource enterprises, the purpose of which is to exploit and protect the living and non-living Resources of the Territory.

Such a provision at the time would fall into the land-based economy in its mainstream meaning. It invited the Crees to participate in the economy based on their knowledge of the Territory, as up into the 1970s, most Crees did not partake in those activities. This common understanding of land-based economy is already captured in the economic opportunities and in the description of each community in this report. However, much data is missing about the economic opportunities that would allow Cree land users to utilize their extensive knowledge of the territory and its ecology whilst creating value from activities that will ultimately complement other more traditional forms of land use such as hunting, fishing, and trapping.

Nowadays, in addition to what is described in section 28 of the JBNQA, the land-based economy would also include the development of opportunities in, for example, cultural tourism, ecotourism, non-timber forest products, sustainable resource management, land restoration of abandoned exploration sites (of there are over 1,000), sandpits, rehabilitation services, and climate change considerations which were absent at the time of the JBNQA.

Land also represents more than an economic asset for the Crees. As stated by the Organization for Economic Cooperation and Development (OECD, 2020), land provides sustenance for current and future generations; it is connected to spiritual beliefs, traditional knowledge, and teachings; it is fundamental to cultural reproduction or continuity; moreover, commonly held land rights reinforce nationhood.

For thousands of years, the Crees of Eeyou Istchee, like many other Indigenous Nations, developed a subsistence economy based on what is referred to nowadays as traditional activities, such as hunting, fishing, trapping, and gathering. “Economic activities depended on geographical availability and seasonal patterns of major food sources. These factors influenced the organization of Indigenous groups, including settlement size and duration, the division of labour between genders and interaction with other groups” (Trotavo et al., 2011). This traditional land-based economy was organized around *indoh-hoh itschee*, family hunting territories referred to as traplines today, inherited from the fur trade that took place in Eeyou Istchee between the 1930s and the mid 1960s (Awashish, 2018). The Cree way of living off the land was regulated by moral principles and cultural values best expressed by the Cree notions of *Eeyou Eedouwin* (Eeyou way of doing things) and *Eeyou pimaat-seewun* (Eeyou way of life). Philip Awashish describes these concepts more precisely in the following quote:

Eeyou Istchee is the foundation of our identity, governance, history, heritage, culture and way of life, spirituality and *Eeyou Eedouwin* (Eeyou way of doing things). It is the Eeyou homeland of yesterday, today, and tomorrow.

Eeyou values are the building blocks for the ethical principles that form the basis of Eeyou law. Consequently, the law flows from Eeyou values and principles. In addition, the culture may be defined simply as the way of life adopted by Eeyou. In fact, Eeyou describe Eeyou culture as *Eeyou pimaat-seewun* (Eeyou way of life). For the Eeyou culture is determined and shaped by *Eeyou Eedouwin* and encompasses the complex whole of beliefs, values, principles, practices, institutions, attitudes, morals, customs,

traditions, and knowledge of Eeyou. These elements influence the determination of Eeyou law, which originates from the political, economic, spiritual, and social values and principles held, expressed, and enunciated through the teachings of Eeyou elders, customs, traditions and practices. (Awashish, 2018)

This subsistence economy based on *Eeyou Eedouwin* and *Eeyou pimaat-seewun* created strong territorial intimacies with Eeyou Istchee for Cree families, the unit dedicated to the transfer of knowledge and the spiritual experience of the world, and within the Cree communities and the Cree Nation as a whole (Wattez, 2024; Wattez, *forthcoming*). These core principles and cultural values were at the foundation of the Cree economy transformations in the 1960s and the 1970s that created a Cree social economy (Feit, 2016), and they continued to be at the core of the Cree way of life for the hunters and trappers, who could refer to the *Eeyou Indoho-hoh Weeshou-Wehwun* – the traditional hunting law (CTA, 2009).

With the decrease of the permanent hunters and trappers, but, in that same time, the continuous occupation of Eeyou Istchee by the families, the Cree way of life might be considered nowadays more as a way of living on the land than from the land. Indeed, the definition of “traditional way of life” was discussed during a Cree perception survey (HQ, 2015). It emerged that this concept is broader than the practice of traditional activities and refers more to a way of living and subsisting on the land over a long period of time which is passed down through the generations.

The land-based economy is not just based on the traditional activities anymore, but also on their coexistence and entanglement with a series of other activities created by the Crees who keep applying *Eeyou Eedouwin* and *Eeyou pimaat-seewun* to the realities of their lives as Crees. In other words, the land, Eeyou Istchee, still provides the Crees with the sustenance needed for current and future generations to make a living, a Cree way of living, which is connected to spiritual beliefs, traditional knowledge, and teachings fundamental to cultural reproduction and offering economic opportunities (OECD, 2020).

The land rehabilitation sector is a good example of a land activity due to the restoration & remediation works it encompasses. It is based on a circular way of managing what is at stake, knowing that the final goal of rehabilitation for any type of site is to go back to its initial environmental state as much as possible (SYM, 2023). The possibilities of that sector of activity open the door for a “*Nouuchimii-Wiinibekuu Economy*”, which could be defined as “an initiative to encourage land user participation in the local formal economy through the development of a land-based industry” (SYM, 2023). This model consists in “promoting economic sectors aligned with Cree traditional land use, [notably] the land rehabilitation also known as land restoration or land remediation [which] is the process of repairing, restoring, or improving land that has been degraded or contaminated by human activities or natural events [and which] can involve a wide range of activities, from cleaning up contaminated sites to restoring degraded ecosystems” (SYM, 2023).

As part of this study, the land-based economy includes all activities carried out on the land or with resources from the land (such as arts and crafts), which contributes to a utilitarian view, generating food security or income but also to the well-being of the Crees, which is more specifically addressed in the Cultural Continuity section 3.6.4 . Indeed, a land-based economy can also improve health and well-being and preserve and revitalize languages, knowledge, and values by transmitting them to the next generations. It also strengthens community cohesion and can help protect or restore environment. Table 3-11 provides the activities related to the land-based economy that emerged from the engagement sessions.

The land-based economy faces many challenges such as environmental degradation, climate change, different needs and aspirations between the generations, and the lack of resources or support to sustain it. During the focus group for this study, emphasis was put on sharing and mutual benefit in wealth creation, and a growing interest in tourism and cultural preservation was mentioned regarding economic opportunities, and this over several generations.

In a nutshell, the Cree land-based economy refers to social and economic systems and practices that are deeply rooted in the relationship between people, the traditional territories, and natural environments. This type of view is characterized by the sustainable use and management of land and natural resources to support the social, cultural, medicinal, spiritual, and economic needs of the community. Conservationist economy or “indigenomics” (Hilton, 2021) would be closer to the vision of Indigenous people on the land-based economy, the Cree Nation included.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 3-11 Activities Related to the Land-Based Economy

Category	Activity
Self-sufficiency Harvesting (traditional Cree economy)	<ul style="list-style-type: none"> – Berries, mushrooms, etc. – Medicine: labrador tea, cedar, roots, etc. – Raw material: moose hide, bones, feathers, etc.
Arts and Crafts / Transformation	<ul style="list-style-type: none"> – Eco museum – Moose hide products and traditional wear – Beading – Non-timber forest products – Wood carving
Trade	<ul style="list-style-type: none"> – Construction – Fur
Cultural Economy & spirituality	<ul style="list-style-type: none"> – Cultural wellness and healing camps – Cultural teachings – Elders and storytelling – Knowledge and wisdom keeper – Cultural events, gatherings, workshops coordination – Excursion guidance – Traditional cooking – Tourism and outfitting camps – Workshop facilitation – Connection to the land and traditional spirituality – Medicine and knowledge
Cree Trapper and Land Users	<ul style="list-style-type: none"> – ESP

Key aspects include the following items (OECD, 2020; Hilton, 2021):

- **Sustainability:** Emphasizing practices that ensure the health and productivity of the land and environment for future generations, reflecting a deep connection of people with the land that goes beyond a transactional relationship.
- **Cultural significance:** The land is not just an economic resource but also a source of cultural identity, medicine, and spiritual values. Economic practices are often interwoven with cultural traditions, ceremonies, and the transmission of traditional knowledge.
- **Diverse Economic and Socio-Economic Activities:** This includes a range of activities such as hunting, fishing, gathering, agriculture, forestry, and the harvesting of natural products medicine. It may also extend to modern ventures like ecotourism and cultural tourism that are based on traditional knowledge, healing camps, and arts and crafts.
- **Community-centredness:** Economic practices are typically oriented towards community well-being rather than individual wealth accumulation. There's an emphasis on sharing resources and collective ownership or stewardship of the land. Community-centredness does not exclude private or collective entrepreneurship which is encouraged for self-independence within the Cree Nation.
- **Environmental Stewardship:** Cree land management practices incorporate sophisticated ecological knowledge and stewardship that contribute to biodiversity, protected areas, habitat preservation, and ecological balance.
- **Self-Determination and Autonomy:** Land-based economies can be crucial to the Cree Nation's efforts towards self-determination, allowing communities to manage their resources in ways that align with Cree values and priorities.

This view stands in contrast to purely industrial or market-driven economies, which often prioritize short-term profits and exploitation of resources without sufficient regard for environmental degradation or social equity. For the Crees, the land-based economy is not only a means of material sustenance but also a foundation for cultural continuity, social cohesion, and sovereignty over lands and the Cree way of life. The land provides and sustains the people through traditional and modern socio-economic means, it protects and preserves culture and identity, connecting and healing the people, and it represents a sustainable and respectful cohabitation between people and nature. It is hard to quantify or measure even when data exists, which is generally not currently the case in Eeyou Istchee.

3.6.2 SYNERGIES AND CONFLICTS

There is always, in modern society, a tension between economic development and environmental protection. This tension is even more significant for Indigenous peoples. This is also the case in the context of LGA. For the Cree, protecting the territory goes beyond environmental preoccupations. The territory is vital and existential to Cree identity itself, and “being on the land” constitutes the definition of the Cree way of life. From this perspective, economic development is not possible at the expense of the Cree way of life.

The Cree way of life requires preserving habitats and waterways, and access to resources. These are the enablers of the Cree “land-based economy”, which can be roughly defined as the knowledge and relationships that enable the production and distribution of traditional goods and services. Access to resources is therefore closely related to cultural wellbeing, which in this sense includes economic wellbeing. The latter are covered in section 3.6.4.

As will be explained in the following chapters, it is anticipated that proposed LGA infrastructure development will have different effects (either positive or negative) on the possibility of harvesting different resources related to the potential changes on the state of the populations in terms of their presence, quantity, and quality, and on physical access to enable their harvesting. Some of the effects of proposed infrastructure will be related to construction phases, others could last over time.

Crees wish to protect their ancestral territory, and they also wish to develop their economic self-reliance. The LGA engagement process with the Cree Nation led to suggestions for measures to protect and enable Cree access to resources and preservation of habitats. Other such measures were suggested by land users. The LGA engagement process also provided an opportunity for community reflection on economic development opportunities or possibilities, creating interest in potential synergies between transportation infrastructure development and local businesses and labour skills.

In effect, some influential Cree voices argued that infrastructure projects are instrumental to improving access, road safety, security regarding trespassers, and legal protections for sensitive areas, adding that supporting local entrepreneurship opportunities around infrastructure projects leads to well-paying jobs. The issue of jobs is a central concern to many communities, and some Cree voices refer to job creation as an imperative to “break the dependency cycle”. Another idea emerging from community engagement in reference to economic self-reliance involves establishing land reserves for mineral exploration to limit and concentrate mining activities.

By way of summary, we include following proposed measures, documented by the LGA engagement process across Eeyou Istchee:

- Put in place a communications plan for the construction of transportation infrastructure to inform land users about ongoing work on their traplines. This information should include the type of infrastructure, dates, and expected duration of the works. This plan will make people aware in advance of the disturbances and help them plan according to the possibilities to reach their camp and areas of activities.
- Establish monitoring mechanisms to prevent overexploitation, like game wardens, land guards or toll booths, or installing physical barriers on access roads, secured with padlocks.
- In case of infrastructure developments near a camp, facilitate the relocation of the camp if there is too much anticipated disturbance from traffic, noise, vibrations, etc.
- When new access roads are defined, facilitate a camp’s choice to move closer to the road, if it is more convenient for the land users, or facilitate the construction of new camps.

- Install signage at the crossings of the main trails with the proposed railway alignment or new roads to ensure safe access to land users.
- Put in place a communication plan for train transportation to advise land users of the train schedule.
- Ensure that the train is also designed to transport people and goods, not just natural resources.
- Allow Cree to use the train for transporting equipment and consider subsidized rates for land users.
- Allow on-demand stops for land users along the railway alignment, as is the case with Tshiuetin train service (Schefferville-Sept-Îles train link).
- Consider shuttle taxis and parking space to motivate people to take the train.
- Help land users to reach areas out of proposed road and/or train alignments, by building trails according to their needs. Provide financial or technical help to this end.

To help people get to areas that are not near proposed railway or road alignments, the proposed action is to plan, build, and maintain new trails and accesses for snowmobiles and all-terrain vehicle (ATV). Apart from allowing land users to expand their access to the land, planning, building, and maintaining these new accesses with the collaboration of land users would lead to the creation of short-term employment for community members. Moreover, these accesses could be available to tourism activities when allowed or projected by land users (i.e., Tallymen), and desired by the community.

The preservation of habitat and waterways cannot be overlooked during future construction or development. The following needs were more generally mentioned or suggested:

- A strong preservation and follow-up of sensitive habitats and waterways.
- Efficient communication with land users and consideration of their knowledge.
- Regulations for workers' and other users' activities.
- A communication plan for the infrastructure's construction and operation.
- Road safety measures, such as signage, emergency phones or crossings.

Opportunities for community members to undertake monitoring and supervision during construction and operation of proposed transportation infrastructure would make remaining connected to the land, as the first line of observation of potential environmental disturbances, into an income earning activity.

Cree knowledge keepers can use environmental stewardship practices to help carry out land restoration and rehabilitation on the more than 1,000 abandoned exploration sites. The same applies to ecotourism, cultural tourism, manufacturing of non-timber forest products, sustainable resource management, sandpit utilization, and climate change adaptation (see section 3.6.4).

3.6.3 CREE HUNTERS' ECONOMIC SECURITY PROGRAM

The ESP (previously ISP) was set up in 1976 after the JBNQA. This program, managed by the CHESB, previously the Cree Hunters and Trappers Income Security Board (CHTISB), has thus been in place for 47 years (CHESB, 2014). In 2013-2014, 93% of the budget is given as income security benefit expenses to Cree hunters and trappers. The 18 employees of the CHESB include 12 agents located in the various Cree communities and 6 at the administrative and head office in Quebec City (CHESB, 2014).

The ESP aims originally to provide an annual income floor to mitigate against the fluctuations in the fur market to the Crees who reside in Québec and practice wildlife harvesting activities as a way of life. Harvesting activities and related activities covered by the Program are identified in Table 3-12.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 3-12 Harvesting and Related Activities, Cree Hunters Economic Security Program

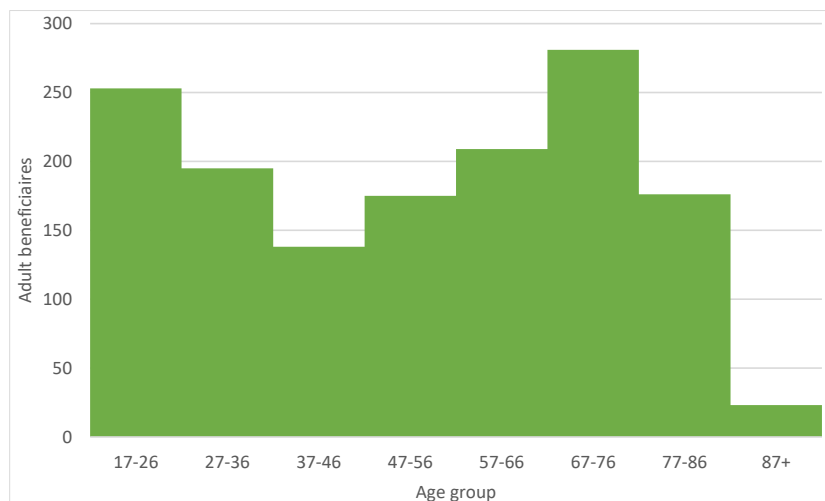
Base Activities	Related Activities
<ul style="list-style-type: none"> — Hunting — Fishing — Trapping 	<ul style="list-style-type: none"> — Equipment manufactures or repair — Trapline preparation and upkeep — Processing — Transportation and sale of the proceeds of these activities — Production of handicrafts — Wildlife management — Travel

Source: CHESB (2014).

“The Program provides for an annual family income, but the eligibility of a beneficiary unit or family basically depends on the activities of its head, i.e., the Cree beneficiary who, in keeping with Cree customs, is considered to be the family provider or who is a person at least 18 years of age living alone. However, benefits are calculated by taking the activities of each member of the beneficiary unit into consideration.” To be eligible, the head of a beneficiary unit (family or single person) must devote at least 120 days during the preceding year, except in the case of a student or a person who wants to temporarily leave for temporary employment. Beneficiaries may take part in economic activities in the region on a seasonal basis. Semi-active status is possible for elder people who want to gradually decrease their harvesting activities (CHESB, 2014).

The ESP provides for a maximum of 240 days per adult per year, 120 days for newcomers and 119 for semi-active beneficiaries, with an overall maximum of 350,000 days to all beneficiaries, or 1,458 beneficiaries in total if they spend the maximum of days on average. The allowance is marked up by 30% from November to April if the trapline is considered far, i.e., 50 km from the community if not accessible by road, 200 km if accessible by road. Bigger families have a guaranteed basic amount. There also exists an insurance fund to financially compensate beneficiaries with inability to practise harvesting or related activities due to illness or disaster (CHESB, 2014).

The distribution of adult beneficiaries by age group, displayed in Figure 3-7, is characterised by the prevalence of young adults (17-26 years) and elders (67 and over) and a dip in enrolment for people between 26-65 years. People go on the labour market in their most productive years, as they can earn more than if they were on the ESP. The ESP allowance is not a sufficient living wage for most people, even though most would prefer this way of life. This is a loss to the land-based economy. Moreover, the elders represent a third of the ESP adult beneficiaries, which might be a risk for transfer of culture and knowledge.



Source: Compilation from CHESB (2021).

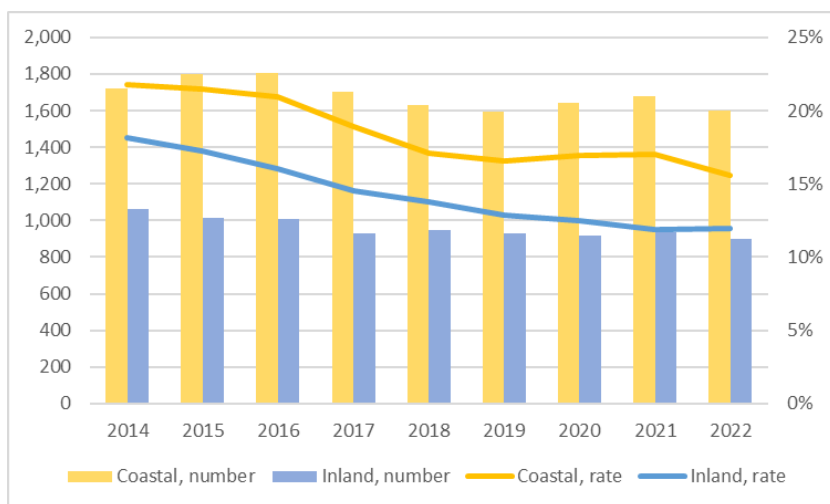
Figure 3-7 Number of Adult ESP Beneficiaries by Age Group, Crees, 2020-2021

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Participation in the ESP has fluctuated over time and across communities. Since the inception of the program in the mid 1970s, participation rose to a plateau of about 1,200 beneficiary units (families and couples counting as single units) from the mid-80s to the mid-2000s (Collette and Larivière, 2010), peaked in 2015 at 1,457 units, and has since slowly declined to 1,410 in 2021 despite important population growth.

Collette and Larivière (2010) noted a strong disparity in participation between coastal and inland communities over the 1979 to 2007 period, where coastal communities see continued growth in the number of beneficiaries, while inland communities see a slight decline. Collette and Larivière (2010) suggest as one of the reasons for this disparity, is that the inland communities have better access to economic opportunities due to better connectivity to road infrastructure. They are also less remoted and are more connected to southern municipalities.

Data covering 2014 to 2021 (CHESB, 2014-2022), illustrated in Figure 3-8, shows a similar global declining trend, with some fluctuations, in both coastal and inland communities. The ESP rate (or proportion of ESP beneficiaries among the band members) has declined substantially in both categories of communities. A major factor explaining the decline in the number of ESP beneficiaries and trapping activities is the decrease in fur price. A beaver fur was worth on average \$12.39 in 2015, and in 2022, it was \$7.57 (CTA, 2014-2022).



Source: Compilation of CHESB (2014-2022).

Figure 3-8 Number and Rate of ESP Individual Beneficiaries, Cree Communities, 2014-2022

As shown in Table 3-13, the Cree communities are different regarding their current ESP beneficiary situation as well as its recent evolution. In numbers, the ESP beneficiaries are concentrated in a few communities, Chisasibi with 39% of all Cree beneficiaries, Waswanipi with 15% and Mistissini with 14%, not only because of the size of these communities but also because of the ESP rate is greater.

The ESP rate varies greatly across communities, from 6% in Nemaska to 19% in Chisasibi. While the average ESP rate is globally higher in coastal communities than in inland communities, there is no straightforward relationship since the rate in an inland community may be much greater than in a coastal community, for example 15% and 14% in Waswanipi and Oujé-Bougoumou respectively compared to 7% and 9% in Waskaganish and Wemindji respectively.

Table 3-13 Number and Rate of ESP Individual Beneficiaries, per Community, 2014-2022

	Coastal Communities					
	Whapmagoostui	Chisasibi	Wemindji	Eastmain	Waskaganish	Coastal
2014	296	1,007	154	60	204	1,721
2015	325	1,007	147	79	242	1,800
2016	333	1,009	164	72	225	1,803

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Coastal Communities						
	Whapmagoostui	Chisasibi	Wemindji	Eastmain	Waskaganish	Coastal
2017	282	978	154	73	215	1,702
2018	222	967	152	68	223	1,632
2019	184	983	151	75	204	1,597
2020	168	1,009	149	81	233	1,640
2021	174	1,019	147	94	242	1,676
2022	169	974	149	88	218	1,598
Share of all Crees 2022	7%	39%	6%	4%	9%	64%
Rate 2014*	32%	24%	11%	8%	8%	22%
Rate 2022	16%	19%	9%	10%	7%	16%
Variation rate 2014-2022	-16%	-5%	-2%	2%	-1%	-6%
Variation nb 2014-2022	-43%	-3%	-3%	47%	7%	-7%
Inland Communities						
	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi	Inland	Crees
2014	48	328	140	544	1,060	2,781
2015	41	330	123	522	1,016	2,816
2016	44	333	132	497	1,006	2,809
2017	44	303	119	466	932	2,634
2018	46	313	141	445	945	2,577
2019	47	332	136	417	932	2,529
2020	43	357	127	388	915	2,555
2021	47	383	135	372	937	2,613
2022	43	358	131	369	901	2,499
Share of all Crees 2022	2%	14%	5%	15%	36%	100%
Rate 2014	6%	9%	17%	25%	18%	20%
Rate 2022	5%	9%	14%	15%	12%	14%
Variation rate 2014-2022	-1%	0%	-3%	-10%	-6%	-6%
Variation number of beneficiaries 2014-2022	-10%	9%	-6%	-32%	-15%	-10%

Note: The rate is the ratio of number of ESP beneficiaries over the number of band members, or the % of the Cree population which is beneficiary of ESP.

Source: *Compilation of CHESB (2014-2022).*

There have been fluctuations in the number of ESP beneficiaries over time and the evolution has not been necessarily linear. Over the last eight years (2014–2022), the global ESP rate has decreased by 6 percentage points, which is a major diminution. The decline has been more important in communities where the ESP rate was high in 2014: Whapmagoostui rate went from 32% to 16%, Waswanipi from 25% to 15%, Chisasibi from 24% to 19%. Meanwhile, in the communities which ESP rate was lower in 2014, this rate may have decreased by little, fluctuated, or increased by little, presumably within the fluctuation bracket and thus not significantly changing over time. This might mean that there is always a minimum share of the population who prefer to continue to live in a traditional way.

To maintain a dynamic land use in the traditional way, a sufficient number or share of people who continue or newly adopt full hunting, trapping or other traditional activities, would be required beyond this minimum. Appropriate incentives through the ESP program or otherwise, notably by ensuring a decent standard of living, need be implemented.

Since the fur market declined, the ESP has emerged as the main and often sole source of income for most beneficiaries. Consequently, the program's benefits are minimal, akin to a subsistence-level welfare initiative. Except for elderly individuals facing health constraints, those within the age bracket of 30–45 constitute the lowest proportion of ESP beneficiaries, as many are engaged in formal employment. When people need money, they usually work for higher income than ESP and generally construction provides high paying jobs. However, as they progress through their life stages, particularly beyond at retirement of 60–65 years of age, there is a notable return to traditional land-based livelihoods. For most Cree individuals, the significance of living off the land remains paramount. Despite a gradual decline in ESP beneficiaries over time, these individuals who continue to rely on traditional land-based practices hold enduring symbolic value within Cree culture. The lifestyle of inhabiting and working on the land holds a cherished ideal for the Crees, whether for extended periods throughout the year as in ESP or whenever circumstances permit when they are in their working cycle. The JBNQA consistently underscores the Cree people's right to choose their preferred lifestyle. This encompasses active participation in the modern economy through employment and entrepreneurial endeavors, as well as the preservation and practice of traditional Cree ways of life by residing and working on the land. Economic development and growth within Eeyou Istchee must go through a due-diligence process that is sustainable and compatible with Cree lifestyle.

3.6.4 CULTURAL CONTINUITY AND ECONOMIC VIABILITY

Concept of cultural continuity

Cultural continuity refers to how Cree culture is reproduced, strengthens community cohesion, and helps protect or restore nature. In terms of LGA proposals, cultural continuity is a boundary. No development intervention on the land should diminish the reproduction of Cree culture. In other words, cultural transmission or continuity should be supported and aided as needed to ensure the health and wellbeing of people, economy, and environment.

Academic literature on cultural continuity is rare but includes literature about the link between cultural practices and First Nations health (Chandler and Lalonde, 1998, 2003). More recent literature looks at “the extent to which a First Nations youth is integrated within his or her First Nation culture” to explain the importance of cultural continuity and cultural transmission Indigenous knowledge to new generations (Snowshoe and al, 2014, p. 249). Cultural continuity, still an emerging concept in the literature, highlights the importance of “intergenerational cultural connectedness, which is maintained through intact families and the engagement of elderly people, who pass traditions to subsequent generations” (Reading and Wien, 2009, p. 18). Cultural continuity also situates culture as being dynamic through the maintenance of collective memory, which may change over time (LaRocque, 2011). Cultural continuity can be understood as the integration of people within their culture and the methods through which traditional knowledge is maintained and transmitted (Auger, 2016).

Taken closer to what Awashish (2018) presents, cultural continuity cannot be separated from the land-based economy. Cree culture emerges from and reproduces on the land. Hence, cultural continuity in the Cree context refers to the ongoing transmission of the Cree way of life – rituals, storytelling, language preservation, traditional hunting and fishing practices including the “gift economy” or practice of sharing, crafts, music, dance, and the

maintenance of social and governance structures. It is like cultural preservation, as outlined in Technical Note 17, section 6 of the Phase II and III studies (WSP 2023c).

Cultural continuity is not an easy concept to quantify or measure but can be described by the number of people taking part in each of the elements that ensure the continuity of Cree life on the land. The ESP beneficiaries are such examples but also all other Crees who still carry Cree values, way of life and knowledge of land despite not being as present on the land as ESP beneficiaries. Cultural continuity could also be measured by looking at the “language spoken at home” data in census databases. Of which the Crees are still strong as we know 91% speak Cree.

As the Cree way of life continues to adapt to change, cumulative impacts on the transmission of culture can also be measured or documented to some extent. In the literature, there are some examples of how Cree communities have done this (Waswanipi, Chisasibi). Those examples are complementary to the data collected in the social and environmental studies of Phases I, II & III.

Land based activities and cultural continuity.

Continuous adaptation to economic and technological change has enabled the Crees to sustain many of their traditional land-based activities, which are still central to the Cree way of life. *Eedouwin* and *Eeyou pimaat-seewun* (literally, the “Cree way of life”) represent the message that Cree are not separate or external to the land. There is a cultural and moral obligation to nature, for Cree to be stewards of their territory. From the outset of the JBNQA, attention has been given to the protection of the Cree way of life. However, old concerns about the loss of traditional knowledge and Cree presence on the land remain part of the discussion, and this was evident throughout LGA engagement with communities and land users.

Cree cultural continuity – the uninterrupted transmission of Cree language, knowledge, and land-based practices – matters to the social acceptability of economic development options in Eeyou Istchee. Especially in the case of large development interventions in the territory, the spaces that embody the spiritual, ecological, and cultural identity of the Cree must continue to be preserved. If Cree are to keep their identity the territory must maintain its characteristics to the greatest extent possible.

Likewise, the question of the economic viability of the Cree way of life arises today, as fewer people are going out for long stays on the land, partly because of increasing costs. The CIOs survey show that the traditional activity costs, including hunting, fishing, cultural breaks, arts, and crafts, range between \$6,000 and \$15,000 annually. Access to the land is expensive, and this probably means there are people who want to spend time on the land but can’t because of poverty. How is this demand addressed today? We know that the ESP benefits those who spend a significant amount of time harvesting the land, which is not the case for people who have jobs in the community, but still would like to be on the land more.

Between 2005 and 2012, a perception survey conducted among the Cree population sought insights into their engagement in traditional activities (HQ, 2015). The findings revealed a steady increase in the proportion of respondents who reported frequently or occasionally participating in traditional activities, rising from 76% in 2005 to 92% in 2012. Conversely, the percentage of individuals abstaining from any traditional activity remained consistently low at 2% over the four-year period.

Respondents attributed the growing participation in traditional activities to factors alleviating associated costs. These factors included rising individual incomes, improved access to the territory facilitated by new roads, and the availability of incentive programs like the Niskamoon fund or CTA initiatives. Despite this upward trend, concerns about the potential threat or disappearance of the Cree way of life persisted among a little over two-thirds of respondents, with age showing no significant variance in responses.

This perceived threat stemmed primarily from reduced time spent on the land due to Western lifestyle influences and the adverse impacts of development projects on the territory. For some respondents, the apprehension about the potential loss of the traditional way of life was linked to the aging demographic engaged in these practices and the challenges of passing down Cree traditions within a predominantly Western cultural milieu. Given these findings, conducting a follow-up survey to monitor evolving perceptions and trends over time would be prudent.

Moreover, a focus group with CTA emphasizes a concern about the youth. There is growing concern within the Cree community about the declining engagement of youth in traditional Cree ways of life, which could potentially lead to

a loss of cultural continuity. Unlike older generations who have upheld and passed down Cree traditions through their deep connection with the land and ESP, many young Cree individuals face challenges in maintaining modern lifestyle and living on the land as often as older generations. The reality is that living according to traditional practices often does not provide sufficient income to sustain a modern lifestyle, leaving Cree youth caught between the desire to preserve their cultural heritage and the necessity to adapt to contemporary economic realities. As a result, there is a risk that with fewer youth embracing the Cree way of life on the land, the transmission of cultural knowledge and practices may diminish over time, posing a significant threat to the continuity and preservation of Cree culture and identity.

Viability of land-based activities

The “continuity” of Cree presence on the land refers to not interrupting those livelihoods and activities because of the need to earn an income elsewhere. Communities and land users shared their observations and proposals regarding this important question.

Cultural continuity can be protected through a blend of approaches that take one or more examples from traditional land-based livelihoods. Such a blend of traditional and “for profit” land-based activities can include land uses other than the purely traditional, to ensure a greater economic viability of activities on the land. There is generally a growing interest in ecotourism and cultural preservation in terms of economic opportunities in the Cree communities, and many ideas emerged from the LGA engagement process in reference to developing environmentally sustainable activities that could allow some people to earn a living by maintaining the important relation to the land, such as:

- Tourism development taking advantage, in the case of Whapmagoostui, of a potential harbour by offering boat tours, wildlife watching, coastal cruises.
- Eco-responsible cultural tourism around traditional settings, cultural activities, and cultural camps.
- Outdoors activities requiring rental of equipment, guides, transportation, campgrounds or other accommodations, snowmobile trails, fishing trips, outfitting in general.
- Arts and arts crafts development and exports, such as pottery, snowshoes, tamarack goose.
- Land and resource management, which is an obligation for all Cree communities, constitutes another economic development possibility. As Category I land rights and interests are managed by each Cree community, this is a sector of the public economy (a public service) that could be further enhanced to offer licences and permits related to business or leisure activities on Cree community lands.

Forestry and mining are prominent economic activities today. Technological advancements and transportation infrastructure have influenced lifestyle changes, and new activities have taken root where demand and local capacity are stronger, such as in housing construction and in transportation services. These activities are presently on the rise across the territory. For more specialised local land and resource management services, the LGA engagement process produced these examples:

- Management of mitigation measures for development projects and environmental monitoring.
- Establishing a licence to non-native hunters, and imparting courses on how to process wild meat and take care of the animals.
- Development of land accessibility such as the creation of hiking trails.
- Animal population management and management of hunting, fishing, and harvesting with quotas.
- Development of conservation projects and protected areas, including planning and operation.
- Rehabilitation and protection, by silviculture, of affected areas.
- Forestry and tree planting.
- Health services such as traditional medicine, mud clay

Other businesses or ideas mentioned included retail, construction, manufacturing, and transportation:

- Developing the wood industry in such was as to foment manufacturing of, for example, planks, matches, toothpicks, and any number of similar consumer and industrial products.
- Peat moss production.
- Non-timber products and manufacturing.
- Developing manage waste and recycling strategies to avoid long-term issues, like contamination and loss of land.
- Greenhouse construction and management.
- Tent making (pop up teepee style) and wooden house construction.

The listed ideas are not all traditional activities, however, some could, if developed, generate income, and help people remain connected to the land, which is essential for the Cree people. Value-added processing of land resources (as hide, berries, feathers, or other art and craft), would contribute to the viability of the land-based economy, if managed in a sustainable and efficient way.

Through the LGA engagement process, communities also proposed other types of measures to address the tensions that infrastructure development inevitably generates. Communities expect that measures could be put in place to ensure that economic opportunities do not interfere with cultural continuity, but rather promote the use of the land, for example:

- Preserve or designate Cree nomenclature for places.
- Ensure that burial and birth sites are not impacted by the construction work by redefining (or defining) their exact location for those within 500 m from the alignment (and by recording them in a specific mapping).
- Set up programs to encourage land base activities, trans-generational activities, specific training, arts and crafts, language, or others (e.g.: teach to hunt and harvest as the Elders did, without over killing and using all parts of the animals). Workgroup could define the most appropriate activities for the communities.
- Increase the Cree presence on the land through programs and other opportunities to facilitate their access to the land.
- Relocate camps, if land users feel they will be disturbed by the infrastructures, to a location of their choice.

Maintaining and expanding snowmobile trails, preserving canoe routes, and exploring non-traditional economic opportunities like tourism and boat tours are concrete and significant examples of the modern Cree land-based economy. There are examples where both types of economic activity collaborate. Experienced companies can benefit from mentoring and business development assistance for local enterprises who can, in turn, support the success of their operations.

In specific cases where communities could potentially welcome a railway link and supporting infrastructure, cultural continuity would be served through linking communities directly, providing an incentive to social cohesion by bringing communities closer. The use of the train could also allow community members to reach camps and areas of activities on the land more easily, facilitating notably the cultural transmission.

While railways may contribute to social and cultural cohesion, they remain a priory a challenge from the perspective of cultural continuity. A railway might represent a threat to the use of traplines, to animals, and overall environment. In some sectors it could affect watersheds, which would in turn impact on cultural activities, especially when considering that trains will serve large-scale extractive industries as primary purpose.

However, this is essentially the key relevance of cultural continuity to sound economic development in general, and specifically in relation to LGA proposals. By engaging Cree Knowledge, proposed transportation infrastructure development can co-design with Cree land users and communities the most appropriate approach to protecting culture and land. As described in section 3.6.2, LGA can take concrete actions, such as developing communication plans for construction and train transportation, installing signage on main trails, and helping land users delineate snowmobile or ATV trails in collaboration.

For this and other collaborative tasks, the importance of giving a voice to young people cannot be underestimated. Youths are the future of the Cree Nation. Their urgent concerns about how decisions that will impact the land are being made will likely give impulse to change in this regard.

Voices of the youth

The CNYC has expressed their interest and expectation to be involved in any discussions about the development of Eeyou Istchee. During the first CNYC youth Summit in February 2024 in Quebec City, where 73 Cree youth attended, youth participation and concerns about the LGA process were discussed. Their demand that development planning includes everyone stems from their expressed frustration with what they perceive as “top down” planning, even if the initiator of the LGA process is the Cree Nation. In other words, Cree youth expressed strong belief in their capacity to envision development from a Cree perspective.

As part of that discussion, youth participants were invited to reflect on change, in terms of the traditional and modern ways of life. Without hesitating, they placed hunting, harvesting, and handcraft techniques at the center, along with broader cultural elements like identity, language transmission, and family unity. Their reflections on change related to modern industrial society emphasized access to diverse positive aspects, including education and technological advancements.

When it comes to LGA as a process and its proposals, youth are concerned about the potential negative impacts of infrastructure development, such as greenhouse gas emissions and land disturbance, and all the associated issues related to impacts on the land. Their message was clear in demanding that planning should involve everyone, including youth, to ensure those issues are recognized and dealt with.

Through a brainstorming activity to conceptualize potential infrastructure solutions for Eeyou Istchee, they collaborated to map out the territory and propose relevant infrastructure projects, including new roads, underground rails, ferries, sea transportation, and tourist amenities. This exercise provided insight into the youth's perception of infrastructure challenges and underscored the importance of transportation development for the future of Eeyou Istchee.

Cree youth wish to actively participate in shaping the future of their territory. Through discussions and collaborative activities, they wish to contribute their perspective to the search for answers to complex issues surrounding infrastructure development and its impact on their lives and environment.

The CNYC adopted a resolution to engage in future conversations with LGA. The youth of today will be the adults and decision makers of tomorrow. If the LGA moves forward, they will be the ones to manage the benefits and the challenges.

3.7 COST OF LIVING

3.7.1 PRICE LEVELS

Price data for a basic basket of goods was gathered from retailers and key informants in Cree, Jamesian and Abitibi communities. Moreover, the monthly rent for a dwelling rented from the band, as reported in StatCan (2021) Census, was compiled for every community. These data are included in Appendix G. Price indices were derived from these price data, for four groups of goods: food and beverage, transport, communications, housing. The food and beverage index was calculated from a set of goods in local groceries while the three others were calculated from gasoline, monthly Internet, and monthly rent respectively. An index is the ratio of the local price over the price in a base or reference entity, in this case the average of Cree communities except Washaw Sibi, not currently located in Eeyou Istchee. For example, an index of 2.00 means that the price in a specific location is twice as high as the average of the prices for the same good or set of goods in all Cree communities, still except Washaw Sibi.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 3-14 summarizes the prices indices for the four groups of goods for Cree communities, as well as for some Jamesian and Abitibi towns. Beside the index, a green mark ♦ indicates a price lower than the Cree average while a red mark ♦ indicates a price higher than the Cree average.

Table 3-14 Price Indices, Cree, Jamesian and Abitibi Communities, 2023

Cree Coastal Communities							
Good category	Whapmagoostui	Chisasibi	Wemindji	Eastmain	Waskaganish	Coastal average	
Food and beverage	♦ 1.04	♦ 1.09	♦ 0.95	♦ 1.10	♦ 1.12	♦ 1.06	
Transport	♦ 1.33	♦ 0.92	♦ 1.19	♦ 1.00	♦ 0.98	♦ 1.09	
Communications	♦ 1.00	♦ 0.86	♦ 1.21	♦ 0.93	♦ 1.04	♦ 1.01	
Housing (2021)	♦ 1.19	♦ 0.90	♦ 0.92	♦ 0.70	♦ 1.11	♦ 0.96	
Cree Inland Communities							
Good category	Mistissini	Nemaska	Oujé-Bougoumou	Waswanipi	Inland Average	Cree average	Standard Deviation
Food and beverage	♦ 0.77	♦ 1.00	♦ 0.85	♦ 0.85	♦ 0.87	1.00	0.13
Transport	♦ 0.90	♦ 0.98	♦ 0.84	♦ 0.85	♦ 0.89	1.00	0.16
Communications	.	♦ 0.92	♦ 1.00	.	♦ 0.96	1.00	0.11
Housing (2021)	♦ 0.96	♦ 1.08	♦ 1.02	♦ 1.13	♦ 1.05	1.00	0.15
Jamesian and Abitibi Communities							
Good category	Chibougamau	Chapais	Jamesian Towns	Val-d'Or	Amos	Abitibi Towns	Cree average
Food and beverage	♦ 0.65	♦ 0.63	♦ 0.66	♦ 0.59	♦ 0.55	♦ 0.60	1.00
Transport	♦ 0.86	♦ 0.83	♦ 0.85	♦ 0.82	♦ 0.81	♦ 0.82	1.00
Communications	♦ 0.34	.	♦ 0.34	.	.	.	1.00
Housing (2021)	♦ 1.27	♦ 1.35	♦ 1.31	♦ 1.43	♦ 1.47	♦ 1.45	1.00

Note: Base index 1.00 = Cree average. If index is less than 1, the good is cheaper than the Cree average and if index is greater than 1, the good is more expensive than the Cree average. ♦ Prices higher than Cree average ♦ Prices lower than Cree average.

Source: Compilation from 2023 survey (food and beverage, transport, communications) and StatCan Census (2021) (housing).

Generally, food and beverage prices are 6% higher (index of 1.06) on average in coastal communities compared to the Cree average while they are lower by 13% (index of 0.87) on average in inland communities. It should be noted that the higher grocery prices reported in coastal communities may be the result of the sampling of the retailers. Indeed, in Waskaganish, the index was calculated from the prices in two stores, global prices being 10% lower than the Cree average in one grocery store (Smokey Hill) and 35% higher than the Cree average in the other grocery store (Northern) in the same community, resulting in an index of 1.12 for the community. However, in fact, people from Waskaganish can well buy their food and beverage for cheaper than the Cree average. This means that prices may differ greatly even within a community, regardless of the regional/national transportation network. Since in some other coastal communities where only one of the two local grocery store was investigated, it is possible that the higher prices reflect the higher prices of this specific retailer.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

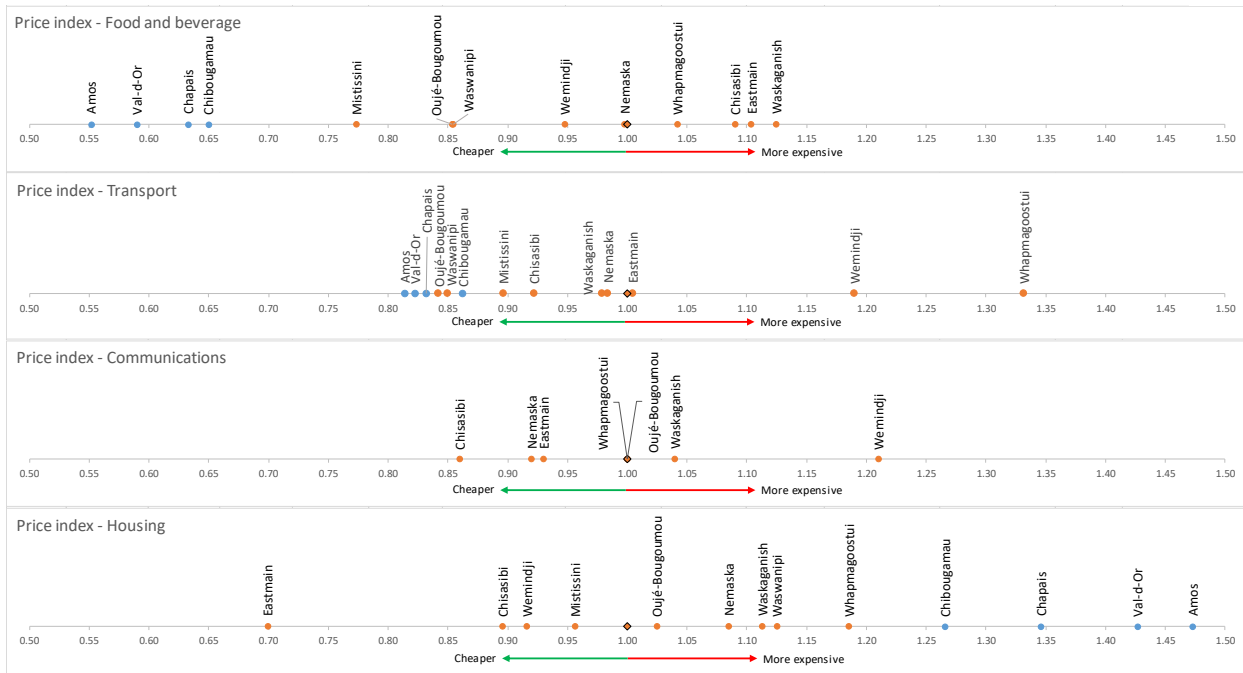


Figure 3-9 Price Index Scales, Cree, Jamesian and Abitibi Communities, 2023

In general, food and beverage prices vary greatly depending on the type of store. Recent studies on the prices of baskets of goods in supermarkets in Quebec show that there may be a significant difference among store categories, such as shown in Table 3-15. For example, between the budget and regular supermarket stores, the difference in prices may be as large as 13%-16%. This difference is lower (12%) when one considers the fidelity programs provided by the store chains and credit cards. The economies of scale in supermarkets and grocery chains allow for lower costs and consequently lower prices. The choice of product lines has a similar effect in price levels since the difference is 13% between budget and regular chains by choosing regular or national brands while this difference is reduced to 7% when selecting budget brands. This shows that beyond transport costs, several other factors determine the food and beverage price levels. These factors may explain the difference in prices between Cree inland communities and Jamesian towns. Note that the difference between Mistissini and Chibougamau is 17%, between Waswanipi-Oujé-Bougoumou and Chapais 29%.

Table 3-15 Prices of Grocery Basket of Goods, Quebec, 2022-2023

	Tremblay (2023)		Côté (2022)	
	Gross	With Fidelity Programs	Regular Brand	Budget Brand
Walmart	\$116.67	\$110.84	\$242	\$203
Maxi	\$120.39	\$114.37	\$250	\$203
Super C	\$121.21	\$115.16	\$247	\$201
Tigre Géant	\$126.40	\$120.08		
Provigo			\$280	\$223
IGA	\$137.48	\$120.13	\$282	\$243
Metro	\$151.47	\$140.73	\$286	\$237
Average budget chains	\$121.17	\$115.11	\$246	\$218
Average regular chains	\$144.48	\$130.43	\$283	\$234
Difference budget versus regular chains	-16.1%	-11.7%	-12.9%	-6.8%

Note: Côté (2022) and Tremblay (2023) baskets are not the same. Therefore, the prices of baskets are not comparable between Côté and Tremblay. *Compilation and calculation from Côté (2022) and Tremblay (2023).*

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Collette and Larivière (2010) collected prices in the grocery stores in the Cree communities. The price indices derived from these indices (still with base Cree average = 1.00) are presented in Table 3-16 and compared to those estimated in 2023. In general, the relative situation of inland communities has improved while the comparative prices have augmented in coastal communities. In 2010, prices were particularly high in Whapmagoostui and Nemaska.

Table 3-16 Food and Beverage Price Indices, Cree Communities, 2010 and 2023

Community	2010	2023	Difference 2023 versus 2010
Whapmagoostui	♦ 1,18	♦ 1,04	-0,14
Chisasibi	♦ 1,01	♦ 1,09	+0,08
Wemindji	♦ 0,92	♦ 0,95	+0,02
Eastmain	♦ 0,90	♦ 1,10	+0,21
Waskaganish	♦ 0,94	♦ 1,12	+0,19
Nemaska	♦ 1,13	♦ 1,00	-0,13
Mistissini	♦ 0,89	♦ 0,77	-0,12
Oujé-Bougoumou		♦ 0,85	
Waswanipi	♦ 0,92	♦ 0,85	-0,06

♦ Prices higher than Cree average ♦ Prices lower than Cree average.

Source: Compilation and calculation from 2023 survey and StatCan (2021) and Collette and Larivière (2010).

Typically, it's anticipated that enhanced transportation systems, improving logistics and the volume of goods transported, would notably lower the cost of living. However, various factors influence prices of goods, such as current retail structure, it is very difficult to accurately predict the effects of the infrastructure for the end user/consumer. But a better transportation network will at least secure a better supply of goods. Plus, the improvement of the Route du Nord contributes to shorten distribution routes to Nemaska and northern coastal communities. The impact of the extension of the road to Whapmagoostui would be greater since it should reduce transportation costs and help diversify the available products.

The transport price index is based on gasoline prices. Gasoline prices are also 9% higher on average in coastal communities and 11% lower in inland communities, compared to the Cree average. They are especially high in Wemindji and Whapmagoostui. Gasoline prices seem to follow a rather regular pattern in which the more northern the more expensive it is: price index of 0.82 in Abitibi, 0.85 in Chibougamau-Waswanipi, 0.90 in Mistissini, 0.99 in Nemaska-Eastmain-Waskaganish, 1.19 in Wemindji, and 1.33 in Whapmagoostui. The noticeable exception is Chisasibi (0.92) where the presence of an oil product depot may explain the lower local price. Thus, distance seems to be a factor that affect gasoline prices. The proposed LGA railway infrastructure could reduce the cost of oil products transportation, as during the market survey regional suppliers stated that they could use such an infrastructure for oil products.

Beyond the impact on the price of oil products, the construction of a road to Waskaganish would reduce the overall transportation costs, as estimated in the benefit cost analysis of LGA preliminary studies (WSP, 2023c) and reported in section 4. The transportation savings are estimated at \$320 per capita for freight and \$912 per capita for passenger journeys for Whapmagoostui (see section 4.5). Given the low passenger traffic that Faiwas forecasted in LGA market study (VEI-WSP, 2023), no significant transportation savings are expected from the extension of the railway up to Whapmagoostui.

Monthly rents of the band dwellings are lower by 4% on average in coastal communities compared to the Cree average. It is important to keep in mind that rent is charged on community-owned housing based on a social housing model, such that rent rates are prorated according to income levels and in many cases mainly highly subsidized. Rent prices are higher in Whapmagoostui and Waskaganish. This might be caused by higher housing construction costs, because of the transportation costs in a remote area in the first case and due to soil related issues in the latter case. Since dwellings are only offered on the private market in Jamesian communities, the rents were 20% lower in Cree inland communities compared to Chibougamau-Chapais.

3.7.2 HOUSEHOLD EXPENDITURES

The selected responses from the CIO cost of living survey offer a glimpse into the financial habits and challenges faced by the general population, shedding light on various aspects of daily life. Although the response rate (7) is very low and not statistically significant, some results might be indicative. Appendix H provides the detailed results.

Among these, childcare expenses emerge as a significant concern, with households reportedly spending between \$2,800 and \$3,600 annually. Such expenses, if accurate, represent a considerable burden on families, highlighting the need for affordable childcare options to alleviate financial strain.

Furthermore, the survey touches upon the concept of gift economy prevalent among Cree communities, wherein annual contributions towards gifts, donations, and fundraising activities range from \$1,200 to \$3,600. This tradition underscores the strong sense of community and mutual support within Cree family groups and broader society, despite the financial implications.

Another notable aspect revealed by the survey is the cost associated with traditional activities, such as hunting, fishing, and cultural pursuits, which range from \$6,000 to \$15,000 annually. This highlights the significant financial investment required for maintaining a lifestyle rooted in the land, raising concerns about access to traditional practices amidst economic hardship. While ESP provides support to those heavily involved in land-based activities, such assistance may not be accessible to all community members, particularly those with jobs in urban areas who still desire greater engagement with traditional practices.

The survey also addresses the financial constraints faced in other essential areas, such as clothing and healthcare. Clothing expenses vary widely, from as little as \$100 to over \$3,000 per year, underscoring the impact of poverty on individuals' ability to afford necessities. Similarly, non-insured healthcare costs, including dental care and prescription glasses, range from \$300 to \$5,000 annually, posing challenges for individuals to access essential medical services. Despite the potential coverage for certain healthcare needs through the health care system, affordability remains a significant determinant of timely access to care.

Additionally, the survey highlights the limited availability of essential amenities in Cree communities, such as construction materials retailers, pharmacies, and specialty stores. This scarcity underscores the importance of enhancing local infrastructure to meet community needs and reduce dependency on external sources. Moreover, the preference for shopping in nearby Abitibi towns over Montreal and online options suggests a desire for more accessible and localized retail options tailored to community preferences. Overall, these survey responses provide valuable insights into the financial realities and aspirations of Cree communities, emphasizing the importance of addressing economic challenges to ensure the well-being and prosperity of all community members.

In relation to local prices and household expenditures, we suggest:

- Implement a basket of goods price follow-up and household expenditure program.
- Support the implementation of retail and local services in communities.
- Enhance local buying purchasing by awareness campaigns and other means.

3.7.3 CASE STUDIES AND PRICING FACTORS

Cost of living studies done in the Schefferville region, in Nunavik, and in Whapmagoostui shed light on the critical role of transportation costs in the cost-of-living of remote communities. The Schefferville study highlighted substantial price discrepancies for a food basket compared to Sept-Îles and Quebec City, with freight costs accounting for a significant portion of supplier expenses. The Schefferville study gives an idea of the significance of rail freight and transshipment costs, and the impact of logistics, on consumer prices. Each of the reviewed studies discusses the challenges faced by businesses and public services due to higher operating costs associated with transportation.

Whapmagoostui, as an isolated community, faced significant freight costs affecting food, fuel, and construction material prices. Although benefiting from some food price subsidies, the community still grappled with higher living costs compared to other Cree communities. Challenges in transportation infrastructure and energy costs contributed to the overall higher cost-of-living, emphasizing the importance of efficient supply chains and logistics management.

Some of the studies looked at the impact of various subsidies on food prices. In Nunavik, for example, federal and territorial subsidies are effective in reducing grocery price differentials with the study's benchmark (Quebec City). However, challenges in robust price data collection were noted, highlighting the need for improved monitoring mechanisms to assess the actual cost-of-living impact more accurately. High expenditures on food and shelter in Nunavik, coupled with transportation costs, underscored the complex dynamics influencing household expenses in the region, and the need for better data to fully understand those dynamics.

The reviewed studies reinforce the main challenge of remote communities in terms of cost of living. Transportation costs are a key pricing factor influencing the cost-of-living in remote regions. Addressing supply chain distortions, investing in efficient transport infrastructure, and exploring additional subsidies or grants were recommended strategies to mitigate the disadvantages stemming from remoteness. The impact of high transportation and fuel costs on the overall cost-of-living in these communities was highlighted as a central component to address.

A more detailed review of this research is presented in Annex I.

3.7.4 TRADITIONAL HARVESTING, HERITAGE, AND GIFT ECONOMY

It is not possible to find any data related to the value of traditional land-based economy, harvesting or gift economy. We did a survey that returned only seven responses, but responses illustrate what CIOs perceive to be the financial habits of the general population for items not included in our price index and the annual contributions towards gifts, donations, and fundraising activities range between \$1200 and \$3600. Cree have a strong practice of sharing within their family groups, and with the community. For example, a few people can go on hunting and bringing back dozens of caribou to be share in the community. But such action is hard to measure or quantify and no study has ever looked at the dynamics of such activities. Marchand (1994) provides a very useful portrait of the early days of JBNQA and the ISP (now ESP). Traditional activities on the land have always been very important for the Crees although there is a decrease over time as seen in the ESP numbers.

Marchand (1994) states that the primary sector of the Cree economy is and has always been dominated by traditional activities. To a certain extent, this continues to be the case. The signing of the Paix des Braves in 2002 had an important impact on this dynamic, making Marchand's assessment out-dated. Nevertheless, the tertiary sector remains the most important sector in the Cree wage economy since it is the main source of salaried employment and is also the sector in which Cree businesses are most developed. Public services are the main employers, broken down as follows: (1) working for one of the three levels of government, including committees and short-term hiring and (2) health services, social services, and education, which have developed considerably since the Crees took control of these services following the JBNQA. It is important to note that although these services are major employers for the Crees, many specialized jobs are still filled by non-natives.

In summary, Marchand shows that land-based economic activity should continue to grow even as the Cree economy develops. The historic and cultural importance of land-based economic activity should guarantee that a stable number of people will remain in "traditional" land-based activities. The ESP (formerly ISP), combined with ongoing Cree knowledge transmission through family involvement in traplines, should ensure the continuity of the land-based economy.

Péloquin (2012) notes that a decline in hunting success by Wemindji hunters. The reason for this decline is due to multiple "behavioural factors" of both geese and hunters. Behavioural changes are associated with changes in the territory and global climate change, and with fluctuations in other animal populations. Socio-cultural changes, in turn, influence resource harvesting patterns.

In part, changes in hunter behaviour are simultaneously the cause and consequence of the low profitability of the hunt. The changes in geese behaviour led hunters to neglect the customary "rules" that ensure the viability of the

hunt. A vicious circle is thus initiated: the abandonment of ancestral hunting practices frightens the geese, making the situation even worse (Péloquin, 2012).

To compensate for the decline in hunting efficiency, some people wait patiently for conditions to improve, and continue to readjust and perfect their practices. Changing the timing, alternating hunting sites, creating small dykes or other works to improve goose habitats or changing hunting areas are some of the readjustments observed – something that is facilitated by access road to Wemindji. These adjustments are viewed as an effective and inexpensive way to deal with the changes that are taking place (Péloquin, 2012).

In summary, the literature, and data available to address the crucial topic of land-based economy, particularly concerning harvesting, heritage, and gift economy perspectives, are limited. Harvesting from the land holds significant importance, yet it is not adequately documented or quantified. Harvesting activities are seasonal, as indicated by the seasonal calendar provided by the CTA that illustrates year-round harvests of various meats and berries. Only fish is year-round. This harvest substantially contributes to the food supply for Crees, particularly older generations, for whom traditional foods hold significant dietary importance, often associated with better health outcomes compared to store-bought alternatives. According to surveys conducted in 2005, 2008, 2010, and 2012, most respondents reported consuming traditional foods regularly, with only a negligible percentage indicating otherwise (HQ Production, 2015). An analysis reveals that individuals over 45 are more likely to consume traditional foods daily, while younger age groups tend to consume them on special occasions.

Although harvesting from the land incurs costs, it ultimately saves money for average Crees, particularly for participants in the ESP who engage more frequently in hunting, fishing, and berry picking. CTA programs assist in offsetting these costs by providing funding for gas and groceries. Furthermore, the practice of sharing harvested resources with the community perpetuates Cree heritage, embodying a form of gift economy among Crees. Similarly, the sharing of traditional medicinal knowledge and spiritual practices associated with the land underscores the enduring significance of Cree heritage among families and communities. However, these aspects remain underexplored and insufficiently documented.

Discussions with the CTA reveal that important aspects of traditional land-based practices are underdeveloped, under-researched, and lack proper measurement. It is challenging to predict precisely how LGA will impact traditional land-based activities such as harvesting, although new roads could potentially improve access to the land for traplines, allowing more frequent activities and longer stays of families on those traplines. However, these roads also raise concerns about poaching and unauthorized construction of cabins by non-native individuals. Additionally, it is difficult to differentiate the effects of climate change from those of LGA infrastructure. Moving forward, it will be crucial for the Cree Nation to thoroughly document these issues, as they are just as significant for Cree livelihoods as more conventional economic activities. Despite the introduction of modern tools and adaptations for land access and resource extraction, the deep connection with the land remains fundamental to Cree identity, heritage, and well-being.

4 WHAPMAGOOSTUI

4.1 CONTEXT

Meaning "place of the beluga", Whapmagoostui is the northernmost Cree community and the only one located on the shores of Hudson Bay in Nunavik. The Cree have hunted and fished along the Hudson Bay coast long before the arrival of Europeans. It should also be noted that a trading post (Whale River House) was established as early as 1752 at the mouth of the Little Whale River, before it was replaced by the Great Whale River House, 100 km further south at the mouth of the Great Whale River in 1820 when a trading post was built by the Hudson's Bay Company. This trading post was called Whale River House and Whale House. Protestant and Catholic missions settled there in the 1880s. In 1895, a weather station was set up by the Federal Government (WFN, n.d.).

In 1940 the Cree were enforced to give up their nomadic way of life when the American army opened a military air base here and soon after, in 1941, the Hudson's Bay Company post closed. After the World War II ended in 1948, the military base was transferred to the Canadian government. And in 1955, it began operating a Mid-Canada Line radar station. Though the radar station was not operational for long and closed in 1965, it established the village permanently (WFN, n.d.). The Cree village was officially named Whapmagoostui in 1986 (WSP, 2023a).



Credit: Julie Roy, WSP.

Figure 4-1 Hudson Bay shore Inuksuk, Whapmagoostui

Located at the mouth of the Great Whale River, this community is unique, being part Cree and part Inuit, the latter community being Kuujjuarapik. Whapmagoostui counts over 1,000 inhabitants, but considering their Inuit neighbours, the overall population reaches 1,700 inhabitants. Although the permanent cohabitation of Inuit and Cree only goes back to 1950, the two nations were rubbing shoulders in the area for a very long time, with the Inuit close to the coast and the Cree more in the interior (Whapmagoostui, 2023).

Whapmagoostui is about 250 km (160 mi) north of the nearest Cree village, Chisasibi. However, since it is isolated from the Eeyou Istchee road network, the community is accessible only by air (Kuujjuarapik Airport) and, in late summer, by boat. It is about a three-hour direct flight to the Montreal International Airport, while sea travel is usually used only for freight shipment purposes.

As shown in Figure 4-3, the territory is divided into 26 different traplines. Whapmagoostui has 26 traplines extending approximately 400 km east from Hudson Bay, which are managed by tallymen and used by their extended family as well as other community members. Whapmagoostui's lands are characterized by many wetlands, elongated lakes, and rivers, and two Protected Areas, namely Lac-Burton-Rivière-Roggan-et-la-Pointe-Louis-XIV, which are in the center of Whapmagoostui's lands. The Rivière-Kanaawpscow-et-Lac-Kukamaw reserve is in the south and is divided into three distinct blocks. Today, the local economy still depends on traditional activities, though land users' utilization of motorized equipment and machines is growing.

The LGA infrastructure of interest for Whapmagoostui include:

- The BDH extension to Whapmagoostui/Kuujjuarapik enhance the interconnectivity with Cree communities.
- The BDH rail extension, Phase III (from the junction with the Phase II railway alignment at La Grande).
- A seasonal harbour along the Whapmagoostui /Kuujjuarapik coastline between the Great Whale River's mouth and the entrance of the Manitounuk Strait to address existing climate changes issues that complicate freight delivery (high winds and sedimentation induced by land slides higher occurrences).



Credit: Julie Roy, WSP

Figure 4-2 Hudson Bay shore, North of Whapmagoostui

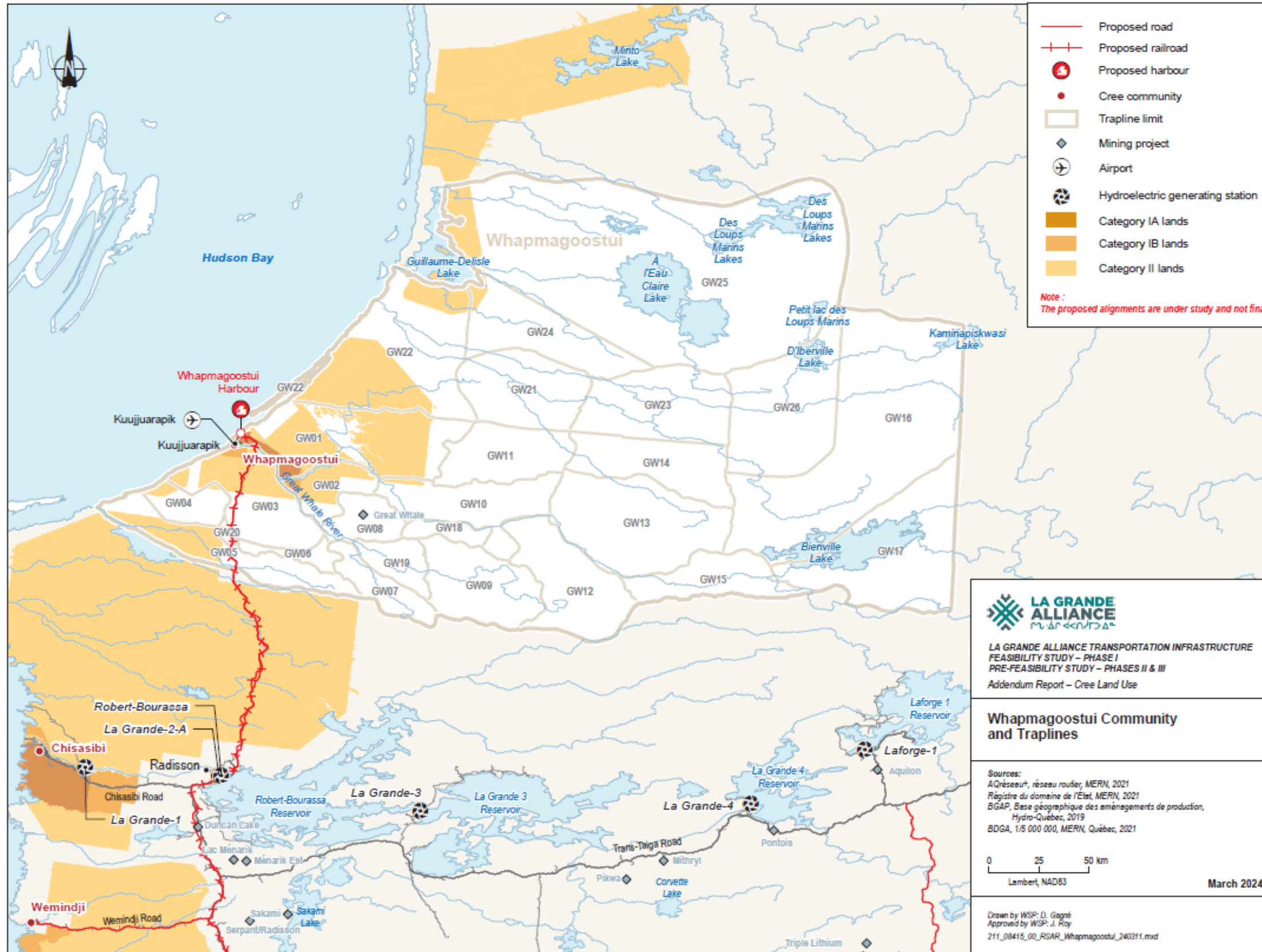


Figure 4-3 Whapmagoostui Community and Traplines

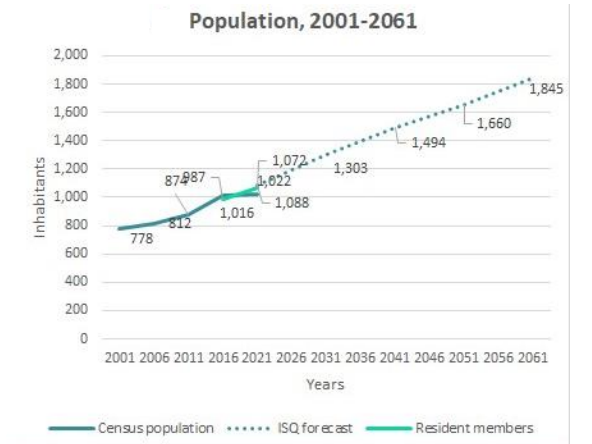
4.2 INDICATORS

The main characteristics of the population living in the community of Whapmagoostui are presented below. Note that the data shown represents the 2021 situation as per the StatCan Census data unless otherwise specified.

Population

The population of Whapmagoostui amounts to 1,022 inhabitants as of the 2021 Census. Over the past 20 years, according to the StatCan Census, the population has experienced a 31% increase or a CAGR of 1.3% per year, which is lower than the Cree average figure of 1.8%.

According to ISQ (2021) forecasts, the population would reach 1,494 people by 2041 and 1,845 people by 2061. This means the annual increase in population of the community (0.1%) is projected to be slower than the Cree average (1.1%)



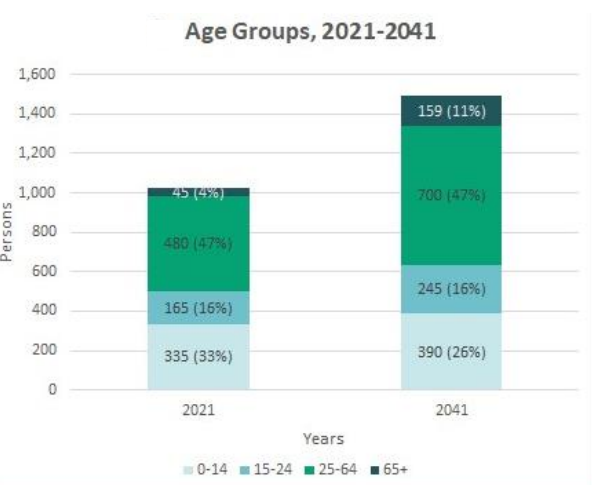
	Whapmagoostui	Crees
Annual population growth (2001-21)	1.3%	1.8%
Annual population growth (2021-41)	0.1%	1.1%
Non-resident members (2021)	2 (0.2%)	1.7%

Source (Members): CHESB (2022).

Age structure

Like all other Cree communities, the Whapmagoostui population is young, with 50% aged less than 25 years old in 2021. Recent growth (2016-2021) is a result of a large number of newborns (115) over this five-year period, accounting for approximately 11.3% of the total population. About 70 persons immigrated to the community during the same period, accounting for 6.8% of the total population. While the natural growth of the population is expected to higher than the Cree average (11.3% vs. 9.3%), immigration is relatively lower (6.8% vs. 10.4%).

Until 2041, like in other Cree communities, the youngest group (0 to 14 years old) should remain constant or decrease slightly in numbers while the group in the working age (15 to 24 and 25 to 64 years old) should grow at approximately the same rate as the total population and thus, their proportions should remain stable. The population is predicted to get older on average, with the number of seniors aged 65 years and older will go from 45 people to 159 people. The demographic dependency ratio would remain similar, although there would be fewer young people and more seniors.



(2016-2021)	Whapmagoostui	Crees
Births	115 (11.3%)	1710 (9.3%)
Incomers	70 (6.8%)	1900 (10.4%)
Deaths and out-migrants	179 (17.5%)	2480 (13.5%)

Source: 2041: ISQ.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

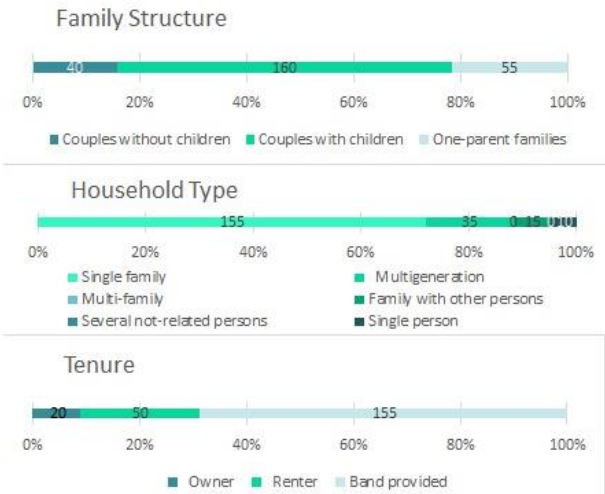
Families, households, and dwellings

Out of the 255 families in the community, 160 (63%) are composed of couples with children and 55 (22%) are families led by a single parent. The dominant household type in the community is the single-family setup, making up nearly 72% of the households. This showcases the family-oriented structure of the Whapmagoostui community. The remaining households are either multi-family, several non-related persons, or single persons.

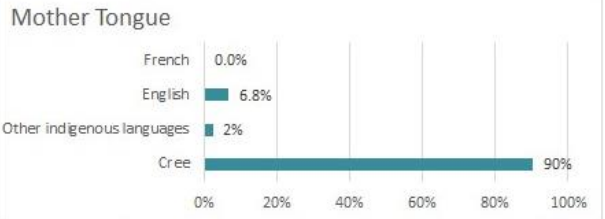
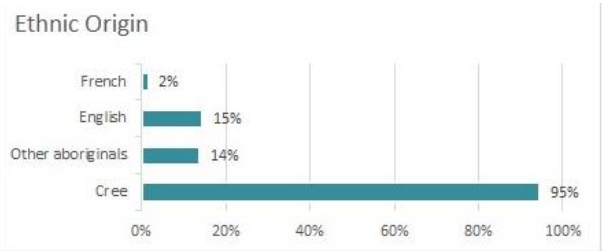
Out of the 255 dwellings in Whapmagoostui, the vast majority (72%) are band-provided, while 23% are rented, and 9% are owned. Additionally, 22% of those dwellings are overcrowded, and 49% of dwellings require major repairs. This is higher than the Cree average, and significantly higher than in Jamesian towns.

Ethnicity and Language

The population of Whapmagoostui is predominantly Cree (96%). Nearly the entirety (90%) uses the Cree language as their mother tongue; in comparison, only 7% uses English and 2% uses other languages. The number of Cree- and English-speaking individuals has increased slightly within the community over the past decade. Notably, a significant portion of the population is bilingual.



	Whapmagoostui	Crees
% overcrowded dwellings	22%	15%
% dwellings with major repairs needed	49%	24%

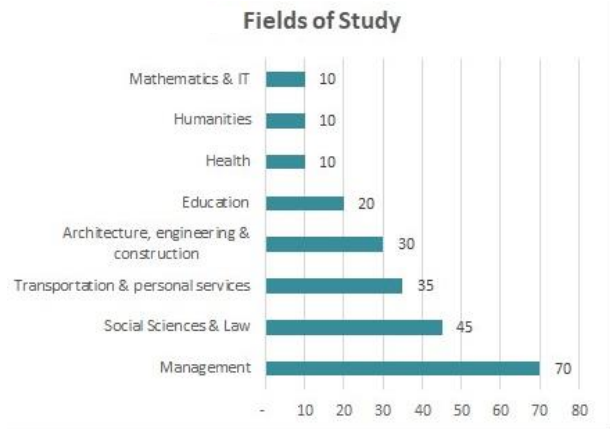
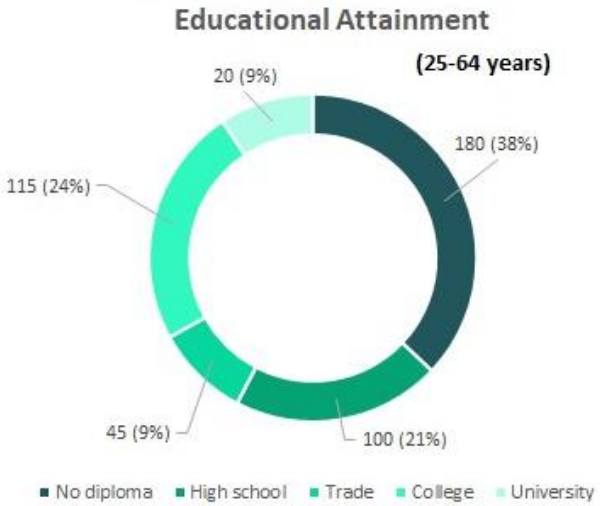


Knowledge of Languages	2011	2021
Cree	92%	96%
English	93%	96%
French	8%	3%

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Education

Almost two-thirds (62%) of the population aged 15 to 64 years old has at least a high school diploma, which is lower than the Jamesian figure (75%) and the provincial average (88%). The educational profile of Whapmagoostui is similar to the Cree average. Among the one-third (33%) of the Whapmagoostui people who have higher education (CEGEP or university), the fields of Management, Social Sciences & Law, and Transportation & Personal Services are the most predominant. This rate of higher education is comparable to the Cree and Jamesian averages, but significantly lower than the one observed for Quebec (52%).



Land

The combined 1A and 1B land categories amount to 312 km². The Whapmagoostui territory includes 26 traplines covering 67,327 km². The current percentage of ESP recipients in Whapmagoostui (16%) remains higher than the Cree average (14%). However, over the span of 2014 to 2022, the decreasing trend in the share of traditional hunters is more pronounced in Whapmagoostui (-16%) than in other Cree communities.



	Category 1A	Category 1B	Traplines
Land area (km ²)	191	121	67,327
	Whapmagoostui		Crees
Nb/% beneficiaries on ESP Program	169 (16%)		14.3%
Avg. annual ESP unit allowance (21-22)	\$ 22,490	\$ 18,580	

Source: 1. Traplines: CMEB (2022). 2. ESP: CHESB (2022).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Labour Market

Whapmagoostui’s labour market participation and employment rate (55% and 48%, respectively, in 2021) are lower than the Cree averages (61% and 56%, respectively), and lower than the Quebec average (64% and 59%, respectively). As participation and employment rates remained rather stable over the last 20 years, with Whapmagoostui’s participation and employment rates around five percentage points lower than the Cree average, and around five percentage points lower than the Quebec average. Whapmagoostui is the community with the second highest concentration of permanent jobs (80%) among all Cree communities (73% average), behind Oujé-Bougoumou (81%).

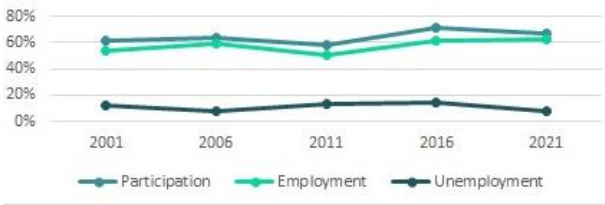
Evolution of Employment

According to the Census, an estimated 640 persons worked within the community since 2016. The participation and employment rates have remained relatively steady over the last 20 years. Several economic sectors have experienced growth over this period, with education and retail and services seeing the most significant increase. The public administration sector and the healthcare sector employ the largest portion, accounting for about 27% of the working-age population.

Economic Activities

According to the employer consolidated database, public employers, which include public administration, and healthcare and social services, account for the highest number of jobs (250 or 54% of local employment) which, combined with education and retail, provides 330 jobs or 72% of community employment in Whapmagoostui (SPN, 2023). In the private sector, the accommodation and food service sector employ 20 workers.

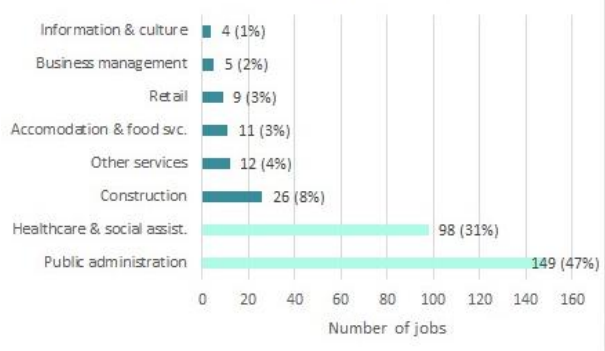
Labor Rates



Class of Worker



Economic Activities (2023)



Source: DCI-EDO (2023a) and SPN (2023).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Main Employers

Following the local economic structure, the main employers are public entities. Main businesses include the Whapmakw and Minheku construction companies and Whapmagoostui Entrepôt.

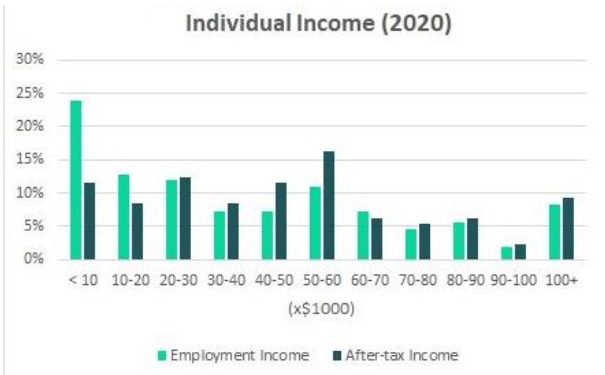
Business name	Activity	Jobs
CBHSSIB (Whap.)	Healthcare & social assist.	97
Whapmagoostui First Nation	Public administration	70
Fire dept (Whap.)	Public administration	44
Whapmagoostui Cree Nation	Public administration	30
Whapmakw Construction	Construction	12
Minheku Construction	Construction	11
Kawapit Chipstand	Accomodation & food svc.	11
Whapmagoostui Storage	Other services	10
Whalemart	Retail	7
E.E. Dev. Corp. (Whap.)	Business management	5
Large sector		% jobs
Public Sector		77%
Private Sector		23%
Total		Jobs
		320

Compilation from DCI-EDO (2023a) and SPN (2023).

Income

Overall, the median and average employment income in Whapmagoostui were estimated to be \$38,000 and \$35,600, respectively. The median was slightly above that of the Cree aggregate of \$36,300, while the average was below (\$35,600 vs. 38,900). This means that Whapmagoostui has a higher percentage of workers earning a high income from employment than other Cree communities.

More than a quarter (27%) of households receive government transfer income. This places Whapmagoostui at 0.40 on the market income Gini index, indicating a level of income within the community comparable to the Cree population score (0.39) but higher than the Matagami score (0.25).



Individual income (2019)	Whapmagoostui	Crees
Median total income	\$ 38,000	\$ 36,300
Average employment income	\$ 35,600	\$ 38,900
Average after-tax income	\$ 41,600	\$ 41,300
Household income (2019)		
% of government transfers in income	27%	24%
Prevalence of low income	6%	5%
Gini index, market income	0.40	0.39

4.3 ECONOMIC OPPORTUNITIES

4.3.1 ENTREPRENEURSHIP/DIVERSIFICATION

Whapmagoostui is not a diversified economy and is highly dependent on the public sector (public administration, health care and social assistance, and education). There is a small number of businesses providing services, with only 25 employers and organizations employing about 320 people for their activities. The public sector employs 248 workers, thus accounting for approximately 76% of the total local employment (Table 4-1). The majority of workers are employed by top employers, including the Cree Board of Health and Social Services, the Whapmagoostui First Nation, the Cree School Board, and the CNG. As a comparison, jobs in these combined sectors account for about 61% of Jamesian employment and 71% Quebec employment.

When excluding the public sector, 18 private businesses operating within the community create 72 jobs, accounting for 24% of the local employment. They are in the following sectors for which information was made available from the workshop sessions.

Table 4-1 Employment per Sector, Whapmagoostui, 2023

Sector	Number of businesses	Number of jobs	% jobs
Public administration	4	149	46.6%
Health care and social assistance	2	98	30.6%
Construction	5	26	8.1%
Other services	3	12	3.8%
Accommodation and food services	1	11	3.4%
Retail	2	9	2.8%
Corporate & Business Management	1	5	1.6%
Information and cultural industry	1	4	1.3%
Arts, entertainment, and recreation	2	2	0.6%
Finance and insurance	1	1	0.3%
Professional, scientific, and technical services	1	1	0.3%
Educational services	1	1	0.3%
Utilities	1	1	0.3%
TOTAL	25	320	100%
Education, health, public administration	7	248	75.7
Other sectors	18	72	24.3

Note: There were no businesses or jobs recorded in the following sectors: manufacturing; wholesale trade; transportation, real estate, support services, agriculture, and mining.

Note: Due to missing data on employment for a certain number of businesses, a minimum of one employee per firm was supposed as a hypothesis. Therefore, the actual employment could be higher than estimated Table 4-1.

Sources: Processed from DCI (2023a), SPN (2023) and EDOS

Construction: led by Minheku Construction, employing 26 employees and accounting for about 8.1% of the total employment.

Accommodation, food services, and retail: The two main grocery and retail stores, the Northern and Great Whale River Co-op, and the main hotel, Hôtel de la Coopérative, are in Kuujuarapik. Both the single restaurant, Airport restaurant, and the two bars are in Kuujuarapik. Regarding Whapmagoostui, the smaller food and beverage store Whale-Mart open in 2015 has just recently closed. In addition, the Laval University Nordic Research Centre offers

some external accommodations services for visitors. Although the community is not linked to the provincial transportation network, lots of SUV and pick-up trucks are present on the local road network (CBC, 2023). Fuel is provided by and the only one gas station owned by the Fédération des coopératives du Nouveau-Québec located in the neighbouring Inuit community of Kuujjuarapik. Whapmagoostui First Nation is currently planning a band-owned gas station planned to be located on category 1A lands. Although the community is not linked to the provincial transportation network, lots of SUV and pick-up trucks are present on the local road network (CBC, 2023).

Utilities: Whapmagoostui and Kuujjuarapik have been collaborating to develop wind power energy, which laid the foundation for the Kuujjuarapik-Whapmagoostui Renewable Energy Corporation. This corporation has been developing the Whapmagoostui Kuujjuarapik Hybrid Power Plant Project since 2011, to reduce the dependency on oil as the only energy source and bring their communities, struggling with climate changes, to a cleaner source of power and heat (Bell, 2022). As of January 2024, construction has begun on an access road to the project site. This is an indicator of a change in Whapmagoostui’s economy structure towards a higher profitable business which would create high paying jobs.

Other sectors: The remaining businesses are relatively small and operate in a limited number of sectors for which no information was made available.

Overall, only 31% of the population works in the wage economy, while the remaining 69% depends on the help of family members or other sources of income such as government subsidies or the subsistence economy (e.g., hunting and fishing). Several economic sectors are not represented at all, including, but not limited, to manufacturing, wholesale, and transportation. No businesses exist in the real estate sector, which is usually highly profitable, and not a single person from the community works in the mining sector, which usually pays high salaries (see Appendix A).

According to the discussion with Whapmagoostui CIOs and EDOs during the focus group and the workshop, the organization of the territory has historically been driven by the needs of external governmental or economic interests, from fur trade to military installations. Cree have always been reactive to any development on their lands which is often planned or realized without consultation of the Cree people (EDOs, 2023).

Business Projects or Potentials. From the CIO and EDO’s perspective and work, the aspirational projects (requests for funding, market studies, or business plans) in the community include:

- | | |
|---|--|
| <ul style="list-style-type: none"> – Local convenience and grocery store – Tourism products – Land based health centers – Energy production – Garage services including heavy equipment servicing – Security company – Audio visual productions – Arts center – Petroleum services – Aircraft company – Transport – land and sea | <ul style="list-style-type: none"> – Storage facilities – Food production – Fish processing – Non timber forest product (NTFP) company – World class education facilities – IT and technical services companies – Eco-recycle services – Traditional Technology company – 3D printshops – 3D manufacturing of residences – Greenhouse project |
|---|--|

Nevertheless, several factors limit business development such as the continued geographic isolation due to lack of road connection to the provincial network, the resulting higher cost of living, as well as high turnover and a small workforce. In this context, LGA infrastructure could bring important benefits to the community, which along with potential impacts, are explored in the following section.

4.3.2 EFFECTS OF LGA ON LOCAL ECONOMY

4.3.2.1 BUSINESS OPPORTUNITIES

The Whapmagoostui representatives consider the road extension from La Grande to their community as well as the seasonal harbour to be the most relevant LGA proposed infrastructure to their community. Based on a preliminary meeting held in August with the Northern Village of Kuujjuarapik, Inuit representatives appear to be in favour of those same two proposed infrastructures. The proposed Phase III rail extension has not been discussed in detail since it had been deemed non-economically viable within the 30 years study horizon of the preliminary LGA studies.

The advantage of having the proposed road extension from La Grande to Whapmagoostui/Kuujjuarapik is that it would reduce dependency on air and sea transportation by increasing transportation flexibility and interconnectivity with the rest of the Eeyou Istchee. A reduction in the cost of transportation of goods to the community constitutes an expectation or a hope, as demand for goods is increasing along with the population. In addition, the road component would improve access to the traplines located between Whapmagoostui and Chisasibi.

The advantage of having the proposed seasonal harbor along the Kuujjuarapik coastline is that it would address some of the climate change impacts that the community is already facing. Unloading large ships is getting harder and sometimes is impossible, as the wind conditions and the natural beach currently used as a harbor are at risk of becoming nonfunctional. In addition, the river currently carries sediment from the upstream landslides, which reduces the water depth at the beach location. EDOs expressed their concern about the future if nothing is changed. The Inuit and Makivik Corporation are also studying and monitoring this situation.

Whapmagoostui has long been in partnership with Kuujjuarapik. LGA, combined with strong leadership support, would tighten this existing partnership, and create new opportunities with non-natives in the development of Category III lands.

Business opportunities with LGA transportation infrastructure could include:

- Addressing the climate changes risk and impacts, the proposed road and new harbour would secure the supply of goods and services to a more affordable cost. This would improve the supply chain for the entirely local region as well as the northern Nunavik region.
- Local businesses could play a role in the proposed infrastructure planification and construction as well as services related to construction, monitoring (i.e., using drones), maintenance, and upgrading of infrastructure.
- Once the infrastructure built, the transportation sector itself would firstly be developed at a very fast pace due to higher travel demand. It is expected that car dealers, gas stations and/or electric vehicle charging stations, private transportation services like Uber or buses, and related services such as garages and towing services would be developed.
- The construction sector within the community is expected to expand with the shipment of heavy equipment being facilitated with the proposed road and harbour especially considering the current lack of housing for both Whapmagoostui and Kuujjuarapik residents.
- The proposed road and harbour can generate access to the market for maintenance, gasoline stations, and other spinoffs that directly impact local economies. This would improve the supply chain for the entirely region.
- Ultimately, by reducing the risk and cost related to transportation, the proposed road and harbour can facilitate the current community's aspirational projects related to tourism (hotels, restaurants, land-based health centers, educational and research centers), goods handling (storage facilities, food production, greenhouses, fish processing).

4.3.2.2 JCIM RESULTS

Based on the JCIM results presented in Section 3.5.4, job creation benefits and contracts received were broken down per phase for both the construction period and beyond it. LGA proposed infrastructure could provide several employment opportunities, both in the construction and operation phases. This includes integrating local entrepreneurs into various roles to bring further economic benefit to Whapmagoostui businesses and workforce.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Indeed, Whapmagoostui could obtain a total of \$426M in contracts during the construction period from 2030 to 2044. The results of the job creation estimation were that a total of 2,396 FTE jobs will be created in all three phases of the construction. On an annual basis, Whapmagoostui entrepreneurs would be awarded \$33M in contracts during the construction period, and 184 FTE jobs would be created for the community.

During the operation period starting from 2035, Whapmagoostui would not participate in the first five years due to its long distance to Phase I infrastructure. Only when the construction of an access road to the community is completed (projected in 2040 based on current timelines) because of Phase II infrastructure, Whapmagoostui entrepreneurs would start participating in the operation and maintenance work. They could potentially obtain \$1M of contracts by 2040, and then \$1.8M by 2045. Note that this \$1.8M figure is a cumulative amount that considers both Phase II and Phase III infrastructure. It represents indirect contracts only. The job creation benefits for the community represent however both direct and indirect employment, with 19 FTE jobs estimated starting from 2040 and 16 FTE jobs added as of 2045 to attain a total of 35 FTE jobs per year.

In total, the job creation benefits for Whapmagoostui account for about 6% of the total jobs created during the construction period and 4.4% during the operation period across the portfolio of Cree communities. Note that this reflects its current capacity and remoteness as compared to other Cree communities. The results could be changed if targets set forth in the projects.

Table 4-2 JCIM Results per LGA Phase, Whapmagoostui

Impacts	Construction		Operation	
	Lifespan (2030-2044)	Annual Average	Lifespan (30 years)	Annual Average
Contracts (M\$)				
Phase I	186	37		
Phase II	135	22	30	1.0
Phase III	106	18	24	0.8
Total	426	33^a	55	1.8
Employment (persons-years)				
Phase I	1,045	209		
Phase II	757	126	578	19
Phase III	594	99	470	16
Total	2,396	184^b	1,049	35

Notes: a & b – the annual average figure was calculated by dividing the total amount of contracts (or employment) by the number of years from 2030 to 2044 (15 years of construction).

4.3.2.3 LONG-TERM SUSTAINABILITY

Based on the JCIM and the GDP data presented in Section 2.4.3, long-term sustainability brought by the LGA was also calculated for the community. With increased participation of Whapmagoostui workers in the construction sector, the local economy is expected to boom during the construction period of the LGA infrastructure. This latter would allow the standard of living of Whapmagoostui residents increased by 69.3% in 2032, the peak year of the construction period, from \$26,278 to \$44,476. When the construction period is over, the impact of LGA would be narrowed to 6.4% by 2045, and 4.5% by 2074. This reflects the increase brought by the maintenance and operation of the LGA infrastructure only. It does not capture any benefits brought by the development of the community in other sectors such as mining, energy, utilities, transport, and tourism, to name a few potential sectors as mentioned by the community’s EDOS.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

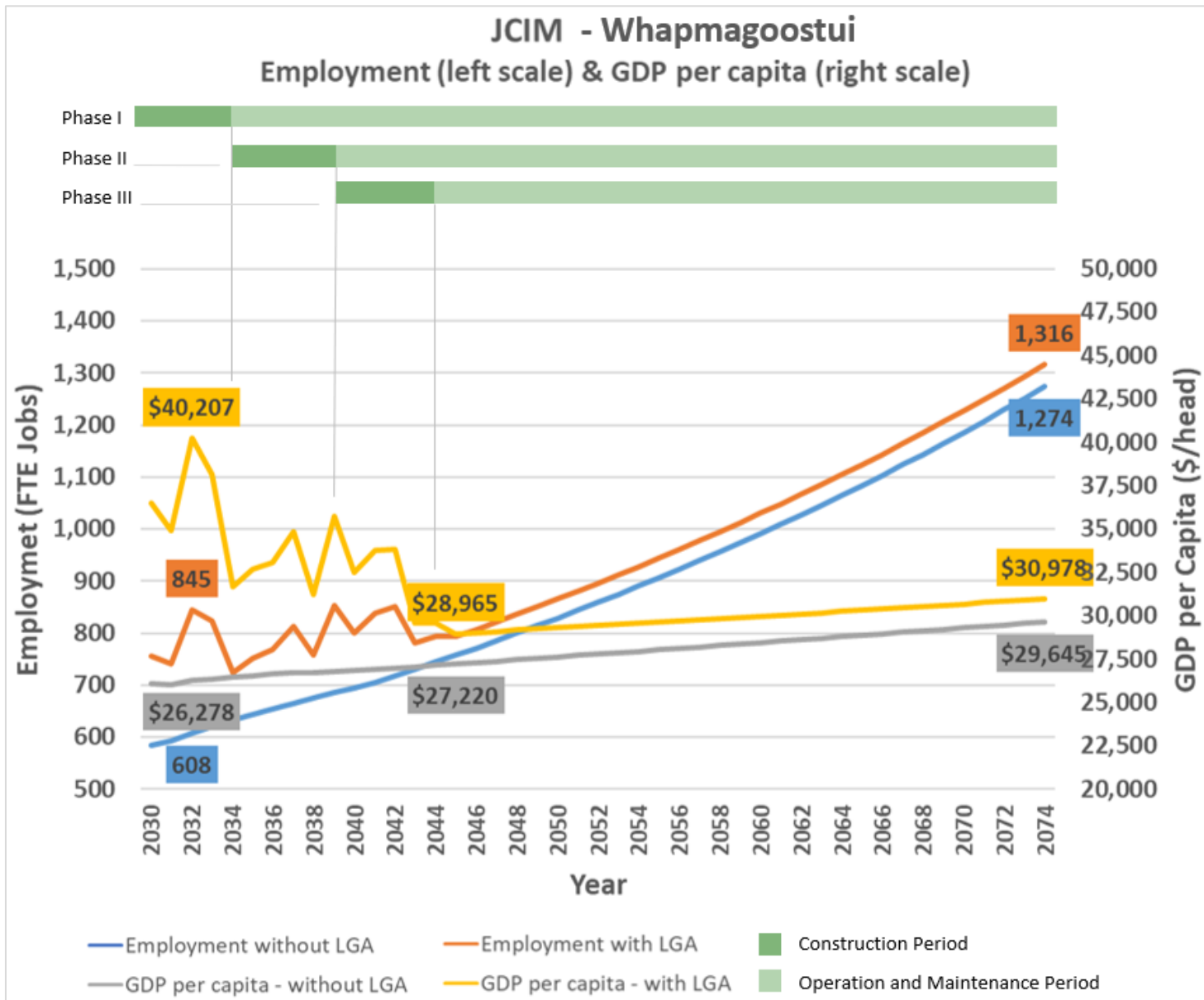


Figure 4-4 Impacts of LGA on GDP and Employment, Whapmagoostui, 2030-2074

4.4 LAND-BASED ECONOMY

4.4.1 OVERVIEW

4.4.1.1 IMPORTANCE OF THE TRADITIONAL LAND-BASED ECONOMY

As mentioned in the section 4.1, Whapmagoostui people started to give up their nomadic way of life in the 1940’s. Not long after, the children were sent to different residential schools in Ontario and Quebec with all the consequences on the traditional way of life and its transmission this implied for this generation and the ones to come.” (WSP, 2023a)-

However, the land use continued to be part of the way of life and well-being, to such an extent that in the 1990’s, the community members marked a strong opposition to the Grande-Baleine hydroelectric development which would have cause social impacts and serious changes to the environment. This project was then cancelled.

As reported in TN3 (WSP, 2023a) and based on the report of the Whapmagoostui EPC, the opportunity to spend time on the land to hunt, trap and fish is of primary importance to its members. Flexible work schedules in the community, the lack of massive environmental transformation, and the financial assistance provided by the ESP and the CTA help to facilitate access to these opportunities for Whapmagoostui members (EPC Whapmagoostui, 2017).

Some of the main values that underlie the use of the territory were also mentioned, such as having a clean environment and healthy wildlife, respecting the animals, having a good knowledge of the language and traditional knowledge. The isolation of the community (disconnected from the provincial road network), which has helped to protect it from certain negative impacts, also results in a higher cost of living.

Thus, life on the territory is valued, despite the constraints the community faces in maintaining traditional activities; members are retained in the community for obligations such as work, school, or medical care for example, not to mention the high cost of travel to the territory and, in some cases, the need to obtain permits to exploit coastal areas designated to the Inuit. Also, access to the territory by air is expensive and not always reliable because of the airline’s priorities and the weather conditions. These factors complicate the organization of stays in the territory, although financial assistance may alleviate some of these constraints (WSP, 2023a and EPC Whapmagoostui, 2017).

As mentioned in the section 4.2, 169 Whapmagoostui members, (representing 95 family units) were enrolled in the ESP for their livelihood, sometimes combined with other occasional jobs, in 2021-2022. In total, 21,780 days spent in the bush were paid to the land users for that same year, for an average of \$22,490 per family unit (see Table 4-3), which is the highest average allowance among the communities, due to the “far harvesting allowance”.⁷ Ten years previously (2011-2012), the number of registered individuals was significantly higher (265 members, representing 125 family units), i.e., 29.2% of the population (the largest rate among the Cree communities), but in 2000, the family units enrolled was way lower (71). Several factors can affect ESP participation, which varies from year to year depending on, among other things, the economic climate and employment opportunities, or a readjustment in eligibility (CHESB, 2023, CHESB, 2012 and CGW, 2015).

Table 4-3 Beneficiaries of the Economic Security Program (ESP), Whapmagoostui, 2021-2022

Whapmagoostui - Family Units (nb)	Total (adults and children)	Total Days Spent in the Bush	Average per Family Unit (days paid)	Average Allowance per Family Unit (\$)
95	169	21,780	229	\$22,490

Source: Compilation CHESB, Annual Report 2021-2022.

⁷ “An additional allowance of 30% of the daily allowance is paid for each day that the adults of a unit spend in an area that is considered “far”. Generally, this refers to traplines located outside a 50 km radius of the community or, if accessible by road, beyond 200 km.” (CHESB, 2023)

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Indeed, 549 members (including 83 junior) were enrolled at the Cree Trapper Association (CTA) in 2021-2022, which is lower than the years before (see Table 4-4). The local CTA offers different programs and services to its members. In 2021-2022 in Whapmagoostui, gas subsidy program and air transportation subsidies were allowed to many members (see Table 4-5). The year before (2020-2021), food coupons were also distributed to 400 members.

As mentioned in section 3.6.3, the price of fur has gradually declined over decades. Table 4-4 shows, for the last decade in Whapmagoostui, the number of CTA members, the number of them who sold fur, and the amount of these sales. Only a small percentage of members sold fur. The 2021-2022 report shows that CTA fur sales reached only \$16 in Whapmagoostui. Recent years show no interest in this activity (sale of fur) as additional income.

Table 4-4 CTA Membership, Number of Trappers who Sold Fur, and Amount Sold during 2012-2020 in Whapmagoostui

	2012-2013 ^a	2013-2014 ^b	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
CTA Member (n)	-	-	860	874	600	620	772	601
Trapper who sold fur (n)	7	15	6	10	6	3	6	3
Fur sales (\$)	-	-	3 382\$	5 181\$	7 372\$	\$5143	\$466	\$221

Note a and b: these annual reports were not available on the CTA website, for this reason some data are missing.

Source: *Compilation from 2012-2020 CTA Annual Reports.*

Table 4-5 Program and Project Offered by the CTA in 2020-2021 and 2021-2022 to Whapmagoostui Members

Program/Project	Number of Members Helped 2020-2021	Number of Members Helped 2021-2022
Cabin insurance	-	-
Cabin building/renovation programs	-	-
Gas subsidy program	397	400
Hunting subsidies and supplies	400 ^a	-
Equipment repair or purchase subsidies	-	-
Transportation subsidies - Air or Bush plane	300	310

Note a: Food coupons, for people going for 2 weeks in the bush

Source: *Compilation from 2020-2021 and 2021-2022 CTA Annual Reports.*

Finally, the interior of the land, as well as the bay area are still frequented, and some say that a spirit of sharing characterizes the people who use the community's territory.

4.4.1.2 COMMUNITY ASPIRATIONS

In their vision of the future, the Crees of Whapmagoostui who participated in the EPC survey intend to strengthen the Cree presence on the territory by improving access (trails, roads, and infrastructure) and by reconsidering the trapline system for the benefit of the entire community. This enhancement also requires ensuring that the integrity of the territory is maintained through a monitoring and protection system. "One of the great benefits of more Crees on the land is a strengthening of Cree language and culture, which is a clear objective" (EPC Whapmagoostui, 2017).

The Whapmagoostui EPC relates that talks of vision for the future often bring up the possibility of roads being built to link the community of Whapmagoostui to inland portions of its territory and/or to the James Bay Highway to the south. "There is a great deal of uncertainty, however, about whether the advantages brought by such development would outweigh its social and environmental costs".

4.4.2 RESOURCE ACCESSIBILITY

Changes in resource accessibility (whether physical access or the quality and abundance of resources) can lead to impacts on the economic and cultural way of life of the Crees. As these are strongly related, this section mainly addresses the physical access, while the quality of resources is covered in section 4.4.3.

4.4.2.1 CHANGES AND CONSTRAINTS LINKED TO DEVELOPMENT

Compared to the other Cree communities, Whapmagoostui's interactions with hydroelectric (which is restricted to the extreme eastern traplines), and mineral exploration have been limited. They have not faced large-scale landscape modifications from hydroelectric developments, mining, or forestry. There is little doubt that this is due to the lack of transportation infrastructure on the community territory.

Climate change is an important vector of modification regarding the access to resources on the land. There are more frequent landslides, sinkholes and forest fires, earlier springs, longer summers, and later winters (winter conditions appear in January rather than December). Thus, each year the season cycle is different. Some fear the bay will eventually stop freezing in winter, others state that some camps, and eventually the village, will have to be moved away from the shoreline because the ice cover is no longer thick enough. There are real concerns regarding the melting of the permafrost, and the fact that the ground becomes unstable.

Because of the climate changes, some animals have changed their behaviour and vegetation is growing in new areas. Moose is a new species observed on the land. A tallyman explains that land users do not hunt them because this hunting is not part of the Whapmagoostui Cree culture.

Finally, as for other Cree communities, access to the territory and the resources remains essential to ensure the continuity of the Cree way of life, which is closely linked to the activities on the land. The new road that might be built on the land could facilitate access to different parts of the territory and alleviate the growing difficulties related to climate change but could also be jeopardized by the instability of the ground.

4.4.2.2 IMPACTS OF PROPOSED INFRASTRUCTURES

The Whapmagoostui territory is targeted for the road and rail extension, coming from Radisson, and a small craft harbour in Whapmagoostui. This implies the opening of the territory north of Radisson, and, as major positive impacts, an easier access to the land and resources, especially in a context of global warming affecting the snowmobile travels, in addition to a reduction of living costs. However, land users interviewed raised many concerns regarding the proposed road, railway, and harbour.

Regarding the harbour, the bay near the community is used extensively for hunting, fishing, and recreational activities by community members. Many camps are used along the shoreline, and there are numerous areas identified as highly sensitive. Thus, there is not much interest among land users interviewed for the harbour, and there are also concerns it would impact the ice cover and impede snowmobile transportation. Silting at the river mouth was not discussed with the land users, but we recommend it should be discussed further in the future to shed light on potential issues.

During LGA engagement activities, no camps were identified within 3 km of the road and rail alignments under study, but a tallyman mentioned he wanted to build one along the road if the project were to go ahead, and another land user would like to see the road alignment closer to his activity area. The alignment crosses or pass by a valued area for fishing and wildlife hunting or habitat (bear, fur bearing, beaver, porcupine, caribou). A navigation route with portages, three snowmobile trails and a four-wheeler trail were also listed, crossing the proposed alignment, as well as caribou migration routes.

Land users expressed divergent point of views on the impacts of a new road or a railway. Some say it could increase mobility and better access to the territory and cultural activities, by reducing the expenses associated with access to the territory. The road would then be a good achievement if impacts are minimized, since it would facilitate the practice of traditional activities, meaning hunting, trapping, fishing, and gathering, outside the winter season, during periods when it is impossible to use snowmobiles. It would indeed facilitate travel to some traplines, as well as year-round travel for all community members.

It could, on the other hand, imply a lifestyle transformation. Some fear that infrastructure (mainly the road) give the impression that resource exploitation is open and accepted by communities, and that it would lead to poaching and overexploitation of resources. They fear illegal fishing and hunting activities, especially by tourists. Indeed, many land users have concerns regarding the coming of the non-native on the land, which would set up camps without permission or having illegal activities. Opening of the territory can be a source of conflicts and thefts, they say.

The impacts anticipated by Whapmagoostui's land users on resources related to potential pollution and wildlife disturbances are addressed in section 4.4.4.2.

4.4.2.3 SUGGESTED MEASURES AND OPPORTUNITIES

Some measures or suggestions emerged from the LGA engagement activities in Whapmagoostui regarding the access to resources, and the access to the community as it would become more easily reachable, such as:

- Ensure that driving lessons are available in Whapmagoostui through a supported local driving school initiative;
- Ensure there are no drunk drivers by ensuring more checkpoints at the exit of the community;
- Have the road accessible in winter via a snow removal program;
- Build a snowmobile trail from the new road to some land users' camp or activity area (suggested by some land users to facilitate their activities on the land, as gain of time and costs);
- Establish monitoring mechanisms to prevent overexploitation (as game warden, land guard or toll booth);
- Move the camp away if there is too much disturbance (traffic and noise), mainly during construction, or to move the camp closer to the road, if it is more convenient for the land users.

See Section 3.6.2 for general suggestions or opportunities applicable to the Cree communities for a better accessibility to resources.

4.4.3 CULTURAL CONTINUITY

Whapmagoostui members, according to the EPC, pride themselves on having traditional knowledge that is relatively intact and undimmed by development or other interventions from the South. They value a clean environment and healthy animals, respect for the animals, identity and traditional knowledge, a strong Cree language, a “community spirit”, and the isolation of the community. For this latter, it is said:

“Whapmagoostui community members have a mixed relationship with the isolation of their community, but the degree to which it has shielded their community from some of the negative impacts that come with access – such as sports hunters, increased pace of development, etc. – is very much valued. The isolation also comes with a high cost of living, which is quite difficult to bear. In exchange the community's lands have been relatively protected, which is important to community members. Whapmagoostui may decide to build a road, but they will likely value the benefits of isolation no less at that time and may try to keep these as much as possible.” (EPC Whapmagoostui, 2017, pp. 7-8)

These are the range of values to consider and prioritize when making decisions about Whapmagoostui land use and development.

According to the Whapmagoostui EPC, there is a feeling that the expertise collectively held by the Elders is diminishing, and that younger people are not acquiring the same level knowledge and expertise. For this reason, “A long-term vision for Whapmagoostui and its land calls for measures to ensure that youth can be exposed to, and learn from, those with strong language and bush skills”. A strong Cree language and culture is part of the Whapmagoostui vision and objective for its future (EPC Whapmagoostui, 2017).

People, especially the youth, wish to be involved in decisions about the territory so that development can take place according to their values and wishes. They also believe that infrastructure, programs, and subsidies could improve Cree access to the land, which is of prime importance to keep a strong language and culture (EPC Whapmagoostui, 2017).

4.4.3.1 IMPACTS OF INFRASTRUCTURES ON CULTURAL CONTINUITY

The proposed infrastructures and the development that might follow could affect cultural continuity, if it disturbs valued areas, contaminates environment, or lead to overexploitation. But it could facilitate access to land for Whapmagoostui members, which is, as mentioned above, necessary to keep the culture alive. Indeed, according to Whapmagoostui land users, the possibility of easier access to the territory can facilitate the transmission of traditional knowledge, especially among the youth, whereas the increased mobility and the adoption of “southern” values and culture can lead to the potential loss of traditional languages and transmission of intergenerational values. It was also mentioned that the newfound freedom that will come from an access road could reduce interest to go out on the land and reduce interest in using the language.

Some fears that the opening of the area would lead to changes in the territory and the dynamics of the region in a negative way, but other foresee it would facilitate connection with other communities (e.g., at funerals). The opinions are thus ambivalent regarding these infrastructures.

To note that one burial site was identified, about three kilometres away from the alignment (road and rail) on Whapmagoostui traplines. No other burial sites were identified within a 10 km buffer zone of the alignment.

As land use and culture are deeply rooted together, the impacts on access, water bodies and resources are addressed in section 4.4.2 and 4.4.4.

4.4.3.2 SUGGESTED MEASURES AND OPPORTUNITIES

In Whapmagoostui, moose is a new species observed on the land but is not much hunted, as it is not part of the local culture and knowledge. Regarding the climate change adaptation, there could be a knowledge transfer for moose butchering with land users from other Cree communities if there is an interest.

Section 3.6.4 shows other measures that could be put in place for all the Cree communities to ensure that the infrastructures would not interfere with cultural continuity and to promote the use of the land.

4.4.4 SYNERGIES AND CONFLICTS

4.4.4.1 POSITIVE IMPACTS AND SYNERGIES

In Whapmagoostui as for other communities, the need to offer a passenger rail service for land users was mentioned as a means of achieving greater social acceptance. Moreover, the road and railway could have a positive effect if access to the south was facilitated, and the price of food and equipment reduced. The fact that access to the camp can become less expensive by road than by air is attractive to some users. One of them may even decide to build his new camp closer to the proposed road.

As mentioned for other communities, if Crees have facilities to use the train (e.g., affordable price, possibilities of on-demand stops, transportation to reach and leave from the train stop), and if they have a road to access the land, it could encourage activities on the land and land-based economy. Harvesting, including fishing, could be done more easily throughout the year.

In sum, several people from Whapmagoostui foresee more accessible traditional activities due to reduced costs of goods and equipment such as hunting material, and an easier access to the land.

4.4.4.2 NEGATIVE IMPACTS AND CONFLICTS

Different concerns were raised by Whapmagoostui people regarding the construction of the road, the rail, and the small craft harbour infrastructures.

People are greatly concerned about the permafrost melting and its consequences such as the ground increasing instability. Land users point out that these phenomena must be considered in the construction of infrastructures, for the safety of all.

Pollution and changes to water bodies

Nuisances are foreseen during the construction and operation phases, such as pollution of air, soil, and water, as well as noise pollution.

People are concerned that the construction of infrastructures would impact water bodies and watersheds. There are highly sensitive areas to protect from pollution, but also from changes in the land hydrology. A land user notes that some small lakes are now almost dry, and he fears it could get worse. Another user anticipates changes in the wetlands near rail and road infrastructures.

Disturbance

Regarding impacts of infrastructures on wildlife, some fear it could affect their one livelihood. They say the construction of a road could have a major impact on noise-sensitive wildlife such as beavers, birds, or other animals, while caribou are not disturbed by noise. Another land user states that railway operation can also have a large impact on wildlife; he explains that fish is disturbed by noise and vibrations, and that a hibernating bear may be disturbed in its sleep and consequently weakened. The construction of the harbour would also impact wildlife, including fish and birds. Disturbance could chase some animals away and force people to go further away to hunt.

Indeed, the change in animal behaviour due to noise could affect traditional activities, meaning hunting, trapping, fishing, and gathering. The infrastructures could also reduce hunting areas or disrupt the cycle of use of the traditional territory. For a land user, the loss of tranquility, both for wildlife and for the practice of traditional activities, is the main anticipated impact of the railway.

Social Tensions and Insecurity

The presence of other users may exacerbate social tensions with outsiders and cause overharvesting (hunting and fishing). Some also mentions a new road and rail could have an impact on wildlife, through collisions and abusive and disrespectful hunting of animals. Garbage could also be thrown along the road. Some people fear there will be an increased risk of accidents because of the traffic and the increased hunting activities, particularly by non-natives. There is also a feeling of insecurity related to the presence of non-Cree workers on the land. Indeed, psychosocial impacts can also be foreseen due to new people coming on the land, changes in the landscape, lifestyle, and environment (as increased stress, risks of accidents, impact on the health, conflicts).

For all phases of the proposed infrastructures, the construction period is deemed to be particularly disruptive for land users who will suffer the inconvenience. Community members recall that there is a decision to be made by the community about its threshold of tolerance (what they are willing to sacrifice).

4.4.4.3 SUGGESTED MEASURES AND OPPORTUNITIES

According to the EPC, Whapmagoostui Crees call for effective and reliable monitoring, built on the customary land management structures, in conjunction with those of the community councils and the CNG. To this end, they consider that the role and responsibilities of the tallyman, and the divisions of trapline boundaries should be better defined and recognized as the basis of an environmental monitoring (EPC, Whapmagoostui, 2017).

Beyond monitoring and protection, measures to restore sites that have been degraded from previous activities should also be considered, such as the clean-up of sites polluted by mineral exploration, and the restocking of fish in lakes (EPC Whapmagoostui, 2017).

See section 3.6.2 for suggestions and measures that concern all Cree communities involved.

4.4.5 ECONOMIC VIABILITY

4.4.5.1 EXPECTATIONS AND OBSTACLES

As mentioned in section 4.4.1, in Whapmagoostui, some of the main values that underlie the use of the territory include having a clean environment and healthy wildlife, respecting the animals, and having a good knowledge of the language and traditional knowledge. Also, the flexibility of work schedules in the community, a relatively untransformed territory and the financial assistance provided by the ESP as well as the CTA, help to facilitate access

to the land for Whapmagoostui members (EPC Whapmagoostui, 2017). But the isolation of the community, which has helped to protect it from certain negative impacts, also results in a higher cost of living. To continue to use the land, people must be able to afford the costs of transportation and of the stay in the bush.

Whapmagoostui Crees often highlight their goal of occupying the greatest extent possible of their territory to ensure the continuity of their history, vision, land use and occupancy, and this requires the maintenance and the expansion of the snowmobile trail network and the preservation of customary canoe routes and portage trails (EPC Whapmagoostui, 2017).

Land-based activities can also be considered in a way other than purely traditional, in order notably to ensure a greater viability of activities on the land. In Whapmagoostui, as an example, two land users mentioned they foresee economic opportunities with the harbour, as to offer touristic boat tours (see below).

4.4.5.2 NEW PATHS FOR LAND-BASED ECONOMY

In Whapmagoostui, some members state that currently, development of economic activities is difficult because of the high cost of goods and services linked to the isolation of the community. Members however expressed several ideas and interests in developing activities or businesses during the LGA study consultation process and in the EPC, particularly in the tourism industry and sustainable development, such as:

- Opportunities related to tourism development with the harbour, such as touristic boat tours;
- To develop cultural tourism;
- To impose a licence to non-native hunters, and give a course on how to process wild meat and take care of the animals (to provide jobs and avoid animal waste);
- Arts and arts crafts development, as the exportation would be facilitated;
- Cree-owned and operated businesses in retail, construction and transportation;
- To develop a business incubator initiative.

See section 3.6.4 for more considerations regarding business or activities related to the land, that are not all traditional activities, but could, if developed, generate income while remaining connected to the land.

It should also be noted that, according to Whapmagoostui EPC, the importance and challenge of increasing the hunting economy with wage employment figures prominently in Whapmagoostui vision for land use and development.

In sum, Whapmagoostui Crees also envision and hope for greater opportunities for training, certification, and accreditation, in a scope to have a greater proportion of Cree workers in Cree joint ventures and contracts. (EPC Whapmagoostui, 2017).

4.5 COST OF LIVING

The fact that Whapmagoostui is not accessible by road makes the prices of most basic goods and services much higher than the Cree averages. In fact, some items can cost up to 33% (gas) or to 25% (potato) higher than the average figures of all nine Cree communities, while monthly rent is 19% more expensive (see Table 4-6).

Table 4-6 Commodity Prices, Whapmagoostui, Fall 2023

Item	Price	Cree Average	Difference
Food and beverage			
1 litre of orange juice	\$6.30	\$5.03	+25%
10 pounds potato bag	\$14.79	\$11.54	+28%
12 eggs	\$5.01	\$5.90	-15%
2 litres of 2% milk	\$4.09	\$6.77	-40%

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Item	Price	Cree Average	Difference
500 g lean ground beef	\$11.50	\$9.79	+17%
650 g marble cheese brick	\$15.26	\$16.23	-6%
Club Sandwich with fries at restaurant	\$18.50	\$17.16	+8%
Total	\$75.45	\$72.42	+2.5% -40 % to +28%
Transport			
1 litre of regular gasoline	\$2.59	\$1.94	+33%
Housing			
Average monthly shelter costs (rent)	\$590	\$498	+19%

Source: Grocery Prices Listed at Coop Store and Norther Store / Rent: StatCan (2021).

Table 4-7 below uses the data presented in Table 4-6 to compare the prices of three main group items that Whapmagoostui residents pay, using an index. In sum, Whapmagoostui residents pay higher prices than other Cree communities: 4 % higher for foods and beverage items; 33% higher for gasoline; and 19% higher for rent.

When comparing the cost of living between Whapmagoostui and the average for the Abitibi-Temiscamingue region, food and beverage items are 38% less expensive in Whapmagoostui, while gasoline is 9% higher. In particular, rent in Whapmagoostui is 73% higher.

According to the community’s EDOs, the lower cost of food and beverage items observed is mainly due to the community access to the Kuujuarapik Northern Village which receives subsidies from the government for those items. Otherwise, Whapmagoostui tends to pay higher for most items compared to other Cree communities as well as southern communities, with a maximum of 73% higher rent costs compared with Abitibi-Temiscamingue. High rent costs are associated with high housing construction and shipping costs as houses are usually manufactured (manufactured houses are in general more expensive to build than on-site built houses) in the south and then delivered by vessels to the community.

Table 4-7 Price Index Comparison, Whapmagoostui, 2023

Index	Whapmagoostui Relative to Cree Average	Cree Communities Relative to Jamésie	Cree Average Relative to Abitibi	Whapmagoostui Relative to Abitibi
Food and beverage	♦1.04	◆0.66	◆0.60	◆0.62
Gasoline	♦1.33	◆0.85	◆0.82	♦1.09
Rent	♦1.19	♦1.31	♦1.45	♦1.73

Note: The index was constructed using prices listed at 1 store in Whapmagoostui, 2 in Jamésie and 2 in Abitibi-Temiscamingue

Linking Whapmagoostui to the south by road or rail would obviously be a way of reducing transportation costs and ultimately reduce consumption goods’ prices, in particular rent prices. At this stage, it is premature to predict the extent to which LGA infrastructure would reduce prices. However, some quantitative analysis is worth mentioning. As shown in Table 4-8, the impact of LGA can be assessed in terms of cost savings per capita based on the Benefit-Cost-Analysis conducted by WSP (2023). This latter estimated that, beginning in 2040, Phase II of LGA will allow each resident of Whapmagoostui to save \$320 or 48.1%. An additional amount of \$84 will be added to the cost savings when Phase III of LGA becomes operational by 2045, thus representing 26.6%. In total, each resident of the community will be able to save 65.4% on freight transportation costs yearly.

How much the freight shipping cost savings would impact the price of consumption goods depends on how much freight costs account for in the final price. As an example, if freight shipping costs account for about 30% of the gas price, then the impact of Phase II infrastructure would be about 14.4% (=30% x 48.1%) reduction. Phase III infrastructure would reduce the price farther up to 19.6% (=30% x 65.4%).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 4-8 Impacts of LGA on Freight Shipping Costs

Variable	Unit	No-Build	Build	Cost Savings (\$)	Cost Savings (%)
Phase II (opening date 2040)					
Freight shipping costs	\$/year	991,247	514,292	476,955	48.1%
Population	persons	1,491	1,491	0	0%
Freight shipping costs per capita	\$/person	665	345	320	48.1%
Phase III (opening date 2045)					
Freight shipping costs	\$/year	514,292	377,511	136,781	26.6%
Population	persons	1,638	1,638	0	0%
Freight shipping costs per capita	\$/person	314	230	84	26.6%
Phase II & III					
Total freight shipping costs	\$/person	665	230	435	65.4%

Source: WSP (2023), Technical Note 19 – Benefit-Cost Analysis of the LGA’s Phase II & Phase III

Travelling to Whapmagoostui is very expensive as residents and visitors usually fly with Air Creebec or Air Inuit. On average, it would cost about \$1,400 for a round-trip from Val-d’Or. Building a road (Phase II) would reduce the travel cost by \$900 per passenger or 64.5%. A rail (Phase III) would reduce the cost further by \$17 per passenger or 3%. In total, Whapmagoostui residents and visitors would be able to save each \$928 per trip or 65.6% of passenger travel costs (see Table 4-9 below).

Similarly, if travel costs account for 30% of the price of a service (e.g., health care), the impact of travel cost savings on the price of this service would be about 19.7% reduction. The group that would benefit the most from the cost savings would be, perhaps, the community’s land users as they travel frequently on the large territory for hunting, trapping and fishing purposes.

Table 4-9 Impacts of LGA on Passenger Travel Costs

Variable	Unit	No-Build	Build	Cost Savings (\$)	Cost Savings (%)
Phase II (opening date 2040)					
Passenger travel costs	\$/year	2,807,122	998,697	1,808,425	64.4%
Passengers	persons-trips	1,984	1,984	0	0.0%
Travel cost per passenger	\$/person-trip	1,415	503	912	64.5%
Phase III (opening date 2045)					
Passenger travel costs	\$/year	1,056,586	1,021,577	35,008	3.3%
Passengers	persons-trips	2,099	2,099	0	0%
Travel cost per passenger	\$/person-trip	503	487	17	3%
Phase II & III					
Total passenger travel costs	\$/person-trip	1,415	487	928	65.6%

4.6 SUMMARY

Being the only Cree community disconnected from the south, Whapmagoostui is more economically disadvantaged compared with other Cree communities. The relatively higher cost of living, limited services available and an undiversified economy create important financial challenges for the community people. It therefore follows that the proposed LGA infrastructures could create the most significant economic benefits for the community, producing as much as 66% cost-savings to travellers, in addition to decreased costs for transporting goods.

If LGA options go forward, the community would gain leverage as a transportation hub (with a harbour) or at least be able to position itself as an active part of the road network's operations and maintenance. Given enough time to prepare, any Whapmagoostui entrepreneur could benefit as a service provider to LGA-linked infrastructure works. Thanks to its high labour market participation rate, the LGA infrastructure is expected to bring numerous employment opportunities and improve largely the standard of living for the community's residents. One could expect that over the long term, the high cost of living currently experienced by the community would become more comparable to more southern communities, which would in turn reduce the gap with the rest of Quebec.

However, increasing access to the community via linking with the existing transportation network is not without its impacts. The unique identity of Whapmagoostui as an isolated community may be eroded as contact with the rest of Eeyou Istchee will likely increase. Land users who previously were able to harvest with relatively little incursions from outsiders will now need to manage increased access to their traplines, although this is countered by increased access for their own users. This is not to mention numerous other environmental impacts related to the port and extending the road network, mainly during construction, but also during operations as adjacent areas will become less pristine. Some environmental issues (as silting at the river mouth or permafrost melting) will also need to be discussed in more depth. Managing these impacts will no doubt require extensive communication and engagement with community members, especially land users, to mitigate anticipated impacts as well as to address unanticipated ones as they may arise. How this dynamic is managed will have a direct bearing on cultural continuity for future generations. Furthermore, economic participation by local actors will be essential to reassure community members that the benefits of infrastructure outweigh the costs. In addition, benefits must flow to the Inuit community of Kuujuarapik, as well as communities further north, which were not mentioned or analysed in the framework of this study. As elsewhere, to be successful, the Grande Alliance must obtain and maintain a Social License to Operate to be viewed in a positive manner by the residents of Whapmagoostui.

5 CHISASIBI

5.1 CONTEXT

Meaning “Great River” from the Cree word *Cisâsîpî*, Chisasibi is located at the mouth of La Grande River at the northern tip of the James Bay. As mentioned in the Chisasibi EPC report, La Grande River represents a large part of the identity of the members of Chisasibi. It played a crucial role in the community’s history as a travel route, site of gatherings, food, and cultural activities (EPC Chisasibi, 2017).

This community is relatively new as it was established in 1981 as relocation site from Fort Georges Island. The Cree have hunted and fished along the James Bay coast long before the arrival of Europeans. Fort Georges community was established when the Hudson’s Bay Company trading post was built in 1804 and became the leading trading post until the mid 20th century. However, the community relocation to its current location, in 1981, was deemed necessary because of the anticipated erosion caused by La Grande River flow regime changes from the LG-1 dam project, as well as the desire of the Chisasibi Crees to be located on the mainland. The Fort George Relocation Corporation, an entity formed following the negotiations between the Crees and the Québec Government, was responsible for the relocation of 200 houses and the construction of 100 new ones on the present community site. Fort George Island has remained an important gathering place and festivity site, hosting a large powwow each summer.



Credit: Julie Roy, WSP

Figure 5-1 La Grande River shore

The community members saw major social and economical changes induced by the hydroelectric development, and its related flooding on their territory in the 1970-80's. Due to this history and because of the still ongoing erosion and landslides, environmental impact on the territory is a very sensitive subject for the community members. "Even so, the significance of river – with all its impacts, with all its history that now lies beneath the reservoirs – has remained undiminished by the years and the changes it has endured" (EPC Chisasibi, 2017).

Chisasibi is the most populated Cree community with over 5,000 inhabitants. The community is the most northern Cree community accessible by road and the northernmost community with year-round road access in eastern North America. The paved 90 km Chisasibi access road connects the community with the BDH at KP 600. Passed the community, the road continues westward another 7.5km to reach James Bay shore. The road distances (and travel times) are 446 km (6 hours 50 minutes) to Eastmain, and 689 km (7 hours 50 minutes) to Matagami. Maheux (2023) provides a bus service between Val-d'Or and Chisasibi twice a week. Located close to the community village, the Chisasibi airport has similar features to the airports in other Cree communities (VEI-WSP, 2023). There is one flight per day (Chisasibi, 2023). The local airport offers flights of approximately 4 hours to Montreal.

Chisasibi plays a vital economical role in supporting the governmental infrastructure and institutions. Today, the economy of the community expands from the construction sector to the wholesale one, with Petronor providing fuel for the entire James Bay region. However, the traditional land use remains an important aspect of the Cree life in Chisasibi,

As shown in Figure 5-2, Chisasibi territory includes 37 different traplines⁸ spread out between the mouth of La Grande River and the Caniapiscau Reservoir. The territory is managed by tallymen and used by their extended family as well as other community members. The Chisasibi territory is characterized by large rivers, spawning grounds, abundant wetlands, numerous protected areas, as well as caribou herds.

The LGA infrastructures of interest for Chisasibi include:

- The BDH rail extension, Phase II and III, from Rupert River at the junction with the Phase I railway alignment to La Grande (Phase II) and Whapmagoostui (Phase III)
- The BDH Road extension Whapmagoostui/Kuujuarapik to enhance the interconnectivity with Cree communities (Phase II)
- The Route 167 extension to Trans-Taiga Road (Phase II).

The proposed LGA Phase II and Phase III components would put Chisasibi geographically in the centre of the Project. If this latter goes forward, it would bring numerous economic benefits to the community.

⁸ Namely FG01/CH01 to VC08/CH40. To note that in Chisasibi, each trapline can be defined by two different acronyms (FG, CH, or VC). In order to avoid confusion, the two acronyms are used in this report.

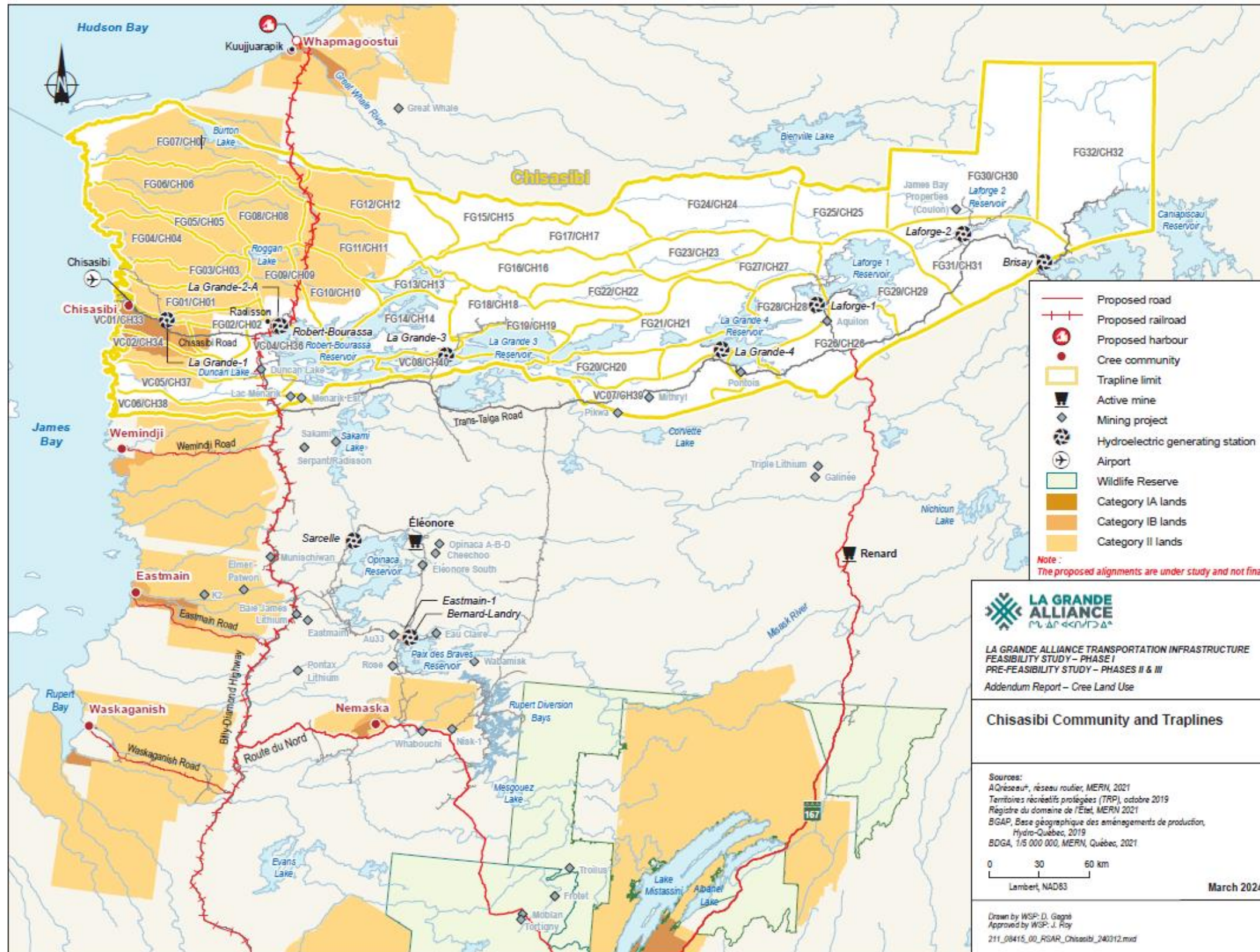


Figure 5-2 Chisasibi Community and Traplines

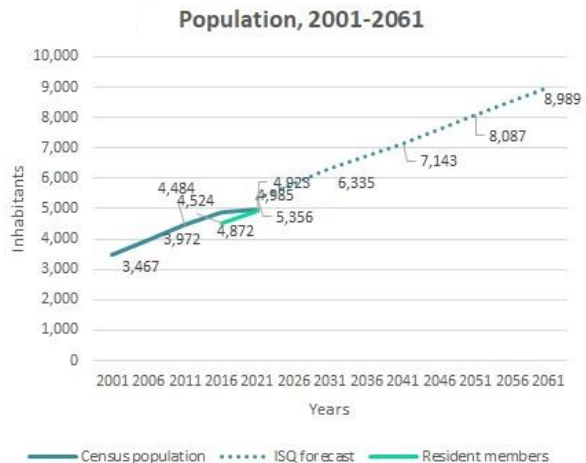
5.2 INDICATORS

The main characteristics of the population living in the community of Chisasibi are presented below. Note that the data shown represents the 2021 situation as per the StatCan Census data unless otherwise specified.

Population

As per the 2021 Census data, Chisasibi is inhabited by 5,356 people. Over the past 20 years, according to the StatCan Census, the population has experienced a notable increase of 54% with an approximate CAGR of 1.7% which is just under the Cree average figure of 1.8%.

According to ISQ (2021) forecasts, the population is would reach near 7,000 people by 2041 and near 9,000 by 2061. This means the annual increase in population of the community (0.4%) is projected to be slower than the Cree average (1.1%)



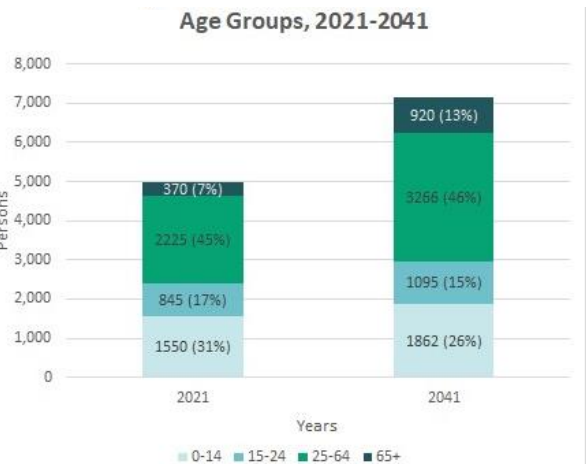
	Chisasibi	Crees
Annual population growth (2001-21)	1.7%	1.8%
Annual population growth (2021-41)	0.4%	1.1%
Non-resident members (2021)	54 (1.1%)	1.7%

Source (Members): CHESB (2022).

Age structure

Like all other Cree communities, the Chisasibi population is young, with 48% aged less than 25 years old in 2021. Recent growth (2016-2021) is a result of a large number of newborns (505) over this five-year period, accounting for approximately 10.1% of the total population. About 360 persons immigrated to the community during the same period, accounting for 7.2% of the total population. While the natural growth of the population is higher than the Cree average (10.1% vs. 9.3%), immigration is relatively lower (7.2% vs. 10.4%).

Until 2041, like in other Cree communities, the youngest group (0 to 14 years old) should remain constant or decrease slightly in numbers while the group in the working age (15 to 24 and 25 to 64 years old) should grow at approximately the same rate as the total population and thus, their proportions should remain stable. The population is predicted to get older on average, with the number of seniors aged 65 years and older will go from 370 people to 920 people. The demographic dependency ratio would remain similar, although there would be fewer young people and more seniors.



(2016-2021)	Chisasibi	Crees
Births	505 (10.1%)	1710 (9.3%)
Incomers	360 (7.2%)	1900 (10.4%)
Deaths and out-migrants	752 (15.1%)	2480 (13.5%)

Source: 2041: ISQ.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

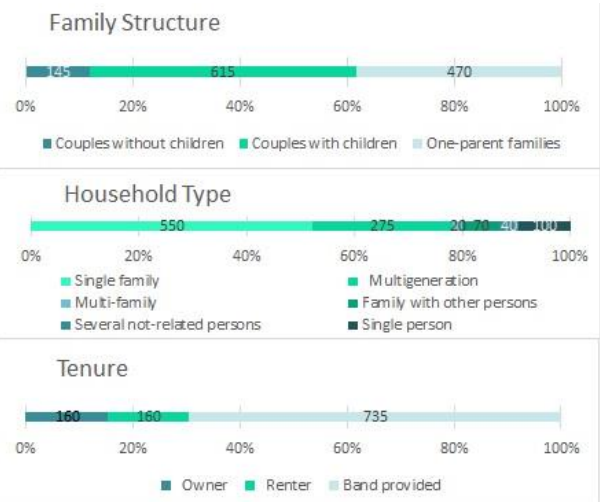
Families, households, and dwellings

Out of the 1,230 families in the community, 615 (50%) are composed of couples with children and 470 (38%) are families led by a single parent. The dominant household type in the community is the single-family setup with 52% of the households. This showcases the family-oriented structure of the Chisasibi community. The remaining households are either multi-family, several non-related persons, or single persons.

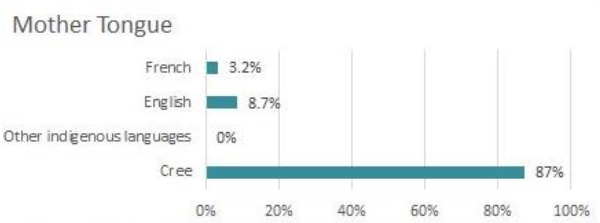
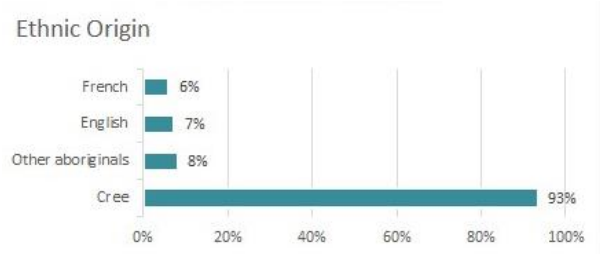
Out of the 1,055 dwellings in Chisasibi, the vast majority (70%) are band-provided, while 15% are rented, and 15% are owned. Additionally, 23% of those dwellings are overcrowded which is higher than the Cree average, but only 17% of those dwellings require major repairs which is lower than the Cree average.

Ethnicity and Language

The population of Chisasibi is predominantly Cree (93%). Nearly the entirety (87%) uses the Cree language as their mother tongue; in comparison, only 8% uses English and 4% uses other languages. Notably, a significant portion of the population is bilingual. And the number of Cree- and English-speaking individuals has remained stable within the community over the past decade.



	Chisasibi	Crees
% overcrowded dwellings	23%	15%
% dwellings with major repairs needed	17%	24%



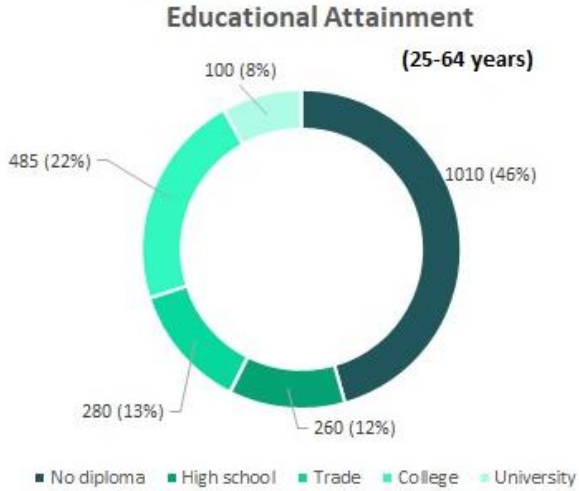
Knowledge of Languages	2011	2021
Cree	92%	93%
English	95%	95%
French	29%	25%

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Education

Slightly over than half (54%) of the population aged 15 to 64 years old has at least a high school diploma, which is lower than the Jamesian figure (75%) and the provincial average (88%).

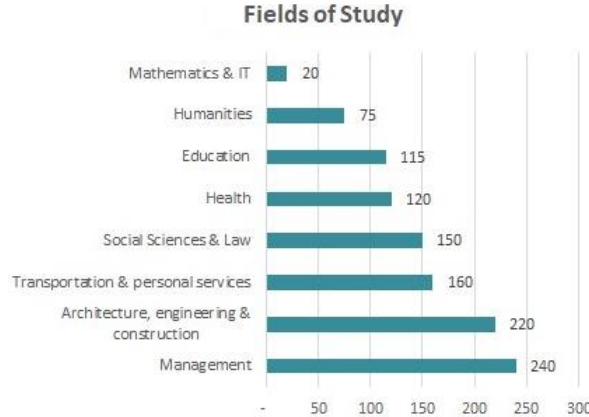
The educational profile of Chisasibi is similar to the Cree average. Among the one-third (30%) of the Chisasibi people who have higher education (CEGEP or university), the fields of Management, Architecture, engineering & construction, and Transportation & Personal Services are the most predominant. This rate of higher education is comparable to the Cree and Jamesian averages, but significantly lower than the one observed for Quebec (52%).



Land

The combined 1A and 1B land categories amount to 1,305 km². The Chisasibi territory includes 37 traplines covering 82,198 km².

The current percentage of ESP recipients in Chisasibi (19%) is the highest compared to the Cree average (14%). However, over the span of 2014 to 2022, the decreasing trend in the share of traditional hunters in Chisasibi (-5%) is like some other Cree communities.



	Category 1A	Category 1B	Traplines
Land area (km ²)	825	480	82,198
	Chisasibi		Crees
Nb/% beneficiaries on ESP Program	974 (19%)		14.3%
Avg. annual ESP unit allowance (21-22)	\$ 17,893	\$ 18,580	

Source: 1. Traplines: CMEB (2022). 2. ESP: CHESB (2022).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Labour Market

Chisasibi’s labour market participation and employment rate (60.2% and 52.4%, respectively, in 2021) are ones of the lowest amongst the nine Cree communities (61% and 56% are the average figures respectively), and lower than the Quebec average (64% and 59%, respectively). As participation and employment rates remained rather stable over the last 20 years, with Chisasibi’s participation and employment rates around five percentage points lower than the Cree average, and around five percentage points lower than the Quebec average. Chisasibi’s concentration of permanent jobs (71%) is slightly below the Cree average (73%).

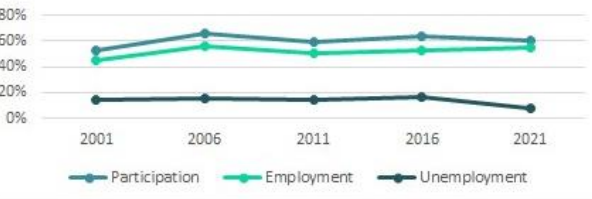
Evolution of Employment

According to the Census, an estimated 1,960 persons worked within the community since 2016. The participation and employment rates have remained relatively steady over the last 20 years. Several economic sectors have experienced growth over this period, with Education and Retail & Services seeing the most significant increase. The public administration sector and the healthcare sector employ the largest portion, accounting for about 27% of the working-age population.

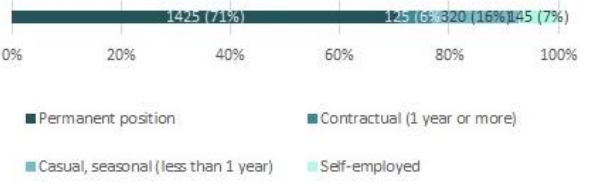
Economic Activities

According to the employer consolidated database, public employers, which include education, public administration, and healthcare and social services, is important with a high number of jobs (629 or 42% of local employment). But the main employer is the construction private sector with the highest number of jobs employer (631 or 42% of local employment).

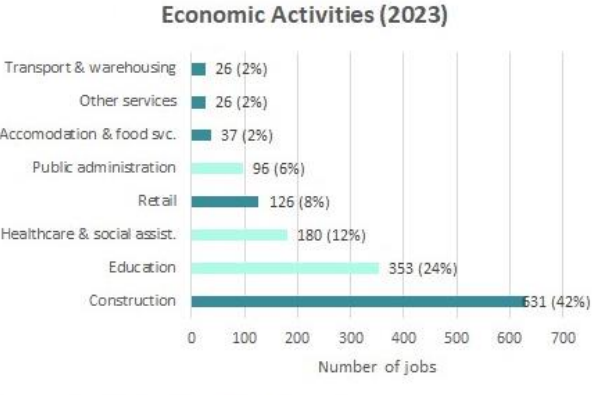
Labor Rates



Class of Worker



	Chisasibi	Crees
% work elsewhere in Nord-du-Québec	3.7%	16.3%



Source: DCI-EDO (2023a) and SPN (2023).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Main Employers

Following the local economic structure, the main biggest employers are Chisasibi Business Development Corporation (CBDC), and Gestion CBCC Inc.. The remaining main employers are public entities.

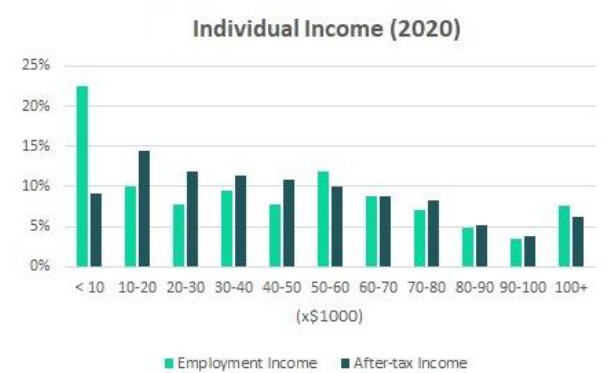
Business name	Activity	Jobs
CBDC	Construction	300
Gestion CBCC Inc.	Construction	200
CBHSSJB (Chisasibi)	Healthcare & social assist.	150
School board	Education	147
Elem. School (Chisasibi)	Education	119
Chisasibi Cree Nation	Public administration	82
J.B. Eeyou School	Education	78
Northern Stores (Chisasibi)	Retail	45
Bear Construction	Construction	36
Chee-Bee Cree Constr.	Construction	34
Large sector		Jobs
	Public Sector	629
	Private Sector	873
	Total	1502

Compilation from DCI-EDO (2023a) and SPN (2023).

Income

Overall, the median and average employment income in Chisasibi were estimated to be \$36,400 and \$40,400, respectively. The median is aligned with the Cree aggregate of \$36,300, while the average is higher (\$40,400 vs. \$38,900).

Nearly a third (29%) of households receive government transfer income. This places Chisasibi at 0.39 on the market income Gini index, indicating a level of income within the community comparable to the Cree population score (0.39) and higher than the Matagami score (0.25).



Individual income (2019)	Chisasibi	Crees
Median total income	\$ 36,400	\$ 36,300
Average employment income	\$ 40,400	\$ 38,900
Average after-tax income	\$ 40,900	\$ 41,300
Household income (2019)		Crees
% of government transfers in income	29%	24%
Prevalence of low income	4%	5%
Gini index, market income	0.39	0.39

5.3 ECONOMIC OPPORTUNITIES

5.3.1 ENTREPRENEURSHIP/DIVERSIFICATION

Being the most populated Cree First Nation, with multiple provincial government organizations and Hydro-Quebec power stations set nearby, Chisasibi's economic activities span the construction sector to the wholesale sector. In sum, 1,520 workers work across 98 businesses and organizations (Table 5-1). This number is considered relatively low compared to the 5,249-population figure.

Of the 1,520 workers, 42% of them work in the public sector across 15 employers. Within the public sector, educational services are the most important sector comprised of 5 institutions and 353 workers, followed by the health care and social assistance sector (5 institutions and 180 workers), and by the public administration sector (5 institutions and 96 workers).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

The remaining 58% workers work in the private sector across 83 employers. Most of them work in the construction sector, and to a lesser extent, in the retail, accommodation and good services. The following information about them was made available to us.

Table 5-1 Employment per Sector, Chisasibi, 2023

Sector	Number of businesses	Number of jobs	% jobs
Construction	19	631	42.0%
Educational Services	5	353	23.5%
Health Care and Social Assistance	5	180	12.0%
Retail	15	126	8.4%
Public administration	5	96	6.4%
Accommodation and food services	10	37	2.5%
Transportation & Warehousing	11	26	1.7%
Other services (except public administration)	12	26	1.7%
Finance & Insurance	3	8	0.5%
Information and Cultural Industries	4	7	0.5%
Professional, Scientific and Technical Services	5	5	0.3%
Agriculture, Forestry, Fishing and Hunting	1	4	0.3%
Arts, Entertainment & Recreation	2	2	0.1%
Wholesale trade	1	1	0.1%
TOTAL	98	1,502	100%
Education, health, public administration	15	629	41.9%
Other sectors	83	873	58.1%

Note: there were no businesses or jobs recorded in the following sectors: manufacturing; real estate and rental and leasing services; corporate & business management, administrative, support; waste management and remediation services; mining, quarrying, and oil and gas extraction and utilities.

Note: Due to missing data on employment for a certain number of businesses, a minimum of one employee per firm was supposed as a hypothesis. Therefore, the actual employment could be higher than estimated Table 5-1.

Sources: Processed from DCI (2023a), SPN (2023) and EDOS

Construction: The construction sector leads the economy with 19 entrepreneurs employing 631 workers. Amongst the 19 construction entrepreneurs, Chisasibi Business Development Corporation (CBDC) and Gestion CBCC Inc. stand out in terms of capacity and size, each employs 300 and 200 employees respectively

Wholesale: includes only one Cree wholesale entrepreneur, Petronor, which provides fuel for the entire James Bay region. Chisasibi has 15 retailers and 10 businesses in the food and accommodation sector. This gives the community a comparably local competitive market for essential goods.

Other sectors: No further information was made available for other sectors unfortunately. Although the community is very close to Hydro-Quebec infrastructure, no entrepreneur or workers take part in the high paying sector such as utilities. In addition, if the construction sector leads the economy in terms of employments and businesses, the absence of the latter in the real estate sector, usually highly profitable, is questionable.

Business Projects or Potentials. No data was obtained for the aspirational projects (requests for funding, market studies, or business plans).

5.3.2 EFFECTS OF LGA ON LOCAL ECONOMY

5.3.2.1 BUSINESS OPPORTUNITIES

The Chisasibi representatives consider the following LGA proposed infrastructure to be relative to their community:

- The BDH rail extension, Phase II, from Rupert at the junction with the Phase I railway alignment to La Grande (Phase II).
- The BDH road extension Whapmagoostui/Kuujjuarapik to enhance the interconnectivity with Cree communities (Phase II).
- The Route 167 extension to Trans-Taiga Road (Phase II).
- The proposed Phase III rail extension has not been discussed in detail since it had been deemed non-economically viable within the 30 years study horizon as part of the previously preliminary LGA studies.

The advantage of having the LGA transportation program is that it would help promote the tourism industry. It is seen also to enhance the interconnectivity, partnership and cultural relations with other Cree and non-Cree which would, no doubt, bring numerous business opportunities and stimulate education among the youth. Proposed roads and railways would reduce the dependency on air and sea transportation by increasing the transportation flexibility and interconnectivity with the rest of the Eeyou Istchee territory, and thus reducing the cost of transportation of goods to the community as the needs to access to more goods and products are increasing. The rail component would reduce the number of trucks on the BDH which would improve the safety for community residents.

From the community point of view, the missing elements on the LGA program are the consideration of a coastal direct road connecting the communities of Wemindji, Chisasibi and Whapmagoostui. However, this is in contradiction with the community main concern of environmental impacts as a coast location would have even more impact than an inland alternative. The overall community's concern is related to the extensive use of lands for the development as it would impact land users in several ways. Specifically for example, the extension of Route 167 to Trans-Taiga would open up the territory and create disturbance for trapping and hunting activities as a large number of the community's traplines are located in that area. Over the past years, many non-Crees or people without hunting or trapping permit had entered the area which created interferences.

The business opportunities with the proposed upcoming LGA transportation infrastructure program could include those mentioned below:

- Local businesses could play a role in the proposed infrastructure planification and construction as well as services related to construction, monitoring (i.e., using drones), maintenance, and upgrading of infrastructure.
- The extension of road 167 would loop the transportation network allowing more flexibility towards different destinations and run-around trips for goods shipment. This would improve the supply chain for the entire region.

5.3.2.2 JCIM RESULTS

As the construction sector lead the local economy with CBDC and Gestion CBCC Inc. being capable of providing labour and equipment, and its large working age population, Chisasibi could expect to receive big amounts of contracts as well as large numbers of job creation. In fact, based on the Job Creation Model, Chisasibi construction entrepreneurs and workers could benefit from the construction and operation of LGA infrastructure as estimated in Table 5-2 below. The impact on contracts and employment during the construction phase appears to be the largest one amongst the nine Cree communities: more than \$2 billion of contracts for Chisasibi entrepreneurs from 2030 to 2044; and 867 FTE jobs per year during the three phases of the construction period.

During the operation period however, Chisasibi would not participate in Phase I due to its long distance to the infrastructure. As a result, the participation in the operation and maintenance of Phases II and III infrastructure would allow local entrepreneurs to obtain \$8.6 million of contracts, and local workers to get 166 FTE jobs on a yearly basis.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

This job creation impact appears to be low (3.6% increase) as compared to the working age population size of 4,537 by 2030. This is because Chisasibi has the ones of the lowest employment rate (60.2%) and labour market participation rate (55.4%) amongst nine Cree communities (61.1% and 56.6% are the average figures respectively). Many young adults remain attached to the traditional activities, while wage earning has just become an emerging part of the economy.

Table 5-2 JCIM Results per LGA Phase, Chisasibi

Impacts	Construction		Operation	
	Lifespan (2030-2044)	Annual Average	Lifespan (30 years)	Annual Average
Contracts (M\$)				
Phase I	891	178	0	0.0
Phase II	629	105	148	4.9
Phase III	486	81	111	3.7
Total	2,006	154^a	259	8.6
Employment (persons-years)				
Phase I	5,007	1,001	0	0
Phase II	3,535	589	2,850	95
Phase III	2,735	456	2,125	71
Total	11,277	867^b	4,976	166

Notes: a & b – the annual average figure was calculated by dividing the total amount of contracts (or employment) by the number of years from 2030 to 2044 (15 years of construction).

5.3.2.3 LONG-TERM SUSTAINABILITY

Being the most populous community amongst the Crees, Chisasibi's total employment number would nearly double in 2032, the peak year of the construction period. In the same year, the standard of living of Chisasibi residents would be increased by 78% from \$23,809 to \$42,352, thanks to the job creation impact. Starting from 2045 when the construction is completed, the operation and maintenance of the infrastructure would allow the standard of living to reach \$25,857 per capita. That is 7.4% higher than the \$24,066 figure estimated for the scenario without LGA. The impact is still significant by 2074 with a 5.2% difference.

It is worth noting that Chisasibi is located geographically at the centre of Phase II and Phase III infrastructure. Given its highest level of working population amongst the Crees and big sizes of construction entrepreneurs, Chisasibi could play a leading role in the execution of the LGA Project. In addition, the impact of LGA on employment and community's standard of living could be improved if they would be participating in the operation and maintenance of Phase I infrastructure.

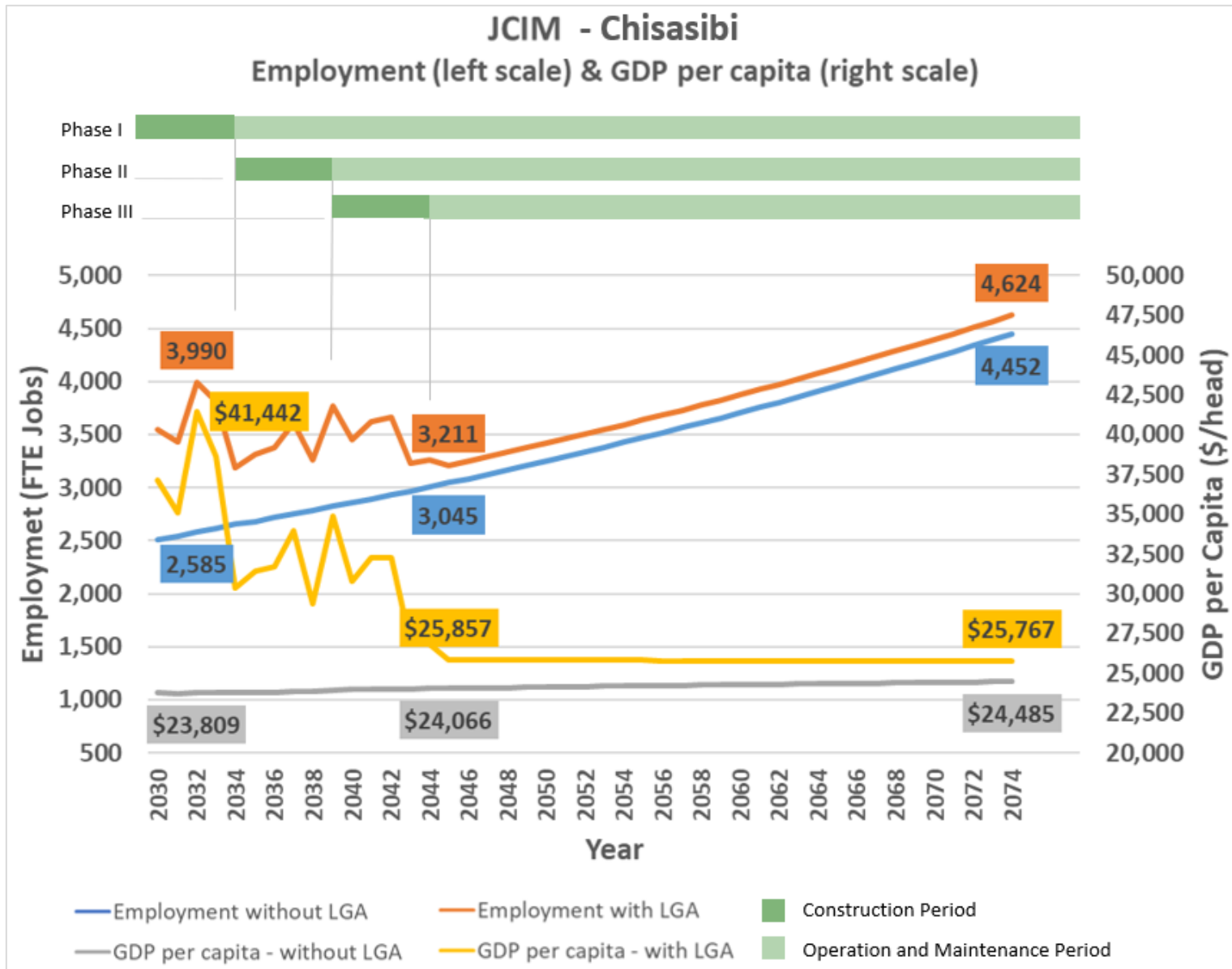


Figure 5-3 Impacts of LGA on Chisasibi's Economy and Standard of Living, 2030-2074

5.4 LAND-BASED ECONOMY

5.4.1 OVERVIEW

5.4.1.1 IMPORTANCE OF THE TRADITIONAL LAND-BASED ECONOMY

As stated in the section 5.1, the community of Fort George was greatly affected by HQ’s La Grande Complex megaproject, which began in the mid-1970s. Few communities, Cree or otherwise, have seen their territories transformed as quickly and radically as the Chisasibi Crees have seen theirs transformed by hydroelectric development (EPC Chisasibi, 2017). This project led to the flooding of numerous Chisasibi traplines, and resulted in the redrawing of several boundaries to accommodate those families whose lands were in the middle of the new reservoirs, with the intent of allowing them sufficient land to continue to practise traditional activities.

The EPC report indicates that the main issues concerning land use are related to hydroelectric development, namely damages to the land, disruption of a large part of the territory and the reduction of opportunities to practise Cree culture. Water quality, changes in goose migration patterns, a reduction Cree presence on the territory and a decline in culture and language are other issues that the Crees of Chisasibi associate with the impacts of hydroelectric development on their territory. In addition, community members have voiced concerns about the hunting methods of non-Natives, which go against their values as well as being perceived as unsafe. Concerns have also been raised about Cree hunters who do not always respect animals as well as traditional hunting practices (e.g., overhunting and not sharing the harvest with the broader community) (WSP, 2023a).

The strongest values that emerged from the Chisasibi EPC report in 2017 was the importance of the land, the community being out on the land together, and the transmission of Cree culture, knowledge, and values.

As mentioned in the section 5.2, 974 Chisasibi members (representing 574 family units) were enrolled in the ESP for their livelihood, sometimes combined with other occasional jobs, in 2021-2022. This represents the highest rate among the Cree communities. In total, 115,548 days spent in the bush were paid to the land users for that same year, for an average of \$17,893 per family unit (see Table 5-3). Ten years before (2011-2012), the people enrolled was almost the same (976), representing 24% of the population, but the family units enrolled was lower (496). To note that this represented an increase of 12% since 2000 (CHESB, 2023, CHESB, 2012 and CGW, 2015). The reason of this fluctuation in the ESP participation can be related to several factors, as economic climate, employment opportunities, and a readjustment in eligibility.

Table 5-3 Beneficiaries of the Economic Security Program (ESP), Chisasibi, 2021-2022

Chisasibi – Family Units (nb)	Total (adults and children)	Total Days Paid Spent in the Bush	Average per Family Unit (days paid)	Average Allowance per Family Unit (\$)
574	974	115,548	201	\$17,893

Source: *Compilation CHESB, Annual Report 2021-2022.*

Moreover, many other members spend some time on the land when possible. As an example, coming from LGA engagement activities, over 100 land users were listed on a sole trapline (CH06), using mainly the bay side. Other traplines less easily accessible are frequented by helicopter or snowmobile for goose, moose or caribou hunting, and fishing. Some users also trap (i.e., beaver and wolf).

Indeed, 2,637 members (including 252 junior) were enrolled at the CTA in 2021-2022, which is higher than a couple of years before (see Table 5-4). The local CTA offers different programs and services to its members. In 2021-2022 in Chisasibi, the most popular was the Gas Subsidy program, as 540 members benefited from it (see Table 5-5). The year before (2020-2021), a much smaller number of people received gas subsidies (30). The criteria of admissibility could have changed from a year to another to explain this variation. In 2020-2021, the beneficiaries received 205 l. gas each and had to stay in the bush for fall and winter.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

As mentioned in section 3.6.3, the price of fur has gradually declined over decades. Even though, some Chisasibi members continued to trap different kinds of fur-bearing animals. Table 5-4 indicates, for Chisasibi, the number of CTA members, the number of them who sold furs, and the amount of these sales from 2012 to 2020. Some data are not available for the recent years, but based on the figures in the CTA report, we understand that few members sold furs in 2021-2022, since of the 2,637 members, fur sales by the CTA amounted to \$5,981.

Table 5-4 CTA Membership, Number of Trappers who Sold Fur, and Amount Sold during 2012-2020 in Chisasibi

	2012-2013 ^a	2013-2014 ^b	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
CTA Member (n)	-	-	1729	1801	1876	1903	1900	2204
Trapper who sold fur (n)	39	53	39	38	49	26	23	8
Fur sales (\$)	-	-	\$15,553	\$16,449	\$33,266	\$11,806	\$8,584	\$1,047

Note a and b: these annual reports were not available on the CTA website, for this reason some data are missing.

Source: Compilation from 2012-2020 CTA Annual Reports.

Table 5-5 Program and Project Offered by the CTA in 2020-2021 and 2021-2022 to Chisasibi Members

Program/Project	Number of Members Helped 2020-2021	Number of Members Helped 2021-2022
Cabin insurance	-	29
Cabin building/renovation programs	21	30
Gas subsidy program	30	540
Hunting subsidies and supplies	90	325
Equipment repair or purchase subsidies	3	-
Transportation subsidies - Air or Bush plane	85	32

Source: Compilation from 2020-2021 and 2021-2022 CTA Annual Reports.

Finally, numerous camps are used on different traplines, which are also subject to non-native activities and mining exploration.

5.4.1.2 COMMUNITY ASPIRATIONS

In their vision of the future, the Crees of Chisasibi who participated in the EPC survey intend to do everything in their power to protect the territory that has not yet been altered. Several unaltered sites are highly valued for their importance as traditional activity areas, and areas of cultural significance. People wish to be involved in decision-making about the territory so that development can take place according to their values and wishes. They also believe that programs and other opportunities could facilitate the movement and presence of members on the territory. Finally, respondents believe that the trapline system should be reviewed to ensure that it will pursue its objective to respect Cree values (EPC Chisasibi, 2017).

On its website, the mission of the Cree Nation of Chisasibi (CNC) community aims to “serve its residents by providing a safe, secure, and healthy environment while protecting and preserving our Eeyou rights, customs, and traditions. It is also to facilitate and promote the growth and well-being of the community by maintaining the highest standards, values, and principles.” Ensuring that traditions, knowledge, and values are passed down from generation to generation is also at the heart of their vision of building a strong community. The term “*Aayaanischa*” represents this concept of learning, knowledge, and connecting generations (CNC, 2023).

5.4.2 RESOURCE ACCESSIBILITY

Changes in resource accessibility (whether physical access or the quality and abundance of resources) can lead to impacts on the Cree economic and cultural way of life. Although these are closely related, this section mainly addresses the physical access, while the quality of resources is briefly covered in section 5.4.3.

5.4.2.1 CHANGES AND CONSTRAINTS LINKED TO DEVELOPMENT

In 1980, a permanent road to the community was built from the BDH. Prior to this date, the community or the traplines were accessed by plane, boat, or snowmobile. This road has obviously democratized the access to other communities and to the south, as well as to traplines located along this road and along the BDH.

As mentioned before, hydroelectric development had a huge impact on the land use and the mobility. The Comprehensive Community Plan of Chisasibi (CNC, 2020) details:

“The effects of hydroelectric exploitation on biodiversity and Cree communities have been significant: water and fish have been contaminated by methyl mercury; the natural seasonal flow of the rivers has been modified, and the La Grande River does not freeze in the winter anymore because of the rapid flow; the La Grande River was transformed from a saltwater to a freshwater environment, causing the disappearance of eelgrass; water temperatures have changed; wetland productivity has decreased; 11,500 km² of land was flooded, and the decomposition of vegetation causes greenhouse gases; shoreline and habitats have been destroyed due to erosion and fluctuating water levels; animal migration routes have been compromised (10,000 caribou died at once trying to cross the river); and the traplines of 4 of the 9 Cree communities were affected, with Chisasibi’s being the most affected. For the Crees, the project made food scarce and impacted their culture’s long-standing relationship with the environment.

The changes in the river’s flow system, which were expected to cause erosion on the island, ultimately threatened its existence. Negotiations between the Crees, the GQ and the James Bay Power Project led to the Fort George Relocation Corporation. In 1981, the community voted to be relocated to its current location by the river, from which it took its new name, Chisasibi.

Houses were moved, new buildings were constructed, and a new village was built in only a year. While the community has been experiencing significant growth since then, the threat of flooding due to the hydroelectric exploitation of the river is still very much present.” (CNC, 2020)

During LGA engagement activities, Chisasibi land users recalled the importance of cumulative effects experienced on the land, such as the decline of the beaver population near the road and the Robert-Bourassa Reservoir due to water-level variations and human activities.

The climate change is another vector of changes in the harvesting areas, impacting on the time span and the way of doing activities. It notably compromises the travel within the territory, and therefore the traditional activities. Moreover, climate change impacts the wildlife and consequently, those who rely on these resources. According to Chisasibi land users (LGA engagement activities,), climate change is modifying and restricting hunting activities. Some of the former goose hunting sites are no longer accessible by snowmobile, migratory caribou no longer pass where they used to, and there is no more woodland caribou. Some users feel that a road would facilitate access to part of the trapline, especially since climate change is disrupting snowmobile travel and shortening the activity periods.

Finally, as for other Cree communities, access to the territory and the resources remains essential to ensure the continuity of the Cree way of life, linked to activities on the land. However, despite the development of new roads that facilitate access to different parts of the territory, there are growing difficulties and concerns regarding accessibility to resources. They are linked to cumulative impacts on land and resources, increased pressure on wildlife (hunting and fishing), forest fires, and climate change, which considerably restricts travelling possibilities.

5.4.2.2 IMPACT OF PROPOSED INFRASTRUCTURES

Chisasibi is considered for the road and rail extension towards Whapmagoostui. This implies the opening of the territory north of Radisson, and, as a main positive impact, easier access to the land and resources, especially in a context of global warming affecting the snowmobile travels. Land users interviewed however raised many concerns regarding the proposed road and railway.

Several camps are located along the BDH (in the part of the alignment targeted for the rail extension of Phase II), which gives access to various activity areas. Moreover, the alignment crosses areas used for moose, caribou and goose hunting, beaver trapping and other fur-bearing trapping, fishing, berry picking, and mushroom harvesting for commercial purposes (resale in Japan). Camps along the road are easily accessible, but some mentioned that traffic is a nuisance to camp users. When possible, they prefer to go along the bay to be quieter. Some mentions that camps of easy access are important for people losing mobility, and they must be protected, as their surrounding areas.

The section of the alignment targeted by the new road (Phase II) and rail extension (Phase III), which include opening of the territory is less intensively used, but encroaches on goose hunting areas, caribou migration road, fishing areas, bear dens and beaver trapping areas, among others, as well as snowmobile trails. A cultural camp for youth (run by the CBHSSJB) is also on the proposed alignment.

Land users fear that the road may have various impacts such as the reduction in abundance of wildlife and plants that are harvested (e.g., geese, ducks, and Labrador tea) and the theft of equipment from camps. They are concerned that non-native camps would be built along the proposed road, and that the road and rail corridor would become public land (Category III) and thus, available to anyone for camp construction. Some fear that their fishing sites (which are a stable source of food) would be used by other users, and thus asked for the road to pass away from their main activities areas to preserve them for future generations.

Some land users are in favour of a road that would provide easier access for youth and seniors to some areas, but others prefer not to have a road on their trapline. Some would prefer the rail if it were also designed for passengers. Land users are not unanimous regarding their preferences and concerns, and more information is needed to help them to better foresee the impacts.

The impacts anticipated by Chisasibi's land users on resources are mainly related to potential pollution and wildlife disturbances. These aspects are addressed in section 5.4.4.2.

5.4.2.3 SUGGESTED MEASURES AND OPPORTUNITIES

Few measures or suggestions emerged from the LGA engagement activities, regarding the access to resources. It was suggested by Chisasibi members to develop accesses to hunting sites, since global warming is disrupting the snowmobile travel during the goose hunt (inland and along the bay). Other suggestions, as improving access to camps, or build a boat ramp also shows the priority of land users to facilitate the access to the land.

Other measures, as to regulate the non-native fishing along the road, to protect certain lakes, and to reduce the frequency of train travel during spring goose hunting were also suggested by Chisasibi members. The need to be kept duly informed of the LGA proposed infrastructures and the developments that will result from it was also raised.

See the section 3.6.2 for general suggestions or opportunities applicable to the Cree communities for a better accessibility to resources.

5.4.3 CULTURAL CONTINUITY

The result of the EPC indicates that Chisasibi has a powerful sense of its cultural identity and heritage, and preserving this is one of its priorities.

“This includes knowledge of how to live on the land as the ancestors did, and also the stories of the trials and accomplishments of ancestors. These are important not only for renewing critical cultural knowledge and knowledge of the land, but also for instilling a sense of cultural pride and identity. The dramatic changes to the Cree lifestyle in recent decades have made the preservation of cultural identity and heritage

more challenging, but the value people place on this reflects a determination to keep this heritage alive for generations to come.” (EPC Chisasibi. 2017, p. 8)

The EPC also states that language is deeply rooted in the land and traditional way of life, and, as each generation is more limited in the amount of time they can spend on the land, they are limited in the knowledge they can acquire and pass on, making the problem progressively worse. However, community members are determined to ensure ongoing vitality of their language, culture, and way of life (EPC Chisasibi. 2017).

As mentioned in the section 5.4.1, the Chisasibi Crees intend to do everything in their power to protect the territory that has not yet been altered. Several unaltered sites are highly valued for their qualification as core activity areas or areas of cultural significance.

A key category of sites that the Chisasibi Crees seek to protect are cultural sites: campsites, burial sites, archaeological sites, sites associated with stories, etc. These often coincide with sites of ecological value (fishing, firewood, etc.), but also have deep cultural and sentimental significance to Crees (EPC Chisasibi, 2017).

Finally, let us recall that people wish to be involved in decisions about the territory so that development would take place according to their values and wishes. They also believe that programs and other opportunities should be developed in order to facilitate the movement and presence of community members on the territory, and some believe that the trapline system should be reviewed to ensure its implementation continues to respect Cree values (EPC Chisasibi, 2017).

5.4.3.1 IMPACTS OF INFRASTRUCTURES ON CULTURAL CONTINUITY

Proposed infrastructure and development could undermine cultural continuity if they prevent Chisasibi members from accessing specific areas and resources, disturb valued areas or contaminate the environment. Restricted activities or less healthy resources to gather mean a loss of traditional knowledge, including language, to pass on to the next generation.

During LGA engagement activities, Chisasibi land users stated that the territory must be respected and preserved for future generations and the Cree way of life. Protection of highly sensitive areas are capital to this. Near the alignment, some are valued for hunting bears, moose, ptarmigan, and geese, and for fishing and blueberry picking.

Some four burial sites were identified within a kilometre from the alignment (road or rail) on Chisasibi traplines. Disturbances (during the construction and from vehicles or train passages) could be felt when visiting these sites.

The proposed infrastructures could affect the water bodies in different ways (vibration, pollution, disturbance, obstruction) and thus impact the cultural activities. The construction or the operation of the railway and road could also impact other cultural activities on the land, not directly related to water bodies (as notably ceremonies and hunting). As land use and culture are deeply rooted together, these impacts on access, water and resources are addressed in section 5.4.2– Resources accessibility and 5.4.4–Synergies and conflicts.

5.4.3.2 SUGGESTED MEASURES AND OPPORTUNITIES

During LGA engagement activities, one tallyman mentioned stories associated with various lakes along the alignment, some of which explaining the origin of their Cree names. This information could be recorded in a non-tangible heritage conservation purpose.

It should be noted that in the LGA engagement activities and EPC report, the subject of ecotourism has been slightly less prominent for Chisasibi than for other communities, but there is generally a growing interest in ecotourism and cultural preservation in terms of economic opportunities, as these two aspects can be combined.

The section 3.6.4 shows other measures that could be put in place for all the Cree communities to ensure that the infrastructures would not interfere with cultural continuity and to promote the use of the land.

5.4.4 SYNERGIES AND CONFLICTS

5.4.4.1 POSITIVE IMPACTS AND SYNERGIES

Several users wonder in what ways (ownership, management, economic opportunities) the Crees would benefit from the proposed infrastructures. Not many positive aspects have been raised, other than to give a better access to the territory for younger or elders mainly, and in the context of global warming where travelling becomes an issue. Better costs for supply were also mentioned once.

As mentioned for other communities, if Crees have facilities to use the train (e.g., affordable price, possibilities of on-demand stops, transportation to reach and leave from the train stop), it could encourage activities on the land and land-based economy. Some would, however, prefer to have a road along the bay, which would be more convenient to reach the camps, as snowmobile transportation in the bay area becomes dangerous.

5.4.4.2 NEGATIVE IMPACTS AND CONFLICTS

The Chisasibi members who are not directly gathering wildlife from the road and railway study area should feel less concerned by its impacts, unless the project under study involves other developments, such as new mining activities. As mentioned above, if cultural continuity and accessibility to resources are jeopardized, the whole community might feel some impacts or loss.

Many concerns were raised by Chisasibi land users regarding the stability of the wildlife population if infrastructures are built.

Some land users think the infrastructures construction will affect fish (including migratory fish), the fishing sites and the water sources. Some of these latter presents in the alignment are notably high valued. Contamination could also occur in the event of a spill or derailment, or due to the creosote treatment used for the railway (wooden ties), or even worker's camp and toilets. Indeed, valued fishing areas, beaver and moose habitats and drinking sources have to be protected.

Many land users are concerned about large wildlife being hit by the trains and say the railway would alter the caribou migration route. The caribou may use the proposed rail or road corridor to travel, with all the risk of collision it entails. Some are also concerned about the noise pollution.

Some land users estimates that the railway is one additional project out of too many as they have already experienced several impacts on their territory (from hydroelectric developments, power lines and roads). One recalls that lakes, as Polaris Lake, are not used anymore for fishing, because of mercury concerns. Some do not support these proposed infrastructures as they are very concerned about the opening up of the territory for mining activities, which would have harmful effects on the users. Indeed, in addition to the impacts of the road and rail construction, land users are concerned about the pollution that would be generated by mining activities, promoted by the proposed infrastructures. There are also risks of contamination of water bodies flowing into the James Bay that would affect the whole community.

Some also fears other users will come on the land for hunting or fishing purposes, increasing pressure on the wildlife resource. There are highly valued areas (and important source of food) to protect from other users and from contamination, such as Roggan Lake.

It was also mentioned that even if some areas are seldom used, the Crees want to continue to use these in the future, and it is important the keep them unpolluted. It was recalled that consultation and information remain essential, and that the important thing was that the project had to be decided and made in full knowledge of the facts by and for the Crees.

5.4.4.3 SUGGESTED MEASURES AND OPPORTUNITIES

See the section 3.6.2 for suggestions and measures that concern all Cree communities involved.

It should be noted that Chisasibi land users specifically mentioned that strong attention should be given to the water protection, the fish, and caribou habitat.

5.4.5 ECONOMIC VIABILITY

5.4.5.1 EXPECTATIONS AND OBSTACLES

To continue to use the land, people must be able to afford the travelling and the stay in the bush. A Chisasibi land user mentioned he was in favour of the proposed infrastructure if it enables them to supply future generations at a lower cost (gasoline, material, food).

Land-based activities can also be considered in a way other than purely traditional, in order notably to ensure a greater viability of activities on the land. In Chisasibi for example, commercial mushroom harvesting represents a long-term source of income for some families. It is thus important for them to preserve their mushrooms picking sites. To note that it was mentioned in the Chisasibi EPC as well as in some recent focus group, that it is not part of the values to sell wild food to gain some profit. Some people do it, but wild food should be shared, not sell, according to respondents. However, the mushroom harvesting is a relatively recent activity for the Crees, and this resource do not endorse the same cultural value as other traditional resources such as wild meat.

Sharing is a core Cree value that some people feel is disappearing. Also, some people are now less preoccupied about using the whole animal and tend to discard some parts that were used or consumed by their ancestors (EPC Chisasibi, 2017). There is a concern regarding the number of animals harvested and the way they are harvested, has overharvesting has an impact on all community members.

Some of the EPC respondent also deplore the changes in the trapline system, who turns from conservation purposes to ownership, notably because of project developments and related compensation. This limits opportunities for some people to go on the land and goes against the long-established Cree tradition of sharing and viewing the land as a collective resource.

The work done for the protection of the territory (by defining protected areas) is a milestone for Chisasibi members, and as stated in the EPC: “With the changes that Chisasibi has seen happen on its lands in the past 50 years, conservation of the land has become increasingly important. There is a sense that many areas have already been altered, and those that are still intact and good for harvesting urgently need to be protected from the negative impacts of development.” In this regard, a land user stated, during the LGA engagement activities, that the boundaries of the protected areas changed to allow the road to run through their trapline without their knowledge or consultation.

Crees want to have the control over development, to ensure it respects the Cree values, the land and the way benefits are distributed into the community.

5.4.5.2 NEW PATHS FOR LAND-BASED ECONOMY

Chisasibi members expressed several ideas and fields of interest for the development of activities or businesses during the consultation process of the LGA studies⁹ and the EPC. Some were related to the land-based activities and are listed below:

- Food market with local product, as mushrooms, berry, or traditional bread;
- Increase the Cree presence on the land through programs and other opportunities to facilitate their access to the land;
- Teach Crees to hunt and harvest as their Elders did, without over killing and using all parts of the animals;
- Development of conservation projects and protected areas, including planning and operation;
- Development of the wood industry, plank factory (to specify with the community);
- Development of Cree entrepreneurship and community autonomy.

See section 3.6.4 for more considerations regarding business or activities related to the land, that are not all traditional activities, but could, if developed, generate income while remaining connected to the land.

⁹ See Technical Notes 3 and 5 (LGA, 2023 a and b)

5.5 COST OF LIVING

Basic goods and services in Chisasibi cost less than Eeyou Istchee averages. In particular fuel costs are significantly lower than the Eeyou Istchee average, and similar costs to the regional hub of Val d’Or, thanks in large part to the high demand from the airport and Hydro-Quebec facility nearby. In addition, Petronord which is based in Chisasibi acts as the only Cree petroleum project supplier that exists in the region. The lower cost of fuel mitigates in part the higher costs of other goods and services.

Table 5-6 Commodity Prices, Chisasibi, Fall 2023

Item	Price	Cree Average	Difference
Food and beverage			
10 pounds potato bag	\$9.99	\$11.54	-13%
12 eggs	\$6.29	\$5.90	+7%
2 litres of 2% milk	\$7.89	\$6.77	+17%
500 g lean ground beef	\$11.90	\$9.79	+22%
Club Sandwich with fries at restaurant	\$19.50	\$17.16	+14%
Total	\$55.57	\$51.16	+9% -13 % to +22%
Transport			
1 litre of regular gasoline	\$1.79	\$1.94	-8%
Housing			
Average monthly shelter costs (rent)	\$446	\$498	-10%

Source: based on prices observed at: Northern store

The price index for Chisasibi is 0.92, meaning that the cost of goods in Chisasibi is 8% below the average in comparison with Eeyou Istchee. In the case of food items, this changes to +9% compared to the Eeyou Istchee average cost for food items. Compared to non-Eeyou communities, Chisasibi pays more for gasoline (about 15% higher), significantly more for food and beverages, but this is compensated by shelter costs that are about 40% lower than non-Cree communities. Chisasibi residents also pay more for perishables than Jamesians.

Average after-tax income in Chisasibi (at \$40,920 or about 1% lower than Eeyou Istchee) does not offset higher prices for food and fuel. Shelter prices, however, are lower for about 70% of the population of Chisasibi (69.7%), which is also the case on average for Eeyou Istchee (67.31%). That is, for two thirds of the Chisasibi, food and fuel is affordable even at over 30% higher prices (for food) and 10-15% higher prices for fuel, compared to non-Cree communities.

It can be assumed that in Chisasibi about 30% of dwellings are privately owned. And for them the cost of living is presumably higher if they are paying a mortgage, for example. About 30% of the community’s population is formally employed by the almost 100 employers in the public and private sectors. This translates into over 1,500 people who presumably have more disposable income to consume higher-priced goods. It could be speculated that they may contribute to inflating some prices.

Table 5-7 2023 Price Index Comparison, Chisasibi

Index	Chisasibi Relative to Cree Average	Cree Community Relative to Jamésie	Cree Community Relative to Abitibi-Témiscamingue
General Index (all items)	◆0.92	◆2	◆2
Food and beverage items only	◆1.09	◆1.19	◆1.30
Gasoline only	◆0.92	◆0.66	◆0.60
Rent only	◆0.90	◆0.85	◆0.82

Note: The index was constructed using prices listed at 1 store in Chisasibi, 2 in Jamesie and 2 in Abitibi-Témiscamingue

It could be expected that as road infrastructure improves, there would be fewer incidental costs to transport essential goods to the community. Those costs, mainly maintenance costs due to potholes damaging vehicles, etc., would be translated into cost savings for vehicle owners, and transportation companies shipping in goods. The BDH is the only road in and out of Chisasibi. This is a critical vulnerability that can be mitigated should LGA facilitate a consensus about how to improve road connectivity in Chisasibi. Aerial transportation gives Chisasibi a vital link to the territory, as demonstrated by the recent forest fires that closed the BDH. But road freight will be more economical in comparison and have a greater mitigating impact on the cost of living in the community.

5.6 SUMMARY

Despite being the most populated Cree community and seen as a vital economical role in supporting the governmental infrastructure and institutions, Chisasibi ranks at the bottom in terms of economic performance amongst the Crees. The main reason for that is the community’s participation rate (60.2%) and employment rate (55.4%) are both ones of the lowest ones amongst the Crees. In addition, with the cost of living ranked one of the lowest, Chisasibi’s has not been taking advantage of this factor to lead Cree economy as it could be translated into the so-called economies of scale.

However, with the LGA, the future could be much brighter for the community. Having the highest number of working age population and being located at the centre of the proposed LGA Phase II and III infrastructure, Chisasibi could lead the construction and operation of the latter. In fact, our study predicts that Chisasibi appears to be the most beneficial community in terms of contracts received and employment created amongst the Cree communities: more than \$2 billion of contracts for Chisasibi entrepreneurs from 2030 to 2044; and 867 FTE jobs per year during the three phases of the construction period. For the operation period, local entrepreneurs could obtain \$8.6 million of contracts, and local workers to get 166 FTE jobs on a yearly basis. The LGA is therefore expected to change the dynamic of Chisasibi in the future towards a more diversified and a wage-earning economy.

In Chisasibi, the ESP recipient rate stands at 19%, surpassing the Cree average of 14%. Nonetheless, from 2014 to 2022, a decline in the proportion of traditional hunters by 5% mirrors trends seen in other Cree communities. As for other communities where infrastructures could open the territory, some Chisasibi land users feel that a road would facilitate access to the land, especially since climate change is disrupting snowmobile travel and shortening the activity periods. It was also mentioned that the infrastructures could contribute to maintain the Cree way of life, if it enables them to supply future generations at lower costs. But others do not support the proposed infrastructures as they are concerned about the opening of the territory for mining activities. There are generally growing concerns regarding pressure on wildlife (hunting and fishing), stability and quality of resource and forest fires. Some of them recalled the importance of cumulative impacts already experienced on the land and insist that projects must be decided by and for the Crees. Development must take place within the framework of strict environmental considerations to be accepted by the community.

6 WEMINDJI

6.1 CONTEXT

Meaning “ochre hills” from the Cree word wiimin uchii, Wemindji is a coastal community located along the James Bay and at the mouth of the Maquatua River. The community life and activities have always been organized around the Maquatua River estuary.

Wemindji people originally lived at the trading post known as “Paakumshumwashtikw”, Old Factory or Vieux-Comptoir, an ancient gathering place. It was, from the 17th century until 1959, established on the Paakumshumwashtikw Island, at the mouth of the Vieux-Comptoir River, about 45 km from the present location of the village (CNW, 2023). The Crees of Wemindji maintained an economy based on the traditional activities and the fur trade system up to the second half of the 20th century (WSP, 2023a). In the late 1970s, the community members saw major social and economical changes induced by the hydroelectric development of the La Grande Complex, followed by the Eastmain-Sarcelle-Rupert Complex. The impacts on some Wemindji traplines have changed the accessibility to wildlife resource.



Credit: Marc Beauregard, VEI.

Figure 6-1 Maquatua River

Wemindji population is more than 1,500 people. Located west of the BDH, the community is accessible by a 96km access road that was completed in 1995 and that connects with BDH at KP 518. The road is paved only for 23 km in, the other 73 km being in gravel. The BDH and Trans-Taiga Road are also important corridors used to access traplines, including neighbouring areas for which no other road access exists. The road distances (and travel times) are 270 km (4 hours 25 minutes) to Chisasibi, and 615km (8 hours 20 minutes) to Matagami. Maheux (2023) provides a bus service between the BDH/Wemindji access road intersection and Val-d'Or/Chisasibi twice a week. Located close to the community village, the Wemindji airport has similar features to the airports in other Cree communities (VEI-WSP, 2023). There is one flight per day (Wemindji, 2023). The local airport offers connection flights of approximately 4 hours to Montreal. The maritime transportation is also frequent with the presence of a small wharf used as a transshipment hub for small volume of merchandise (housing construction materials) destined to the North.

As shown in the Figure 6-3, Wemindji territory includes 21 different traplines located on either side of the Maquatua River, managed by tallymen and used by their extended family as well as other community members. The territory of Wemindji is characterized by abundant wetlands, protected areas, and a proposed biodiversity reserve of large extent, as the community wish to conserve the watersheds of the Vieux Comptoir and Peuplier rivers. -

The LGA infrastructure of interest for Wemindji include:

- The upgrading and paving of the community access road (Phase 1).
- The BDH rail extension, Phase II (from Rupert River at the junction with the Phase I railway alignment to La Grande River).
- These two components of the LGA would make transportation of goods to the North through the community maritime harbor, in particular construction materials, faster. In addition, like Chisasibi, Wemindji is geographically located at the center of the LGA Phase II and Phase III infrastructure. The community entrepreneurs could play a very important role in executing the construction work, as well as the operation and maintenance work.



Credit: Patricia Raynault-Desagné.

Figure 6-2 Fur harvest

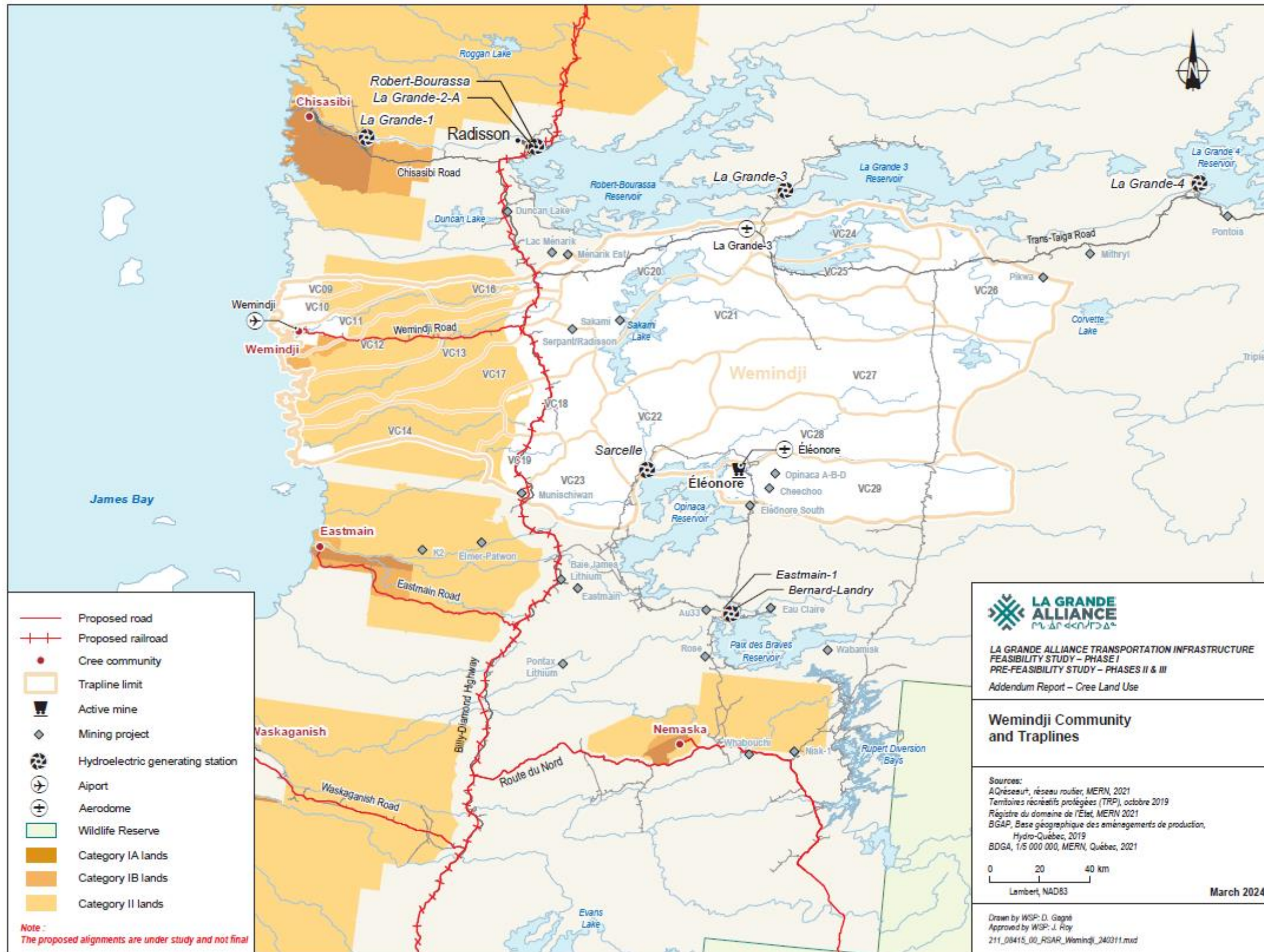


Figure 6-3 Wemindji Community and Traplines

6.2 INDICATORS

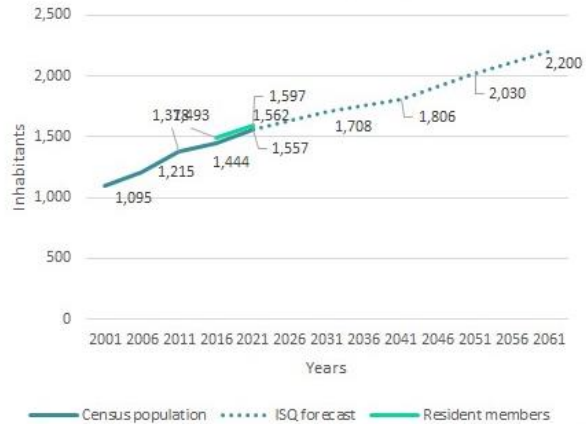
The main characteristics of the population living in the community of Wemindji are presented below. Note that the data shown represents the 2021 situation as per the StatCan Census data unless otherwise specified.

Population

The population of Wemindji amounts to 1,557 inhabitants as of the 2021 Census. Over the past 20 years, according to the StatCan Census, the population has experienced a 42% increase or a CAGR of 1.7% per year, which is lower than the Cree average figure of 1.8%.

According to ISQ (2021) forecasts, the population would reach 1,800 people by 2041 and 2,200 people by 2061. This means the annual increase in population of the community (1.3%) is projected to be higher than the Cree average (1.1%)

Population, 2001-2061



	Wemindji	Crees
Annual population growth (2001-21)	1.7%	1.8%
Annual population growth (2021-41)	1.3%	1.1%
Non-resident members (2021)	17 (1.1%)	1.7%

Source (Members): CHESB (2022).

Age structure

Like all other Cree communities, the Wemindji a good proportion of the population is young, with 45% aged less than 25 years old in 2021. Recent growth (2016-2021) is a result of many newborns (135) over this five-year period, accounting for approximately 8.6% of the total population. About 125 persons immigrated to the community during the same period, accounting for 8% of the total population. Both natural growth of the population and immigration are expected to be lower than the Cree average (8.6% vs. 9.3% and 8% vs. 10.4%).

Until 2041, the youngest group (0 to 14 years old) is expected to decrease in numbers while the group in the working age (15 to 24 and 25 to 64 years old) should grow faster than total population and thus, their proportions should increase. The population is predicted to get older on average, with the number of seniors aged 65 years and older will go from 105 people to 264 people. The demographic dependency ratio would remain similar, although there would be fewer young people and more seniors.

Age Groups, 2021-2041



(2016-2021)	Wemindji	Crees
Births	135 (8.6%)	1710 (9.3%)
Incomers	125 (8%)	1900 (10.4%)
Deaths and out-migrants	142 (9.1%)	2480 (13.5%)

Source: 2041: ISQ.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Families, households, and dwellings

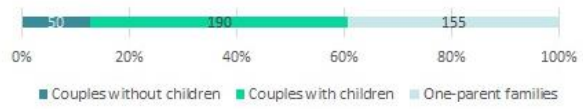
Out of the 395 families in the community, 190 (48%) are composed of couples with children and 155 (39%) are families led by a single parent. The dominant household type in the community is the single-family setup, making up nearly 61% of the households. This showcases the family-oriented structure of the Wemindji community. The remaining households are either multi-family, several non-related persons, or single persons.

Out of the 395 dwellings in Wemindji, the vast majority (~76%) are band-provided, while 8% are rented, and 15% are owned. Additionally, 10% of those dwellings are overcrowded, and 31% of dwellings require major repairs. This is lower than the Cree average, but higher than in Jamesian towns.

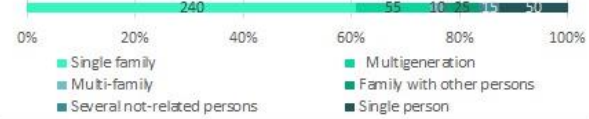
Ethnicity and Language

The population of Wemindji is predominantly Cree (94%). Nearly the entirety (85%) uses the Cree language as their mother tongue; in comparison, 14% uses English and only ~1% uses other languages. The number of Cree-speaking individuals has slightly decreased over the English-speaking individuals within the community over the past decade. Notably, a significant portion of the population is bilingual.

Family Structure



Household Type

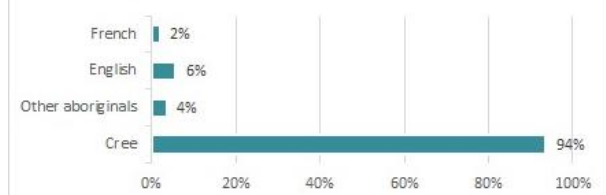


Tenure

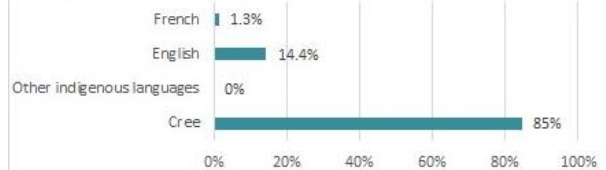


	Wemindji	Crees
% overcrowded dwellings	10%	15%
% dwellings with major repairs needed	31%	24%

Ethnic Origin



Mother Tongue



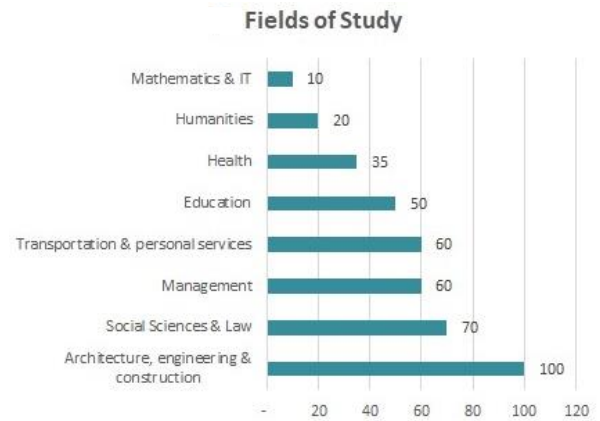
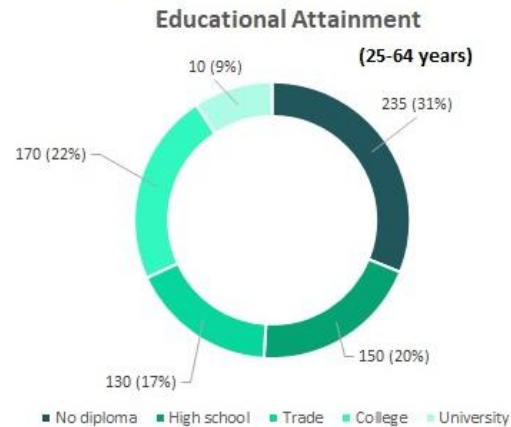
Knowledge of Languages	2011	2021
Cree	91%	89%
English	95%	98%
French	6%	5%

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Education

Slightly more than two-third (69%) of the population aged 15 to 64 years old has at least a high school diploma, which is lower than the Jamesian figure (75%) and the provincial average (88%).

The educational profile of Wemindji is similar to the Cree average. Among the one-third (30%) of the Wemindji people who have higher education (CEGEP or university), the fields of Architecture, engineering & construction, Social Sciences and Law as well as Management are the most predominant. This rate of higher education is comparable to the Cree and Jamesian averages, but significantly lower than the one observed for Quebec (52%).



Land

The combined 1A and 1B land categories amount to 567 km². The Wemindji territory includes 21 traplines covering 29,819 km².

The current percentage of ESP recipients in Wemindji (19%) is slightly higher than the Cree average (14%). Over the span of 2014 to 2022, there was a low decreasing trend in the share of traditional hunters in Wemindji (-2%).



	Category 1A	Category 1B	Traplines
Land area (km ²)	387	169	29,819
	Wemindji		Crees
Nb/% beneficiaries on ESP Program	149 (9%)		14.3%
Avg. annual ESP unit allowance (21-22)	\$ 14,886	\$ 18,580	

Source: 1. Traplines: CMEB (2022). 2. ESP: CHESB (2022).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Labour Market

Wemindji's labour market participation and employment rate (62.6% and 58.1%, respectively, in 2021) are higher than the Cree averages (61% and 56%, respectively), and lower than the Quebec average (64% and 59%, respectively). As participation and employment rates remained rather stable over the last 20 years, with Wemindji's participation and employment rates around five percentage points lower than the Cree average, and around five percentage points lower than the Quebec average. Wemindji's concentration of permanent jobs (71%) is slightly below the Cree communities average (73%).

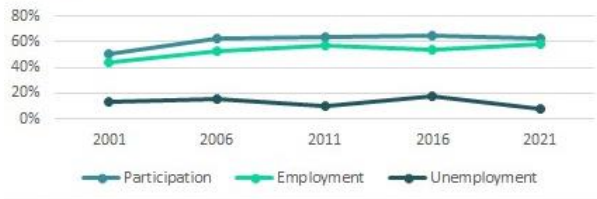
Evolution of Employment

According to the Census, an estimated 645 persons worked within the community since 2016. The participation and employment rates have increased slightly relatively steady over the last 20 years. Several economic sectors have experienced growth over this period, with Education and Agriculture, Wood & Mining seeing the most significant increase. The public administration sector with the healthcare and education sectors employs the largest portion, accounting for about 62% of the working-age population.

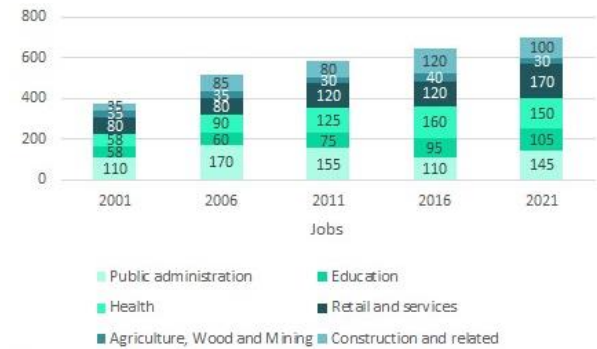
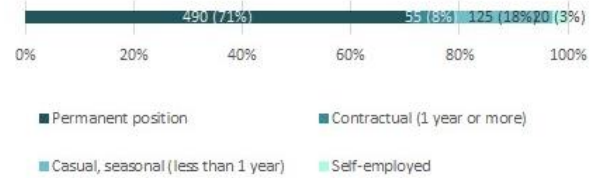
Economic Activities

According to the employer consolidated database, public employers, which include public administration, healthcare and social services, and education account for the highest number of jobs (305 or 58% of local employment) which, combined with education and retail, provides 306 jobs or 47% of community employment in Wemindji (SPN, 2023). In the private sector, the Mining, oil, and gas employ 90 workers.

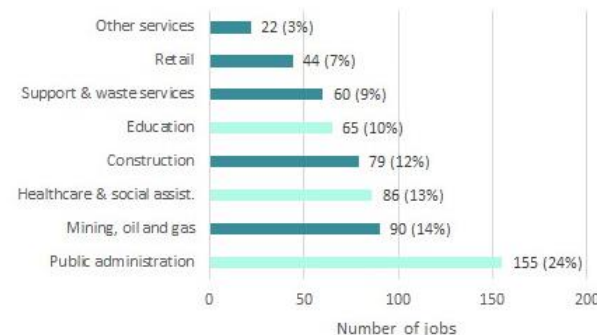
Labor Rates



Class of Worker



Economic Activities (2023)



Source: DCI-EDO (2023a) and SPN (2023).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Main Employers

Following the local economic structure, the main employers are public entities Main businesses include Tawinch Development Corporation and Synee Drilling Inc. a Mining Oil and gas company.

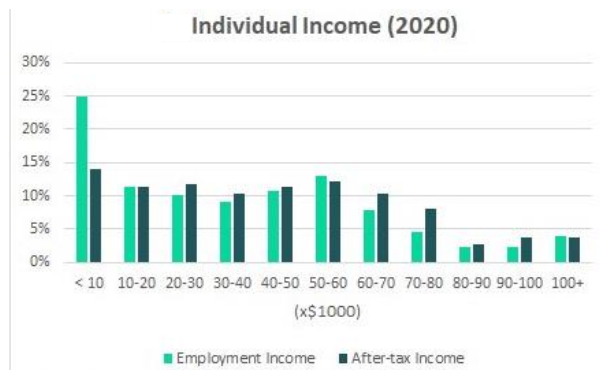
Business name	Activity	Jobs
Tawich Dev. Corp.	Public administration	100
Synee Drilling Inc.	Mining, oil and gas	90
Wemindji Clinic	Healthcare & social assist.	70
Elem. School	Education	65
WCS JV	Support & waste services	60
VCC GC	Construction	50
Wemindji Cree Nation	Public administration	40
Community Store (Wem.)	Retail	33
Pavages Wemindji	Construction	26
Childcare center	Healthcare & social assist.	16
Large sector		% jobs
Public Sector		46%
Private Sector		54%
Total		659

Compilation from DCI-EDO (2023a) and SPN (2023).

Income

Overall, the median and average employment income in Wemindji were estimated to be \$39,200 and \$39,800, respectively. Both the median and the average are slightly above that of the aggregate Cree communities which are \$36,300 and \$38,900.

Nearly a quarter (21%) of households receive government transfer income. This places Wemindji at 0.34 on the market income Gini index, indicating a level of income within the community lower than the Cree population score (0.39) but higher than the Matagami score (0.25).



Individual income (2019)	Wemindji	Crees
Median total income	\$ 39,200	\$ 36,300
Average employment income	\$ 39,800	\$ 38,900
Average after-tax income	\$ 42,400	\$ 41,300
Household income (2019)	Wemindji	Crees
% of government transfers in income	21%	24%
Prevalence of low income	4%	5%
Gini index, market income	0.34	0.39

6.3 ECONOMIC OPPORTUNITIES

6.3.1 ENTREPRENEURSHIP/DIVERSIFICATION

Wemindji does not consider itself an “isolated community”, having developed telecommunications, road, and aerial (helicopter) connectivity to other communities, and to traplines. A total of 455 people (over 30%) are formally employed in the community by 28 businesses and public institutions or agencies (Table 46-1). Of this number, 306 or 67% work in the public sector. The highest number of public sector jobs corresponds to Tawinch Development Corporation, owned by the band, with 100 employees.

Wemindji has several small businesses providing hospitality services, cultural products, and specialized professional services in consulting, construction, and transportation. The following specific information about the community private sector was obtained.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 6-1 Employment per Sector, Wemindji, 2023

Sector	Number of businesses	Number of jobs	% jobs
Public administration	6	155	34%
Health Care and Social Assistance	2	86	19%
Construction	2	76	17%
Educational Services	1	65	14%
Other services (except public administration)	3	21	4.6%
Accommodation and food services	3	15	3.3%
Arts, Entertainment & Recreation	2	10	2.2%
Transportation & Warehousing	4	9	2.0%
Information and Cultural Industries	1	8	1.8%
Retail	2	6	1.3%
Professional, Scientific and Technical Services	2	4	0.9%
Total	28	455	100%
Education, health, public administration	9	306	67%
Other sectors	19	149	33%

Note: there were no businesses or jobs recorded in the following sectors: manufacturing; administrative, support, waste management and remediation services; mining, quarrying, and oil and gas extraction and utilities

Note: Due to missing data on employment for a certain number of businesses, a minimum of one employee per firm was supposed as a hypothesis. Therefore, the actual employment could be higher than estimated Table 6-1.

Sources: Processed from DCI (2023a), SPN (2023) and EDOs

Construction: The community's construction sector is well developed with VCC General Contractor Inc. leading the sector, employing about 50 employees permanently. Pavage Wemdmnji with 26 employees, is also well known and acquired extensive experience with HQ projects in the past. Tawich Development Corporation has its own branch dedicated to construction, the Tawich Construction Inc. with three employees work permanently.

Accommodation, food services, and retail: two convenience stores were recently opened. Wemindji also advertises all season tourism activities, lodging, canoeing expeditions, ecotourism, guided interpretative trekking, hiking, flora and fauna observation, and traditional foods.

Transportation & Warehousing: The community has a small wharf used as a transshipment hub for shipping small volumes of merchandise (housing construction materials) by barges destined for Whapmagoostui and to the North.

Other services: this sector includes three-car garages to serve the community members.

Business Projects or Potentials. No data was obtained for the aspirational projects (requests for funding, market studies, or business plans).

Nevertheless, several factors limit business development such as the continued geographic isolation due to lack of road connection to the provincial network, the resulting higher cost of living, as well as high turnover and a small workforce. In this context, LGA infrastructure could bring important benefits to the community, which along with potential impacts, are explored in the following section.

6.3.2 EFFECTS OF LGA ON LOCAL ECONOMY

6.3.2.1 BUSINESS OPPORTUNITIES

Engagement with the Wemindji’s EDO and community members allowed this study to identify the following LGA proposed infrastructure as most relevant to the community:

- The upgrading and paving of the community access road (Phase 1).
- The BDH rail extension, Phase II, from Rupert at the junction with the Phase I railway alignment to La Grande.

As a coastal community, Wemindji is well located to take advantage of potential LGA infrastructure, which would enhance interconnectivity with neighbouring Cree communities. This potential change could stimulate travel among neighbouring communities for different purposes, such as to take advantage of education and training possibilities that are not present in one’s own community, or partnerships to mutually promote tourism, for which there is significant potential.

Many members of the community are aware that tourism and arts and crafts potential is likely hindered by inadequate connectivity. Being located close to James Bay, the community could also contemplate developing its harbour. Tourism potential, enhanced by the COTA tourism strategy, and land stewardship potential, could strengthen Wemindji’s salary economy and increase local demand and supply of educational and training programs in the service and primary sectors, in transportation, and in the environmental protection arenas.

LGA could put Wemindji on safe and accessible routes. Road safety is one way to ensure that the tourism and other productive sectors can access more consumers and provide more jobs. With LGA infrastructure possibilities spanning rail, roads, and a harbour at Whapmagoostui, Wemindji’s forestry industry would be one of the most benefited from improved access to external markets.

6.3.2.2 JCIM RESULTS

Based on the Job Creation Model, Wemindji construction entrepreneurs and workers could benefit from the construction and operation of LGA infrastructure as estimated in Table 6-2 below. The impact on contracts and employment during the construction phase are as follows: more than \$573 million of contracts for local entrepreneurs from 2030 to 2044; and 248 FTE jobs per year during 15 years of the construction period.

During the operation period however, like Whapmagoostui and Chisasibi, Wemindji would not participate in Phase I due to its long distance to the infrastructure. As a result, the participation in the operation and maintenance of Phases II and III infrastructure would allow local entrepreneurs to obtain \$2.5 million of contracts, and local workers to get 47 FTE jobs on a yearly basis.

Table 6-2 JCIM Results per LGA Phase, Wemindji

Impacts	Construction		Operation	
	Lifespan (2030-2044)	Annual Average	Lifespan (30 years)	Annual Average
Contracts (M\$)				
Phase I	259	52	0	0
Phase II	179	30	44	1.5
Phase III	135	22	30	1.0
Total	573	44^a	74	2.5

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Impacts	Construction		Operation	
	Lifespan (2030-2044)	Annual Average	Lifespan (30 years)	Annual Average
Employment (persons-years)				
Phase I	1,457	291	0	0
Phase II	1,005	168	846	28
Phase III	758	126	577	19
Total	3,220	248^b	1,423	47

Notes: a & b – the annual average figure was calculated by dividing the total amount of contracts (or employment) by the number of years from 2030 to 2044 (15 years of construction).

6.3.2.3 LONG-TERM SUSTAINABILITY

The participation of Wemindji in the construction of the LGA alone would bring 357 new FTE jobs to the community by 2032, the peak year of the construction period. This is an increase of 55% from the 788-employment figure forecasted for the status quo scenario. In the same year, household incomes would rise by 74%, from \$26,617 to \$46,383. Starting in 2045, when the construction is completed, the operation and maintenance of the infrastructure would lead incomes to increase to \$29,063 or 7.4% higher than the \$27,064 estimate for the scenario without LGA. The impact is still significant by 2074, with a 5.2% increase.

Located strategically at the centre of the proposed LGA infrastructure, and given its existing maritime infrastructure, Wemindji is expected to be a multimodal hub for goods destined to communities further north. Like Whapmagoostui and Chisasibi, the impact of LGA on Wemindji employment and standard of living (incomes) could be improved if the community takes part in the operation and maintenance of Phase I infrastructure.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

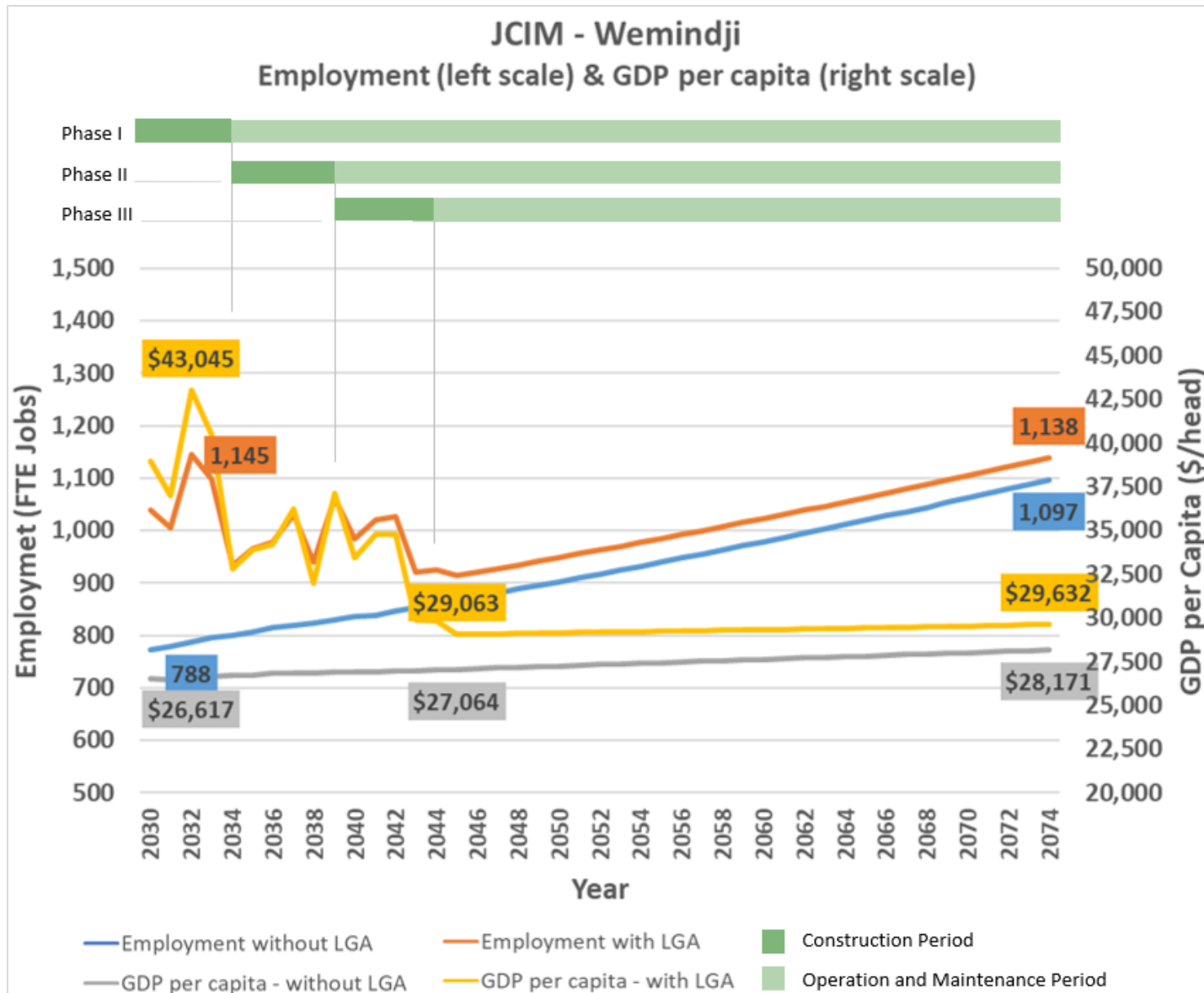


Figure 6-4 Impacts of LGA on Wemindji's Economy and Standard of Living, 2030-2074

6.4 LAND-BASED ECONOMY

6.4.1 OVERVIEW

6.4.1.1 IMPORTANCE OF THE TRADITIONAL LAND-BASED ECONOMY

As mentioned in section 6.1, in the late 1970s, the development of the La Grande Complex affected some Wemindji traplines. The creation of the Opinaca Reservoir, the construction of La Sarcelle control structure and the change in water levels in Lakes Boyd and Sakami caused by the operation of the hydroelectric development, modified the availability and quality of resources as well as the travelling on the territory, in particular on those waterbodies. The subsequent developments, most notably the construction of the Sarcelle Powerhouse and the partial diversion of the Rupert River into the existing complex have further amplified these impacts. The effects of climate change have created additional challenges, forcing users to find new ways of adapting (WSP, 2023a).

As with other Cree communities, Wemindji people remain deeply attached to the territory and pay regular visits to their camps and traplines. As mentioned in the Wemindji EPC report in 2017, the most important thing in this regard for the community members is to be able to continue to hunt, trap, fish and be on the territory.

As mentioned in the section 6.2, 149 Wemindji members (representing 104 family units) were enrolled in the ESP for their livelihood, sometimes combined with other occasional jobs, in 2021-2022. In total, 17,552 days spent in the bush were paid to the land users for that same year, for an average of \$14,886 per family unit (see Table 6-3). Ten years before (2011-2012), the people enrolled was slightly higher (153), representing 11% of the population, but the family units enrolled was lower (96). To note that this represents a huge drop since 2000, where 155 families were enrolled in the program (CHESB, 2023, CHESB, 2012 and CGW, 2015). The reason of this fluctuation in the ESP participation can be related to several factors, as economic climate, employment opportunities, and a readjustment in eligibility.

Table 6-3 Beneficiaries of the Economic Security Program, Wemindji, 2021-2022

Wemindji - family units (nb)	Total (adults and children)	Total days paid spent in the bush	Average per family unit (days paid)	Average allowance per family unit (\$)
104	149	17,552	169	\$14,886

Source: Compilation CHESB, Annual Report 2021-2022.

For many members of the community, although they don't spend long periods on the land during a year, they spend short periods of time whenever possible. As per example, it was mentioned during LGA engagement activities, that over 100 land users were listed on a sole trapline (VC17). On another trapline, it was mentioned that several areas are used to hunt (moose, goose, ptarmigan), trap (beaver, porcupine, marten, hare) and fish (sturgeon, walleye, whitefish, trout). Some are trapping for the sale of fur, and other trap beavers for the meat and use the fur for crafting purposes.

Indeed, 744 members (including 68 junior) were enrolled at the CTA in 2021-2022, which is generally higher than the years before (see Table 6-4). The local CTA offers different programs and services to its members, but in 2021-2022, none were granted in Wemindji. The year before (2020-2021), Gas Subsidy program and Cabin Insurance were allowed to, respectively, 230 and 30 members. (see Table 6-5).

As mentioned in section 3.6.2, the price of fur has gradually declined over decades. Even though, some Wemindji members continued to trap different kinds of fur-bearing animals, with highly variable sales results over the years. Table 6-4 indicates, for Wemindji, the number of Cree members of the CTA, the number of them who sold fur, and the amount of these sales from 2012 to 2020. The 2021-2022 report shows that the sale of fur by the CTA was up to \$4,287 for Wemindji.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 6-4 CTA Membership, Number of Trappers who Sold Fur, and Amount Sold during 2012-2020 in Wemindji

	2012-2013 ^a	2013-2014 ^b	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
CTA Member (n)	-	-	580	661	559	518	821	599
Trapper who sold fur (n)	37	34	26	35	37	33	27	4
Fur sales (\$)	-	-	\$18,297	\$24,765	\$31,076	\$2,703	\$14,472	\$822

Note a and b: these annual reports were not available on the CTA website, for this reason some data are missing.

Source: *Compilation from 2012-2020 CTA Annual Reports.*

Table 6-5 Program and Project Offered by the CTA in 2020-2021 and 2021-2022 to Wemindji Members

Program/Project	Number of Members Helped 2020-2021	Number of Members Helped 2021-2022
Cabin insurance	30	-
Cabin building/renovation programs	-	-
Gas subsidy program	230	-
Hunting subsidies and supplies	-	-
Equipment repair or purchase subsidies	-	-
Transportation subsidies - Air or Bush plane	-	-

Source: *Compilation from 2020-2021 and 2021-2022 CTA Annual Reports.*

Hunting and being on the land remain very important for Wemindji members, and according to them, on the developments of the land and the community should aim to the continuation of hunting, trapping, and fishing, or just facilitating the fact of just being on the land (EPC Wemindji, 2017).

According to the First Nation’s website: Traditional activities and events, such as the spring and fall goose hunt and the walking-out ceremonies, continue to be a vital part of our community life. Today a third of our population still lives year-round in the bush, and others return to their family traplines on weekends or when they have free time. It has been said that Wemindji is like a ghost town when the geese hunt is at its prime (CNW, 2023).

6.4.1.2 COMMUNITY ASPIRATIONS

According to the EPC report, Wemindji Cree’s vision for the future of their community and lands includes better provision to oversee and control harvesting (hunting and fishing) activities. Indeed, issues were reported of over-harvesting, poaching, and disregard for the respect of the animals and the tallymen’s requests. This should change to ensure the continuity of the land-use and Cree values.

Other aspirations for the future, not only related to land-based activities were brought up, such as:

- Amenities to facilitate the continuity of culture and language;
- The importance of unity and collaboration between the communities of Eeyou Istchee;
- Proactive – rather than reactive – governance;
- Economic diversification;
- Ecotourism to balance culture, environment, and development.

These aspects are addressed in the different sections below.

On its website, Wemindji First Nation announce their “Mission and Vision Statements”. It notably emphasis on the need to maintain a healthy environment and Land, and to respect the Tallymen. It says:

“The Creator gave us Eeyou Istchee, and with it, he gave us special duties. We are required to keep the Land and all of our environment in a healthy and clean state, for ourselves, our future generations, and all living things that share our Territory with us. It is part of our obligation as Elders, Grandparents, Parents and Community Leaders to provide a good example in this way, and to teach the youth.

Whenever we think of developing our Territory, we must also respect our duty to keep the environment – our Land, the waters, and the air – clean and healthy, and to repair any damages we may cause.

Our tallymen play a unique and traditional role in guiding and teaching us in the safe keeping and well-being of Eeyou Istchee. It is they who guard Eeyou Istchee, controlling who will have access, and under what conditions. We respect the knowledge and authority of these men and consult with them in all matters pertaining to the Land.” (CNW, 2023).

Finally, according to these Mission and Vision Statements, strong families and Elders are also the foundation of the community. Cultural and traditional activities are seen as a source of unity in the community. A good quality of life, education, and self-sufficient economy with good employment are also part of the vision of a strong and healthy community.

“The foundation of our healthy, self-sufficient, and prosperous economy is our secure land base which is 100% collectively controlled and managed by Wemindji Eeyouch, for the good of all members, and our future generations.

In this, we recognize the special role, knowledge, and authority of our tallymen, which we described above. We also recognize and support the role of our active traditional, land-based economy in assuring our survival as Eeyouch.

We encourage and foster Cree entrepreneurship and prosperous Cree-owned businesses as the basis of both our local and regional Cree-owned economy. We support our members participation in the national and global markets, and the “new” or hi-tech economy.” (CNW, 2023).

6.4.2 RESOURCE ACCESSIBILITY

Changes in resource accessibility (whether physical access or the quality and abundance of resources) can lead to impacts on the Cree economic and cultural way of life. Although these are closely related, this section mainly addresses the physical access, while the quality of resources is covered in the section 6.4.3.

6.4.2.1 CHANGES AND CONSTRAINTS LINKED TO DEVELOPMENT

In 1995, a permanent road to the community was built from the BDH. Prior to this date, the community or the traplines were accessed by plane, boat, or snowmobile on winter roads. This road access has obviously democratized the access to other communities and to the south, as well as to traplines located along this road and along the BDH (WSP, 2023a).

A study among the goose hunting in Wemindji stated that the access road implied a large-scale transformation, as hunters increasingly used it to reach their hunting camps inland. The road allows travel at predetermined times, enabling hunters to fit their activities into their schedules. Road travel is less vulnerable to the vagaries of the weather. Also, geese were observed increasingly inland over the past decades. In 2006, over the 31 active camps during the goose break, 19 were along the roads (BDH or the access road to Wemindji) (Peloquin, 2012).

As for other Cree communities, hydroelectric development had an impact on the land use. The creation of reservoirs and the Opinaca River diversion have notably restricted the frequentation of certain areas, due in part to the changes in wildlife habitats, or the difficulties of travelling by boat or on the ice cover. The latter has become unpredictable due to fluctuating water levels in the reservoirs and the climate change. Some land users felt huge losses regarding the sturgeon, the geese, or the beaver notably (CGW, 2020).

Also, people had to modify their harvesting areas because of forest fires and climate change. It was mentioned, in the LGA engagement activities, that due to the 2013-2014 forest fires¹⁰, fewer animal (large mammals and fish) were available inland and because of this, some land users changed their areas of activities and were now more concentrated in the James Bay area.

The climate change also influences the times and the way of doing activities. It notably compromises transportation within the territory, and therefore the traditional activities. Moreover, climate change impacts the state of wildlife, its displacement and therefore, those who rely on these resources. As an example, changes were observed for the moose, as their usual food source is less available, and new plants appear. Some land users fear that this change in alimentation may affect the health of the moose meat and consequently the health of moose consumers. One of them also notes a decrease in the vegetation usually consumed by the beavers and thus foresees a decrease in the beaver population on his trapline in the future.

In fact, the cumulative impact on the land use is a constant concern regarding land-based activities. Some say they have been already sufficiently impacted by power lines, the BDH, forest fires, mining activities, and flooding of reservoirs. All these events affect water quality, wildlife and disrupt activities. The spawning ground at Yasinski Lake that was impacted by the installation of culverts was notably mentioned. Some land users are also particularly concerned about the number of mining claims in a part of their trapline bordering a highly valued lake, as its clear waters is reputed to have healing properties (WSP, 2023a).

According to the EPC report, most of the issues discussed during the consultations were about monitoring and control of industrial development projects and their environmental impacts. People feel there is a lack of control regarding the cumulative impacts on the land, mainly linked to the mining exploration activities, and there is a need to be better informed about it.

Moreover, Wemindji members are concerned about harvesting pressure on the territory's wildlife done by Cree and non-Cree people. The over-harvesting of fish and wildlife by community members, notably during the fishing derby, is problematic. This is linked to a perceived "breakdown" in the customary monitoring practices of wildlife management on Cree territory. Some say that these practices meant to help wildlife thrive are not sufficiently practised and should be brought back (EPC Wemindji, 2017). Indeed, during the LGA engagement activities, a tallyman deplored moose overhunting, both by Crees and non-Crees, impeding him to fulfill his duty of ensuring the respect of the ecosystem. According to another land user, the hydroelectric developments and the road construction have resulted in unauthorized hunters (native and non-native) and in wildlife disturbance. Other issues were also raised in the EPC report linked to non-Cree hunters and their improper handling of kills. People say that with the actual conditions, the monitoring of hunting and fishing is inadequate and should be improved in order to pursue traditional activities on the land, on the long-term.

Finally, as for other Cree communities, access to the territory and the resources remains essential to ensure the continuity of the Cree way of life, linked to activities on the land. However, despite the development of new roads that facilitate access to different parts of the territory, there are growing difficulties and concerns regarding accessibility to resources. They are related to cumulative impacts on land and resources, increased pressure on wildlife (hunting and fishing), forest fires, and climate change, which considerably restricts travelling possibilities.

6.4.2.2 IMPACTS OF PROPOSED INFRASTRUCTURES

As Wemindji territory is targeted for a railway along the BDH and the improvement of the access road to the community, no further opening of territory is planned, unless the infrastructures encourage new projects on the territory. For now, only the changes directly related to the construction and operation of the railway are considered.

The alignment crosses various activity areas (hunting, trapping, harvesting), including a valued area, and passes near good fishing areas. Indeed, the area touched by the alignment is used by several Wemindji members, many of whom have camps along the BDH, which they reach mainly via the Wemindji access road. Many camps are also located along the latter. Snowmobile trails are reaching the BDH from east and west to access camps and activity areas. Hunting (goose, moose, caribou and bear), fishing, trapping (beaver and other fur-bearing animals), berry and

¹⁰ Interviews were done before the 2023 forest fire. (*we don't have yet feedback on the consequences of this fire on the resources land-based economy from Wemindji members, but Wemindji was the community with the highest rate of territory burnt*).

mushroom picking, as well as wood harvesting activities have been reported along the road and nearby during the LGA engagement activities, as well as valued bear areas and dens. Spring water sources are also used along the BDH. It is to note that the picking of high-value mushroom is part of an economic plan with Wemindji, Chisasibi and the tallymen, and is also done by Asians for commercial activities.

Even if land users tend to frequent areas close to the various access to the BDH, other sectors far from the road are also used and reached by snowmobile and boat, as well as by the bay from the community.

The impacts anticipated by Wemindji's land users on accessibility to resources are mainly related to potential pollution and wildlife disturbances. There is also a concern that if the infrastructures facilitate access to the territory for everyone, this will affect the wildlife (as moose, fish, and bears). There was also a concern regarding the potential difficulty to cross the railway or being able to use the land in the vicinity of the tracks. The security related to train circulation is also an issue and some mentioned the prerequisite of adequate signalization.

Category land should not be modified for the necessity of the railway on Wemindji traplines. The project is entirely located on Category III lands, and Category II lands lies more than 5 km from the proposed route, except for a lake, located 3 km away from it.

6.4.2.3 SUGGESTED MEASURES AND OPPORTUNITIES

Few measures or suggestions emerged from the LGA engagement activities, regarding the access to resources in Wemindji. A railway project is mainly seen as an obstacle to the land use activities during the construction as well as the exploitation phase. The only expectation identified regarding the train would be to be able to use it easily. But it was also mentioned that if the infrastructures facilitate the access to the territory, a control point should be put in place to regulate the access to the territory for wildlife protection purposes (See section 6.4.4.3 for suggested measures regarding wildlife).

See the section 3.6.2 for general suggestions or opportunities applicable to the Cree communities for a better accessibility to resources.

6.4.3 CULTURAL CONTINUITY

In Wemindji, the Cultural and Wellness Service, part of the Community Service Department, aims to strengthen Cree culture through traditional skills, language, and Wemindji Cree values. This service proposes, among others, Cree classes, traditional food workshop, wild berry festival, and other cultural activities throughout the year.

The result of the EPC confirms that the culture and values are important for the Wemindji people, so that they can continue to hunt, trap, fish and be on the territory. For this, the sharing of knowledge is essential, as is the quality of the environment. Respect for animals and water protection are also important elements to consider. Respondents consider that development must be done within the framework established by the values and practices related to the territory and with an inclusive approach (EPC Wemindji, 2017).

To ensure the continuity of the culture and history of Wemindji, each year, a gathering is held on the traditional settlement of Old Factory, located on an island, 45 km south of Wemindji. This annual visit recalls the importance of the site, where the people used to spend the summer, after spending the winter inland.

As mentioned in the EPC report, the vision that Wemindji Crees have for the future of their community is one where Eeyou language and culture continue to thrive, and they want amenities and programs to help make that vision materialize. They suggested having a cultural camp for land-based programs linked to culture.

In the Wemindji's "Mission and Vision Statements" it is stated that they will ensure to maintain their Cree culture by practising their traditional activities and speaking their language. They also focus on the children and the youth to ensure the continuity of the culture and language, by notably "encourage them to achieve the highest level of education in both traditional and contemporary forms of knowledge."

6.4.3.1 IMPACTS OF INFRASTRUCTURES ON CULTURAL CONTINUITY

At the community level

The proposed infrastructures and the development that may be realized might touch the cultural continuity, if it impedes Wemindji members to reach specific areas and resources, if it disturbs valued areas, or contaminates the environment. Restricted activities or less healthy resources to gather means a loss of traditional knowledge, including language, to pass on to the next generation.

According to participants of LGA engagement activities, it is necessary to give a voice to the young people since they are the ones who will be most affected. However, the unity of the community may suffer from differences of opinion regarding the infrastructure developments; one deplores the fact that it is already dividing families.

A concern was also raised regarding the development of infrastructure which often leads to an alteration of the quality of resources. Some are concerned that the younger generation will no longer be able to discern changes in resource quality and will eat contaminated food. This implies, in addition to a loss of knowledge, an effect on health.

In the Area of the Proposed Railway

It was mentioned, during LGA engagement activities, that main camps are important sites, particularly because they are gathering places for the celebration of various ceremonies such as the Walking Out Ceremony, birthdays, the first hunt, or when a bear is hunted. They are also gathering sites for the spring goose hunt. Some land users have their main camp along the BDH, and fears to be disturbed by the railway and the trains; people spend precious time in family at their camps and concentrate some of their activities around the camps.

Some birth and burial sites located in the study area were reported during LGA engagement activities. The closest birth site to the alignment is almost 2 km away, and the closest burial site is located at less than 400 m (on VC16). Disturbance could be felt when visiting these sites, as the noise created by a train passing by is louder and stays for a longer period than vehicles passing on the road nearby.

Moreover, the proposed infrastructures could affect the water bodies in different ways (vibration, pollution, disturbance, obstruction) and thus impact the cultural activities. The construction or the operation of the railway could also impact other cultural activities on the land, not directly linked to water (as notably ceremonies and hunting). As land use and culture are deeply rooted together, these impacts on access, water and resources are addressed in the section 6.4.2 and 6.4.4.

6.4.3.2 SUGGESTED MEASURES AND OPPORTUNITIES

The section 3.6.4 shows measures that could be put in place for all the Cree communities to ensure that the infrastructures would not interfere with cultural continuity and to promote the use of the land.

It is also to recall that there is a growing interest in ecotourism and cultural preservation regarding economic opportunities in Wemindji. These two aspects can be combined, as the promotion of the culture is increasingly attractive to the general national and international public.

6.4.4 SYNERGIES AND CONFLICTS

6.4.4.1 POSITIVE IMPACTS AND SYNERGIES

The positive aspects raised during LGA engagement activities regarding railway development include the possibility of transporting passengers, and the fact that rail could allow less expensive access to the territory or to the southern cities in Quebec. The reduction of the price of goods and materials, and the facilitation of the transportation of materials in the communities was also mentioned.

A railway would be beneficial to the community if it leads to the creation of direct and indirect jobs, including tourism development opportunities. Another positive point raised was the potential reduction of heavy trucks and traffic on the BDH, as road safety is common and major concern in Eeyou Istchee.

Land users want their voice to be considered, and potential impacts closely monitored. As regards railway development, an affordable ticket price, on-demand stops, feeder transportation (from the community to the train), would go a long way in encouraging activities on the land. Land based activities also have economic significance. The land-based economy sections of this report provide examples. There were some voices who made a case for planning a new link to connect communities along the bay.

6.4.4.2 *NEGATIVE IMPACTS AND CONFLICTS*

Mining activities that would affect the whole community make up the bulk of worries about potential connectivity improvements in the territory. If cultural continuity and accessibility to resources are jeopardized, the whole community will feel the loss.

Wemindji has already experienced hydroelectric and mining developments on its territory, and industrial development, particularly mining, is a source of concern, as mentioned in the EPC report. Indeed, some activities ramp up prior to all necessary studies being completed. It is deplored that Cree management of the territory is not always respected by promoters. Land users consulted during the LGA studies are concerned about the cumulative impacts likely to be felt with the proposed infrastructure.

The impacts anticipated by Wemindji's land users on accessibility to resources are mainly related to potential pollution and wildlife disturbances. Land users fear that noise and vibrations will scare away animals, that camps will have to be moved, and that non-natives will settle in the area. It was also said that fish are more vulnerable than other animals as they can hardly move to seek new feeding grounds if their environment is disturbed.

As the disturbances due to the construction will affect activities and the lifestyle, some are against it. One tallyman recalls that the most important is to preserve the territory, to minimize the impacts and to undertake only the necessary work. He also believes that animals can likely be hit by trains, and that land users' safety would be at stakes. As a result, traditional activities would be more difficult to maintain.

Several land users are concerned about the quality of water and wildlife, pollution due to the dust generated by the train, fuel, and the risk of spills during construction and operation. They fear that contamination could extend to the bay through streams flowing westward. Different kinds of loads (chemical, mineral, or equipment) could generate different kinds of pollution. Contamination could also come from boats brought from outside without being cleaned.

Moreover, there is a concern that the presence of the train would increase the alcohol and drug trafficking on the territory, and that non-natives with camps along the road may take advantage of the train to smuggle wild meat or alcohol.

According to land users, the impacts from a railway would rather be experienced during the construction itself than during operation unless there are spills. Some, however, feels that if the proposed railway is properly operated and potential impacts are closely monitored, it should not unduly affect the moose population (moose hunting is one of the main activities along the BDH). However, one believes that a railway is less damaging than a road which causes more pollution, traffic, and accidents.

Some land users also indicated they don't want rails on their trapline, as it would mainly benefit the natural resources companies. To really benefit the communities, some said, it would be more relevant for a train to pass along the coast and connect Chisasibi to Whapmagoostui. Other feels they would need more information, including potential impacts, to make up their minds.

6.4.4.3 *SUGGESTED MEASURES AND OPPORTUNITIES*

Wemindji land users specifically mentioned that attention should be given to the waterfowl habitat and the water protection, notably by using adequate material for bridges and culverts. Drinking water sources should also be protected.

Warning was also made by several land users regarding the soil, made up with clay and swamps, which may, in the context of climatic changes, be very unstable and generate risks for the railway construction.

Other people spoke of the need for measures to be implemented to prevent an increase in drugs and alcohol trafficking in the communities. Indeed, the health and social impacts will have to be anticipated, considered and monitored, in the event of the development of infrastructures (not strictly related to the land-based economy).

See the section 3.6.2 for suggestions and measures that concern all Cree communities involved.

6.4.5 ECONOMIC VIABILITY

6.4.5.1 EXPECTATIONS AND OBSTACLES

In Wemindji, Tallymen call for stronger provisions to manage hunting and fishing in the region, such as conservation officers that can issue permits to hunters to control harvest (EPC Wemindji, 2017). Land users recall that waterways, bodies of water and water sources, fauna, and flora, must be protected to ensure the continuity of activities on the land. Some also state that a railway alignment should remain as close as possible to the road.

Following engagement with the LGA team, land users said they are now more informed about potential developments on their territory. They noted that this is also because many of them speak English and French, which was less the case in the 1970s. They can now make their voice heard more easily. Still, it is important for land users to include everyone in discussions about infrastructure, and not only the land users.

6.4.5.2 NEW PATHS FOR LAND-BASED ECONOMY

Wemindji members expressed several ideas and interests for the development of activities or businesses during the consultation process of the LGA studies and in the EPC. They were almost all related to the land-based activities and are listed below:

Conservation and land management projects such as:

- Blueberry and cranberry picking;
- Forestry and tree planting;
- Conservation of the territory including hunting management and citizen involvement;
- Development of a fishery to export fish.

Tourism and recreation industry:

- Development of eco-responsible tourism.
- Cultural development in the community
- Creation of programs and a cultural camp for the Cree.

Other businesses suggested:

- Business development in collaboration with other Cree or southern communities, such as the case of Petro-Nord;
- Retail, manufacturing and shipping;
- Wood industry could be developed with the production of matches or toothpicks, for instance;
- Develop ways to manage waste and recycling responsibly to avoid long-term issues (as contamination and loss of land).

See section 3.6.2 for more considerations regarding business or activities related to the land, that are not all traditional activities, but could, if developed, generate income while remaining connected to the land.

Wemindji's vision of development was elaborated in its EPC report. The respondents brought up the importance of unity and collaboration between the communities of Eeyou Istchee. Indeed, the political, economic, and cultural strength in Eeyou Istchee are seen as hinging on all the communities' ability to work together, share resources and establish partnerships. Proactive Cree-led development, and economic diversification is needed to be durable.

Besides resource extraction, manufacturing and other services, forestry and tree plantations could be a viable new opportunity. At the same time, ecotourism is particularly promising as a “vehicle to help preserve the traditions, culture and lifestyle of the Cree Nation.” (EPC Wemindji, 2017). Here there is a possible tension between forestry and ecotourism, but if Cree aspirations and expectations are duly considered, the community will likely know how to manage both.

Mentoring incentives and business development assistance, notably in collaboration with land specialists as land users and elderly people, could also be implemented in Wemindji. Partnership with experienced companies is another option.

Language can be a barrier if working in relation with the French-speaking community. Solutions should be considered if there is a plan to expand activities.

A multitude of ideas for small enterprises has already been documented. Wemindji is conscious that the potential for sustainable economic development that respects land and culture is there, if projects move head “without political interference or favour”, as stated in Wemindji’s Mission and Vision Statements.

6.5 COST OF LIVING

Due to its geographical position and existing transportation infrastructure (road, air, and sea), Wemindji has more alternative routes and therefore a better connectivity than other Cree communities. Considering that, in general, the north does not have competitive consumer markets due to size and geographical remoteness, cost of living in the community is lower because of lower shelter costs and presumably due to cost savings related to connectivity advantages over other communities.

Table 6-6 Commodity Prices, Wemindji, Fall 2023

Item	Price	Cree Average	Diff.
Food and beverage			
1 litre of orange juice	\$3.39	\$5.03	-33%
10 pounds potato bag	\$8.99	\$11.54	-22%
12 eggs	\$6.89	\$5.90	+17%
12 Pepsi/Coke cans	\$11.99	\$12.96	-7%
2 litres of 2% milk	\$7.69	\$6.77	+14%
24 water bottle pack	\$10.49	\$12.35	-15%
284 ml Campbell tomato soup can	\$5.39	\$3.24	+67%
500 g lean ground beef	\$7.00	\$9.79	-29%
650 g marble cheese brick	\$15.69	\$16.23	-3%
Club Sandwich with fries at restaurant	\$18.80	\$17.16	+10%
Medium size coffee at convenience store	\$2.00	\$2.80	-29%
Total	\$98.32	\$103.77	-5.5%
Transport			
1 litre of regular gasoline	\$2.31	\$1.94	+19%
Housing			
Average monthly shelter costs (rent)	\$456.00	\$497.78	-8%

Source: based on prices observed at H&V Taawaakimikw convenience store and Station d'Essence Sibi

Relative to its higher average income, the cost of goods is cheaper in Wemindji compared to the regional average. Wemindji has higher wages and cheaper goods. As shown, aside from the price of gasoline, goods and services are cheaper than the regional average. These price advantages coincide with the community’s status as one of the better-connected communities in terms of alternatives for transporting goods and people.

Table 6-7 2023 Price Index Comparison, Wemindji

Index	Wemindji Relative to Cree Average	Cree Community Relative to Jamésie	Cree Community Relative to Abitibi-Témiscamingue
Food and beverage	◆0.95	◆0.66	◆0.60
Transport	◆1.19	◆0.85	◆0.82
Communications	◆1.21	◆0.34	-
Housing	◆0.92	◆1.31	◆1.45

Note: The index was constructed using prices listed at 1 store in Wemindji, 2 in Jamesie and 2 in Abitibi-Temiscamingue

In Wemindji, 75% of dwellings are band-owned. This figure puts Wemindji above the average rental rate, which is about 67%, according to the data obtained. In other words, Wemindji relies on subsidized housing more than the average Eeyou community. Higher fuel spending by households is offset by higher wages (on average), more affordable rent, and generally cheaper prices for essential goods. In contrast with non-Cree communities, more affordable shelter appears to be the major contributor to Wemindji’s lower overall household spending costs.

6.6 SUMMARY

Situated strategically at the heart of the proposed LGA infrastructure, Wemindji has the potential to evolve into a versatile hub for goods destined for northern communities. Enhancements to the access road would further bolster transportation links, particularly along the existing barge freight corridor from its port to northern Nunavik communities, particularly if no other LGA infrastructures north of Chisasibi are constructed.

During the construction phase from 2030 to 2044, local entrepreneurs stand to benefit from over \$573 million in contracts and the creation of 248 FTE jobs annually for 15 years. Wemindji will not participate in Phase I during the operational period due to its distance from the infrastructure. Nevertheless, participation in the operation and maintenance of Phases II and III would provide 47 FTE jobs annually for local entrepreneurs, representing a 55% increase from the 788-employment figure projected for the status quo scenario. Household incomes would also rise substantially, increasing by 74% from \$26,617 to \$46,383. Following the completion of construction in 2045, incomes are forecasted to further rise to \$29,063, representing a 7.4% increase compared to the scenario without LGA. This positive impact persists, with a 5.2% increase in incomes projected by 2074.

In Wemindji, the current proportion of ESP recipients stands at 19%, slightly exceeding the Cree average of 14%. From 2014 to 2022, there has been a slight downward trend of -2% in the percentage of traditional hunters. As for the cost of living, 75% of dwellings are band-owned, above the average rental rate, which is about 67%. The rent is slightly lower than the Cree average, so is food and beverage. But transport and communication are significantly higher. Land users raised concerns about the potential effects of railway development on wildlife habitats, and many do not see many advantages or positive impacts from a railway, unless it includes convenient and affordable passenger travel. Whether rail or other type of development takes place, the expectation is that LGA must protect key areas for land users and for all of the cultural needs of the community.

It was documented by this study that community members have many ideas to develop businesses, most related to land-based activities. Likewise, there is a degree of enthusiasm for the potential that infrastructure development helps to promote economic development synergies or collaboration with other Cree communities. Such a possibility could create conditions for complementary and more durable economic development and diversification.

7 EASTMAIN

7.1 CONTEXT

Meaning “Lands east of James Bay” from the Cree word Wâpanûtâw, Eastmain is a coastal community located along James Bay and at the mouth of the Eastmain River. The Cree have hunted, fished, and traded caribou skins for birch bark used to make canoes in that area long before the arrival of Europeans. Eastmain got its name in 1730 by the local Hudson's Bay trading post that was established in 1690 and known as East Main House. After being moved a few times, it was permanently established on the south shore of the river in 1723 (EIJBRG, 2022). Cree people began to settle in the area and the community of Eastmain was established in the early 18th century.

The Crees of Eastmain maintained an economy based on the traditional activities and the fur trade system up to the second half of the 20th century (WSP, 2023a). In the late 1970s, the community members saw major social and economical changes induced by the hydroelectric development of the La Grande Complex and the diversions of the Eastmain and Opinaca rivers, as well as subsequent developments related to the Eastmain-Sarcelle-Rupert complex.

With a population of around 1,000 people, Eastmain is one of the smallest communities. Located west of the BDH, the community is accessible by a 103km access road that was completed in 1995 and that connects with BDH at KP 350. The road is paved only for 30 km in, the other 73 km being in gravel. The road distances (and travel times) are 446 km (6 hours 50 minutes) to Chisasibi, and 455km (6 hours 50 minutes) to Matagami. Maheux (2023) provides a bus service between the BDH/Eastmain access road intersection and Val-d'Or/Chisasibi twice a week. Located close to the community village, Eastmain airport has similar features to the airports in other Cree communities (VEI-WSP, 2023). There is one flight per day (Eastmain, 2023). The local airport offers connection flights of approximately 3.5 hours flight time to Montreal.



Credit: Marc Beauregard, VEI.

Figure 7-1 Mouth of Eastmain River

As shown in the Figure 7-3, Eastmain is also the smallest community in terms of territory size and in terms of number of traplines (15), which are located on either side of the Eastmain River. These traplines are managed by tallymen and used by their extended family as well as other community members.

LGA infrastructure-of-interest for Eastmain includes:

- The upgrading and paving of the community access road (Phase 1).
- The BDH rail extension, Phase I, from Matagami to Rupert.
- The BDH rail extension, Phase II, from Rupert, at the junction with the Phase I railway alignment, to La Grande.



Credit: Marc Beauregard, VEI

Figure 7-2 Cree Trappers' Association Building in Eastmain

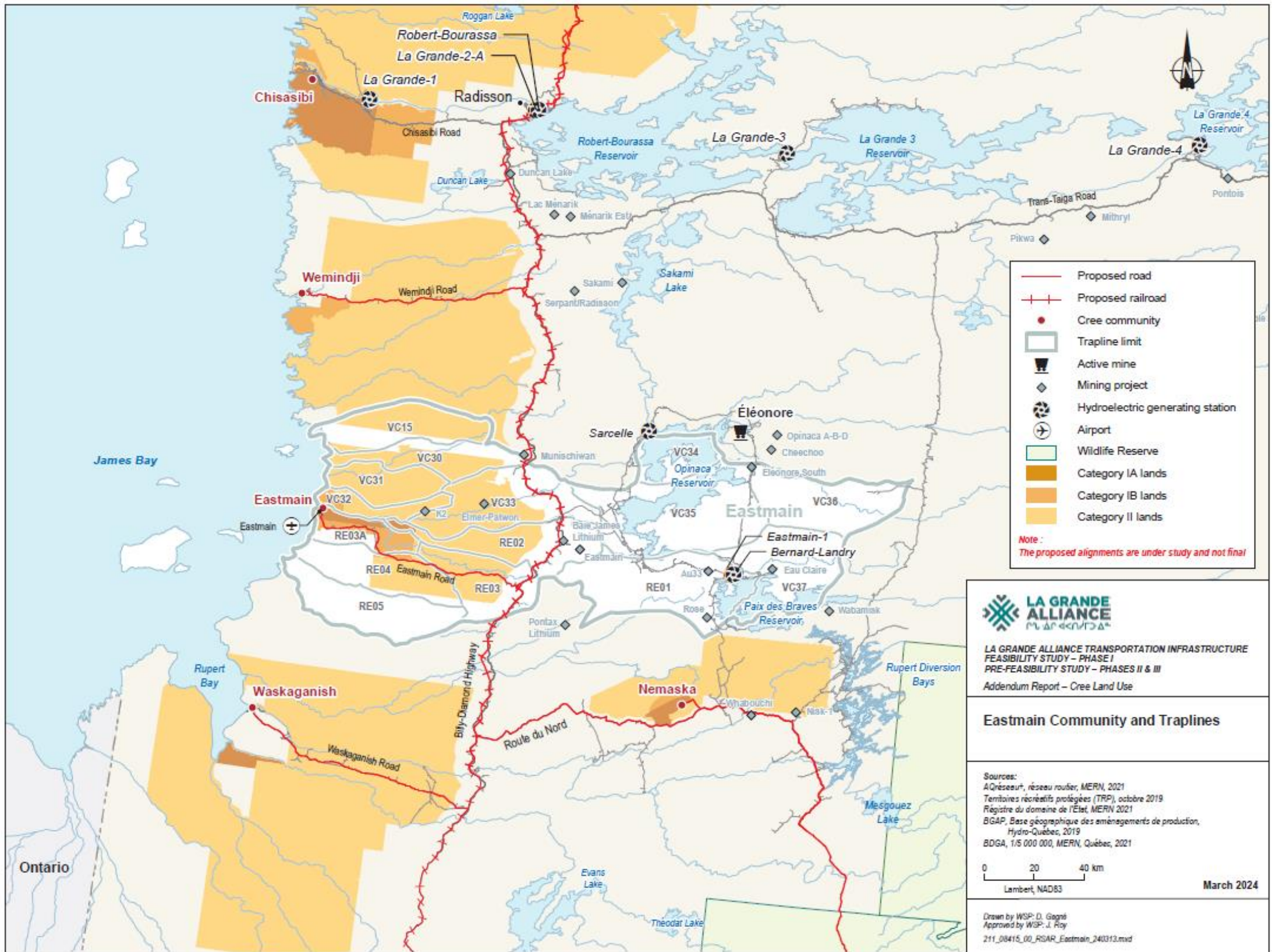


Figure 7-3 Eastmain Community and Traplines

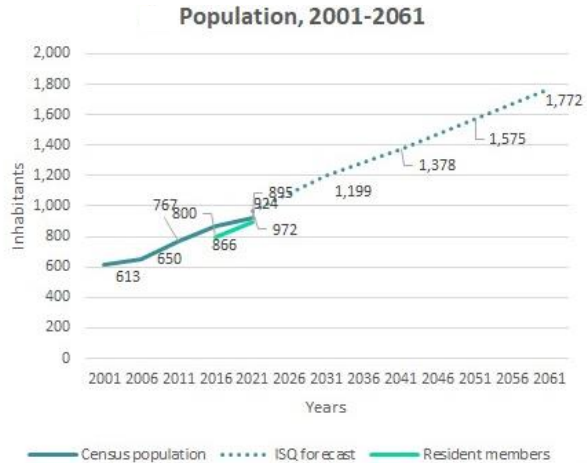
7.2 INDICATORS

The main characteristics of the population living in the community of Eastmain are presented below. Note that the data shown represents the 2021 situation as per the StatCan Census data unless otherwise specified.

Population

The population of Eastmain amounts to 972 inhabitants as of the 2021 Census. Over the past 20 years, according to the StatCan Census, the population has experienced a 59% increase or a CAGR of 2.0% per year, which is higher than the Cree average figure of 1.8%.

According to ISQ (2021) forecasts, the population would reach 1,300 people by 2041 and 1,772 people by 2061. This means the annual increase in population of the community (1.1%) is projected to be similar to the Cree average (1.1%).



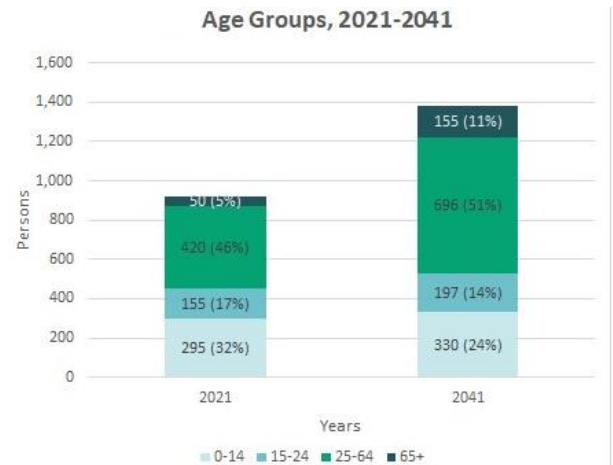
	Eastmain	Crees
Annual population growth (2001-21)	2.0%	1.8%
Annual population growth (2021-41)	1.1%	1.1%
Non-resident members (2021)	23 (2.5%)	1.7%

Source (Members): CHESB (2022).

Age structure

Like all other Cree communities, the Eastmain’s population is young, with 49% aged less than 25 years old in 2021. Recent growth (2016-2021) is a result of many newborns (85) over this five-year period, accounting for approximately 9.2% of the total population. About 65 persons immigrated to the community during the same period, accounting for 7% of the total population. While natural growth of the population is almost the same as the Cree average (9.2% vs 9.3%), the immigration is lower than the Cree average (7% vs. 10.4%).

Until 2041, the youngest group (0 to 24 years old) are not expected to grow as steeply as the older population (25 to 64 years old). The population is predicted to get older on average, with the number of seniors aged 65 years and older will go from 50 people to 155 people. The demographic dependency ratio would remain similar, although there would be fewer young people and more seniors.



(2016-2021)	Eastmain	Crees
Births	85 (9.2%)	1710 (9.3%)
Incomers	65 (7%)	1900 (10.4%)
Deaths and out-migrants	92 (10%)	2480 (13.5%)

Source: 2041: ISQ.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Families, households, and dwellings

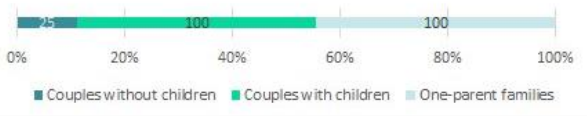
Out of the 225 families in the community, 100 (~44%) are composed of couples with children and 100 (~44%) are families led by a single parent. Just slightly over half of household type in the community is the single-family setup, making up nearly 54% of the households. This showcases the family-oriented structure of the Eastmain community. The remaining households are either multi-family, multi-generation, several non-related persons, or single persons.

Out of the 225 dwellings in Eastmain, the vast majority (~82%) are band-provided, while ~7% are rented, and 11% are owned. Additionally, 18% of those dwellings are overcrowded, and 30% of dwellings require major repairs. This is higher than the Cree average, and significantly higher than in Jamesian towns.

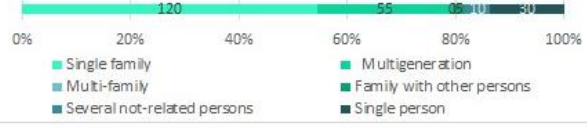
Ethnicity and Language

The population of Eastmain is predominantly Cree (93%). Nearly the entirety (86%) uses the Cree language as their mother tongue; in comparison, 11% uses English and only 3% uses other languages. The number of Cree-speaking individuals has slightly decreased over the English-speaking individuals within the community over the past decade. Notably, a significant portion of the population is bilingual.

Family Structure



Household Type

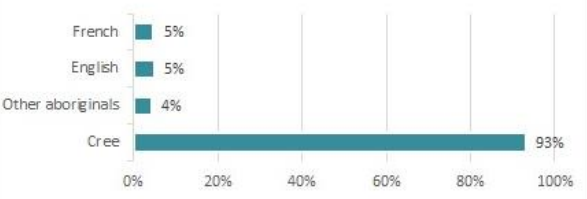


Tenure

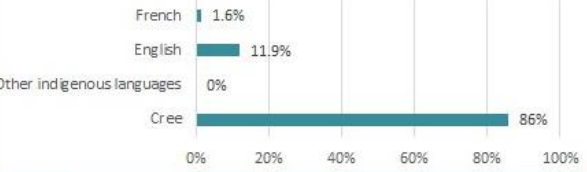


	Eastmain	Crees
% overcrowded dwellings	18%	15%
% dwellings with major repairs needed	30%	24%

Ethnic Origin



Mother Tongue



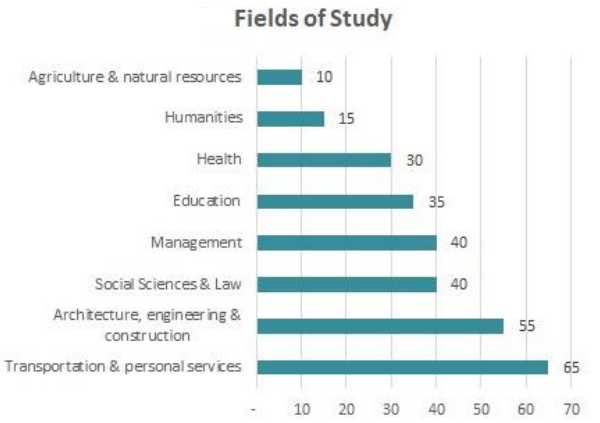
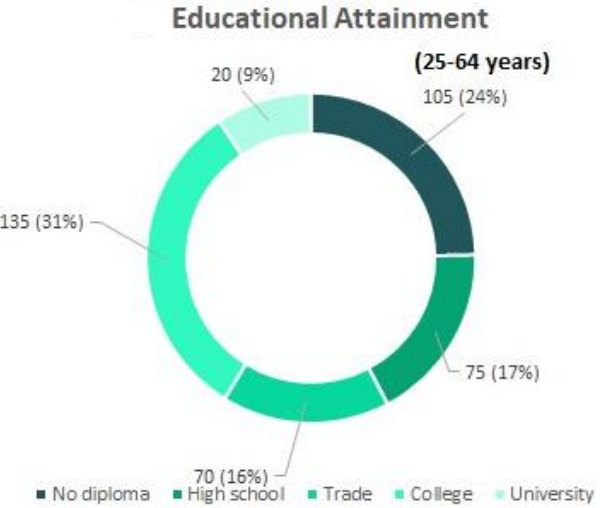
Knowledge of Languages	2011	2021
Cree	94%	92%
English	95%	97%
French	18%	15%

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Education

Three-quarters (76%) of the population aged 15 to 64 years old has at least a high school diploma, which is slightly higher than the Jamesian figure (75%) but lower than the provincial average (88%).

The educational profile of Eastmain is slightly higher than the Cree average. Among the 40% of the Eastmain people who have higher education (CEGEP or university), the fields of Transportation, Architecture, engineering & construction, Social Sciences and Law are the most predominant. This rate of higher education is comparable to the Cree and Jamesian averages, but significantly lower than the one observed for Quebec (52%).



Land

The combined 1A and 1B land categories amount to 467 km². The Eastmain territory includes 21 traplines covering 15,240 km².

The current percentage of ESP recipients in Eastmain (10%) is lower than the Cree average (14%). However, over the span of 2014 to 2022, the share of traditional hunters in Eastmain slightly increased (2%), which is a unique case among the other Cree communities, where this share tends to decrease.



	Category 1A	Category 1B	Traplines
Land area (km ²)	149	318	15,240
	Eastmain		Crees
Nb/% beneficiaries on ESP Program	88 (10%)		14.3%
Avg. annual ESP unit allowance (21-22)	\$ 17,334	\$ 18,580	

Source: 1. Traplines: CMEB (2022). 2. ESP: CHESB (2022).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Labour Market

Eastmain’s labour market participation and employment rate (67.5% and 61.1%, respectively, in 2021) are ones of the highest, therefore much higher than the Cree averages (61% and 56%, respectively), As a comparison, they are both lower than the Quebec average (64% and 59%, respectively). As participation and employment rates remained rather stable over the last 20 years, with Eastmain’s participation and employment rates around five percentage points lower than the Cree average, and around five percentage points lower than the Quebec average. Eastmain’s concentration of permanent jobs (71%) is slightly below the Cree communities average (73%).

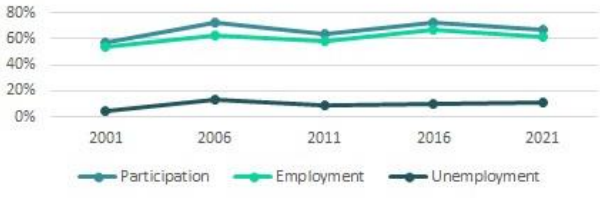
Evolution of Employment

According to the Census, an estimated 405 persons worked within the community since 2016. The participation and employment rates have increased slightly in the Eastmain community over the last 20 years. Several economic sectors have experienced growth over this period, with Education, Retail and Services, and Construction seeing the most significant increase. The public administration sector with the healthcare and education sectors employs the largest portion, accounting for ~65% of the working-age population.

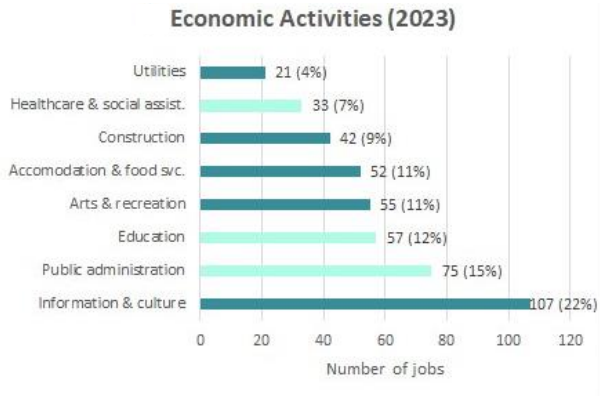
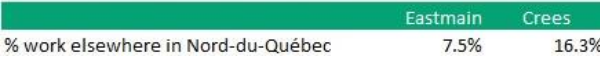
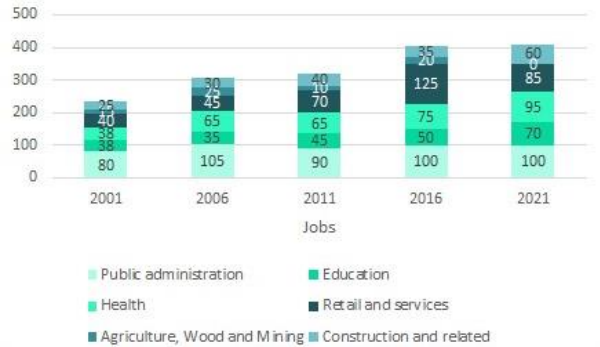
Economic Activities

According to the employer consolidated database, public employers, which include public administration, and healthcare and social services account for the third number of jobs (165 or 34% of local employment). The private sector is strong with 107 jobs provided in Information and Culture. Combined with Accommodations & food services, Arts and Recreations and Construction, it provides 379 jobs or 87% of community employment in Eastmain (SPN, 2023).

Labor Rates



Class of Worker



Source: DCI-EDO (2023a) and SPN (2023).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Main Employers

Following the local economic structure, the main employers are public entities. Main businesses include Eneyaahkaat Lodge, Mandow Inn and Stajune Construction.

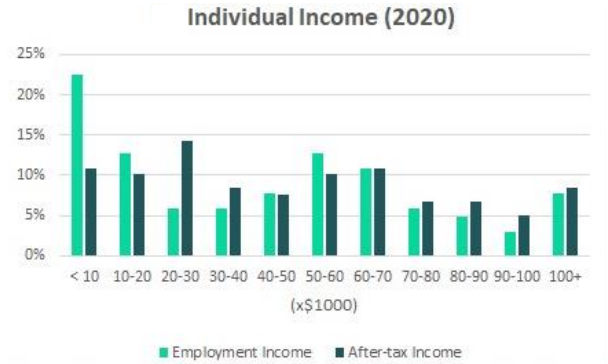
Business name	Activity	Jobs
Bell (Telebec) Store	Information & culture	100
Eastmain Cree Nation	Public administration	65
School	Education	57
Eneyaahkaat Lodge	Arts & recreation	51
Mandow Inn	Accommodation & food svc.	51
Stajune Construction	Construction	26
Waseyapin Childcare	Healthcare & social assist.	22
HQ (Eastmain)	Utilities	21
CBHSSJB (Eastmain)	Healthcare & social assist.	11
Wechidodao	Construction	10
Large sector		% jobs
Public Sector		34%
Private Sector		66%
Total		484

Compilation from DCI-EDO (2023a) and SPN (2023).

Income

Overall, the median and average employment income in Eastmain were estimated to be \$40,300 and \$40,300, respectively. Both the median and the average are slightly above that of the aggregate Cree communities which are \$36,300 and \$38,900. This means that Eastmain has a higher percentage of workers earning a high income from employment than other Cree communities.

Nearly a fifth (19%) of households receive government transfer income. This places Eastmain at 0.30 on the market income Gini index, indicating a level of income within the community lower than the Cree population score (0.39) but higher than the Matagami score (0.25).



Individual income (2019)	Eastmain	Crees
Median total income	\$ 40,400	\$ 36,300
Average employment income	\$ 40,400	\$ 38,900
Average after-tax income	\$ 43,800	\$ 41,300
Household income (2019)	Eastmain	Crees
% of government transfers in income	19%	24%
Prevalence of low income	2%	5%
Gini index, market income	0.30	0.39

7.3 ECONOMIC OPPORTUNITIES

7.3.1 ENTREPRENEURSHIP/DIVERSIFICATION

Today, Eastmain’s economy is mixed, with a predominance of the information and cultural sector and the service sector (private businesses, social services). The public sector accounts for about 34% of total employment. The sector includes the headquarters of the CTA, local and regional-provincial services, healthcare and education, emergency services, a post office, the local Development Corporation, and a wellness centre, among others.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 7-1 Employment per Sector, Eastmain, 2023

Sector	Number of businesses	Number of jobs	% jobs
Information and Cultural Industries	3	106	22%
Public administration	4	75	15%
Educational Services	1	57	12%
Arts, Entertainment & Recreation	3	55	11%
Accommodation and food services	2	52	11%
Construction	5	46	9.5%
Health Care and Social Assistance	2	33	6.8%
Utilities	1	21	4.3%
Retail	5	14	2.9%
Transportation & Warehousing	3	8	1.6%
Professional, Scientific and Technical Services	3	8	1.6%
Mining, quarrying, and oil and gas extraction	4	8	1.6%
Other services (except public administration)	1	2	0.4%
Administrative, Support, Waste Management and Remediation Services	1	1	0.2%
TOTAL	38	486	100%
Education, health, public administration	7	165	34%
Other sectors	31	321	66%

Note: there were no businesses or jobs recorded in the following sectors: manufacture; wholesale trade; finance & insurance; real estate and rental and leasing services; corporate & business management; agriculture, forestry, fishing, and hunting.

Note: Due to missing data on employment for a certain number of businesses, a minimum of one employee per firm was supposed as a hypothesis. Therefore, the actual employment could be higher than estimated Table 7-1.

Sources: Processed from DCI (2023a), SPN (2023) and EDOs

The private sector accounts for 66% of total employment. Below is the information obtained for each sector.

Construction: Eastmain’s construction sector is growing in number and in size of enterprises, with five contractors hiring about 41 employees. Stajune Construction is the local contractor, leading the sector with 26 employees.

Accommodation, food services, and retail: Among sector activities are restaurants and hotels, and a gas station.

Business Projects or Potentials. From the CIO and EDO data, Eastmain businesses require access to financing, funding, and technical support for conducting market studies and for business planning. Specific projects being considered include:

- Greenhouse
- Small engine repair

Eastmain, as is the case in every community, has a housing shortage, and requires more retail, professional, and public services. There is clear demand for capacity building programs, as the community sees opportunities for new business development in tourism, forestry, mining, and others. At present, connectivity to other communities and other markets makes community economic development more difficult.

In addition, Eastmain has economic development potential derived from the Cree-Naskapi Act. As does every Cree community, Eastmain has exclusive rights to exploit its forests on Category I land. The JBNQA affords Cree

communities certain other exclusive economic rights, including the right of first refusal for outfitting operations, the right to own shares, and the possibility of extracting subsurface resources (i.e., mining, under Quebec laws). Funding for capacity development is also contemplated in various Agreements ratified by Quebec and Canada. There are also Impact Benefit Agreements, and other such benefit transfer tools that, in conjunction with exclusive land use and harvesting rights, give Eastmain options for local economic development. Connectivity improvements derived from potential LGA transportation infrastructure would enable the growth of existing economic activities and enable new activities.

LGA connectivity would allow building new hiking trails, and generate demand for services for hunting, fishing, and other outdoor recreation. Better connectivity would bring people to Eastmain from across Eeyou Istchee. A potential increase in demand for cultural tourism could revitalize training and apprenticeship programs involving Elders, women, and youth in tent-making. As mentioned earlier, greenhouse construction, but also recycling, pottery, and wooden house construction are possibilities if better connectivity linking Eastmain to providers in Quebec in other Cree communities materializes.

7.3.2 EFFECTS OF LGA ON LOCAL ECONOMY

7.3.2.1 BUSINESS OPPORTUNITIES

Eastmain’s EDO and community leaders contemplate the following LGA proposed infrastructure as most relevant:

- The upgrading and paving of the community access road (Phase 1).
- The BDH rail extension, Phase I, from Matagami to Rupert.
- The BDH rail extension, Phase II, from Rupert, at the junction with the Phase I railway alignment, to La Grande.

The impact of LGA infrastructure was discussed generally during the workshops and is mentioned in Section 3.5.3.4. No further specific information was provided.

7.3.2.2 JCIM RESULTS

During the construction of Hydro-Quebec’s Eastmain-1A-Sarcelle-Rupert complex from 2007 to 2016, Eastmain was not actively involved. Starting from the operation phase however, a significant number of Eastmain residents were hired permanently by HQ due to the proximity of the community to the Hydro-Quebec power complex.

For the construction of LGA infrastructure, it is expected that Eastmain would participate in all three phases. According to the JCIM results, Eastmain’s entrepreneurs would obtain a total amount of \$740M during the construction of LGA, or \$57M per year. The number of FTE jobs created were estimated to be 127 on average per year from 2030 to 2044.

For the operation period, Eastmain would only take care of Phase II infrastructure, starting from 2040 onward, due to the proximity of the community. This would allow to create 18 FTE jobs per year for residents, while local entrepreneurs would obtain about \$1M of contracts per year.

Table 7-2 JCIM Results per Phase for Eastmain, 2030-2074

Impacts	Construction		Operation	
	Lifespan (2030-2044)	Annual Average	Lifespan (30 years)	Annual Average
Contracts (M\$)				
Phase I	129	26	0	0
Phase II	92	15	28	1
Phase III	519	86	0	0
Total	740	57	28	1

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Impacts	Construction		Operation	
	Lifespan (2030-2044)	Annual Average	Lifespan (30 years)	Annual Average
Employment (persons-years)				
Phase I	724	145	0	0
Phase II	519	86	534	18
Phase III	405	68	0	0
Total	1,648	127	534	18

7.3.2.3 LONG-TERM SUSTAINABILITY

The JCIM results presented in the above Table 7-2 can be presented graphically in Figure 7-4. Thanks to the increased employment, the standard of living for Eastmain residents would be improved significant from \$27,091 per capita to \$46,221 per capita by 2032, a 71% increase. This is the highest jump during Phase I's construction period. During the construction of Phases II and III, the standard of living would decrease to about 35,000\$ per capita which is at least 27% higher than the \$27,500 level.

When the construction period is over and the entire LGA infrastructure is commissioning as of 2045, the participation of Eastmain would allow the standard of living for the community residents to stay at about \$28,393. This is a 3.8% increase, the lowest one amongst the nine Cree communities, as compared to the status quo scenario. This low percentage increase is due mainly to the assumption that Eastmain would only participate in the operation and maintenance of Phase II infrastructure. The figure would be much higher if Eastmain is assumed to participate in the operation of Phases I and III.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

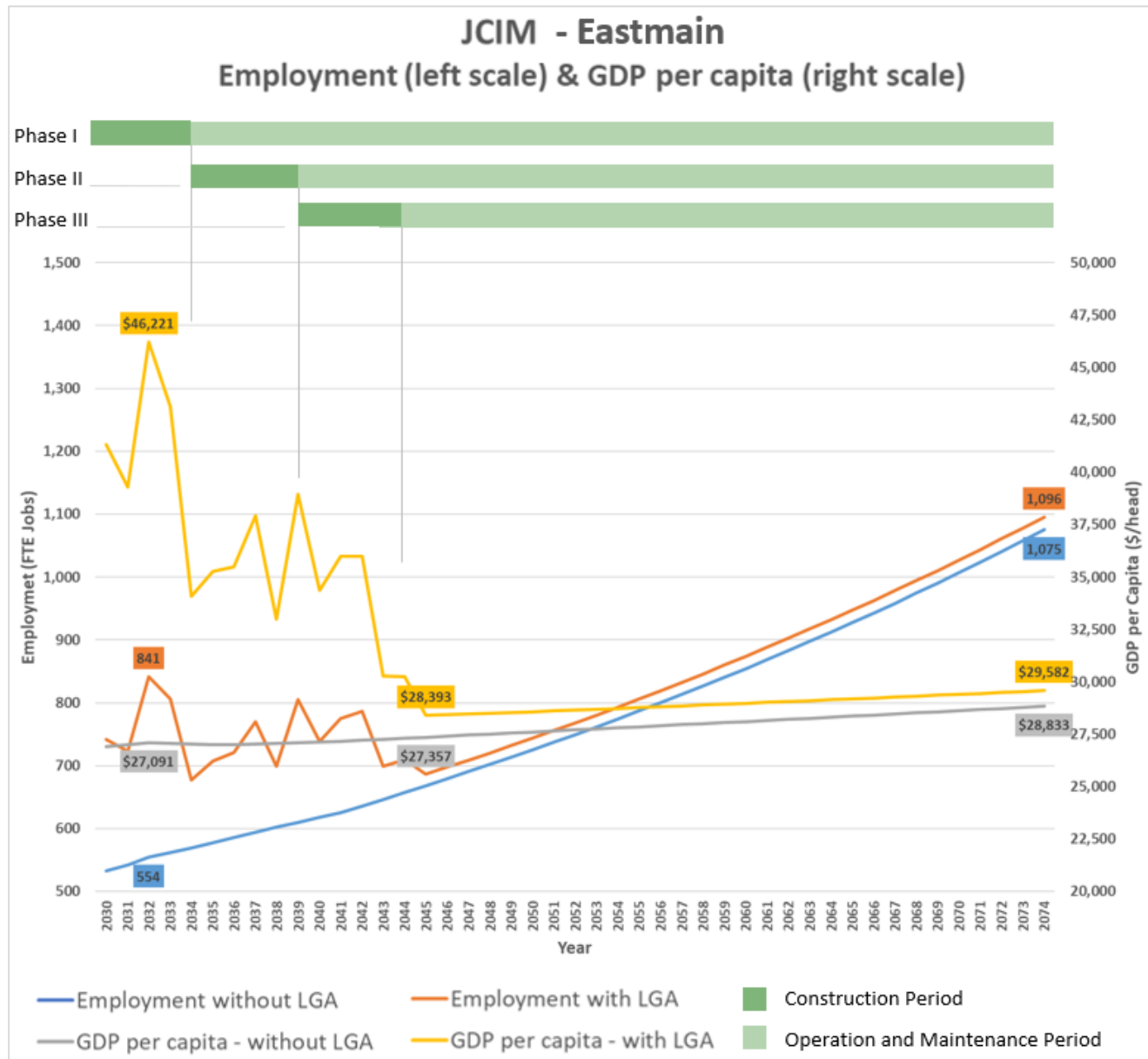


Figure 7-4 Impact of LGA on GDP per capita and Employment, Eastmain, 2030-2074

7.4 LAND-BASED ECONOMY

7.4.1 OVERVIEW

7.4.1.1 IMPORTANCE OF THE TRADITIONAL LAND-BASED ECONOMY

As mentioned in the section 7.1, the development of the La Grande complex in the late 1970s, and the diversions of the Eastmain and Opinaca rivers, as well as subsequent developments related to the Eastmain-Sarcelle-Rupert complex (powerhouses, Paix des Braves reservoir, road construction, dikes) have had a considerable impact on the territory, its resources, the Cree's transportation means and their mode of subsistence from the land.

However, as for other communities, the possibility to have land-based activities remains a key priority for Eastmain members. As mentioned in the section 0, 88 Eastmain members, (representing 47 family units) were enrolled in the ESP for their livelihood, sometimes combined with other occasional jobs in 2021-2022. In total, 9376 days spent in the bush were paid to the land users for that same year, for an average of \$17,334 per family unit (see Table 7-3). Ten years before (2011-2012), the people enrolled were way lower (54 members) representing 7.6% of the population, and 41 family units. To note that the number of families enrolled was about the same in 2000 (42 families). Indeed, in Eastmain, the number of members fluctuates much more than the number of family units enrolled. This could be due to the small number of community members and the enrolment of children from a year to another. Several other factors can affect ESP participation, which varies from year to year depending on, among other things, the economic climate and employment opportunities, or a readjustment in eligibility (CHESB, 2023, CHESB, 2012 and CGW, 2015).

Table 7-3 Beneficiaries of the Economic Security Program, Eastmain, 2021-2022

Eastmain - family units (nb)	Total (adults and children)	Total days spent in the bush	Average per family unit (days)	Average allowance per family unit (\$)
47	88	9376	199	\$17,334

Source: Compilation CHESB, Annual Report 2021-2022.

People wishing to benefit from the ESP need, however, to have access to a trapline, or part of it, which is not always the case according to the trapline system. In this regard, the Eastmain EPC reports:

“Some indicate that the trapline and tallyman-based system of harvest management struggles to keep up with growing pressure, changes in social relations, and changing ecological conditions. For those that do respect this system, it seems that it sometimes serves to block people from using the land, especially those whose close family doesn't include tallymen. But in the view of other community members, many don't respect the authority of the tallyman over the trapline and proceed to over harvest. Both these situations are problematic and stem from a state of uncertainty around the trapline system” (EPC Eastmain, 2017, pp. 9-10)

Regarding other challenges for Eastmain hunters, the EPC mentions that:

“In addition to issues affecting the monitoring and overseeing of hunting pressure in traplines, some have reported challenges for hunters, including tallymen, to access and to spend adequate time in hunting areas. This can be due to monetary costs, time constraints due to work and other obligations in town, or simply not having formal family access to a trapline” (EPC Eastmain, 2017, p. 10)

As shown, access to the land, hunting pressure, population growth, as well as high costs and family or work obligations are obstacles to make a living (or part of it) from the land, without even considering the low-income rate from fur sales being a reality for many years. Although a minority of the community members spend more than a third of the year in the bush (with the economic support of ESP), traditional activities practiced on the territory on a more occasional basis remain of prime importance to other members of the community. Indeed, activities on the land are the core of Cree culture and identity on several aspects such as food, social and cultural events, and well-

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

being. Moreover, the goose, the moose, the fish, or other wildlife resources caught by the occasional hunters enter in the subsistence economy as it is integrated into the family's diet and often distributed on a larger scale, as sharing remains an important value for Eastmain people. It is also about perpetuating culture, an inherent part of the Cree identity and wellness.

Indeed, 590 members (including 84 junior) were enrolled at the CTA in 2021-2022, which is relatively stable since 2014 (see Table 7-4). The local CTA offers different programs and services to its members. In 2021-2022 and the year before (2020-2021), more than 300 members benefited from the Gas Subsidy program (see Table 7-5). Other transportation subsidies are also popular among members, as transportation by ground, air or boat, for themselves or their equipment is particularly useful to use coastal camp during the goose break, or for members that do not have transportation and want to spend time in the bush.

As mentioned in section 3.6.2, the price of fur has gradually declined over decades. Even though, some Eastmain members continued to trap different kinds of fur-bearing animals. In 2021-2022, the fur sales by the CTA amounted to \$2,446. The Table 7-4 indicates the number of Cree members of the CTA, the number who sold fur, and the number of these sales in Eastmain from 2012 to 2020.

Table 7-4 CTA Membership, Number of Trappers who Sold Fur, and Amount Sold during 2012-2020 in Eastmain

	2012-2013 ^a	2013-2014 ^b	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
CTA Member (n)	-	-	582	572	609	511	283 ^c	682
Trapper who sold fur (n)	14	8	9	10	13	16	7	9
Fur sales (\$)	-	-	\$1,143	\$1,482	\$3,580	\$1,988	\$2,692	\$570

Note a and b: these annual reports were not available on the CTA website, for this reason some data are missing.

Note c: on this amount, 234 were juniors, which is an inverted ratio compared to the other communities

Source: *Compilation from 2012-2020 CTA Annual Reports.*

Table 7-5 Program and Project Offered by the CTA in 2020-2021 and 2021-2022 to Eastmain Members

Program/Project	Number of Members Helped 2020-2021	Number of Members Helped 2021-2022
Cabin insurance	-	-
Cabin building/renovation programs	-	-
Gas subsidy program	308	303
Hunting subsidies and supplies	38	120
Equipment repair or purchase subsidies	41	31
Transportation subsidies – ground, boat, and air	152 ^a	114

Note a: including 20 kids.

Source: *Compilation from 2020-2021 and 2021-2022 CTA Annual Reports.*

7.4.1.2 COMMUNITY ASPIRATIONS

The Eastmain EPC highlights important considerations on the value and vision of the future, gathered among its members, and it is strongly linked to the land and the capacity to use it. Indeed, land use is a very important and present value for Eastmain members. This includes hunting with family and friends, summer gatherings and sharing meat with relatives and community members. In Eastmain, people especially enjoy spending time on the bay, the coastal islands, and the lakes for traditional activities. They enjoy being able to share these moments with elders and younger people (EPC Eastmain, 2017, in WSP, 2023a).

The Eastmain members' vision of the future for the land use, gathered in the EPC report includes:

- Improvements in environmental management;
- Environment monitoring and protection;
- Curbing over-harvesting;
- Maintaining and enhancing access to land and ability to live from it;
- Fostering Cree-led development; and
- The establishment of a new community cultural site.

Eastmain members also insisted on laws and regulations made for and enforced by the Cree to ensure their ability to pursue their traditional way of life and for the maintenance of animal populations. The need for game wardens and traffic regulation on BDH was also mentioned.

It should be noted that on the First Nation's website, the vision is "To be a self-sufficient Nation, proud of its heritage, that offers a friendly environment, good quality of life & a better place to live & grow for future generations."

7.4.2 RESOURCE ACCESSIBILITY

Changes in resource accessibility (whether physical access or the quality and abundance of resources) can lead to impacts on the Cree economic and cultural way of life. Although these are closely related, this section mainly addresses the physical access, while the quality of resources is covered in section 7.4.4.

7.4.2.1 CHANGES AND CONSTRAINTS LINKED TO DEVELOPMENT

In 1994, the access road to the community was built from the BDH. Prior to this date, access was by plane, boat or snowmobile on winter roads. This road has obviously democratized the access to other communities and to the south, as well as to traplines located along this road and along the BDH.

Hydroelectric development on the Eastmain territory has also had an impact on how people use and move around the area. On one hand, it has facilitated access to various sectors, along which camps have been built. On the other hand, some areas (such as the reservoirs) have been avoided, due in part to the difficulties of travelling by boat or on the ice cover. The latter has become more uncertain, due to fluctuating water levels in the reservoirs and climate change. The state of resources into and around the reservoirs have also made these areas less attractive (i.e., mercury in fish, beaver drowned). Indeed, modification of the watershed systems also had an impact on feeding grounds and habitats for species such as geese and beavers.

In fact, most of the major watercourses between the Rupert and La Grande rivers, which once provided access to the interior, have been affected by hydroelectric developments, and other areas are now favoured by land users. Activities are often concentrated near roads and other access routes, particularly on or near the BDH.

Forest fires, notably the ones of 2013, 2014 and 2023, also brutally restricted harvesting possibilities. During the summer 2023, for instance, the access to the land was severely affected by the fire. In addition to a large area of land deeply burned and the closing of the roads, the community needed to be evacuated, which is particularly stressful, especially for vulnerable members.

Issues affecting land use were also raised during the consultation conducted in Eastmain by the EPC in 2017-2018. These mainly concern the environmental impacts of industrial developments (hydroelectricity, mining, forestry), difficulties in securing access to the territory, and problems of over-hunting, waste dumping and pollution. In addition to the issues related to hydroelectric developments, Eastmain members expressed concerns about mineral resource development and environmental pollution, among other things. Land use is also constrained, according to them, by:

- The increased presence of non-Cree hunters and fishermen;
- The consequences of large forest fires (greatly reducing the available habitat for wildlife);

- The poor management of waste, from hydro or mining exploration, as well as from non-Cree hunters and Crees members (at their camp or in the community), which can affect the territory;
- The over-harvesting of resources (hunting and fishing) and non-compliance with codes of conduct, which undermines resource conservation;
- The weakening of the recognition of the trapline system due to non-compliance with rules and wildlife, and population growth;
- The difficulties accessing hunting areas and constraints limiting time on the land such as costs, family and work obligations, or the family not having access to a trapline (EPC Eastmain, 2017).

Thus, access to the territory remains essential to ensure the continuity of the Cree way of life. However, despite the development of new roads that facilitate access to different parts of the territory, there are growing difficulties and concerns regarding accessibility to resources. They are linked to cumulative impacts on land and resources, increased pressure on wildlife (hunting and fishing), and climate change, which considerably restricts travelling (timing and places to go). Moreover, climate change impacts the state of wildlife, its displacement and therefore, those who rely on these resources.

7.4.2.2 IMPACTS OF PROPOSED INFRASTRUCTURES

As Eastmain territory is targeted for a railway along the BDH and the improvement of the access road to the community, no further opening of territory is planned, unless the infrastructures encourage new projects on the territory. For now, only the changes directly related to the construction and operation of the railway are considered.

The area touched by the project is used by a number of Eastmain members, many of whom have camps along the BDH, which they reach mainly via the Eastmain Road. Snowmobile trails are also reaching the BDH from east and west to access camps and activity areas. Hunting, fishing, trapping, berry picking and gathering activities have been reported along the road and nearby during the LGA engagement activities. Also, bears, caribou, spawning ground and goose migration corridors are among the features reported in the road corridor on the Eastmain territory.

The Eastmain's land users anticipate negative impacts on accessibility to resources. People notably deplore that parts of the land will not be anymore accessible for hunting, and that the disturbed wildlife may move away from usual or easily accessible areas. Concerns were raised regarding the necessity to cross the rails to reach areas of activities or camps. Indeed, the proposed alignment crosses several access and trails.

It was also mentioned that land users still see some impacts from the forest fire of 2013, which affected this area, and where there is still less wildlife, notably caribou, than before¹¹. Some land users fear that the infrastructure will continue to shrink the area they can use.

In addition, users are observing changes in snow and ice cover, as well as in water levels of various water bodies, which they relate to climate change. For this reason, travel on some snowmobile trails is dangerous in previously safe period, and users tend to restrict their displacements on the land. They prefer to stay in areas close to roads, which is why the project area could be even more frequented if climate change further restricts travelling.

Regarding the category land, it should not be modified for the necessity of the infrastructures on Eastmain traplines, as category II land lies than 5 km away from the suggested alignment, which is located on Category III land.

7.4.2.3 SUGGESTED MEASURES AND OPPORTUNITIES

Consultations as focus groups with Eastmain members must be continued to bring out measures or suggestions specific to Eastmain. See the section 3.6.2 for general suggestions or opportunities applicable to the Cree communities for a better accessibility to resources.

¹¹ Interviews were held before the 2023 forest fire.

7.4.3 CULTURAL CONTINUITY

The community intends to promote the culture through different ways. As mentioned on its website, Eastmain has a Cultural Camp, located at km 12 of the Eastmain Road, which is used to pass on knowledge to the younger generation and that is also rented for community and tourism activities. It has a Shaptuan, as well as an Arts & Crafts room. The Elders' Council and the Elders' social and teaching events also support the knowledge transmission to the younger. Moreover, the community holds different cultural activities and events.

An article in the Nation (Staniforth, 2016) specifies that the Eastmain's Cultural Camp is on a site selected by Elders "to be close enough to the community so that those too old to paddle and portage can still get there easily, but far enough into the bush to feel like the real woods. It has been gradually accumulating buildings for two or three years. The purpose of the camp is to offer traditional activities tuned to the seasons." It is open for community activities, and it also provides a space for Elders to share culture – they teach traditional work like scraping moose hide. The younger people also teach what they've learned to the youth and adults, reflecting their age and knowledge (make a fire, canoe skills, butchering big game, moose head cleaning, or scraping hide). According to the article, "youth in the community are taking a big interest in traditional activities and spend a lot of time out on the land, hunting with their families or venturing out on their own in search of ptarmigan." The Cultural Camp also offers a weekend snowshoe trek around the lake, as physical activities are encouraged for health considerations. Family-oriented activities are also encouraged through the Cultural Camp.

For the members of the community, "important sites and moments of cultural transmissions are the traditional ceremonies and cultural gatherings. These play a key role in the continuation of Cree culture and relation to the land, and Eastmain community members place great importance on these." In addition, members also mentioned that it should be assured that Cree harvesting practices respect a set of rules based on Cree culture and the sustainability of wildlife populations.

Another essential aspect of the cultural identity and continuity is the language. In 2021, a first Commissioner of the Cree Language was named (Jamie Moses, from Eastmain), who put in place a committee of language keepers to help guide efforts to protect the Cree language. The committee aims to provide support for local Cree communities to apply for and get federal funding under the Department of Canadian Heritage and its Indigenous languages and cultures program, as well as encouraging the communities to establish a department on language. The state of the Cree language was considered, by a consensus, in serious decline (Stewart, 2021). Eastmain community received funding, which could be used for the creation of language audio/visual documentation, the establishment of a local Elders' language advisory committees, community language surveys and the creation of local language kits, among others.

As mentioned in the EPC report, the community members wish to improve and increase cultural programs and establish a new community cultural site or centre. These kinds of initiatives could help the continuity of Cree culture and the passing on of skills and values, according to the participants. The cultural site should be protected from industrial development, but accessible to all community members.

Another line of discussion for the EPC was to develop cultural programs that could make easier for the Crees to go out on the land, in order to enhance their presence on the land.

7.4.3.1 IMPACTS OF INFRASTRUCTURES ON CULTURAL CONTINUITY

At the community level

The proposed infrastructures and the development that may be realized might touch the cultural continuity, if it impedes Eastmain members to reach specific areas and resources, if it disturbs valued areas, or contaminates the environment. Restricted activities or less healthy resources to gather means a loss of traditional knowledge, including language, to pass on to the next generation.

Lakes and rivers are essential for activities on the land and thus for the Cree culture. It is also an underlying asset of the well-being. For the community members, the Eastmain River, Opinaca River, as well as Duxbury Lake, Elmer Lake, Coldwater Lake, Kamewatskat, and Loon Lake have been identified as culturally important, mainly because of the kinds of fish they host and their importance in the history of the community and its survival. Indeed, the fish,

through its health, its availability, and its accessibility, have always represented a resource people could count on for survival and a necessary staple for the perpetuation of Cree culture. It is obviously the case for the other resources gathered by Eastmain members, and which also benefits to the whole community.

In the Area of the Proposed Railway

Regarding the areas identified as culturally important for the Eastmain members in the EPC, it is to note that both rivers Opinaca and Eastmain are running through the study area, and Elmer and Duxbury Lakes are also part of it. Coldwater Lake is located downstream. Other land users' valued area or sites were also identified in the sector of the alignment, during the LGA engagement activities, on the Eastmain territory. They were valued for different reasons or activities (good wildlife habitat, streams to protect, activity area, birth and burial sites).

The known birth and burial sites in the study area are not touched by the suggested alignment. However, the proposed infrastructures could affect the water bodies in different ways (vibration, pollution, disturbance, obstruction) and thus impact the cultural activities. The construction or the operation of the railway could also impact other cultural activities on the land, not directly linked to water (as notably ceremonies and hunting). As land use and culture are deeply rooted together, these impacts on access, water and resources are addressed in the sections 7.4.2 and 7.4.4.

7.4.3.2 SUGGESTED MEASURES AND OPPORTUNITIES

Consultations as focus groups with Eastmain members must be continued in order to bring out measures or suggestions specific to their community. See the section 3.6.4 for measures that could be put in place for all the Cree communities to ensure that the infrastructures would not interfere with cultural continuity and to promote the use of the land.

7.4.4 ECONOMIC SYNERGIES AND CONFLICTS

7.4.4.1 POSITIVE IMPACTS AND SYNERGIES

No positive impacts regarding the railway were mentioned by Eastmain land users interviewed for the LGA process. There was, however, mention of potential jobs in construction of the proposed infrastructure.

A new railway service would be relevant if it offers affordable ticket prices, on-demand stops, shuttle or feeder transportation to the train (if it is far from the community), and if it encourages more Cree to go out on the land. The latter point is linked to the economic importance of cultural activities on the land. Rail could support the based economy by making the land more accessible, especially – according to community views – if the train serves more directly as a link with neighboring communities, linking them along the bay.

7.4.4.2 NEGATIVE IMPACTS AND CONFLICTS

New mining activity is by far the most concerning potential that LGA could promote, and this is one of the reasons behind the general worry about inviting improvements in access to the territory. A mining operation, especially if it is closer to the community and its traplines, is widely seen as a concern. A mine could impact cultural continuity and accessibility to water and wildlife. There is no bigger impact than this. But, apart from this, Eastmain land users consulted during the LGA study process mentioned other concerns that are categorized in the following subheadings.

Concerns about resources

Goose, fish, beaver, moose, bear, and blueberries are the main resources harvested in the study area, according to the Eastmain land users.

The risks of disturbance come from construction work. Beaver use some specific streams in the study area that have to be protected. Sturgeon is a resource of great importance and that is very sensitive to as noise and vibrations. There is a spawning ground to protect near the proposed infrastructure alignment. Blasting causes understandable concern about the health of wildlife, as does pollution resulting from construction and subsequent operations.

During the operation of the railway wildlife collisions with the train, and disturbances due noise, vibration, fragmentation of the habitat, etc., are a clear worry.

Concerns about camp and activities

Land users could be disturbed by the train's noise and vibration. The effects would cause stress due to loss of quietness when people are at their camp, or while doing activities in the area. During the construction period, workers could also be a disturbance and additional pressure on wildlife.

Some users are convinced that the benefits of a railway would not outweigh the losses related to their activities, such as harvesting and using the camps. This concern is behind their disapproval of any LGA works.

Some land users also mention the cumulative impacts of the loss of parcels of their land when new development takes up lands on which people hunt moose.

Other risks on land-based activities and economy

Land users are concerned about the idea of crossing the railway to reach their camp or about the train crossing their trails. They would prefer to avoid these situations.

Moreover, they fear the risk of fire could be increased because of the infrastructure, which can be very harmful for the families for a couple of years, impeding them to gather "bushfood" from the burnt area. One must wait for new vegetation to grow, then wildlife (bears first, attracted by blueberry plants) to slowly coming back. During the interviews held in 2022, families still found there was less wildlife since the forest fire of 2013. Ten years after, the fire of 2023 impacted again several traplines of Eastmain, burning even more profoundly large portions of the land.

Some land users are also worried that the infrastructure under study would have an impact on the price of furs, which is already very low.

Others are concerned about the health of people who eat country food if wildlife is affected, as they share a lot of food with people from the community who can't get it by their own means.

7.4.4.3 SUGGESTED MEASURES AND OPPORTUNITIES

As shown in the EPC documentation, Eastmain members have considered several possible solutions to improve the use of the territory. Among these possible solutions are improving environmental management, monitoring, and protection, reducing overharvesting, maintaining and improving access to the territory, and the ability to make a living from it, promoting Cree development, and establishing a new community cultural site.

See the section 3.6.2 for suggestions and measures that concern all Cree communities involved.

7.4.5 ECONOMIC VIABILITY

7.4.5.1 EXPECTATIONS AND OBSTACLES

According to the EPC report, to help maintain activities on the land, Eastmain members wish for a "greater mutual respect between hunters and tallymen" and for programs to help tallymen to be present on the land for the duration of hunting seasons. They also wish for more game wardens, whose numbers are seen as inadequate. The benefits of their presence were observed during a program set up as part of the construction of the Eastmain-Sarcelle-Rupert Complex. Some have voiced interest in such programs being renewed and expanded" (EPC Eastmain, 2017).

As an obstacle to the land-based activities in a healthy environment, some deplore the prominence of mining industry on areas to protect, as according to some, a proposal for a protected area was rejected due to future mining development.

7.4.5.2 NEW PATHS FOR LAND-BASED ECONOMY

Multiple and different interests were stated by Eastmain members for the development of activities or businesses during the consultation process of the LGA studies, in the EPC report, and in the study “Socio-economic profile of the Cree Nation of Eastmain” (AG Consulting, 2016). They were almost all related to the land-based activities and are listed below:

Conservation and land management projects such as:

- environmental monitoring;
- management of mitigation measures for development projects;
- animal population management;
- development of conservation areas;
- development of land accessibility such as the creation of hiking trails;
- management of hunting, fishing and harvesting with quotas;
- mushroom picking;
- non-timber forestry production.

Tourism and recreation industry

- cultural tourism, including sports and cultural programming;
- training or apprenticeships provided by Elders (valued by women and youth);
- traditional settings, cultural activities, campgrounds, snowmobile trails;
- wildlife watching, coastal cruises.

Health services

- traditional medicine, mud clay.

Art and craft, such as:

- Pottery;
- Factories or production: snowshoe, tamarack, feather (etc.).

Other businesses suggested:

- Develop ways to manage waste and recycling responsibly to avoid long-term issues (as contamination and lost of land).
- greenhouse construction and management;
- tent making (pop up teepee style);
- wooden house construction;
- peat moss production;
- fishing industry.

See section 3.6.4 for more considerations regarding business or activities related to the land, that are not all traditional activities, but could, if developed, generate income while remaining connected to the land.

In Eastmain, there is a strong wish to take in charge the land management, to assure a sustainable land activity. This can take different avenues (monitoring, wildlife, conservation, revitalization...), that need to be explored, and long-term and short-term approach should be defined.

Some of the Eastmain members suggestions (as most of the land management activities) are related to other industrial developments on the territory. To these, we could also consider land revitalization industry (or land restoration). Land rehabilitation “can involve a wide range of activities, from cleaning up contaminated sites to

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

restoring degraded ecosystems. The sector aims to rehabilitate previously impacted or abandoned sites, as well as plan for future development in the region.” (Sym Consulting 2023). But there is, beside the need to inventory the sites to assess the extent of the market, a need for capacity development, and equipment or partnership (see the Sym Consulting report (2023) for details).

It should also be noted that during the engagement activities with the Eastmain women's group specifically, the possibilities of developing tourism were put forward.

7.5 COST OF LIVING

Average after-tax income in Eastmain is about \$43,800 or 6% higher than the average for Eeyou Istchee. In Eastmain, nearly 84% of dwellings are owned by the Band. In other words, 16% of dwellings are privately owned. Eastmain is almost the inverse of Waswanipi, which has about an 80% ownership figure. About half the total population of Eastmain is formally employed (higher if considering the working age population only).

There are 5 food and consumer goods retailers in the community, one of which is a large retail chain. There is one fuel (gasoline) retailer. On average, Eastmain’s residents pay higher prices for food than other Cree First Nations. However, rents are much cheaper (see Table 7-6 below).

Table 7-6 Commodity Prices, Eastmain, Fall 2023

Good	Eastmain Prices	Cree Average	Difference
Food and beverage			
1 litre of orange juice	\$5.09	\$5.03	+1%
10 pounds potato bag	\$13.99	\$11.54	+21%
12 eggs	\$5.06	\$5.90	-14%
12 Pepsi/Coke cans	\$17.39	\$12.96	+34%
2 litres of 2% milk	\$8.19	\$6.77	+21%
24 water bottle pack	\$12.69	\$12.35	+3%
284 ml Campbell tomato soup can	\$3.69	\$3.24	+14%
500 g lean ground beef	\$12.11	\$9.79	+24%
650 g marble cheese brick	\$11.49	\$16.23	-29%
Club Sandwich with fries at restaurant	\$20.95	\$17.16	+22%
Medium size coffee at convenience store	\$3.89	\$2.80	+39%
Total	\$114.54	\$103.77	+9.4%
Transport			
1 litre of regular gasoline	\$1.95	\$1.94	+0%
Communications			
Monthly Internet (10 Mb/s)	\$130	\$140	-7.69%
Housing			
Average monthly shelter costs (rented)	\$348.00	\$497.78	-30%

Source: based on prices observed at Northern store

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Housing is 30% below the average for the territory. In effect, Eastmain has the lowest shelter cost of all Cree communities.

With higher employment and higher incomes compared to the regional average, it seems that, as in Wemindji, Eastmain's income levels and lower rental costs are enough to offset high food costs and high fuel costs.

Table 7-7 2023 Price Index Comparison, Eastmain

Index	Eastmain Relative to Cree Average	Cree Community Relative to Jamésie	Cree Community Relative to Abitibi-Témiscamingue
Food and beverage	♦ 1.10	◆ 0.66	◆ 0.60
Transport	◆ 1.00	◆ 0.85	◆ 0.82
Communications	◆ 0.93	◆ 0.34	-
Housing	◆ 0.70	♦ 1.31	♦ 1.45

Note: The index was constructed using prices listed at 1 store in Eastmain, 2 in Jamesie and 2 in Abitibi-Témiscamingue

The salient feature of Eastmain's cost of living is its affordable housing. Over 80% of dwellings are Band-owned in Eastmain, allowing for much more affordable shelter costs in comparison to non-Cree areas. This cost is significantly higher in non-Cree communities.

LGA transportation infrastructure would reduce, sometimes significantly, prices or costs related to the traditional economy, and for the consumer and business economy. LGA connectivity would facilitate taking advantage of regional and external economic opportunities, such as accessing perishable goods at a lower price, and in better condition. Local business development would be favoured by improved connectivity to other Cree communities and beyond.

LGA connectivity would help businesses to ship in and ship out what they need and what they produce. Better connectivity would improve access to, for example, capacity-building services. Financing for local business development could become a possibility if businesses are able to take advantage of potential opportunities derived from improved connectivity to the extent that business models adequately contemplate such potential opportunities.

7.6 SUMMARY

Despite the development of new roads that facilitate access to different parts of the territory, Eastmain land users have growing difficulties and concerns regarding accessibility to resources. These are linked to cumulative impacts on land and resources, increased pressure on wildlife, and climate change. Some support for the LGA approach to infrastructure development is specifically for infrastructure along the bay, to link Eastmain to its neighboring communities. Extensive communication, the elaboration of mitigation measures in collaboration with land users, and business development support (capacity and financing) constitute clear demands from the community. Eastmain has a strong interest in conservation and land management projects.

Eastmain is anticipated to participate in all three phases of LGA construction, receiving a total of \$740 million over the project's duration, equating to \$57 million annually. During construction, an estimated average of 127 FTE jobs would be created annually from 2030 to 2044. However, during the operational phase, Eastmain would only oversee Phase II infrastructure from 2040 onwards due to proximity, generating 18 FTE jobs per year.

This increased employment is expected to significantly improve the standard of living for Eastmain residents, rising from \$27,091 to \$46,221 per capita by 2032, marking a 71% increase, the highest during Phase I construction. During Phases II and III construction, the standard of living is projected to decrease to approximately \$35,000 per capita, still at least 27% higher than the current level. Following completion in 2045, Eastmain's participation in LGA infrastructure is forecasted to maintain the standard of living at around \$28,393, representing a 3.8% increase compared to the status quo scenario.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

In Eastmain, the current percentage of ESP recipients stands at 10%, below the Cree average of 14%. Yet, from 2014 to 2022, the proportion of traditional hunters in Eastmain saw a slight increase of 2%, a unique trend compared to other Cree communities where this share typically declines. Eastmain boasts affordable housing, with over 80% of dwellings being Band-owned, resulting in 30% lower shelter costs compared to Cree average.

LGA should clearly show how environmental and cultural continuity obligations are met by project design. Apart from keeping to preferred alignments, Eastmain expressed that environmental monitoring, animal population management, land use licensing, training of commonly underserved groups, such as youth and women, and employment of Cree within and beyond LGA works, are also important. Given that Eastmain stands out with a high proportion of its population educated at the post-secondary level (over 40%), the community's economy stands to benefit by providing sufficient opportunities to develop small business initiatives, build its current businesses, and to innovate to generate greater diversity.

Long-term and short-term approaches to building support and capacity for local initiatives that could directly benefit from new connectivity options should be defined in close engagement with individuals, and with local entities. Building capacity to meet these obligations would in effect improve the local labor force beyond the needs of LGA construction, maintenance, and operation. LGA can be a catalyst and an engine for capacity development by improving the economic feasibility of local initiatives and setting the tone for a capacity development focus on specific community aspirations. With better connectivity there would be a greater possibility of accessing lower consumer and business prices, and for finding economic or business opportunities for Eastmain entrepreneurs, beyond Eastmain.

8 WASKAGANISH

8.1 CONTEXT

Meaning “small house” or “small encampment” in reference to the HBC installations (CTQ, 2024), Waskaganish is the oldest Cree community in James Bay. The first European settlement in Cree territory was initiated in Waskaganish in 1668 as a commercial British colony in the north based on fur trade. Rupert House (the previous name for Waskaganish) was the most important fur post in James Bay. As a result, the Cree way of living was based on fur trade, with Cree people traveling between coastal and inland posts by canoe, by tractor, or via trails they maintained. There were episodes of intensive trapping, low natural population, famine, and starvation, after which Cree customary land practices successfully rehabilitated several specie populations (Waskaganish, 2023).

In the late 1940s, the federal government imposed the band government structure, hunting quotas, and the expansion of the community village with new housing, a community hall, and a school. A slowdown in the fur trade occurred during the same period. These factors led more Crees to seek paid employment, particularly at the local canoe factory funded by James Watts in 1923. With the development of forestry and mining in Abitibi, Matagami, and Chibougamau areas, the Cree traditional way of life altered considerably (Waskaganish, 2023).



Source: Julie Roy, WSP

Figure 8-1 Mouth of the Rupert River

After the signing of the JBQNA, late Grand Chief and Chief Billy Diamond helped create several companies in the 1980s including Air Creebec, based in Waskaganish, and Cree Yamaha Motors, owned in part by the community (Waskaganish, 2023). Following the signing of the Paix des Braves in 2002 and a lengthy Environmental and Social Impact Assessment process, HQ built the Eastmain 1A/Sarcelle-Rupert powerhouse, partially diverting the Rupert River towards the Eastmain watershed further north, greatly reducing the flow on the river, in particular at the mouth where the community is located (Francoeur, 2009). The Waskaganish community provided a large number of Cree entrepreneurs and workers to the construction and operations of the resulting HQ installations. However, the impacts of the project on the natural environment have had important effects on the resources available to Cree hunters and fishermen (Land users focus group).

Waskaganish is a coastal community, located on the coast of Rupert Bay at the mouth of Rupert River on the south bank, as shown in Figure 8-2. It is the southernmost Cree coastal community. Waskaganish trapline territory lies south, almost reaching Matagami, and east, almost reaching the Paix des Braves reservoir. The territory includes 38 different traplines. It is included in the drainage basins of the Rupert, Broadback, Nottaway, and Harricana rivers. The land is mostly formed of humid environments. It is an important site for migrating birds. A protected old growth forest covers the southern part of the territory.

The 102 km Waskaganish access road, built in the early 2000s, connects the Cree community of Waskaganish to KP 235 of the BDH. On the extension of Smokey Hill Street to the southwest, the road is paved for approximately 25 km in its western section. The other 77 km between this point and the junction with the BDH is gravel. The road includes no major bridge (CDC, 2021a). The road distances (and travel times) are 260 km (4 hours 11 minutes) to Nemaska, 318 km (5 hours 40 minutes) to Eastmain, and 339 km (4 hours 20 minutes) to Matagami. Maheux (2023) provides a bus service between the BDH/Waskaganish access road intersection and Val-d'Or/Chisasibi twice a week. Located close to the community village, the Waskaganish airport has features similar to the airports in other Cree communities (VEI-WSP, 2023). There is one flight per day (Waskaganish, 2023). The local airport offers flights of approximately 3 hours to Montreal. There is a boat ramp on the Rupert River shore.

The LGA infrastructure of interest for Waskaganish include:

- The improvement of the Waskaganish access road that would ease road accessibility to the community and integration to the regional economy.
- The BDHR, Phase I/Phase II to enhance the external market access and set the use of a potential freight yard near the junction of the BDH and Waskaganish access road. The alignment also crosses traplines north of Rupert River.
- The improvement of the Route du Nord to enhance the accessibility to Cree inland communities and potential economic nodes.

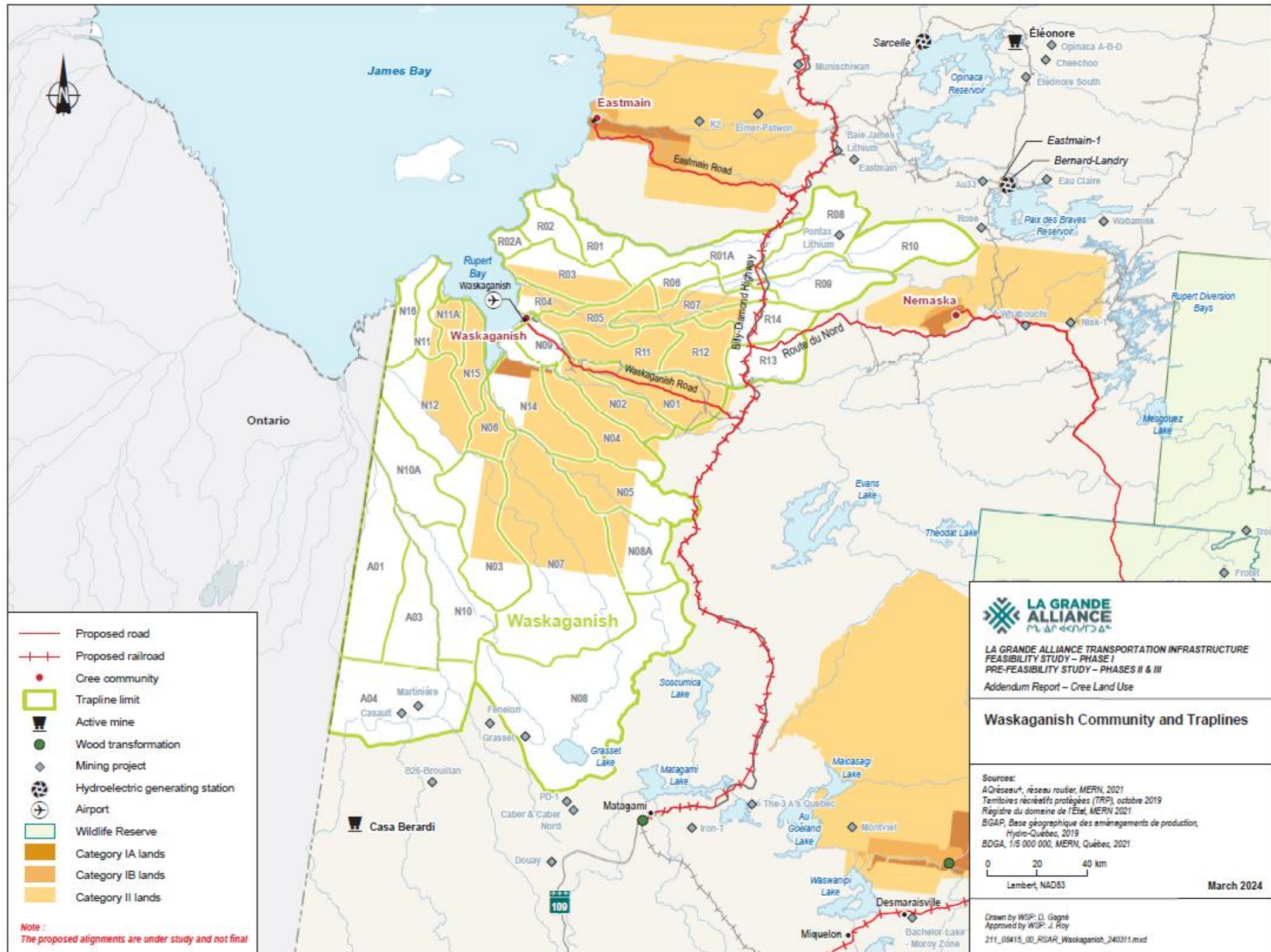


Figure 8-2 Waskaganish Community and Traplines

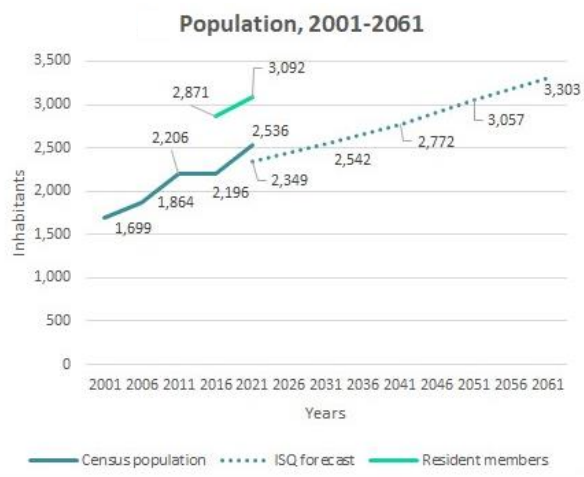
8.2 INDICATORS

The main characteristics of the population living in the community of Waskaganish are presented below. Note that the data shown represents the 2021 situation as per the StatCan Census data unless otherwise specified.

Population

The population of Waskaganish amounts to 2,536 inhabitants as of the 2021 Census. There were 3,092 resident members in the band list in 2021-2022 (CHESB, 2022), or 22% more than the 2021 Census data. Over the past 20 years, according to the Census, the population has experienced a 49% increase or a CAGR of 1.9% per year, which is similar to the rate for all Crees.

According to ISQ (2021) forecasts, the population should reach 2,772 people in 2041 and 3,303 people in 2061. The expected growth rate is less than that of the Eeyou Istchee region. This is explained by the fact that ISQ forecast was done before the 2021 Census. While Waskaganish displayed a slight negative variation of the population between 2011 and 2016 (thus making the forecast lower), it experienced important growth between 2016 and 2021. The actual 2021 population was 8% higher than the forecast. Thus, one could expect Waskaganish’s future growth in the same range as the general Cree population, at 1.0-1.1% per year instead of 0.8%. Using 1.05% per year as a CAGR, the population would then reach 3,125 inhabitants in 2041 and 3,851 inhabitants in 2061.



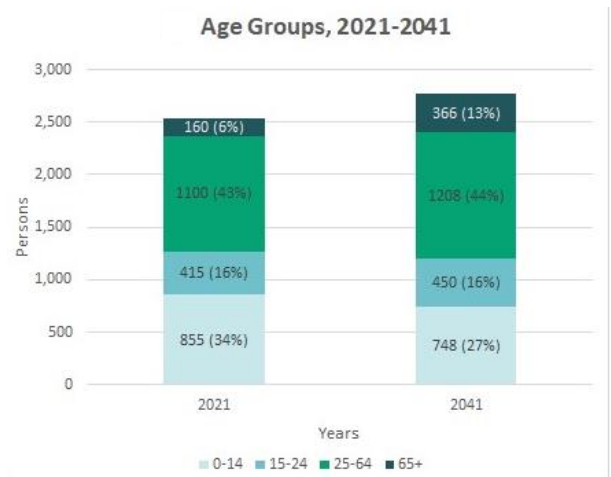
	Waskaganish	Crees
Annual population growth (2001-21)	1.9%	1.8%
Annual population growth (2021-41)	2.4%	1.1%
Non-resident members (2021)	50 (1.6%)	1.7%

Source (Members): CHESB (2022).

Age structure

Like all other Cree communities, the population is young, with half (50%) aged less than 25 years old in 2021. The recent (2016-2021) increase in the Waskaganish population was mostly due to natural growth, while migration was less important than in other communities.

Until 2041, unlike most other Cree communities, the youngest group (0-14) should decrease slightly in numbers while the group in the working age (15-24, 25-64) should increase at approximately the same rate as the total population and thus, their proportions should remain stable. The population is predicted to get older on average, with the number of seniors 65 years and older will go from 160 people to 366 people. The demographic dependency ratio would remain similar, although there would be fewer young people and more seniors.



(2016-2021)	Waskaganish	Crees
Births	315 (12.4%)	1710 (9.3%)
Incomers	130 (5.1%)	1900 (10.4%)
Deaths and out-migrants	105 (4.1%)	2480 (13.5%)

Source: 2041: ISQ.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Families, households, and dwellings

Out of the 635 families in the community, 280 (44%) are composed of couples with children and 270 (43%) are families led by a single parent.

Proportionally, Waskaganish has more one-parent families than the Cree average (33%). The dominant household type in the community is the single-family setup, making up 55% of the households. Following are multigenerational households and one-person households, comprising 23% and 11% of the total, respectively. The remaining 11% encompasses households with either a family and non-related people, non-related people, or two or more families. Multigenerational households are more prevalent in Waskaganish than the Cree average (17%).

Out of the 565 dwellings in Waskaganish, the vast majority (88%) are rented from the band. Waskaganish is the Cree community with the smallest share of privately-owned dwellings. Two dwellings out of every ten (20%) are overcrowded and the same proportion requires major repairs. This is comparable to the Cree average, but much higher than in Jamesian towns: 2% of dwelling in Matagami are overcrowded and 5% require major repairs.

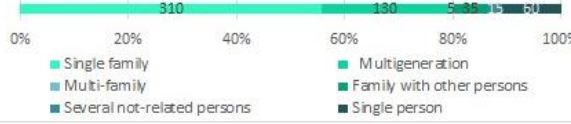
Ethnicity and language

The population of Waskaganish is predominantly Cree (96%). Nearly the entirety (95%) of the population is fluent in the Cree native language. The same proportion is fluent in English. In contrast, French is spoken by 22% of the population, the same proportion as the Cree average. The number of Cree-speaking individuals has remained stable within the community over the past decade.

Family Structure



Household Type

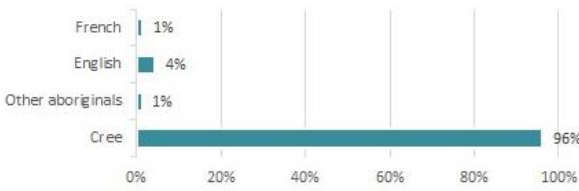


Tenure

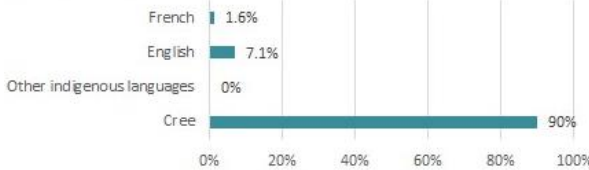


	Waskaganish	Crees
% overcrowded dwellings	20%	15%
% dwellings with major repairs needed	21%	24%

Ethnic Origin



Mother Tongue



Knowledge of Languages	2011	2021
Cree	96%	95%
English	92%	95%
French	25%	22%

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

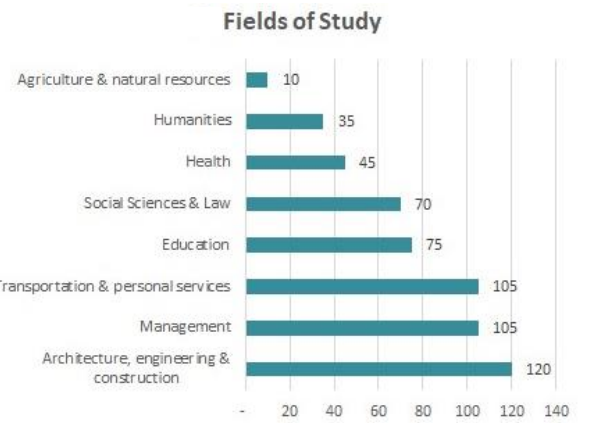
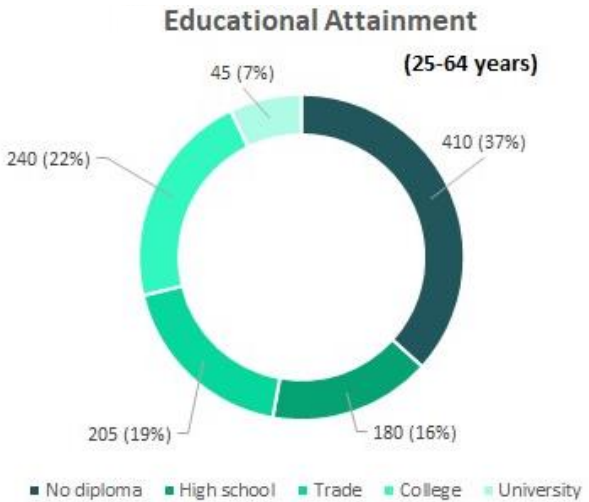
Education

Almost two thirds (63%) of the population 25-64 years old has at least a high school diploma, which is less than Jamesians (75%) or Quebecers (88%). The educational profile of Waskaganish is similar to the Cree average, although slightly more oriented toward apprenticeships and trade diplomas. Almost a third (30%) of the Waskaganish people have higher education (CEGEP or university), a share similar to Crees and Jamesians, but significantly less than Quebecers in general (52%). Waskaganish is the Cree community where education metrics have improved the most, with the share of people with no high school diploma declining from 56% in 2006 to 37% in 2021.

Like in other Cree communities, the predominant professional fields in Waskaganish are engineering and construction, management, personal & transportation services, and social sciences and law. Those with these qualifications in these sectors number at 400 people or 24% of the local workforce.

Land

The combined land area of 1A and 1B categories amounts to 771 km². The Waskaganish territory includes 36 traplines covering 29,711 km². With 156 adults on the ESP in 2021-2022, the share of traditional hunters in Waskaganish (11%) is less than the Cree average (18%). Nonetheless, the average trapline area per ESP adult is similar (190 km² versus a Cree average of 210 km²). The average annual allowance was \$17,798 for Waskaganish ESP unit in 2021-2022, slightly less than the Cree average.



	Category 1A	Category 1B	Traplines
Land area (km ²)	497	274	29,711
	Waskaganish		Crees
Nb/% beneficiaries on ESP Program	218 (7%)		14.3%
Avg. annual ESP unit allowance (21-22)	\$ 17,798	\$ 18,580	

Source: 1. Traplines: CMEB (2022). 2. ESP: CHESB (2022).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Labour market

The participation and employment rates in Waskaganish (55% and 48% respectively in 2021) are less than the Cree average (61% and 56% respectively), which is less than the Quebec average (64% and 59% respectively). As participation and employment rates remained rather stable over the last 20 years, with Waskaganish’s participation and employment rates around five percentage points less than Cree average, the latter around five percentage points less than the Quebec average. Waskaganish is the community with the highest concentration of casual or seasonal jobs (24%) among all Cree communities (16% average).

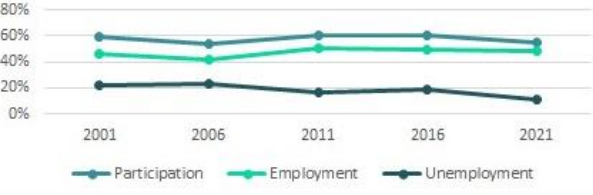
Evolution of Employment

The level of employment, according to the Census, has been approximately 900 people employed in Waskaganish since 2011, after a significant increase from 2001 to 2011. In 2021, the public sector (public administration, healthcare, and education) accounts for two thirds (67%) of employment in Waskaganish. Since 2011, while public administration and private sector industries (retail; agriculture, wood and mining; and construction) have been constant, fluctuating, or decreasing, and overall, not contributing to economic growth, education, health, and social services have seen their job numbers steadily growing. This phenomenon is similar to the overall Cree employment but since 2016, and this is not the case for all Cree communities. The employed people living in Waskaganish work within the community with a share of 93%, one of the highest in Cree communities.

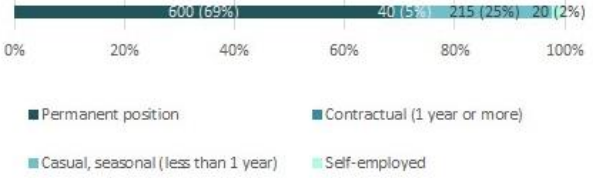
Economic Activities

According to the employer consolidated database, education is the largest sector in number of jobs (134 or a quarter of local employment) which, combined with public administration, and health, and social services, provide 250 jobs or half of the community employment in Waskaganish (SPN, 2023). In the private sector, accommodation and food service compared with retail employs 120 people while the sectors turned to external markets (transportation, construction, professional and technical services) provide 92 jobs. Although strongly based on public community services, Waskaganish economic structure is somewhat diversified.

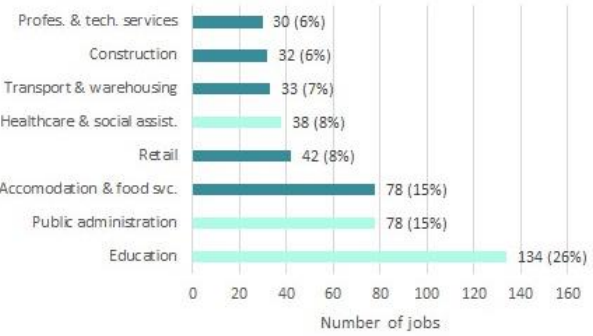
Labor Rates



Class of Worker



Economic Activities (2023)



Source: DCI-EDO (2023a) and SPN (2023).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Main Employers

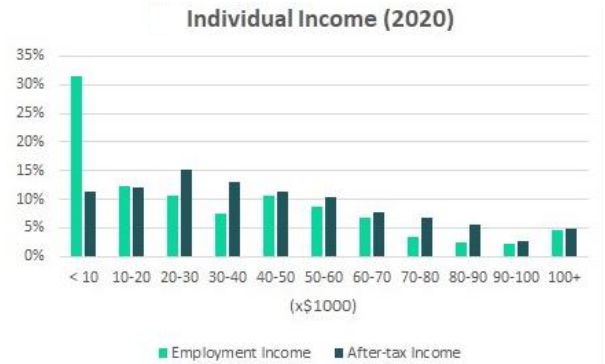
Following the local economic structure, the main employers are the two schools, the band council, and childcare. Main businesses include the Kanio Kashee and Siibi Camp, Northern Stores, and Blackned Construction.

Business name	Activity	Jobs
A-Wiskeychan School	Education	80
Waskaganish Cree Nation	Public administration	60
Wiinibekuu School	Education	54
Waaseskun	Healthcare & social assist.	33
Kanio Kashee	Accommodation & food svc.	32
Northern Stores	Retail	23
Siibi Camp	Accommodation & food svc.	20
Blackned Construction	Construction	15
Municipal garage	Public administration	15
Siibi Corporation	Profes. & tech. services	15
Large sector		% jobs
Public Sector		54%
Private Sector		46%
Total		506

Compilation from DCI-EDO (2023a) and SPN (2023).

Income

The median and average total individual income in Waskaganish fall within the \$30,000-38,000 range which is approximately 15% lower than the Cree average. The average individual employment income (\$33,300) and the average after-tax income (\$37,700) are the lowest among the Cree communities (with average of \$38,900 and \$41,300 respectively). This may be explained by the higher proportion of casual or seasonal jobs and the relative importance of the accommodation and retail sectors in this community. The gap with Jamesians is significant, since the employment income 35% lower compared to Matagami, and the after-tax income is 11% lower than in Matagami.



More than a quarter (28%) of households receive government transfer income. The market income Gini index Waskaganish is 0.46, indicating a higher level of income inequality within the community than the Cree population score (0.39) and the Matagami score (0.25).

Individual income (2019)	Waskaganish	Crees
Median total income	\$ 30,800	\$ 36,300
Average employment income	\$ 33,300	\$ 38,900
Average after-tax income	\$ 37,700	\$ 41,300
Household income (2019)	Waskaganish	Crees
% of government transfers in income	28%	24%
Prevalence of low income	5%	5%
Gini index, market income	0.46	0.39

8.3 ECONOMIC OPPORTUNITIES

8.3.1 ENTREPRENEURSHIP / DIVERSIFICATION

The distribution of businesses and jobs by sector is presented in Table 8-1. Education, health, and public administration account for near half (48%) of all jobs in Waskaganish¹². By comparison, they represent 39% of Jamesian jobs and 29% of jobs for Quebec.

The distribution of jobs and businesses by economic sector shows a certain diversification. Several sectors generate jobs, including accommodation and food services, retail transportation and warehousing, construction, and professional and technical services, with 30-78 jobs each. When excluding the public sector (education, band administration, health care and social assistance), 54 businesses in 12 sectors create 273 jobs in the community. This employment in private sector corresponds to 30% of the labour force.

Table 8-1 Employment per Sector, Waskaganish, 2023

Sector	Number of businesses	Number of jobs	% jobs
Educational services	2	134	25.6%
Accommodation and food services	9	78	14.9%
Public administration	4	78	14.9%
Retail	8	59	11.3%
Health care and social assistance	2	38	7.3%
Transportation and warehousing	9	33	6.3%
Construction	7	32	6.1%
Professional, scientific and technical services	8	30	5.7%
Arts, entertainment and recreation	3	17	3.3%
Other services	2	7	1.3%
Real estate and rental and leasing services	1	5	1.0%
Administrative, support, waste management and remediation services	3	4	0.8%
Finance and insurance	1	3	0.6%
Manufacturing	2	3	0.6%
Information and cultural industry	1	2	0.4%
TOTAL	61	523	100%
Education, health, public administration	8	250	47.8%
Other sectors	54	273	52.2%

Note: There were no businesses or jobs recorded in the following sectors: agriculture, utilities; wholesale trade; corporate and business management.
Source: Processed from DCI (2023a) and SPN (2023).

¹² According to SPN (2023), the education, health and social assistance, and public administration organizations located in Waskaganish employ 250 people. At the StatCan (2021) Census, the estimate was 595 people from Waskaganish working in those sectors. The gap between the number of jobs in 2023 obtained from SPN-DCI-EDOs and employed people in 2021 Census is -37% for Waskaganish, that seem to be explained by the difference in public administration and health and social assistance. This is one of the largest under-estimations among Cree communities.

Accommodation, food services, and retail. The three largest businesses in these sectors include 2 accommodation installations and one grocery store. Kanio-Kashee Lodge (33 jobs), established in 1993 and located along the Rupert River, has 24 rooms with a restaurant serving breakfast, lunch, and dinner. Siibi Camp, located on Rupert Road, employs 20 people. Two grocery stores serve the community: Northern Store, with 23 employees, and Smokey Hill, of similar size. Other businesses in this sector include 6 small restaurants or canteens and a few specialized retail shops.

Tourism. Attractions include the first Hudson's Bay Post in Canada, traditional fishing practices at the Smokey Hill rapids, Tim Whiskeychan's Art Studio, Wiinipaakw Tours, and the First Creetopia site. The tourism and outfitting sector is represented with four small businesses: Eeyou Adventures, Kapesihii tour operators, Waskaganish Tourism and Wiinipaakw Tours totalling more than 15 jobs. Incorporated in 2018, Wiinipaakw Tours Solidarity Coop is the first cooperative created in the tourism sector in Eeyou Istchee and is owned by the Crees of Waskaganish First Nation. It seeks to develop sustainable maritime tourism on the coasts of James Bay while respecting the authentic Cree culture and values of harmony with nature.

Transport. A major business with headquarters established in Waskaganish is Air Creebec employing over 100 people, including 5 people in Waskaganish. Air Creebec, a regional airline, offers regular scheduled flights, charter, and freight services to 16 destinations in Quebec and Ontario. The three main bases are located at the Val-d'Or, Montreal, and Timmins airports with hubs in Waskaganish, Chisasibi, and Moosonee (Air Creebec, 2023). Freight transportation is often provided by Kapa Transport like in the other coastal communities. The fuel and diesel transportation are provided by Petronor.



Credit: Marc Beauregard, VEI.

Figure 8-3 Rupert River (Smokey Hill Rapids)

Construction. The construction business sector is well represented with the two largest companies Siibii Development Corporation (SDC) and Blackned Construction (including subsidiaries At Googoo K Take Away) with at least 15 employees each. As well as moderately sized businesses such as Robertson, Waska Ressources, and Moose Excavation, having 2 to 10 employees each, depending on the contract inflow in the construction industry. For a medium-size community, Waskaganish has a strong basis for construction activity.

CGW (2015) shows that among the construction jobs given to Cree contractors in different communities in Eeyou Istchee, Waskaganish was awarded 21% of the total value of contracts and accounted for 22% of total employment in those contracts, equivalent to an average of 41 monthly jobs, during HQ Eastmain 1A works from 2007 to 2011. For the operation phase 2012 to 2016, Waskaganish was awarded 13% of the value of Cree contracts and accounted for 9% of Cree employment in those projects, equivalent to 2 monthly jobs. This shows that the Waskaganish community displays an historic capacity to seize construction and operation opportunities for major projects in Eeyou Istchee.

Natural resources. Waskaganish has communications with the Wallbridge mining company carrying out drilling exploration south of the community and west of Matagami. There is no known forestry agreement. Waska Resources, founded in 2003, is a joint venture between the Diamond family and the Desfor Group. The company has been involved in forest clearing, worker camp construction, trapper work, snowmobile, or ATV trail projects, in studies for HQ, as well as in construction projects (Waska, 2021).

Entrepreneurship. Out of the 42 businesses identified by the DCI (2023a), the DCI (2023b) regional funding program supported an average of 2.8 Waskaganish businesses per year over the last 12 years, representing 14% of the program. As this share and the share in the number of private businesses align with Waskaganish’s proportion of Eeyou Istchee population, this community’s level of entrepreneurship is comparable to Cree communities in general but lower than in Jamesian communities. Business plans of individuals who ask for funding (\$10,000-\$30,000) are reviewed and approved by the Waskaganish Business Corporation, which also looks after Band Investments and develops business opportunities. The Siibii Development Corporation is another arms length band-owned enterprise that develops projects mainly on the Waskaganish territory outside Category I lands (Niska, 2020).

According to the discussion with Waskaganish CIOs and EDOs during the focus group and the workshop, the organization of the territory, including the transportation network, has historically been driven by the needs of external economic interests, from fur trade at the beginning to hydroelectricity production since the 1970s to forestry and mining industries. Cree have always been reactive to any development on their lands which is often planned or realized without consultation of the Cree people (EDO, 2023).

Business Projects or Potentials. From the EDO’s perspective and work, the current projects (requests for funding, market studies, or business plans) in the community include:

- a greenhouse project;
- a grocery store expansion;
- a new Arts & Crafts Store;
- the creation of Creefit and Jolly tours;
- an expansion of Hester Transport;
- an expansion of Erless Woodworks.

8.3.2 LGA EFFECTS ON LOCAL ECONOMY

8.3.2.1 BUSINESS OPPORTUNITIES

LGA infrastructures that were considered by the Waskaganish representatives as the most relevant to their community include the access road, the railroad, and the Route du Nord.

They mentioned that the access road should be wider, like the BDH. The advantage of having the LGA transportation program is that it would reduce winter driving stress, create a better access to the territory, and reduce the cost of transportation of goods to the community. There would be a feedback cycle of increased trucking on the highway, which would create more road damage, more safety issues, and more vehicles on the roads from population growth, which would then bring more food, fuel, and goods, in turn leading to even more trucking.

From the community point of view, the missing elements on the LGA program are the consideration of the electrification of transport and charging stations. On a similar topic, the idea of integrating environmental factors, such as reducing permafrost to reduce landslides or sinking sands, should be analyzed. Waskaganish representatives also mention that the point of view of the Quebec government is missing.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

The business opportunities with the proposed upcoming LGA transportation infrastructure program could include those mentioned below:

- For the community to develop import/export of goods since there will be a transshipment yard at the crossing of the BDH and the community access road. e.g., a skidoo dealership inside the Waskaganish community importing skidoo by railroad or road from the southern market. This also can include the expansion of boat/canoe building and shipping. The paving and improvement of the Waskaganish access road would help these shipments whether the BDHR is built or not.
- The paved and improved access road will ease access to the community village, may attract more tourists to the attractions and accommodations in Waskaganish or along the road, and thus may enhance local tourism development.
- Developing a hub around the BDHR transshipment yard/passenger station (near intersection of the BDH and the Waskaganish access road¹³) for tourism, food services and stores, accommodation, gas/battery-charging stations, arts & crafts, land touring, etc. This could also be used for the mid- to long-term storage of equipment as well as to facilitate the management of recycled materials.
- The improvement of the access road will ease the journeys to other Cree communities and thus the access to traditional and economic activities in the region, notably the territory, the forestry sites nearby and the mining sites in the Nemaska area. Furthermore, this could improve access to the BDHR transshipment yard/passenger station, thus shifting transportation for the community towards short haul between the community and the BDH.

8.3.2.2 JCIM RESULTS

The LGA transportation infrastructure construction and operation will require workers during a long period of time. Some of these jobs can be fulfilled by workers from Waskaganish, such as direct jobs on the railway during operation, but also as workers for companies that are subcontracted for the works during construction or for the maintenance during operations. Note that this does not include administration jobs for the management of the construction phase, since this has not been defined at this stage.

Direct Operation

The LGA studies (VEI, 2023c) reveal that operation of the BDHR would bring 99 direct jobs at the Waskaganish yard and station located at the intersection of the BDH, located 103 km away from the community, and at the headquarters. The proposed railway headquarters would be hypothetically located in the Waskaganish community. This new Phase 1 BDHR segment will create demand for 9 administration staff, 6 mainline operators, 4 infrastructure maintenance and 3 passenger service workers for a total of 22 jobs at the headquarters. Along the BDH at the Waskaganish turnout turn-off, there would be a need of 46 yard operator, 4 rolling stock maintenance personnel, 5 infrastructure maintenance personnel, and 22 passenger service jobs for a total of 77 resources, as shown in Table 8-2.

Table 8-2 BDHR Operations at Waskaganish

	Waskaganish Headquarters	Waskaganish-Yard	Waskaganish-Station
Administration	9	-	-
Main Line Operations	6	-	-
Yard and Siding Operations	-	46	-
Rolling Stock Maintenance	-	4	-
Track and Signalling Maintenance	4	-	5
Passenger Services	3	22	-
Total	22	72	5
GRAND TOTAL	99		

Source: VEI (2023c).

¹³ Note that this location is in a Nemaska trapline.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Assuming that all the jobs at the BDHR headquarters and that the jobs at the Waskaganish yard and station are distributed proportionally across Waskaganish and Nemaska people according to their population, the total direct employment for the railway during Phase I occupied by Waskaganish people could be 79 jobs.

For the maintenance of the upgraded community access road, also studied as part of the LGA studies, SDBJ is already outsourcing the access road maintenance to community businesses like Siibi Corporation and D&C landscaping and the snow removal to Blackned Construction. There is no confirmation if contracts are distributed by tender offer or direct private agreements with the community contractors, but since the contracts are already distributed within local entrepreneurs, we estimate that the operation of the LGA paved and upgraded Waskaganish access road would require the current maintenance jobs.

LGA Indirect Job Creation

From the assumptions of the calculation model of the economic impact of the LGA transportation infrastructure described in Section 2.4.3 and developed in Section 3.5.1, Waskaganish could obtain a total of \$426M in contracts during all three phases of the construction period from 2030 to 2044, as shown in Table 8-3. On an annual basis, Waskaganish entrepreneurs would be awarded \$63M in contracts on average. Over this period, a total of 4,576 person-years could be created, or the equivalent of 352 FTE jobs on average over the 15-year period, for the people of Waskaganish.

Table 8-3 Job Creation and Contract Impacts per LGA Phase, Waskaganish

Impacts	Construction		Operation	
	2030-2044	Annual Average	Lifespan (30 years)	Annual Average
Contracts (\$M)				
Phase I	364	73	174	6
Phase II	254	42	62	2
Phase III	196	33	44	1
Total	814	63	280	9
Employment (persons-years)				
Phase I	2,048	410	3,350	112
Phase II	1,430	238	1,188	40
Phase III	1,099	183	846	28
Total	4,576	352	5,384	179

Note: The total may differ from the sum of terms due to rounding.

Still using the job creation impact model, Waskaganish entrepreneurs could obtain \$5.4M of contracts during the operating period, from which \$3.4M would be Phase I transportation infrastructure. The job creation benefits for the community represent however both direct and indirect employment, with 112 FTE jobs estimated starting from 2035, 40 FTE added from 2040 and 28 other FTE jobs added as of 2045 to attain a total of 179 FTE jobs every year.

Across the portfolio of Cree communities, the job creation benefits for Waskaganish account for about 12% of the total jobs created during the construction period and 23% during the operation period. The results could be changed based on targets and parameters for Cree participation in the projects, which infrastructures of the LGA program are actually built, the importance of the proximity of the community to the location of works or operations, and the dynamism of its entrepreneurs.

8.3.2.3 LONG-TERM SUSTAINABILITY

Based on the Job Creation Model and the GDP data presented in Section 2.4.3, long-term sustainability brought by the LGA was also calculated for the community. With increased participation of Waskaganish workers in the construction sector, the local economy is expected to boom during the construction period of the LGA infrastructure. LGA infrastructure would allow the standard of living, estimated using GDP per capita, of Waskaganish residents to be 90% higher in 2032 during the peak year of the construction period at \$38,219 per capita than it would be without LGA at \$20,167. When the construction period is over, the impact of LGA on GDP per capita would be maintained to 23% above the GPA per capita without LGA by 2045 (\$25,051 compared to \$20,349, respectively), and 17% higher by 2074. Given that by 2074 local employment would increase by 12% with LGA, the GDP would increase by 31% by then (\$39.0M with LGA versus \$29.8M without LGA).

This calculation reflects the increase brought by the maintenance and operation of the LGA infrastructure only. It does not capture any benefits brought by the development of the community in other sectors such as forestry, mining, local production, territory rehabilitation, and tourism, to name a few potential sectors.



Credit: Julie Roy, WSP

Figure 8-4 Community Teepee

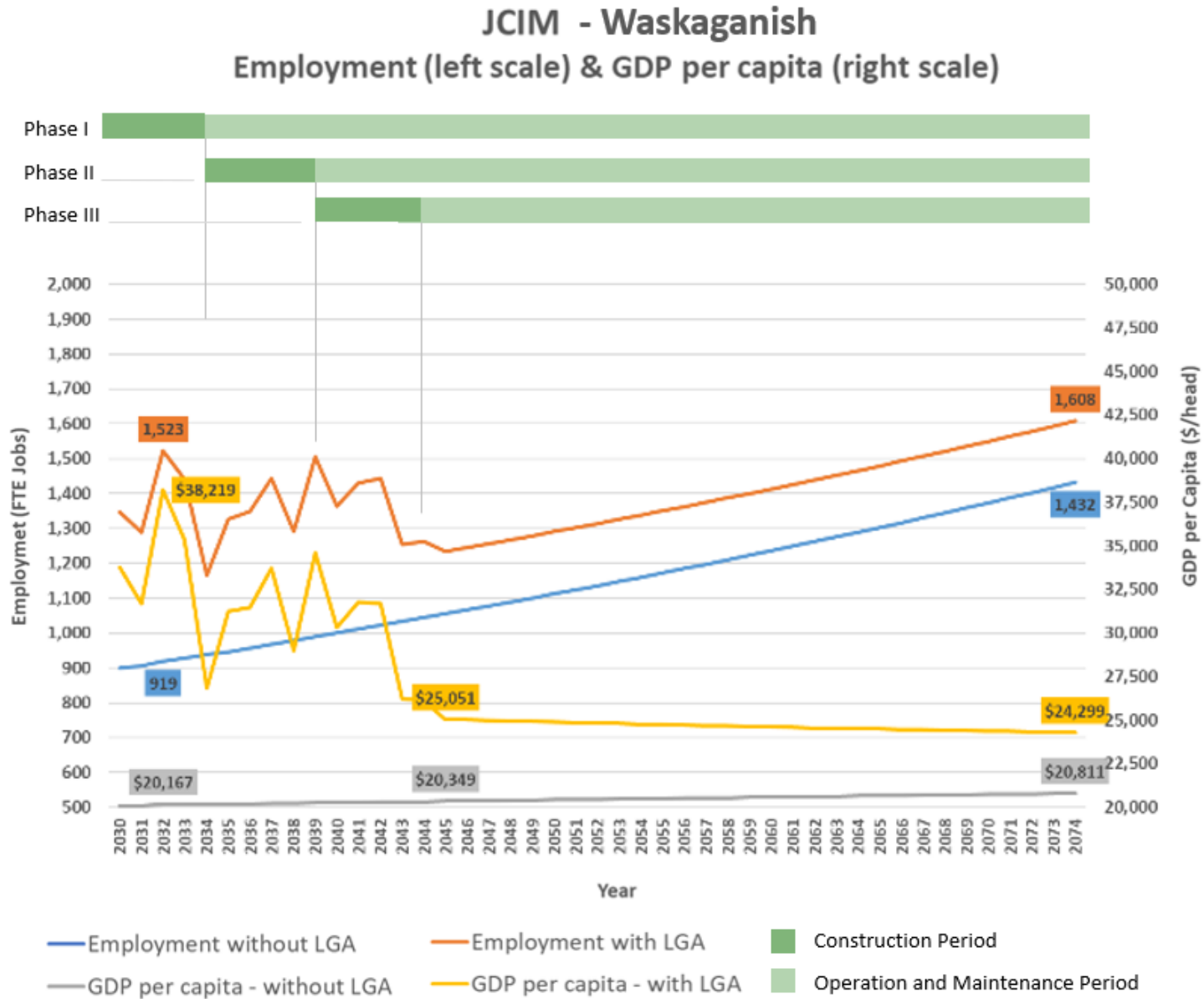


Figure 8-5 Impact of LGA on GDP per capita and Employment, Waskaganish, 2030-2074

8.4 LAND-BASED ECONOMY

8.4.1 OVERVIEW

8.4.1.1 IMPORTANCE OF THE TRADITIONAL LAND-BASED ECONOMY

Waskaganish was the first Cree community to be involved in fur trading, at the Rupert House trading post. Before the contact with the Europeans, the area was renowned to be rich in resources and a possible gathering site in summertime (Chism 1988). Following the contact and the foundation of the trade post, the Crees we were involved in the fur trade since “the interests of both parties happened to coincide, which made the fur trade possible [... The] Crees seized opportunities and maximized their social and cultural options” (Morantz 2002). In 1968, the settlement established at the confluence of the Rupert Bay and the Rupert River changed its name for Waskaganish.

Based on the report of the Waskaganish EPC, the opportunity to spend time on the land to hunt, trap and fish is of primary importance to its members. Smokey hill plays an important role in the identity of the Waskaganish. Access to the land and the camps also play a key role in what makes the community. The relationship to the land is closely related to the transmission and teachings of the Cree values and knowledge to the younger generations.

The main concerns of Waskaganish Crees are related to the ability to pursue traditional ways of living off and on the land. “Whether this takes the shape of decreasing knowledge of Cree culture and practices in the younger generations, or the impacts of development projects, it usually seems to come back to concern about the connection between Crees and the land” (EPC, Waskaganish 2017).

In 2021-2022, about 7% of the population (218 members, representing 112 family units) was enrolled in the ESP for their livelihood, sometimes combined with other occasional jobs. In total, 22,815 days spent in the bush were paid to the land users for that same year, for an average of \$17,798 per family unit, as shown in Table 8-4. The section 3.5 present also the evolution toward ten years period (2011-2021). Several factors can affect ESP participation, which varies from year to year depending on, among other things, the economic climate and employment opportunities, or a readjustment in eligibility (CHESB, 2000, 2012, 2023).

Table 8-4 Beneficiaries of the Economic Security Program, (ESP), Waskaganish, 2021-2022

Waskaganish - Family Units (nb)	Total (adults and children)	Total Days Spent in the Bush	Average per Family Unit (days paid)	Average Allowance per Family Unit (\$)
112	218	22,815	204	\$17,798

Source: Compilation from CHESB (2022).

In 2021-2022, 1,544 members (including 144 junior) were enrolled at the CTA, which is lower than during the preceding decade with a range of 1,600-1,700 members, as indicated in Table 8-4 The local CTA offers different programs and services to its members. The most popular was the Gas Subsidy program, as 120 Waskaganish members benefited from it. Some members also benefited from transportation subsidies, cabin building/renovation programs, hunting and equipment subsidies, as shown in Table 8-5. The year before (2020-2021), snowmobile, ATV, outboard, boat/repair subsidy were also distributed to 16 members and special assistance program to 4 members. As mentioned in section 3.6.3, the price of fur has gradually declined over decades. The total value of fur sales used to be low (approximately \$20,000 in 2015-2017) but even lowered by 2017-2018. The number of CTA members is almost 8 times higher than the ESP beneficiaries.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 8-5 CTA Membership and Fur Sales, Waskaganish, 2012-2020

	2012-2013 ^a	2013-2014 ^b	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
CTA Members (n)	.	.	1,640	1,616	1,771	1,620	1,686	1,683
Trappers who sold fur (n)	29	24	21	32	23	25	18	14
Fur sales (\$)	.	.	\$8,620	\$18,111	\$21,126	\$10,938	\$9,973	\$2,120

Source: Compilation from CTA (2012-2020).

8.4.1.2 COMMUNITY ASPIRATIONS

In their vision of the future, the Crees of Waskaganish who participated in the EPC survey in 2017 intended to strengthen the Cree presence on the territory by spending more time on the land and teaching the youth to acquire the required skills. This enhanced occupation of their land will help to protect it, preserve its integrity, and help the animals that inhabit it to thrive. Occupying their territory will also enable them to enhance Cree knowledge and culture.

With a strengthened presence on the land, the Crees of Waskaganish expect to play a bigger part in the governance of their territory. They also want to create more opportunities for their development and be able to create partnerships in projects. They desire to take ownership of their development in their own terms. These terms include keeping the land healthy and Cree culture strong.

Table 8-6 Number of Members Helped by CTA Programs and Projects, Waskaganish, 2020-2022

Program/Project	2020-2021	2021-2022
Cabin insurance	-	-
Cabin building/renovation programs	-	10
Gas subsidy program	122	120
Hunting subsidies and supplies	-	5
Equipment repair or purchase subsidies	16 ^a	12
Transportation subsidies - Air or bush plane	32	35

Note a: Snowmobile, ATV, outboard, boat/ repair subsidy.

Source: Compilation from 2020-2021 and 2021-2022 CTA Annual Reports.

8.4.2 RESOURCE ACCESSIBILITY

Changes in resource accessibility (whether physical access or the quality and abundance of resources) can lead to impacts on the economic and cultural way of life of the Crees. As these are strongly related, this section mainly addresses the physical access, while the quality of resources is briefly covered in section “Cultural Continuity”.

8.4.2.1 CHANGES AND CONSTRAINTS LINKED TO DEVELOPMENT

In 2009, the Rupert Diversion Bays were impounded, diverting most of the Rupert River northward to the Eastmain River watershed. This diversion has resulted in modulated flow below the dam, according to seasonal variations, resulting in an average of 50% of flow levels at the mouth where Waskaganish is located. To ensure that the river retains its appearance, HQ has built a series of weirs in the Rupert that maintain the water at roughly previous levels, but without the flow of the past, (Francoeur, 2009). Follow-ups regarding the Cree land used were conducted under the 2007-2023 Environmental Follow-up Program. This program included Cree land users to share and documentation of changes that have taken place about fishing, hunting, and trapping, access, navigation, snowmobile travel, camps and activity sites. In Waskaganish many traplines were involved in the Environmental

Follow-up Program. As per the Program executive Summary (CGW, 2020), monitored changes in Waskaganish included:

- Changes in navigation conditions;
- Changes in goose hunting;
- Changes in moose hunting;
- Changes in fishing;
- Changes in trapping on Rupert River and Lake Némiscau Lake;
- Reduced confidence in snowmobile travel conditions on Rupert River and on Lake Némiscau;
- Reduced confidence in drinking water quality in the Rupert and Némiscau rivers;
- Opening of the territory;
- Sense of loss of territorial integrity.

The Waskaganish community provided a good part of the Cree contractors and workers to the construction and maintenance of HQ installations. The community thus developed entrepreneurship leadership towards a modern economy, together with the perpetuation of trapping as a significant local economic activity and a source of cultural and spiritual values (Waskaganish, 2023).

The construction of the actual Waskaganish access road was completed in 2002 (Whitford, 2009). The road has a total length of 102 km, from the outskirts of the community to its connection with the BDH, around km 237. Starting west, the first 28 km are already paved. Between km 0 and km 22, the road runs on category I land. It continues on category II lands up to km 94, and on category III lands for the rest of its alignment (approximately 8 km).

The monitoring program of the changes on the land combines with the entrepreneurship leadership develop throughout the years by the Waskaganish Cree puts the community in an advantageous position in regard to the development of new transport infrastructure on their traditional land. Since the community has the will to increase their participation in the development of partnerships in projects on their land, this seems like a golden opportunity to do so.

8.4.2.2 IMPACTS OF PROPOSED INFRASTRUCTURES

The Waskaganish territory is targeted for the potential BDH Railway, as well as the update and paving of the Waskaganish access road and the Route du Nord as part of the LGA.

The main concerns with the construction of the potential BDH railway are regarding the potential contamination of the watercourse and fish that are consumed during and after the construction, the presence of camps in proximity to the rail, and the potential change in the geese flight pattern due to the proximity of the flying corridor to the potential railway which would impact hunting activities. Regarding proposed work on the community access road, most of the comments were alignment and conception of the actual road and suggestions to improve it.

The impacts anticipated by Waskaganish land users on resources related to potential pollution and wildlife disturbances are addressed in section “Negative impacts and conflicts with land-based economy”. Furthermore, land use and culture are deeply rooted together, these impacts on access, water and resources are addressed in the sections 8.4.2 and 8.4.4.

8.4.2.3 SUGGESTED MEASURES AND OPPORTUNITIES

Some measures or suggestions emerged from the LGA consultation interviews in Waskaganish regarding the access to resources such as:

- Allowing passenger service for the hunters to get on the train.
- Relocate camps as per the tallymen’s preference.

See Section 3.6.2 for general suggestions or opportunities applicable to the Cree communities for a better accessibility to resources.

8.4.3 CULTURAL CONTINUITY

“Smokey Hill is a big part of what makes Waskaganish” (EPC Waskaganish, 2017). For Waskaganish community members, Smokey Hill is a central part of what defines the community. The Smokey Hill Gravel Pit site was traditionally used as a cultural center as show in the archeological sites found in the area. Fishing and hunting activities are done in the area. It is also used yearly for gathering and other cultural activities.

The same can be said regarding the Smokey Hill rapids which was frequented by the Crees of Waskaganish for many generations, over centuries. This site is one of the oldest community gathering places in use on the river and is therefore highly valued by CNWa members. The site includes a cultural camp where traditional structures, such as the miichiwaahp and the shaapuhtuwaan, are set up (HQ, 2004). The fishing activities at Smokey Hill rapids are protected and promoted by and for the community because of its importance as an identity and cultural marker. This site is also an important part of the annual canoe brigade along the Rupert River (HQ, 2004).

These sites are an important part of the transmission of cultural and traditional knowledge for Waskaganish. It plays a crucial role in teachings of Cree values and knowledge by allowing multigenerational gathering on a regular basis based on the seasonal hunting and fishing practices.

Considering the bitterness that the community feels toward big infrastructure projects caused by the experience they had with, for instance, HQ, in the past, it is normal that an emphasis is put in the preservation of these significant cultural sites in the planning of new projects. They feel that even if they were consulted, their concerns were not taken into consideration when past projects were executed.



Credit: Marie-Hélène Côté, VEI.

Figure 8-6 Hesterville Camp

8.4.3.1 IMPACTS OF PROPOSED INFRASTRUCTURES

The proposed infrastructures and the development that might follow could affect cultural continuity if it disturbs valued areas and/or contaminates the environment. The fact that most land users do not live from the land anymore and occupy paid jobs partly explains the growth in importance of modern roads, as they provide faster access. Major changes in important rivers’ hydrology and ice cover, following hydroelectric development in the last decades or due to climate change, also contributed to the increase in use of modern roads. Since it is now more dangerous,

complicated, or sometimes impossible to navigate on some watercourses as well as to travel by snowmobile, roads offer interesting alternate options.

Burial sites, birth site and cultural sites were identified, along the BDH in the vicinity of km 155 and 178 on Waskaganish traplines.

As land use and culture are deeply rooted together, the impacts on access, water bodies and resources are addressed in section 8.4.4.

8.4.3.2 *SUGGESTED MEASURES AND OPPORTUNITIES*

Section 3.6.2 presents measures that could be put in place for all the Cree communities to ensure that the infrastructures would not interfere with cultural continuity and to promote the use of the land. Furthermore, land use and culture are deeply rooted together, these impacts on access, water and resources are addressed in sections 8.4.2 and 8.4.4.

The different infrastructures included in LGA will eventually permit to have in-depth environmental studies done in the areas surrounding the community as part of the permitting process. These studies are of great importance to alleviate the different concerns regarding the quality of the water, wildlife, and plants around Waskaganish. The projects will have an impact on those elements and the community has a real concern on how to mitigate and reduce the impacts on those vital components. Since the proposed infrastructures in the LGA are aimed to facilitate transport, be it by train, truck or automobile, the facts that the land will be more accessible is both looked upon in a positive and negative way. The paving and reconfiguration of certain sections of the roads will allow safe access to the territory. But it's also frowned upon since the risks of pollution, garbage and vandalism is also increased. Long term environmental monitoring is something that Waskaganish Cree values. This easier access to the land will help in the transmission of culture and traditional knowledge from the elders to the younger generations.

8.4.4 SYNERGIES AND CONFLICTS

8.4.4.1 *POSITIVE IMPACTS AND SYNERGIES*

In Waskaganish as for other communities, the need to offer a passenger rail service for land users was mentioned as a means of achieving greater social acceptance. Moreover, the road and railway could have a positive effect if access to the south was facilitated, and the price of food and equipment reduced.

As mentioned for other communities, if the Crees have facilities to use the train (e.g., affordable price, possibilities of on-demand stops, transportation to reach and leave from the train stop), and if they have a road to access the land, it could encourage activities on the land and land-based economy. Harvesting, including fishing, could be done more easily throughout the year.

Paving the access road, which is part of LGA program, would create a safer road by reducing the dust.

In sum, several people from Waskaganish foresee more accessible traditional activities due to reduced costs of goods and equipment such as hunting material, and an easier access to the land.

8.4.4.2 *NEGATIVE IMPACTS AND CONFLICTS*

Different concerns were raised by Waskaganish people regarding the construction of the rail and the paving of the access road. Paving the access road could result in more pollution and changes to the water bodies, disturbance of human occupation and the wildlife, social tensions, and insecurities.

Pollution and changes to water bodies

Nuisances are foreseen during the construction and operation phases, such as pollution of air, soil, and water, as well as noise pollution.

People are concerned that the construction of infrastructures would impact water bodies and watersheds. There are highly sensitive areas to protect from pollution, but also from changes in the land hydrology.

Disturbance

Regarding impacts of infrastructures on wildlife, some fear it could affect their one livelihood. They say the construction of a road could have a major impact on noise-sensitive wildlife such as beavers, birds, or other animals, while caribou are not disturbed by noise. Another land user states that the fish has been dismissing since the Rupert River diversion and has changed. He added that the ongoing development such as the proposed project could lead to a decrease of wildlife in the territory.

Indeed, the change in animal behaviour due to noise could affect traditional activities, meaning hunting, trapping, fishing, and gathering. The infrastructures could also reduce hunting areas or disrupt the cycle of use of the traditional territory. For a land user, the loss of tranquility, both for wildlife and for the practice of traditional activities, is the main anticipated impact of the railway.

Social Tensions and Insecurity

The presence of other users may exacerbate social tensions with outsiders and cause overharvesting (hunting and fishing). Some also mentions that an amelioration of the roads and a new railway could have an impact on wildlife, through collisions and abusive and disrespectful hunting of animals. With an increase of traffic, more garbage could also be thrown along the road. There is also a feeling of insecurity related to the presence of non-Cree workers on the land. Indeed, psychosocial impacts can also be foreseen due to new people coming on the land, changes in the landscape, lifestyle, and environment (as increased stress, risks of accidents, impact on the health, conflicts).

The relation between project developer and the community also needs to be clear on mutual understanding. Past experiences could have created insecurities or doubt regarding future development. Past experiences with major projects that impacted the Cree way of life in Waskaganish left the community suspicious of new development. For example, the Rupert deviation and flooding created major impact on their way of life by changing the water way, fishing, and hunting in the area. The community feels that even if they were consulted beforehand, their concerns were not acknowledged and considered properly.

For all phases of the proposed infrastructures, the construction period is deemed to be particularly disruptive for land users who will suffer the inconvenience. Community members recall that there is a decision to be made by the community about its threshold of tolerance (what they are willing to sacrifice).

8.4.4.3 SUGGESTED MEASURES AND OPPORTUNITIES

According to the EPC, Waskaganish community members want to live in a healthy land that provides for them. To be able to do so, they need to be a part of the decision making and the main actor the governance of the territory. This could be achieved notably by creating development partnerships with proponent or by being the main promotor of the development. By doing so, it would help the community to engage in development in their own terms, including the protection of their traditional and meaningful way for their way of life and culture.

This stronger role in governance passes through more Cree activities and presence on the land, and the authority that confers. Some initiatives for governance work include the expansion of Category 1 lands and working with other communities to learn from each other and where possible work together (EPC, Waskaganish, 2017).

8.4.5 ECONOMIC VIABILITY

8.4.5.1 EXPECTATIONS AND OBSTACLES

In Waskaganish, some of the main values that underlie the use of the territory are having a clean environment and healthy wildlife, respecting the animals, and having a good knowledge of the language and traditional knowledge.

An important concern and important constrain for future development is the scarcity and low availability of granular material near the community. Since the community is located in an area dominated by wetlands and that HQ and other proponents need this non-renewable resource in the area, the few gravel pits close by are sought after.

8.4.5.2 NEW PATHS FOR LAND-BASED ECONOMY

In Waskaganish, some members state that currently, development is difficult because of the high cost of goods and services linked to the isolation of the community. Members however expressed several ideas and interests in developing activities or businesses during the LGA study consultation process and in the EPC, particularly in the tourism industry and sustainable development, such as opportunities related to eco-friendly energy sources.

See section 3.6.1 for more considerations regarding business or activities related to the land, that are not all traditional activities, but could, if developed, generate income while remaining connected to the land.

It should also be noted that, according to Waskaganish EPC, the importance and challenge of increasing the hunting economy with wage employment figures prominently in Waskaganish vision for land use and development.

Indeed, Waskaganish Crees also envision to play a bigger role in governance of territory which mean take initiative with government and proponents and integrate elders to ensure Cree partnership (EPC Waskaganish, 2017).

8.5 COST OF LIVING

Unlike several other communities, Waskaganish has two grocery stores. The cost-of-living study in Waskaganish was based on the prices of items collected from these two stores: Northern Stores and Smokey Hill Grocery Store. As a result, there may be some competition affecting the prices of goods. Food and beverage prices displayed at Northern Stores and Smokey Hill Grocery, food services at Jacob's restaurant and Tim Hortons, gas price at the Internet & Gas Station, and Internet prices at the gas station and by Starlink during the survey in fall 2023 in fall 2023 are given in Table 8-7. The average monthly rent of a dwelling provided by the band as of the StatCan (2021) census also appears in the same table.

Table 8-7 Commodity Prices, Waskaganish, Fall 2023

Item	Smokey Hill	Northern	Waskaganish Average	Cree Average	Difference
Food and beverage					
1 litre of orange juice	\$ 3.29	\$ 7.19	\$5.24	\$5.03	+4%
10 pounds potato bag	\$ 8.49	\$ 20.39	\$14.34	\$11.54	+24%
12 eggs	\$ 8.99	\$ 5.99	\$7.49	\$5.90	+27%
12 Pepsi/Coke cans	\$ 14.49	\$ 16.29	\$15.39	\$12.96	+19%
2 litres of 2% milk	\$ 3.49	\$ 10.89	\$7.19	\$6.77	+6%
24 water bottle pack	\$ 8.99	\$ 21.00	\$15.00	\$12.35	+21%
284 ml Campbell tomato soup can	\$ 3.49	\$ 3.49	\$3.49	\$3.24	+8%
500 g lean ground beef	\$ 6.00	\$ 10.45	\$8.23	\$9.79	-16%
650 g marble cheese brick	\$17.86*	\$ 23.99	\$21.92	\$16.23	+35%
Club sandwich with fries (Jacob's restaurant)	\$15.95		\$15.95	\$17.15	-7%
Medium size coffee (Tim Hortons)	\$2.45		\$2.45	\$2.80	-13%
Total	\$93.49	\$139.88	\$116.68	\$103.77	+12% -10 % to +35%
Transport					
1 litre of regular gasoline			\$1.90	\$1.94	-2%
Communications					
Monthly internet payment (10 Mb/s)	Internet and Gas Station \$121 Starlink \$170		\$146	\$140	+4% -14% to +21%

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Item	Smokey Hill	Northern	Waskaganish Average	Cree Average	Difference
Housing					
Monthly rent (band dwelling), June 2021			\$554	\$498	+11%

Note: * \$10.99 for 400 g.

Source: Compilation from 2023 survey (food and beverage, gasoline, Internet) and StatCan Census (2021) (dwelling rent).

Waskaganish is the only community for which commodity prices were recorded from two stores during the survey by the CIOs. This allowed to highlight the fact that large gaps in prices may exist within the same community. Indeed, in Waskaganish prices recorded at Northern Stores were globally 62% higher than at Smokey Hill Grocery. In the same way, the Internet monthly fees were \$121 from a local provider and \$170 from Starlink, a 40% difference.

Table 8-8 presents the comparison of price indices at Waskaganish with other communities. It should be noted that although the average price indices for food and beverage and communications are higher in Waskaganish compared to the Cree average, it is possible for Waskaganish to benefit from lower prices if they purchase from the more affordable suppliers in the community. In this case, they can pay 10% less than the estimated average Cree for food and beverage, for example. This also means that disparities in prices may be large within the same community.

Table 8-8 Price Indices, Waskaganish, 2023

Good Category	Waskaganish			Jamesians	Abitibi
	Lower price	Higher price	Average		
Food and beverage	◆0.90	◆1.35	◆1.12	◆0.66	◆0.60
Transport	...	...	◆0.98	◆0.85	◆0.82
Communications	◆0.86	◆1.21	◆1.04	.	.
Housing	...	...	◆1.11	◆1.31	◆1.45

Note: Base index 1.00 = Cree average. If index is less than 1, the good is cheaper than the Cree average and if index is greater than 1, the good is more expensive than the Cree average. ◆ Prices higher than Cree average ◆ Prices lower than Cree average.

Source: Compilation from 2023 survey (food and beverage, transport, communications) and StatCan Census (2021) (housing).

The average rent for a dwelling is 11% higher in Waskaganish than the average in Cree communities. These higher rental costs cause Waskaganish to be the second most expensive Cree community to live in. This could be partly explained by the plausible higher construction costs due to humid soil related issues (high water table requires draining land before building), among other factors.

As mentioned in section 8.2, the average after-tax income in Waskaganish is \$37,680 (StatCan, 2021), which is 9% lower than the average in Cree communities. Considering that, the lower incomes of Waskaganish residents may exacerbate the negative effects of this disparity in expenditure, even though they may buy food and beverage for 10% cheaper or 12% more expensive and buy gasoline for almost the same price as the average for Cree communities.

As observed, when it comes to food, beverages, and gasoline, Waskaganish's price indices are higher on average than those in Jamésie and Abitibi while shelter costs are lower. This emphasizes the role that dwelling rental by the band plays in controlling the cost of living in Waskaganish and in Cree communities in general.

The improvement of the Waskaganish access road would slightly reduce the travel time on this section and make the journey safer. Nonetheless, in terms of the entire supply chain, it could affect the transportation cost very marginally. Moreover, in the case of food and beverage products, which are perishable, the level of prices may show differences that are greater between stores, rather than the result of differences in transport costs. For the oil products, the supplier could use the railway with transshipment by the access road, as mentioned in the market study. The transshipment operation complexifies the overall shipment. As there is only one retailer in the community, it is uncertain to what extent the actual price could be reduced, but it would be a marginal decrease if any.

8.6 SUMMARY

Waskaganish would benefit from the improvement of its access road which would allow for a better connectivity to other Cree communities, mining sites, Matagami, and Abitibi. It would allow for Waskaganish entrepreneurs to better participate to works in EIJB region. Also, it could be easier for tourists to come to Waskaganish, this being an opportunity to develop tourism attractions and accommodation services.

The construction and operation of Phase I of the BDHR is an opportunity for the community to develop construction companies and expertise, as well as railway management, operation, and maintenance jobs for the long term. There would also be an opportunity to build logistics and tourism hubs at Waskaganish Junction.

Waskaganish could potentially secure contracts totaling \$426M throughout all three phases of the construction period spanning from 2030 to 2044. This translates to an average annual contract value of \$63M for entrepreneurs. Over the 15-year period, this could generate an average of 352 FTE jobs annually. With LGA, Waskaganish's GDP per capita could surge by 90% in 2032 during construction, reaching \$38,219, compared to \$20,167 without LGA. Post-construction, GDP per capita is expected to be 23% higher than without LGA by 2045 and 17% higher by 2074. Still in 2074, LGA is expected to provide 12% more local employment and the GDP would amount to 31% higher than without LGA.

As Waskaganish is well situated regarding the Phase I railway operation, the presence of LGA proposed transportation infrastructure would substantially enhance local GDP and employment. These infrastructures would change supply chains marginally for Waskaganish. Notably, oil products could come by railway with transshipment by the access road. No significant change in other local prices is expected.

The doubt and bitterness caused by past experience of Waskaganish members with, for instance, HQ, create an emphasis in importance of preservation of significant cultural sites and the land in the planning of new projects. Waskaganish land users also raised concerns about the BDHR, regarding watercourse and fish that are consumed and disturbance of cabins along the potential rail.



Credit: Marc Beauregard, VEI.

Figure 8-7 Cree Trappers' Association Office in Waskaganish

9 NEMASKA

9.1 CONTEXT

Nemaska is known as the “home of the fish”. The historical site of old Nemaska, or Némiscau, once hosted the Hudson’s Bay Company and Revillon Frères, then still in competition against each other, both established trading posts on Lake Némiscau, approximately one mile apart. It was the junction point for those people who wished to trade furs for goods in Rupert’s House (Waskaganish) from Mistassini, Nichigun, Neoskweskau and Waswanipi. As time went by, Revillon Frères was sold to the Hudson’s Bay Company, and unusually high spring water levels for several successive years flooded one of the sites and led to the move to where the Hudson’s Bay Post stood, being on higher ground.

During the days of the canoe brigades, Nemaska served as a base of operations for the Cree voyageurs from the inland posts of Mistassini, Neoskweskau and Waswanipi, including those from Nemaska. Groups would leave the women and children here to fish and prepare a food supply of dried smoked fish to be used on the return trip home after the men had returned from their freight runs from Rupert’s House.

In 1968, the Crees of Nemaska were told by a government representative to move out of their community, because the Nottaway Broadback Rupert (NBR) Hydro complex, which included flooding of the area, led to the disbanding of the community and the closing of the HBC has people moving out of the area. The Crees of Nemaska people were resettled in either Mistissini or Waskaganish.

In 1975, the CNG (formerly known as the Grand Council of the Crees) successfully negotiated and signed the JBNQA, along with the various concerned parties. By then, the proposed development of the NBR Complex had now shifted to the La Grande Complex. The Agreement provided a provision whereby the people of Nemaska can reestablish their community to the vicinity Champion Lake.



Source : Patricia Raynault-Desgagné.

Figure 9-1 Champion Lake in Summer

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

In 1977, the community underwent relocation the people situated on the northern shores of Champion Lake, situated near the original settlement, now referred to as 'old Nemaska', where annual pilgrimage happens through a summer event known as "Nadnenskawanoo Days."

People from Wemindji and Chisasibi commuting inland to the east or vice-versa are using the Hydro-Quebec Sarcelle Road at KP 395 on BDH that leads to KP 290 on the Route du Nord, 8 km east of Nemaska access road turnout. The distance saved by taking this road is 83 km.

Since the relocation, Nemaska serves as the headquarters for the CNG. The 9 km long community access road is situated at KP 298 on Route du Nord and known to be the link between coastal communities and inland communities. From roads, it's located 256 km from Waskaganish, 294 km from Eastmain, and 376 km from Mistissini. The car travel time is approximately 13 hours to Montreal and 11 hours to Quebec City. From air corridors, the community is served by the Némiscau Airport, operated by HQ, which offers flights with duration of approximately 2:35 hours to Montreal and 2:25 hours to Quebec City.

As Shown in Figure 9-3, Nemaska territory includes 15 traplines on 14,929 km² from north-east, the Paix des Braves reservoir to south-west, the BDH.

The proposed LGA transportation infrastructure of interest for Nemaska include:

- The improvement of the Route du Nord that would ease the road accessibility to the community, reduce driving stress and integration to the regional economy as a key segment to transit from inland to coastal communities.
- The BDHR, Phase I/Phase II to enhance the external market access and set the use of a potential freight yard near the junction of the BDH and Waskaganish access road.



Source : Marie-Hélène Côté, VEI.

Figure 9-2 Champion Lake in Winter

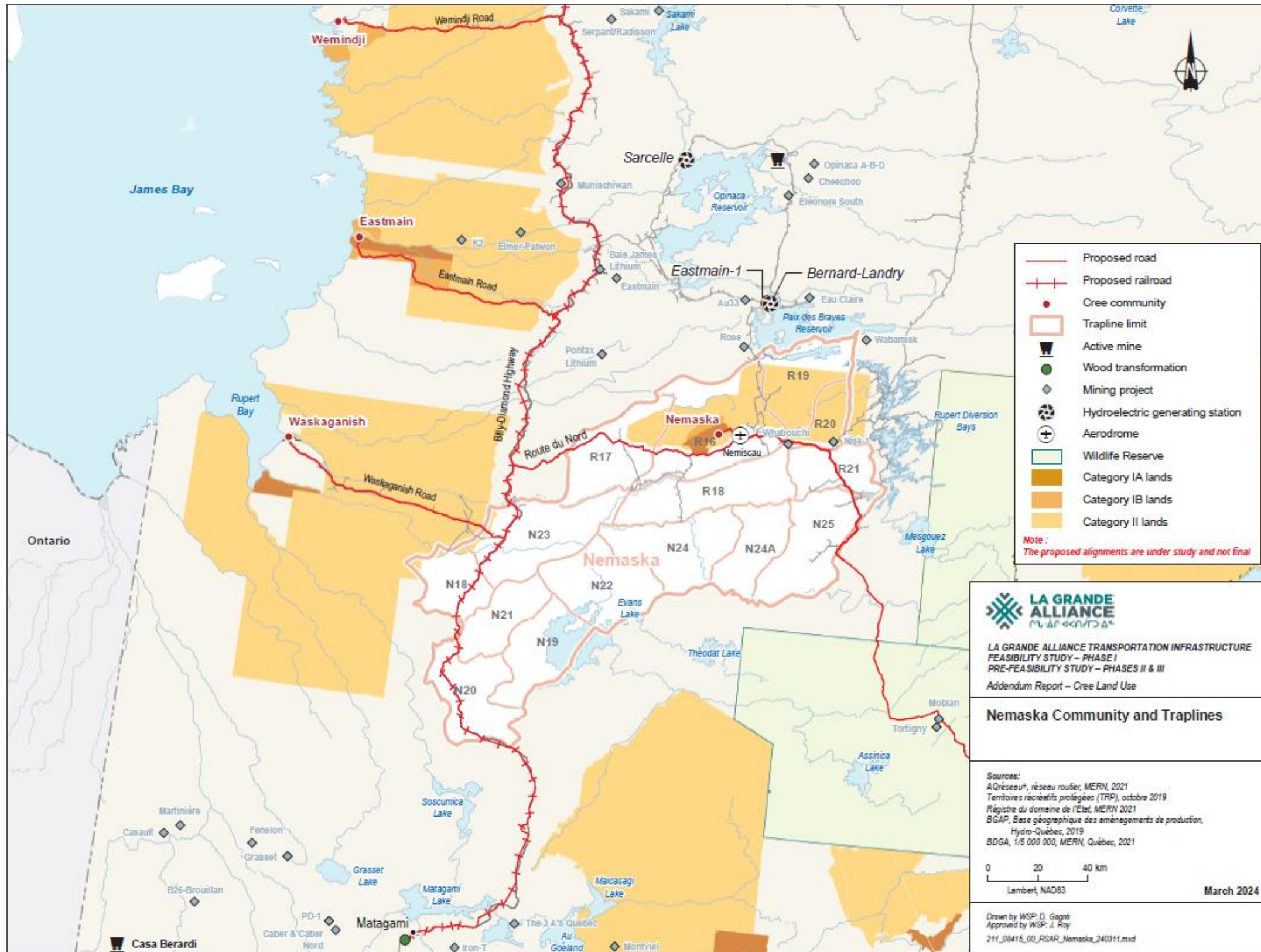


Figure 9-3 Nemaska Community and Traplines

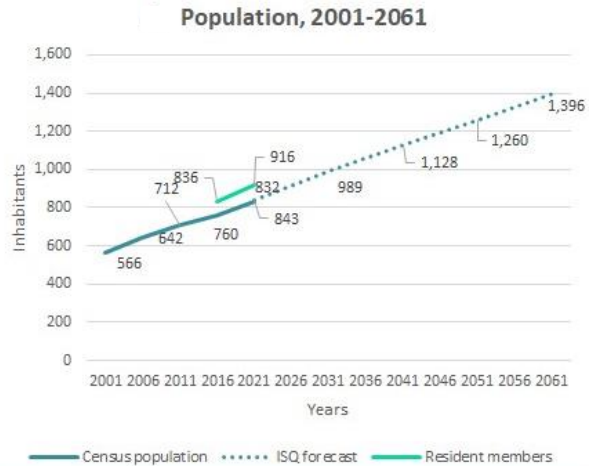
9.2 INDICATORS

The main characteristics of the population living in the community of Nemaska are presented below. Note that the data shown represents the 2021 situation as per the StatCan Census data unless otherwise specified.

Population

The population of Nemaska amounts to 843 inhabitants as of the 2021 Census. There were 916 resident members in the band list in 2021-2022 (CHESB, 2022), or 9% more than the 2021 Census data. Over the past 20 years, according to the Census, the population has experienced a 47% increase or a CAGR of 1.9% per year, which is similar to the rate for all Crees (1.8%).

According to ISQ (2021) forecasts, the population should be 1,128 people in 2041 and 1,396 people in 2061. The medium-term expected growth of 1.5% per year is higher than for Eeyou Istchee (1.1% CAGR), but after 2041, is similar to the average Cree (1.0% CAGR).



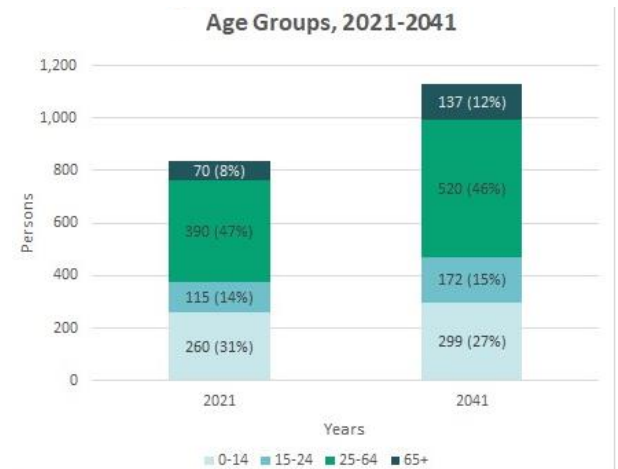
	Nemaska	Crees
Annual population growth (2001-21)	1.9%	1.8%
Annual population growth (2021-41)	1.5%	1.1%
Non-resident members (2021)	16 (1.7%)	1.7%

Source (Members): CHESB (2022).

Age structure

Like all other Cree communities, the population is young with 45% less than 25 years old in 2021. This is less than the aggregate Crees at 48%. The recent (2016-2021) increase in Nemaska population was mostly due to migration while natural growth was less important than in other Cree communities.

Until 2041, like in other Cree communities, the youngest group (0-14) should slightly increase in numbers while reduced in proportion from 31.3% to 26.5%. The labour force age group (15-24, 25-64) should increase at approximately the same rate than total population and thus their shares should remain stable. The population shall get older, the elders augmenting from 70 to 137 people representing 8.4% to 12.1%. The demographic dependency ratio would slightly decrease (0.65 to 0.63), although slightly higher than Cree average (0.61 to 0.60).



(2016-2021)	Nemaska	Crees
Births	105 (12.6%)	1710 (9.3%)
Incomers	80 (9.6%)	1900 (10.4%)
Deaths and out-migrants	113 (13.6%)	2480 (13.5%)

Source: 2041: ISQ.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Families, households, and dwellings

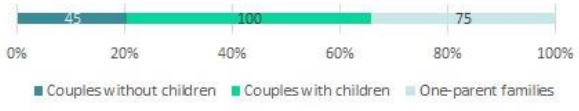
Out of the 220 families in the community, 100 (46%) are composed of couples with children and 75 (34%) are families led by a single parent. Proportionally, Nemaska has equivalent one-parent families than the Cree average (33%). The dominant household type in the community is the single-family setup, making up 64% of the households. Following are multigenerational households and one-person households, comprising respectively 16% and 11% of the total. The remaining 11% encompasses households with either a family and non-related people, non-related people or two or more families. The multigenerational households are less prevalent in Nemaska than the Cree average (17%).

Out of the 215 dwellings in Nemaska, the vast majority (75%) are rented from the band equivalent to Wemindji and higher than Cree average (65%). One dwelling out of every ten are overcrowded (9%) below the Cree average (15%) and 25% of dwellings require major repairs, comparable to the Cree average but much higher than in Jamesian towns.

Ethnicity and Language

The population of Nemaska is predominantly Cree (96%). The quasi entirety (92%) of the population is fluent in the Cree native language. A slightly higher proportion is fluent in English. In contrast, French is spoken by 18% of the population, slightly less in proportion as the Cree average (22%). The number of Cree-speaking individuals has slightly decreased within the community over the past decade.

Family Structure



Household Type

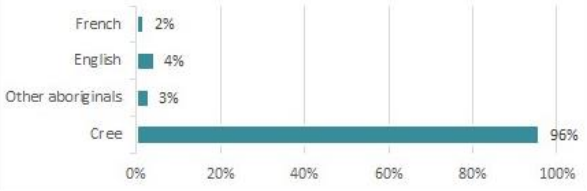


Tenure

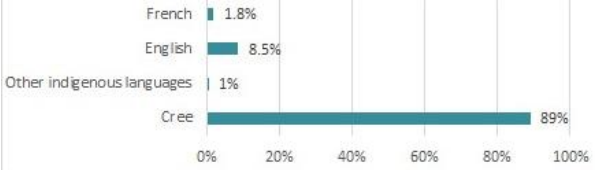


	Nemaska	Crees
% overcrowded dwellings	9%	15%
% dwellings with major repairs needed	25%	24%

Ethnic Origin



Mother Tongue



Knowledge of Languages	2011	2021
Cree	95%	92%
English	94%	95%
French	25%	18%

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

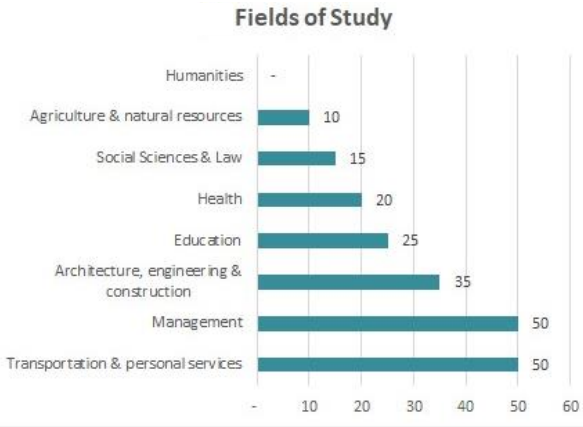
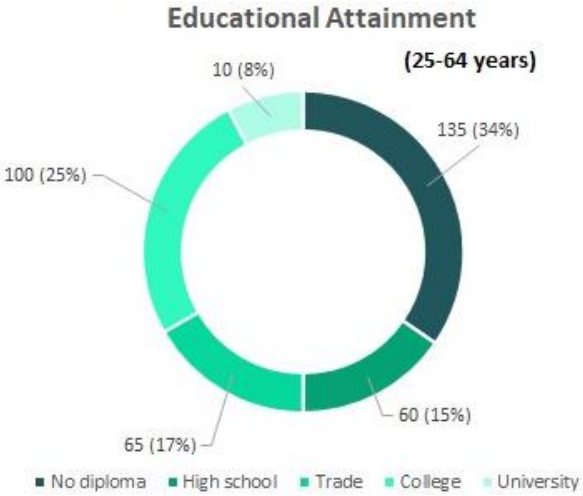
Education

Almost two thirds (66%) of the population 25-64 years old has either at least a high school diploma, which is less than Jamesians (75%) or Quebecers (88%). The educational profile of Nemaska is slightly higher than the Cree average due to higher college diplomas rate (23%). A third (33%) of the Nemaska people have higher education (CEGEP or university), a share slightly higher to Crees and Jamesians, but significantly than Quebecers in general (52%). Nemaska is the Cree community where education metrics have improved, with the share of people with no high school diploma declining from 43% in 2006 to 34% in 2021.

The predominant professional fields in Nemaska are business and management, transportation and personal services and engineering and construction, management. Those with these qualifications in these sectors number at 135 people or 26% of the local workforce.

Land

The combined land area of 1A and 1B categories amounts to 146 km². The Nemaska territory includes 15 traplines covering 14,929 km². With 40 adults on the ESP in 2021-2022, the share of traditional hunters in Nemaska (8%) is less than the Cree average (14%). Nonetheless, the average trapline area per ESP adult is over at 373 km² versus a Cree average of 210 km². The average annual ESP unit allowance was \$18,697 in 2022, similar to the Cree average.



	Category 1A	Category 1B	Traplines
Land area (km ²)	98	48	14,929
	Nemaska		Crees
Nb/% beneficiaries on ESP Program	43 (5%)		14.3%
Avg. annual ESP unit allowance (21-22)	\$ 18,697	\$ 18,580	

Source: 1. Traplines: CMEB (2022). 2. ESP: CHESB (2022).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

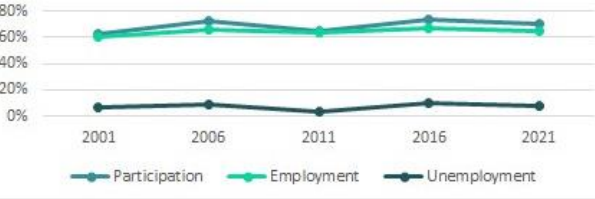
Labour Market

The participation and employment rates in Nemaska (63% and 60% respectively in 2021) are slightly more than the Cree average (61% and 56% respectively), which is equal to the Quebec average (64% and 59% respectively). Participation and employment rates remained rather stable over the last 20 years, with Nemaska’s participation and employment rates at three percentage points more than Cree average, the latter like the Quebec average. Nemaska is the community with the second highest concentration of casual or seasonal jobs (23%) among all Cree communities (16% average).

Evolution of Employment

The level of employment, according to the Census, has significantly grown, from approximately 220 people employed in Nemaska in 2001 to 400 people in 2021, with 5-year stable periods in 2006-2011 and 2011-2016. From the 2021 census, the public sector (public administration, healthcare, and education) accounts for almost three quarter (73%) of employment in Nemaska, the highest rate in the Cree communities. Since 2011, public administration and private sector industries (retail; agriculture, wood, mining; construction) have been fluctuating. Construction has been increasing and went back to 2011 and 2006 jobs number when Eastmain 1 and 1A project occurred. This variation is a phenomenon is observed in Cree communities just like, employment tend to grow since 2016. The employed people living in Nemaska work within the community with a share of 94%, one of the highest in Cree communities.

Labor Rates



Class of Worker



% work elsewhere in Nord-du-Québec	Nemaska	Crees
	3.8%	16.3%

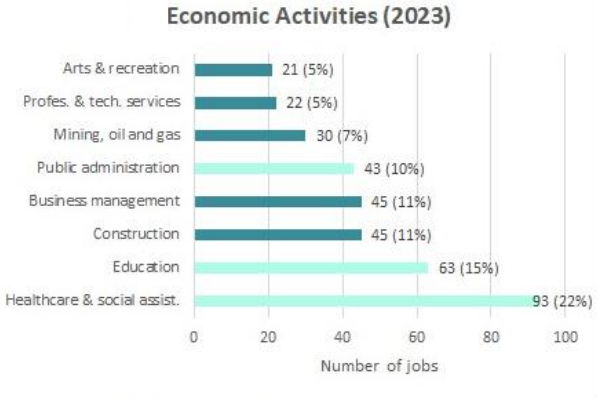
ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Economic Activities

According to the employer consolidated database, health care and social services is the largest sector in number of jobs (93 or over a fifth of local employment) which, combined with educational services and public administration, provide 199 jobs or 47% of the community employment (SPN, 2023). In the private sector, construction, and business management each employs 45 people while the sectors turned to external markets (Mining, oil and gas and professional and technical services) provide 52 jobs. Nonetheless, the art and entertainment provide 21 jobs, the largest number from this sector among Cree communities. Although strongly based on public community services, Nemaska economic structure is somewhat diversified.

Main Employers

Following the local economic structure, the main employers are the health centre, the school, and Nemaska Development Corporation (NDC). Main businesses include the Vieux Poste construction, Eeyou Istchee Construction, First Nations Bank, and NDC Fournier.



Source: DCI-EDO (2023a) and SPN (2023).

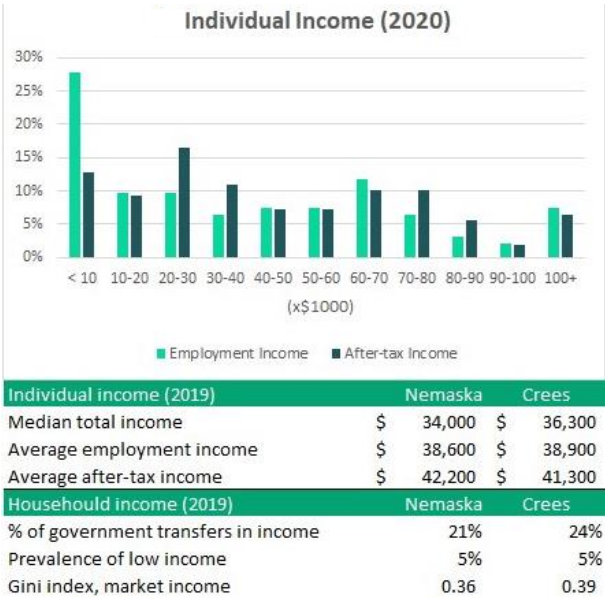
Business name	Activity	Jobs
CBHSSJB (Nemaska)	Healthcare & social assist.	76
School	Education	63
Dev. corporation (NDC)	Business management	45
Police	Public administration	30
Sport complex	Arts & recreation	20
V.P. construction	Construction	18
Childcare center	Healthcare & social assist.	17
E.I. construction	Mining, oil and gas	15
First nation bank	Finance & insurance	15
NDC-Fournier	Construction	15
Large sector		% jobs
	Public Sector	54%
	Private Sector	46%
Total		423

Compilation from DCI-EDO (2023a) and SPN (2023).

Income

The median and average total individual income in Nemaska fall within the \$34,000-43,000 range, the former is which is approximately 6% lower and the latter equal to the Cree average. The average individual employment income (\$38,600) and the average after-tax income (\$42,880) are equal or slightly over the Cree communities (with average of \$38,900 and \$41,300 respectively). This may be explained by the higher proportion of people working in steady higher paid public jobs than lower paid accommodation and retail sectors jobs. Nemaska is similar on the after-tax income to Jamesians (\$42,700), but a quarter lower on the employment income.

More than a fifth (21%) of households receive government transfer income. This places Nemaska at 0.36 on the market income Gini index, indicating a lower level of income inequality within the community than the Cree population score (0.39) and the Matagami score (0.25).



9.3 ECONOMIC OPPORTUNITIES

9.3.1 ENTREPRENEURSHIP/DIVERSIFICATION

The distribution of businesses and jobs by sector is presented in Table -1. The public services provide for a little less than half (47%) of the jobs¹⁴. For comparison, this share is 39% among the Jamesians and 29% in Quebec.

The distribution of jobs and businesses by economic sector shows a certain diversification as base sectors (industries which provide products or services mainly outside of Nemaska) such as construction and mining with 45 and 30 jobs respectively. Induced sectors (which meet demands within Nemaska) are represented in smaller size, including business management, professional and technical services, retail, accommodation and food services, finance and insurance and art and entertainment with 14-45 jobs each. When one excludes the public sector (education, band administration, health care and social assistance), 45 businesses in 11 sectors create 224 jobs in the community. This corresponds to 56% of the labour force (400).

Table -1 Employment per Sector, Nemaska, 2023

Sector	Number of businesses	Number of jobs	% jobs
Health Care and Social Assistance	2	93	22.0%
Educational Services	1	63	14.9%
Construction	7	45	10.6%
Corporate & Business Management	1	45	10.6%

¹⁴ According to SPN (2023), the education, health and social assistance, and public administration organizations located in Nemaska employ 199 people. At the StatCan (2021) Census, the estimate was 290 people from Nemaska working in those sectors. The gap between the number of jobs in 2023 obtained from SPN-DCI-EDOs and employed people in 2021 Census is - 31% for Nemaska, that seem to be explained by the difference in public administration.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Sector	Number of businesses	Number of jobs	% jobs
Public administration	3	43	10.2%
Mining, quarrying, and oil and gas extraction	7	30	7.1%
Professional, Scientific and Technical Services	6	22	5.2%
Arts, Entertainment & Recreation	2	21	5.0%
Retail	7	16	3.8%
Finance & Insurance	2	16	3.8%
Accommodation and food services	3	14	3.3%
Transportation & Warehousing	6	11	2.6%
Utilities	2	2	0.5%
Other services (except public administration)	2	2	0.5%
Total	51	423	100%
Education, health, public administration	6	199	47.0%
Other sectors	45	224	53.0%

Note: No business or job in the following sectors: administrative services, agriculture, forestry, fishing and hunting, Information & cultural industries, manufacture real estate and rental and wholesale trade

Source: Processed from DCI (2023a) and SPN (2023).

Accommodation, food services, and retail. This sector is mainly served by NDC 100% owned by the CNN, NDC started in 1988 and now counts 45 employees with the mission to drive sustainable socio-economic development of the community by providing high-quality business, supporting local entrepreneurs and ensuring autonomy. Also, the NDC is building business partnerships and joint ventures to expand existing services, create jobs and employment opportunities, and increase value. Ultimately, its role is to assist local entrepreneurs with seed funding, identifying opportunities, marketing their business, and providing contracts (Niska, 2020). The NDC owns the Nemaska grocery store (2 employees), the central lodge (2 employees), the Nemaska motel (4 employees), the gas station (2 employees), Nemaska banking center (15 employees), Nemaska home hardware (2 employees) and the Canada post office (2 employees). They also have numerous partnerships with Nemaska Eanou company, ADC-NDC, etc. The latest joint venture offers janitorial & catering services to HQ. Other significant smaller size business in the retail sector are Sequins, Cvltre Bread and Etuuda Distribution with 6 employees for the former and 1 employee each for the latter.

Tourism. The tourism & outfitting sector is not represented with any business and could be an opportunity to develop with the improvement of the Route du Nord. The existing attractions in the community include: the Old Nemaska Post Gathering, Cree Nation Fitness Challenge, Fishing Derby.

Transport. No major transport business is located in Nemaska, only a few local self-employed materials transporters. Freight transportation is often provided by Kepa Transport like in the other coastal communities. The fuel and diesel transportation are provided by Petronor.

Construction. This sector is well represented in Nemaska with NDC (45 employees), Vieux-Poste Construction (18 employees), Eeyou-Istchee Construction Products (15 employees), Chinuchi Entreprises and Nemaska Eanou with 3 employees each. The joint-venture NDC-Fournier company hires 15 employees, the latter entrepreneur from Val-d'Or offering different services, the main one being in mining operations (Fournier et fils, 2023). Vieux-Poste Construction is a company created to carry out residential, institutional, commercial, industrial, or mining construction projects, which trains and employs local workers during the execution of its projects throughout the Nemaska territory. For a small-size community, Nemaska has a strong basis for construction activity.

CGW (2015) shows that among the construction jobs given to Cree contractors in different communities in Eeyou Istchee, Nemaska was awarded 26.1% of the value of contracts for 10.0% of employment, equivalent to 18.3 monthly average jobs, during HQ Eastmain 1A works from 2007 to 2011. For the operation phase 2012 to 2016, Nemaska was awarded 4.6% of the value of Cree contracts value and accounted for 1.0% Cree employment, equivalent to 0.2 monthly jobs. This shows that the Nemaska community displays an historic capacity to seize

construction and operation opportunities for major projects in Eeyou Istchee.

Natural resources. There is an agreement signed and named Chinuchi between the Nemaska community, the GCC and the CNG, and Nemaska Lithium for the Wabouchi mine complex, located 34 km east of the community. The current construction phase is estimated 250 employees, and the mine will be hiring 200 people for at least a 26-year lifespan in which we forecast an average of 20% Cree employment participation (part of a private agreement between the mine and the community) resulting in 40 full-time jobs at the mine. There are two other advanced lithium projects, located further on Eastmain traplines, named Rose and James Bay.

Finance. First Nations Bank has 15 employees to their Nemaska branch. The First Nations Bank (2023) is the first Indigenous owned and controlled banking conglomerate. It has multiple branches across Canada and the headquarters are in Saskatoon. It has nine full-service branches and nine community banking centres spread throughout Canada.

Entrepreneurship. Out of the 45 businesses identified by the DCI (2023a), the DCI (2023b) regional funding program supported an average of 1.25 Nemaska businesses per year over the last 12 years, representing 6% of the program. The share of business in Nemaska is almost as twice bigger (11%) as the share of population (5%) of the Cree population in Eeyou Istchee. Cree population, its share of number of businesses is 11% of all businesses in Eeyou Istchee. The level of entrepreneurship is higher than Crees and comparable to Jamesians.

Business Projects or Potentials. From the EDO's perspective and work, the current projects (requests for funding, market studies, or business plans) in the community include:

- Multi-user building;
- Training for SD mines;
- Business advisory for JR's garage;
- Business advisory for Etuuda distribution;
- Business advisory for TAC Eeyou Mart;
- Business advisory for Outfitting camp;
- Business advisory for Diamond carwash.

9.3.2 LGA EFFECTS ON LOCAL ECONOMY

9.3.2.1 BUSINESS OPPORTUNITIES

LGA infrastructure considered by the Nemaska representatives as the most relevant to their community include the Route du Nord.

They mentioned that paving route du Nord would bring tourism opportunity while the community would be better accessed. The railway is less relevant for their community since it's along the BDH and they doubt the affordability of having such infrastructure. The road improvements were most important to this community, more than the railways that would be built only over a long period of time and need to prove their economic affordability and because they like their freedom of not depending on scheduled transport (passenger train).

From the community point of view, the missing elements on the LGA program is the need to They need to create appropriate training with LGA potential jobs such as accreditation training like CCQ and RBQ accreditation.

The business opportunities with the upcoming LGA transportation infrastructure program could include those mentioned below:

- The paved and improved route du Nord will ease access to the community village, may attract more tourists to the attractions and accommodations in Nemaska, and thus may enhance local tourism development.
- For the community to develop import of woods, this would create a housing construction entrepreneurship hub that will also contribute to facilitates skill development within the community but also creates new avenues for entrepreneurship with all outsourcing companies in the housing construction sector. By reducing lumber costs

through local production, there's a tangible opportunity to diminish the reliance on imported pre-built houses, there by contributing to cost savings for the community.

- The improvement of route du Nord will ease the journeys to other Cree communities and thus the access to traditional and economic activities in the region, notably the territory, the forestry sites nearby and the mining sites in the Nemaska area. First, there is an opportunity for road improvement and paving related business to be created such as civil works, civil engineering, concrete and paving crusher operations, maintenance camps, drilling services, hauling, transportation, mechanics, slashing companies, as well as safety and security ventures. Second, capitalizing on outsourcing opportunities arising from increased mining and forestry activities. This entails expanding their business offerings to cater to the various needs generated by the mining sector, fostering economic growth and sustainability with the community.
- The improvement of the Route du Nord shall ease shipments of lithium, materials, and workers from and to mine sites, as well as for exploration sites. This would improve the efficiency and consolidate or enhance this economic activity.

9.3.2.2 JCIM RESULTS

LGA transportation infrastructure construction and operation will require workers during a long period of time. Some of these jobs can be fulfilled by workers from Nemaska, such as direct jobs on the railway during operation, but also as workers for companies that are subcontracted for the works during construction or for the maintenance during operations.

Direct Operation

The LGA studies (VEI, 2023c) reveal that operation of the BDHR would bring 77 direct jobs at the Waskaganish yard and station, located on Nemaska traplines territory, at the intersection of the BDH and located 103 km away from Waskaganish and 155 km from Nemaska communities. Along the BDH at the Waskaganish turnout, there would be a need of 72 jobs at the yard and 5 jobs at the station for a total of 77 resources. The Nemaska shares of the 77 jobs was distributed proportionally from Waskaganish and Nemaska population. The total share of jobs from Nemaska would be 19 people working at the yard and 1 person at the station for a total of 20 employees, as shown in Table 9-2.

Table 9-2 BDHR Operations at Waskaganish yard and station

	Total jobs at Waskaganish-Yard	Total jobs at Waskaganish-Station	Share of Nemaska positions at the yard	Share of Nemaska positions at the station
Administration	-	-		
Main Line Operations	-	-		
Yard and Siding Operations	46	-	12	
Rolling Stock Maintenance	4	-	1	
Track and Signalling Maintenance	-	5		1
Passenger Services	22	-	6	
Total of jobs	72	5	19	1

Source: VEI (2023c).

For the maintenance of the upgraded community access road, also studied as part of the LGA studies, SDBJ is already outsourcing the access road maintenance to community businesses like Vieux-poste construction and Chinuchi entreprises. There is no confirmation if contracts are distributed by tender offer or direct private agreements with the community contractors, but since the contracts are already distributed within local entrepreneurs, we estimate that the operation of the LGA paved and upgraded Nemaska access road would require the current maintenance jobs.

LGA Indirect Job Creation

From the assumptions of the calculation model of the economic impact of the LGA transportation infrastructure described in Section 2.4.3 and developed in Section 3.5.4, Nemaska could obtain a total of \$316M in contracts during all three phases of the construction period from 2030 to 2044, as shown in . On an annual basis, Nemaska entrepreneurs would be awarded \$27M in contracts on average. Over this period, a total of 1,774 person-years could be created, or the equivalent of 136 FTE jobs on average over the 15-year period, for the people of Nemaska.

Table 9-3 Job Creation and Contract Impacts per LGA Phase, Nemaska

Impacts	Construction		Operation	
	Lifespan (2030-2044)	Annual Average	Lifespan (30 years)	Annual Average
Contracts (M\$)				
Phase I	138	28	44	1
Phase II	100	17	23	1
Phase III	78	13	0	0
Total	316	24	67	2
Employment (persons-years)				
Phase I	777	155	848	28
Phase II	560	93	436	15
Phase III	437	73	0	0
Total	1,774	136	1,284	43

Note: The total may differ from the sum of terms due to rounding.

Still using the job creation impact model, Nemaska entrepreneurs could obtain \$1.3M of contracts during the operating period, from which \$850,000 would be Phase I transportation infrastructure. The job creation benefits for the community represent however both direct and indirect employment, with 28 FTE jobs estimated starting from 2035, 15 FTE added from 2040 to attain a total of 43 FTE jobs every year until 2045.

Across the portfolio of Cree communities, the job creation benefits for Nemaska account for about 5% of the total jobs created during the construction period and 5% during the operation period. The results could be changed based on targets and parameters for Cree participation in the projects, which infrastructures of the LGA program are actually built, the importance of the proximity of the community to the location of works or operations, and the dynamism and capacity of its entrepreneurs.

9.3.2.3 LONG-TERM SUSTAINABILITY

Based on the Job Creation Model and the GDP data presented in Section 2.5.5, long-term sustainability brought by the LGA was also calculated for the community. With increased participation of Nemaska workers in the construction sector, the local economy is expected to boom during the construction period of the LGA infrastructure. LGA infrastructure would allow the standard of living, estimated using GDP per capita, of Nemaska residents to be 64% higher in 2032 during the peak year of the construction period at \$45,388 per capita than it would be without LGA at \$27,234. When the construction period is over, the impact of LGA on GDP per capita would be maintained to 10% above the GPA per capita without LGA by 2045 (\$30,476 compared to \$27,656, respectively), and 7% higher by 2074. Given that by 2074 local employment would increase by 5% with LGA, the GDP would increase by 12% by then (\$29.8M with LGA versus \$26.7M without LGA).

This calculation reflects the increase brought by the maintenance and operation of the LGA infrastructure only. It does not capture any benefits brought by the development of the community in other sectors such as forestry, mining, local production, territory rehabilitation, and tourism, to name a few potential sectors.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

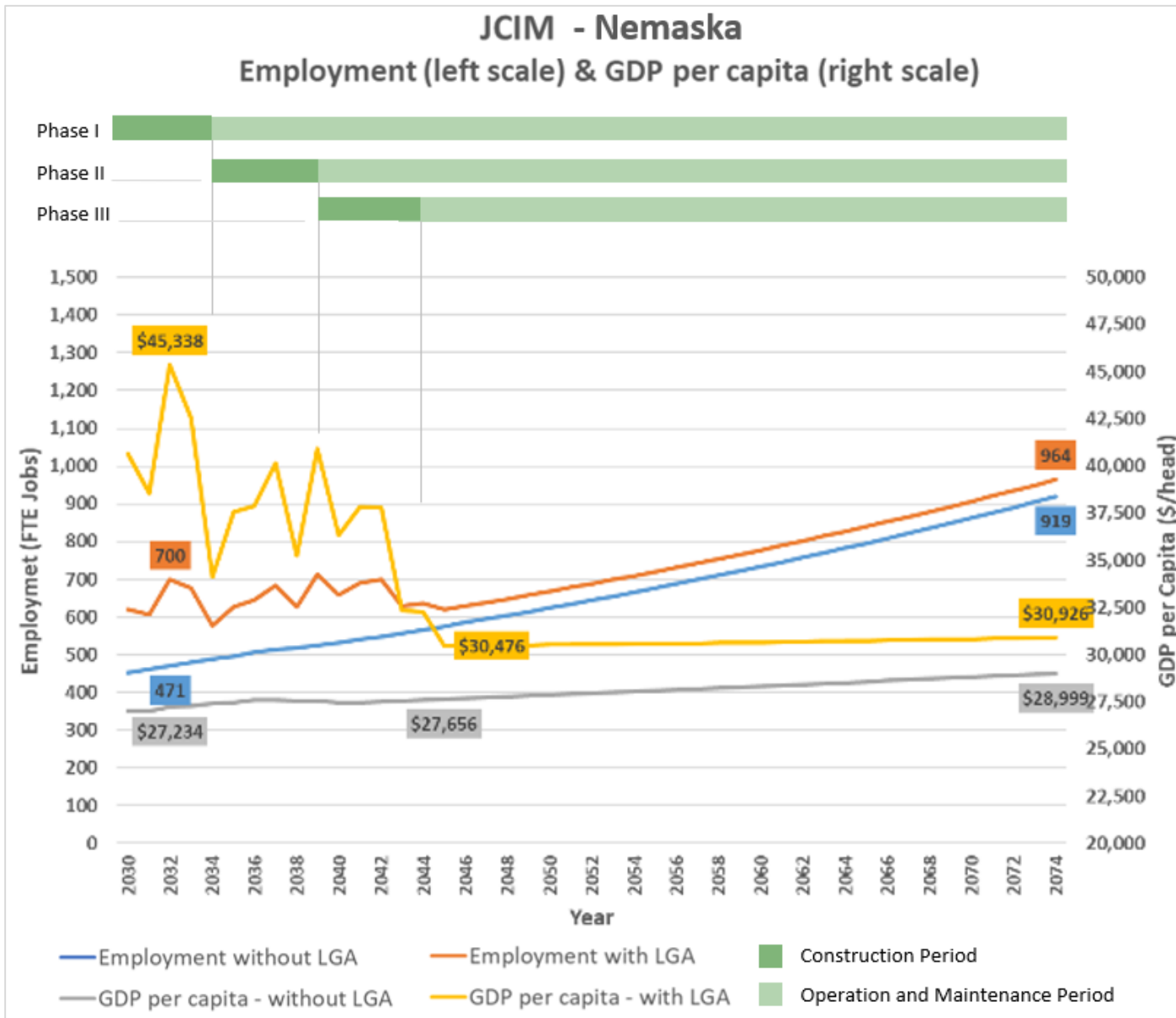


Figure 9-4 Impact of LGA on GDP per capita and Employment, Nemaska, 2030-2074

9.4 LAND-BASED ECONOMY

9.4.1 OVERVIEW

9.4.1.1 IMPORTANCE OF THE TRADITIONAL LAND-BASED ECONOMY

The Cree community of Nemaska has lived through changes in recent history. The first village was located on the Nemiscau Lake. European fur traders first reached the settlement around 1663. Father Charles Albanel, a Jesuit priest, as recorded in his journal, arrived on Nemiskau Lake on June 25, 1672. It has been stated that the Compagnie du Nord (1661) also built a trading post that will be exploited later on by independent tradesmen in 1685 and 1774. In 1775, the HBC built a trading post on the Rupert River that was abandoned later on and rebuilt and exploited at Lake Nemiscau between 1794 and 1810. Then between 1823 and 1970, the trading post activities were a central part of the community organization. When HQ decided to flood the area for hydroelectric projects in the 1970s, the members community had to uproot themselves and go to either Waskaganish or Mistissini. In 1979, the decision to settle back in their traditional lands was made and the new village of Nemaska was founded on the shores of Champion Lake. Almost a hundred of Crees of Nemaska decided to gather around this lake, a site recommended by the Elders (CNN, 2022).

Nemaska's territory is divided into 15 traplines covering 14,929 km² (CMEB, 2022). The CNN members still frequent their original settlement on the shore of Lake Nemiscau, called Old Nemaska, and consider it a cultural village. The Broadback, Rupert and Nemiscau rivers cross the land. The community is accessible by the Nemaska Road approximately 10 km from the route du Nord. As of August 2022, the Cree Nation of Nemaska had a total registered population of 850 (CIRNAC, 2022), with 750 members living on reserve, 24 living off reserve and 52 living on other reserves or Crown land.

Based on the report of the EPC regarding Nemaska, the beauty and character of the land and its rich history of primary importance to its members. A healthy environment allowing the possibility of hunting and living off the land also play an important part in the environmental considerations of the community (EPC Nemaska, 2017). Some of the main values that underlie the use of the territory were also mentioned, such as having a clean environment and healthy wildlife, respecting the animals, having a good knowledge of the language and traditional knowledge.

9.4.1.2 COMMUNITY ASPIRATIONS

In their vision of the future (EPC Nemaska, 2017), the Crees of Nemaska who participated in the EPC survey are well aware of the size and the design of the community and its impact on the municipal infrastructure available to them. The fact that the dry areas are limited in the community impacts the type of constructions possible.

The Nemaska EPC relates that talks of vision for the future where the youth have more training and educational programs. In correlation with an increase in their governance, these aspects would provide better and more secure Cree-led economic development opportunities.

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

- Issues that Nemaska faces:
 - Size and Design of Community
 - Vulnerability to Environmental Hazards such as Forest Fires
 - Municipal Infrastructure
 - Living on the Land: Access, Knowledge, and Skills
 - Problems with Non-Cree Hunters

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

- Limited Land User Input in Decision-Making About the Land
 - Governance and Relations with Non-Crees
 - Impacts from Industrial Developments
 - Changes in Animals Associated with Environmental Changes
 - Challenges to Cree-led Economic Development Initiatives
- Elements of a Nemaska vision for the future:
- Amenities to Foster a Healthier Community
 - Improved Municipal Infrastructure
 - Priority of Preserving Cree Culture
 - Professional Training and Cree-Led Economic Development
 - Continuity of Cree Occupation and Hunting, Fishing and Trapping
 - Environmental Protection and Conservation
 - Cree Governance: Accountable and Forward Looking

In 2021–2022, about 5% of the population in Nemaska (43 members, representing 29 family units) was enrolled in the ESP for their livelihood, sometimes combined with other occasional jobs. In total, 6,701 days spent in the bush were paid to the land users for that period, for an average of \$18,697 per family unit (see Table 9-4). As mentioned in section 3.6.3, the price of fur has gradually declined over decades. Several factors can affect ESP participation, which varies from year to year depending on, among other things, the economic climate and employment opportunities, or a readjustment in eligibility (CHESB, 2023; CHTISB, 2012).

Table 9-4 Beneficiaries of the Economic Security Program (ESP), Nemaska, 2021–2022

Nemaska - Family Units (nb)	Total (adults and children)	Total Days Spent in the Bush	Average per Family Unit (days paid)	Average Allowance per Family Unit (\$)
29	43	6,701	231	\$18,697

Source: Compilation CHESB, Annual Report 2021–2022.

In 2021–2022, 443 members (including 56 junior) were enrolled at the CTA, which is lower than the preceding decade (see Table 44). The local CTA offers different programs and services to its members, but in 2021–2022, none were granted in Nemaska (See Tableau 45). The preceding year (2020–2021), the most popular program was the Gas Subsidy, with 903 members benefiting from it (CTA, 2014-2022). As mentioned in section 3.5.2, the price of fur has gradually declined over the years. A beaver fur was worth on average \$12.39 in 2015, while in 2022, it was \$7.57. Table 44 shows the number of CTA members in Nemaska, how many sold furs, and the value of these sales from 2012 to 2020. The 2021–2022 report shows that CTA fur sales reached \$154. (CTA, 2014-2022)

Table 9-5 CTA Membership and Fur Sales, Nemaska, 2012–2020

	2012–2013 ^a	2013–2014 ^b	2014–2015	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020
CTA Member (n)	-	-	561	521	512	530	537	641
Trapper who sold fur (n)	12	11	14	8	16	7	4	1
Fur sales (\$)	-	-	\$3,440	\$3,472	\$7,231	\$1,780	\$620	\$407

Note a and b: these annual reports were not available on the CTA website, for this reason some data are missing.

Source: Compilation from 2012–2020 CTA Annual Reports.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 9-6 Number of Members Helped by CTA Programs and Projects, Nemaska, 2020–2022

Program/Project	2020–2021	2021–2022 ^d
Cabin insurance	4	-
Cabin building/renovation programs	21 ^c	-
Gas subsidy program	903	-
Hunting subsidies and supplies	7 ^a	-
Equipment repair or purchase subsidies	16 ^b	-
Transportation subsidies - Air or bush plane	16	-

Note a: Tent Frames subsidies.

Note b: Employment Program

Note c: Members Assistance Program (\$40 for junior+ \$80 for adult members)

Note d: No member of Nemaska applied to a program/project in 2021-2022

Source: Compilation from 2020-2021 and 2021-2022 CTA Annual Reports.

9.4.2 RESOURCE ACCESSIBILITY

Changes in resource accessibility (whether physical access or the quality and abundance of resources) can lead to impacts on the economic and cultural way of life of the Crees. As these are strongly related, this section mainly addresses the physical access, while the quality of resources is covered in sections 9.4.3.

9.4.2.1 CHANGES AND CONSTRAINTS LINKED TO DEVELOPMENT

Nemaska is accessible by air and by the Route du Nord. Their traditional land was impacted by hydroelectric projects, as well as forestry and mining industries. Climate change is an important vector of modification regarding the access to resources on the land. There are more frequent forest fires, earlier springs, longer summers, and later winters (winter conditions appear in January rather than December). Thus, each year the season cycle is different. Because of the climate changes, some animals have changed their behaviour and vegetation is growing in new areas.

Finally, as for other Cree communities, access to the territory and the resources remains essential to ensure the continuity of the Cree way of life, which is closely linked to the activities on the land. Since the access road and the Route du Nord are already constructed, improvement of these infrastructure will have minimal impact on the accessibility of the land, it will only make travel safer and more comfortable.

9.4.2.2 IMPACTS OF PROPOSED INFRASTRUCTURES

The main concerns with the construction of the potential BDH railway are regarding the potential contamination of the watercourse during and after the construction. Regarding proposed work on the community access road and the Route du Nord, most of the comments were alignment and conception of the actual road and suggestions to improve it.

The impacts anticipated by Nemaska land users on resources related to potential pollution and wildlife disturbances are addressed in section “Negative impacts and conflicts with land-based economy”. Furthermore, land use and culture are deeply rooted together, these impacts on access, water and resources are addressed in the sections 9.4.2 and 9.4.4.

9.4.2.3 SUGGESTED MEASURES AND OPPORTUNITIES

Some measures or suggestions emerged from the LGA engagement activities in Nemaska regarding the access to resources, and the access to the community as it would become more easily reachable, such as:

- Improvement of some aspect of the roads to enhance safety (remove washboard on a section of the road, paving, correction of curves, culverts, ...)

- Widening of some shoulders along the roads to allow safe parking for hunters.

See the section 3.6.2 for general suggestions or opportunities applicable to the Cree communities for a better accessibility to resources.

9.4.3 CULTURAL CONTINUITY

Old Nemaska is the site where the members of Nemaska community originally settled, so it has a special meaning for them and is particularly valued. There are about 60 camps at the site, an old school, a church and a cemetery. Old Nemaska is a cultural and historical site located on the left bank of Lake Nemiscau. The location is only accessible by boat, mostly freighter canoes. The boat ramp where they depart from includes a large parking and can be accessed by the Route du Nord (KM 321.5) and then using a local road on approximately 35 km.

In the spring, some CNN members go to Old Nemaska for the goose hunting season. During the summer, community members gather and spend some time there. They frequent the site for cultural, social, and recreational purposes. They go fishing in Lake Nemiscau, but also to the east, as far as Nemiscau Point, and north to the Kaupwanaukach Pass. In the winter, ice fishing is practised on the Rupert River south of Lake Ukau Amikap and on the Nemiscau River south of Lake Devoyau (HQ, 2004).

Canoe brigades departed from Old Nemaska, and it serves as a stopover point for expeditions as well.

According to the interview participants for the Land Commission Report (EPC Nemaska, 2017): “There is something about Nemaska that has a very rich history. We get a chance to go anytime we want, we get to see our Old Nemaska village, you can go in summertime or in the winter. It’s a privilege for us to be able to go see our second home, our old village. To go by vehicle and by boat. Old Nemaska, we are starting to look into planning, what we need there. A community hall, what kind of housing, sanitation?”

All the buildings are aligned and face the lake. Because the site is on a non-wooded point, it provides direct views for a longue distance onto Lake Nemiscau and its islands. Valued for its historic and cultural nature, Old Nemaska has been used as a community gathering place since early 1900.

The Native rock painting site at Lake Nemiscau is designated either by its Borden code, EiGf-2, or by its Cree name, Kaapehshapischinikanuuch. It is the only Native rock painting site in Cree territory (HQ, 2004). Due to its size and graphic content, it is the second most important site of its kind in Quebec (Vaillancourt, 2003).

9.4.3.1 IMPACTS OF INFRASTRUCTURES ON CULTURAL CONTINUITY

The proposed infrastructure and the development that might follow could affect cultural continuity, if it disturbs valued areas, contaminates environment, or lead to overexploitation. Since the infrastructure are already existing, the impact could be minimal. Although, it could facilitate access to land for Nemaska members, which is, as mentioned above, necessary to keep the culture alive. Indeed, according to Nemaska land users, the possibility of easier access to the territory can facilitate the transmission of traditional knowledge, especially among the youth, whereas the increased mobility and the adoption of “southern” values and culture can lead to the potential loss of traditional languages and transmission of intergenerational values.

A negative impact of these improvements on the culture could be that with a more convenient access to the land by all the users, it could also incite non-natives to come more often and in greater numbers to hunt and fish in the area. With the intensified influx of new users, the risk of having pollution and overexploitation of the fauna would be increased.

As land use and culture are deeply rooted together, the impacts on access, water bodies and resources are addressed in sections 9.4.2 and 9.4.4.

9.4.3.2 SUGGESTED MEASURES AND OPPORTUNITIES

As mentioned earlier, the proposed infrastructure is already existing and would consider mainly of improvement. Since Nemaska Cree consider their culture as “unique and special” (EPC Nemaska, 2017), these improvements would facilitate the promotion their vision of the Cree way of life.

The section 3.6.2 shows other measures that could be put in place for all the Cree communities to ensure that the infrastructure would not interfere with cultural continuity and to promote the use of the land.

9.4.4 SYNERGIES AND CONFLICTS

9.4.4.1 POSITIVE IMPACTS AND SYNERGIES

In Nemaska, the access road and Route du Nord improvement would result in having an easier more secure means to access the land. Road safety is a real concern for the community. This ease would provide new opportunities to transmit knowledge and skill from the elder to the younger generation. These exchanges are a key factor in the transmission and the preservation of the Cree culture and language.

Also, an increase of the number of Cree land users on the territory would result in a closer monitoring of the activities that non-native and the industries are doing. Since the good health of the environment is a key value for the Nemaska Cree community, the closer monitoring could permit faster actions in case of disaster, natural or resulting of human actions.

9.4.4.2 NEGATIVE IMPACTS AND CONFLICTS

Different concerns were raised by Nemaska people regarding the refection of the access road, Route du Nord and BDH railway infrastructure.

Pollution and changes to water bodies

Nuisances are foreseen during the construction and operation phases of the proposed BDH railway, such as pollution of air, soil, and water, as well as noise pollution.

People are concerned that the construction of infrastructures would impact water bodies and watersheds. There are highly sensitive areas to protect from pollution, but also from changes in the land hydrology. Another user anticipates changes in the wetlands near rail and road infrastructures.

9.4.4.3 SUGGESTED MEASURES AND OPPORTUNITIES

According to the EPC, Nemaska Crees demand to improve their municipal infrastructure with pavement of the roads, and more landscaping in the community. If this is done properly, this could also mean more job opportunities and training opportunities for the youth of the community.

See the section 3.6.2 for suggestions and measures that concern all Cree communities involved.

9.4.5 ECONOMIC VIABILITY

9.4.5.1 EXPECTATIONS AND OBSTACLES

Nemaska Crees envision professional training and Cree-led economic development (EPC, Nemaska, 2017). Indeed, a training centre could reduce the lack of education for people that have dropped out of school. In that sense, participants to the EPC stated that Nemaska community faces challenges to Cree-led economic development initiatives and that it could be resolved with, among other things, by training.

An important issue related to future development is the availability of borrow materials. Indeed, in addition to the significant presence of wetlands, granular resources are often located further and further away from projected infrastructures. This distance then implies the construction of access roads and longer round trip, sometimes resulting in significant costs. In addition, some resources that may be found nearby are restricted to exploitation. The interactive map from the Geomining Information System (SIGÉOM) shows these mining activities restrictions, which include:

- Protected area or proposed protected areas;
- Biological refuge;
- Energy transport lines and hydroelectric installations.

9.4.5.2 NEW PATHS FOR LAND-BASED ECONOMY

In Nemaska, some members state that currently, development is difficult because of the high cost of goods and services linked to the isolation of the community. However, members expressed several ideas and interests in developing activities or businesses during the LGA study consultation process and in the EPC, particularly in the tourism industry and sustainable development.

See section 3.5.3 for more considerations regarding business or activities related to the land, that are not all traditional activities, but could, if developed, generate income while remaining connected to the land.

9.5 COST OF LIVING

The cost-of-living study in Nemaska was based on the prices of items collected from the only grocery store in the community, Nemaska Omni grocery, owned by NDC. Therefore, there is no competition affecting the prices of goods. Food and beverage prices displayed at Nemaska Omni Grocery, food services at Hotel's restaurant, gas price at the Gas Station, and internet prices by Starlink during the survey in fall 2023 are given in Table xx. The average monthly rent of a dwelling provided by the band as of the StatCan (2021) Census also appears in the same table.

Table 9-7 Commodity Prices, Nemaska, Fall 2023

Item	Nemaska	Cree Average	Difference
Food and beverage			
1 litre of orange juice	\$5.99	\$5.03	+19%
10 pounds potato bag	\$8.99	\$11.54	-22%
12 eggs	\$5.99	\$5.90	+2%
12 Pepsi/Coke cans	\$15.49	\$12.96	+20%
2 litres of 2% milk	\$5.99	\$6.77	-11%
24 water bottle pack	\$11.49	\$12.35	-7%
284 ml Campbell tomato soup can	\$3.49	\$3.24	+8%
500 g lean ground beef	\$9.99	\$9.79	+2%
Total	\$67.42	\$67.58	0%
Transport			
1 litre of regular gasoline	\$1.91	\$1.94	-2%
Communications			
Monthly internet payment (10 Mb/s) - Starlink	\$129	\$140	-8%
Housing			
Monthly rent (band dwelling), June 2021	\$540	\$498	+8%

Source: Compilation from 2023 survey (food and beverage, gasoline, Internet) and StatCan Census (2021) (dwelling rent).

Although the prices of grocery articles seem to be slightly lower than the Cree average, As shown in Table 9-7, the expensive items such as soft drink and orange juice, weights more on the food and beverage index and making it equivalent to the Cree average. The Table 9-8 presents the comparison of price indices at Nemaska with other communities. The food and beverage, transport and communications are equal or lower for Nemaska, while housing cost account for 8% higher than the Cree average. The higher cost of housing can be in part explained using prefabricated house part assembled in factory and shipped to the community (EDO, 2023).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 9-8 Price Indices, Nemaska, 2023

Index	Nemaska Relative to Cree Average	Cree Community Relative to Jamésie	Cree Community Relative to Abitibi-Témiscamingue
Food and beverage	◆ 1.00	◆ 0.66	◆ 0.60
Transport	◆ 0.98	◆ 0.85	◆ 0.82
Communications	◆ 0.92	◆ 0.34	.
Housing	◆ 1.08	◆ 1.31	◆ 1.45

Note: Base index 1.00 = Cree average. If index is less than 1, the good is cheaper than the Cree average and if index is greater than 1, the good is more expensive than the Cree average. ◆ Prices higher than Cree average ◆ Prices lower than Cree average.

Source: Compilation from 2023 survey (food and beverage, transport, communications) and StatCan Census (2021) (housing).

As mentioned in section 9.2, the average after-tax income in Nemaska is \$42,680 (StatCan, 2021), which is 2% higher than the average in Cree communities. Considering that, the slightly higher incomes of Nemaska residents might not fully compensate for higher housing mortgage and price, the biggest part of a monthly budget resulting in Nemaska having the fourth-highest cost of living among those.

As observed, when it comes to food, beverages, and gasoline, Nemaska's price indices are higher on average than those in Jamésie and Abitibi while shelter costs are lower. This emphasizes the role that dwelling rental by the band plays in controlling the cost of living in Nemaska and in Cree communities in general. Based on the geographic location of Nemaska, which is in midway between inland and coastal communities and in between Matagami and Chibougamau, the grocery prices in Nemaska reflect the average Cree communities.

The improvement of the Route du Nord would slightly reduce the travel time on this section and make the journey safer. Nonetheless, in terms of the entire supply chain, it could affect positively the supply chains and decrease the transportation costs, especially considering the construction and mining development demand in the area. Moreover, in the case of food and beverage products, the fact that a monopoly is setting the price, the reduction from transport cost, might be reflected on retail prices. For the oil products, the supplier could use the railway with transshipment by the Route du Nord, as mentioned in the market study. The transshipment operation complexifies the overall shipment. As there is only one retailer in the community, it is uncertain to what extent the actual price could be reduced, but it would be a marginal decrease if any.

9.6 SUMMARY

Nemaska is strategically located as the encounter of coastal Cree communities and inland Cree communities. It has been part of hydro Eastmain 1 and 1A and currently in the center of hard rock lithium fault (strategic elements) developments. It therefore follows that the proposed LGA infrastructures could create the most improvement of the local access road and of the Route du Nord would and be a significant social economic benefit to the community as it allows for safer, quicker, and reliable journeys from and to the community, better connections to all other Cree communities. It will also allow for better access to work sites within the region, either for LGA infrastructure projects, HQ maintenance and development, or other development projects including mining site.

Should the LGA options proceed, Nemaska stands to benefit greatly, leveraging its experience in supporting major developments through its construction sector. Entrepreneurs and suppliers in Nemaska could enhance their capacity to serve as providers for LGA-linked infrastructure works, particularly with the presence of railways facilitating more affordable transportation to lithium mining sites, which have partnerships with the community. This would unlock the economic potential of the community, leading to numerous employment opportunities and ultimately improving the standard of living for residents.

However, upgrading, and paving route du Nord will attract outsiders and community will need to manage increased access to their traplines, although this is countered by increased access for their own users. Some cumulative environmental issues (as the lithium mining development might go along with the LGA construction). Managing

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

these impacts will no doubt require extensive communication and engagement with community members, especially land users, to mitigate anticipated impacts as well as to address unanticipated ones as they may arise. How this dynamic is managed will have a direct bearing on cultural continuity for future generations. Furthermore, economic participation by local actors will be essential to reassure community members that the benefits of infrastructure outweigh the costs.



Credit: Patricia Raynault-Desgagné.

Figure 9-5 Nemaska Harbour

10 MISTISSINI

10.1 CONTEXT

Meaning “big rock” from the Cree word *Mistisîni*, Mistissini is an inland community located in the south-east corner of the largest natural lake in Quebec, Lake Mistassini. Cree have lived in the Rupert River watershed area and around Lake Mistassini for centuries. Mistassini Lake remains a highly valued place. It plays a key role in the history and culture of the community as “its shores are ancient gathering places, its waters have fed Cree families for generations, and it is an important travel route to many more remote locations on the Cree territory” (EPC Mistissini, 2017)

French explorers and traders entered the area in the 17th century and by the second half of that century, a trading post was established on Lake Mistassini. The location of the post shifted from time to time until 1821, when the Hudson's Bay Company established it at the present village site. Through time Mistissini and the various posts in the area were also known as "Maison Dorval", "Patagoosh", "Abatagoushe", "Mistassini", and "Baie-du-Poste". At the height of the fur trade period, canoe brigades travelled from the trading post on Mistissini Lake to Waskaganish. This ability to travel over vast expanses of land and water linked the inland Crees with the coastal Crees. It was an important aspect of survival and remains a valuable part of the heritage. The canoe brigades, which supplied the trading posts, were most active between 1821 and 1925, before the railroad was built. The Hudson Bay trading post remained in operation until 1987 when a significant decline in the fur trade prompted its closure. The fur trade was a central activity in Mistissini, involving several family members in trapping, hunting, and preparing the furs. Travelling by canoe to reach the territory also often involved women leaving before the men to prepare the camps while the men carried equipment and provisions. (CNM, 2020a and WSP, 2023a). The Crees of Mistissini maintained an economy based on the traditional activities and the fur trade system up to the mid of the 20th century.



Credit: Julie Roy WSP

Figure 10-1 Community view from Mistissini bridge’s approach

In the late 1970s, the community took advantage of the JBNQA and the hydroelectric development of the La Grande Complex to develop some business initiatives that led to a more salary-based economy, which tries to balance cultural needs and economic development. As the second most populated Cree community, Mistissini has a diversified economy. However, land stewardship remains a cultural imperative and a moral obligation to Mistissini Cree.

Mistissini is the biggest inland community with a population more than 3,500 people. The community is accessible by a paved 15km access road that was completed in early 1970s and that connects with road 167 at KP 304. The road distances (and travel times) are 90 km (1 hour 05 minutes) to Chibougamau, and 447km (5 hours 05 minutes) to Chicoutimi and 785km (8 hours 35 minutes) to Montreal. The closest airport is in Chibougamau airport has similar features to the airports in other Cree communities (VEI-WSP, 2023). There is one direct flight per day of approximately 1.5 hours to Montreal (Chibougamau, 2023) and few other flights to other local communities.

As shown in the Figure 10-3, Mistissini territory includes 77 traplines, extending on more than 500 km, between the south of Lake Mistissini and the north of the Caniapiscou Reservoir. It represents the largest territory and number of traplines among the Cree communities in Eeyou Istchee. Traplines are managed by tallymen and used by their extended family as well as other community members.

LGA infrastructure would be expected to enable spaces for economic development that integrates Cree culture and traditional livelihoods.

The LGA infrastructure of interest for Mistissini include:

- The Mistissini second community access road (Phase I).
- The Mistissini Airport (Phase I).
- The Route 167 upgrade and extension to Trans-Taiga Road (Phase II).
- The Route du Nord upgrade and paving (Phase I).



Credit : Marc Beauregard, VEI.

Figure 10-2 Mistissini Training Centre

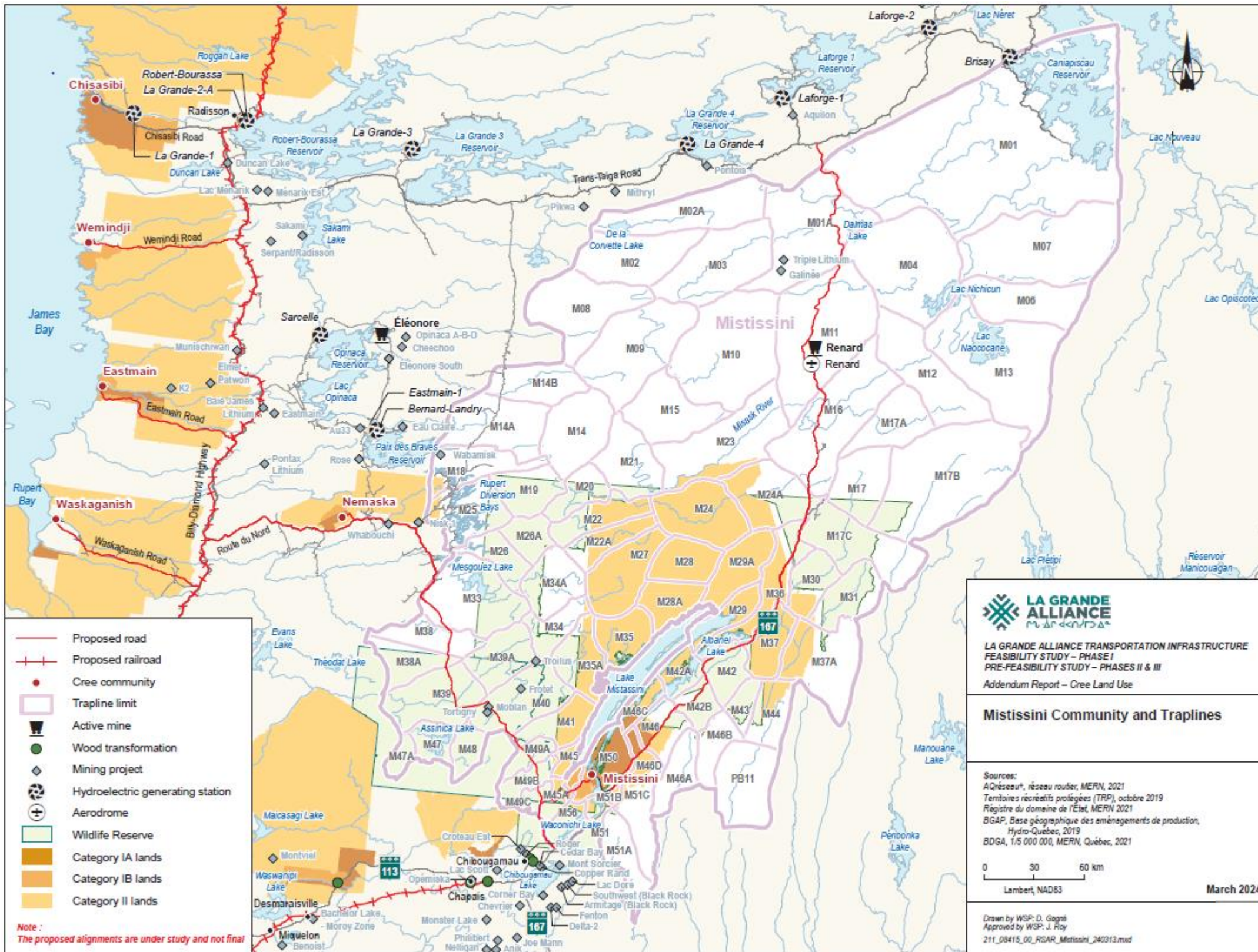


Figure 10-3 Mistissini Community and Traplines

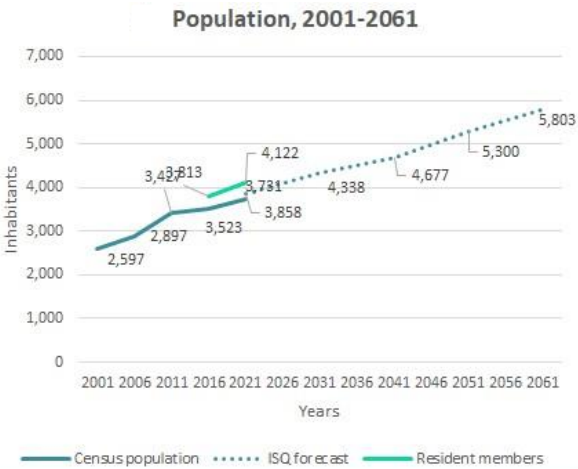
10.2 INDICATORS

The main characteristics of the population living in the community of Mistissini are presented below. Note that the data shown represents the 2021 situation as per the StatCan Census data unless otherwise specified.

Population

The population of Mistissini amounts to 3,858 inhabitants as of the 2021 Census. Over the past 20 years, according to the StatCan Census, the population has experienced a 67% increase or a CAGR of 1.7% per year, which is lower than the Cree average figure of 1.8%.

According to ISQ (2021) forecasts, the population would reach 4,677 people by 2041 and 5,803 people by 2061. This means the annual increase in population of the community (1.0%) is projected to be slightly lower than the Cree average (1.1%).



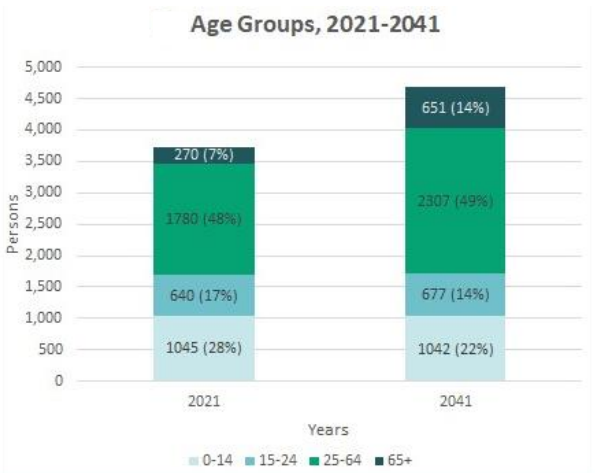
	Mistissini	Crees
Annual population growth (2001-21)	1.7%	1.8%
Annual population growth (2021-41)	1.0%	1.1%
Non-resident members (2021)	63 (1.5%)	1.7%

Source (Members): CHESB (2022).

Age structure

Like all other Cree communities, the Mistissini’s population is young, with 45% aged less than 25 years old in 2021. Recent growth (2016-2021) is a result of many newborns (315) over this five-year period, accounting for approximately 8.4% of the total population. About 310 persons immigrated to the community during the same period, accounting for 8.3% of the total population. Both natural growth of the population and the immigration are lower than the Cree average (8.4% vs. 9.3% and 8.3% vs. 10.4%).

Until 2041, the youngest group (0 to 24 years old) are not expected to grow as steeply as the older population (25 to 64 years old). The population is predicted to get older on average, with the number of seniors aged 65 years and older will go from 270 people to 651 people. The demographic dependency ratio would remain similar, although there would be fewer young people and more seniors.



(2016-2021)	Mistissini	Crees
Births	315 (8.4%)	1710 (9.3%)
Incomers	310 (8.3%)	1900 (10.4%)
Deaths and out-migrants	417 (11.2%)	2480 (13.5%)

Source: 2041: ISQ.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Families, households, and dwellings

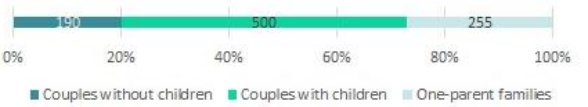
Out of the 946 families in the community, 500 (~53%) are composed of couples with children and 190 (20%) are families led by a single parent. The dominant household type in the community is the single-family setup, making up nearly ~71% of the households. This showcases the family-oriented structure of the Mistissini community. The remaining households are either multi-family, multi-generation, several non-related persons, or single persons.

Out of the 946 dwellings in Mistissini, the vast majority (~65%) are band-provided, while 22 % are rented, and 21 % are owned. Additionally, 10% of those dwellings are overcrowded, and 21% of dwellings require major repairs. This is lower than the Cree average, but higher than in Jamesian towns.

Ethnicity and Language

The population of Mistissini is predominantly Cree (86%). Nearly the entirety (81%) uses the Cree language as their mother tongue; in comparison, 13% uses English, 5% uses French and 2% uses other languages. The number of Cree-speaking individuals has slightly decreased over the English-speaking individuals within the community over the past decade. Notably, a significant portion of the population is bilingual.

Family Structure



Household Type

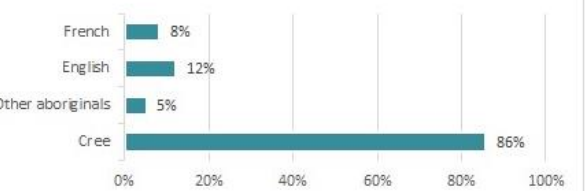


Tenure

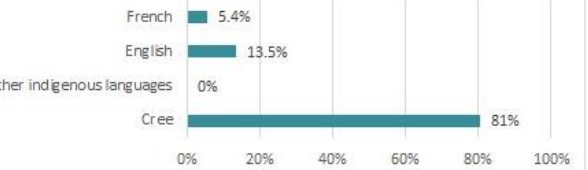


	Mistissini	Crees
% overcrowded dwellings	10%	15%
% dwellings with major repairs needed	21%	24%

Ethnic Origin



Mother Tongue



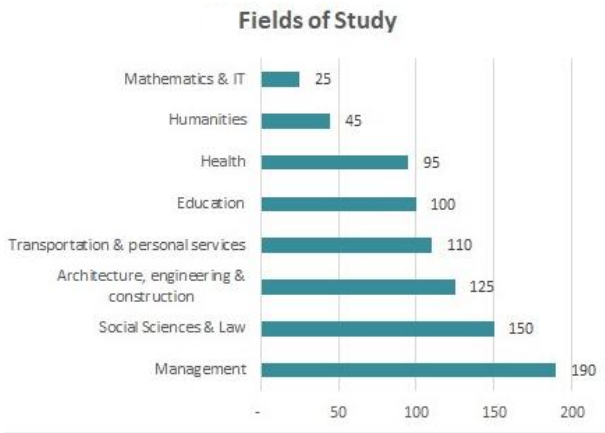
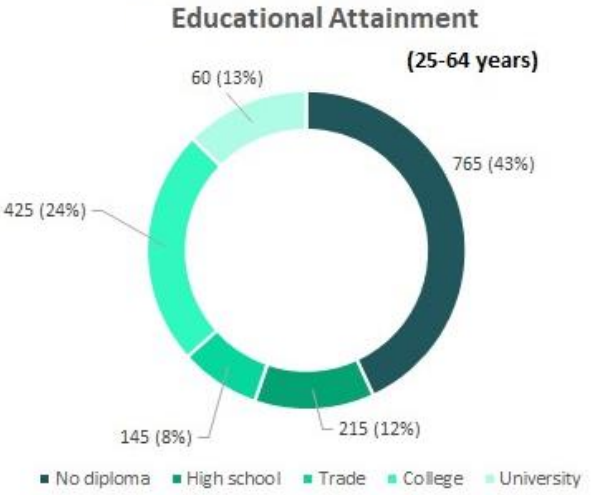
Knowledge of Languages	2011	2021
Cree	94%	89%
English	93%	97%
French	24%	22%

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Education

Less than two-thirds (57%) of the population aged 15 to 64 years old has at least a high school diploma, which is lower than the Jamesian figure (75%) and the provincial average (88%).

The educational profile of Mistissini is slightly lower than the Cree average. Among the 37% of the Mistissini people who have higher education (CEGEP or university), the fields of Management, Social Sciences and Law and Architecture, engineering & construction are the most predominant. This rate of higher education is lower than both the Cree, the Jamesian and the average observed for Quebec (52%).



Land

The combined 1A and 1B land categories amount to 808 km². The Mistissini territory includes 77 traplines covering 117,844 km².

The current percentage of ESP recipients in Mistissini (9%) is lower than the Cree average (14%). However, over the span of 2014 to 2022, the share of traditional hunters in Mistissini remained stable, which is a unique case among the Cree communities, where this share tends to decrease.



	Category 1A	Category 1B	Traplines
Land area (km ²)	808	488	117,844
	Mistissini		Crees
Nb/% beneficiaries on ESP Program	358 (9%)		14.3%
Avg. annual ESP unit allowance (21-22)	\$ 20,523	\$ 18,580	

Source: 1. Traplines: CMEB (2022). 2. ESP: CHESB (2022).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Labour Market

Mistissini’s labour market participation and employment rate (60.4% and 56.4%, respectively, in 2021) are comparably similar to the Cree averages (61% and 56%, respectively), and lower than the Quebec average (64% and 59%, respectively). As participation and employment rates remained rather stable over the last 20 years, with Mistissini’s participation and employment rates around five percentage points lower than the Cree average, and around five percentage points lower than the Quebec average. Mistissini’s concentration of permanent jobs (71%) is slightly below the Cree communities average (73%).

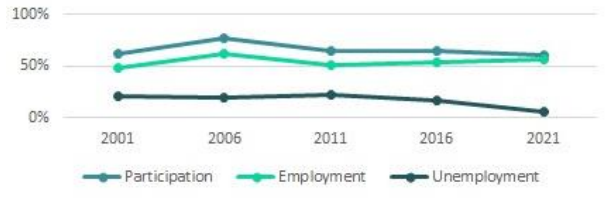
Evolution of Employment

According to the Census, an estimated 1,540 persons worked within the community since 2016. The participation and employment rates have increased slightly in the Mistissini community over the last 20 years. Several economic sectors have experienced growth over this period, with Education, Retail and Services, and Construction seeing the most significant increase. The public administration sector with the healthcare and education sectors employs the largest portion, accounting for ~63% of the working-age population.

Economic Activities

According to the employer consolidated database, public employers, which include healthcare and social services, public administration, and education account for the highest number of jobs (414 or 41% of local employment) which, combined with retail and construction, provides 636 jobs or 63% of community employment in Mistissini (SPN, 2023).

Labor Rates

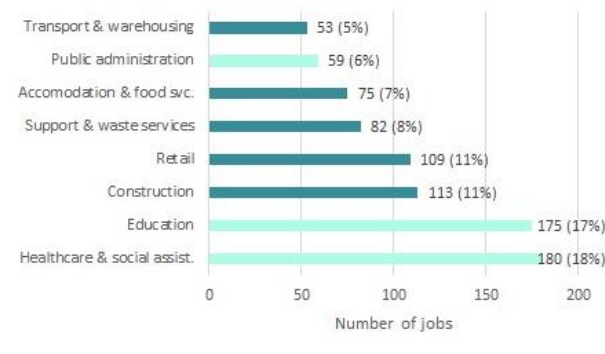


Class of Worker



	Mistissini	Crees
% work elsewhere in Nord-du-Québec	16.7%	16.3%

Economic Activities (2023)



Source: DCI-EDO (2023a) and SPN (2023).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Main Employers

Following the local economic structure, the main employers are public entities. Main businesses include Kiskinchiish Camp Services and Meechum.

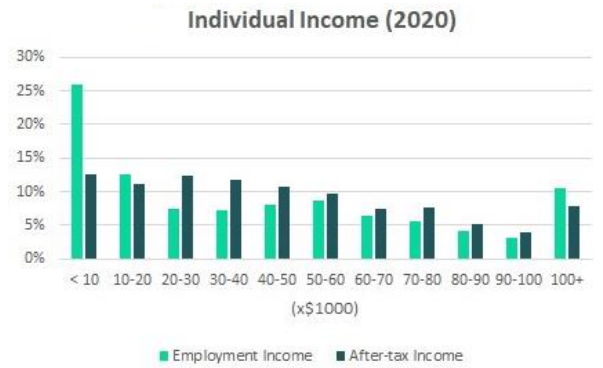
Business name	Activity	Jobs
CBHSSJB (Mistissini)	Healthcare & social assist.	101
Kiskinchiish Camp Svcs.	Support & waste services	80
Elem. School	Education	80
Sec. School	Education	63
Meechum Red'g	Retail	35
CBHSSJB Rehab (Mist.)	Healthcare & social assist.	29
Wapachee & Sons	Forestry, fishing & hunting	27
Gingras-Shecapio Inc.	Transport & warehousing	26
Pimii-Plus	Retail	26
Sabtuan Adult Ed.	Education	25
Large sector		% jobs
Public Sector		40%
Private Sector		60%
Total		1016

Compilation from DCI-EDO (2023a) and SPN (2023).

Income

Overall, the median and average employment income in Mistissini were estimated to be \$37,600 and \$41,120, respectively. Both the median and the average are slightly above that of the aggregate Cree communities which are \$36,300 and \$38,900. This means that Mistissini has a higher percentage of workers earning a high income from employment than other Cree communities.

A fifth (20%) of households receive government transfer income. This places Mistissini at 0.42 on the market income Gini index, indicating a level of income within the community higher than the Cree population score (0.39) and the Matagami score (0.25).



Individual income (2019)	Mistissini	Crees
Median total income	\$ 37,600	\$ 36,300
Average employment income	\$ 41,100	\$ 38,900
Average after-tax income	\$ 42,900	\$ 41,300
Household income (2019)	Mistissini	Crees
% of government transfers in income	20%	24%
Prevalence of low income	8%	5%
Gini index, market income	0.42	0.39

10.3 ECONOMIC OPPORTUNITIES

10.3.1 ENTREPRENEURSHIP/DIVERSIFICATION

As the second most populous Cree community behind Chisasibi, Mistissini is a well-diversified economy with 91 businesses and organizations spanning to almost all economic sectors. The public sector counts about 14 institutions employing a total of 504 workers, thus accounting for about 34% of the workforce. Of this number, 60% (282 workers) work in the health care and social assistance sector; while 33% in the education sector (169). Only 53 workers work in the public administration sector. From the economic standard point, this is an indication of the community focusing on economic efficiency.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

As a matter of fact, 984 residents work in the private sector across 77 businesses, accounting for about 66% of the workforce. This is, by far, the highest proportion of private employment amongst the Crees. The following information was obtained for the private sector.

Table 10-1 Employment per Sector, Mistissini, 2023

Sector	Number of businesses	Employment	Share of Total Employment
Mining, quarrying, and oil and gas extraction	1	500	34%
Health Care and Social Assistance	6	282	19%
Educational Services	5	189	13%
Other services (except public administration)	6	120	8.1%
Construction	18	89	6.0%
Retail	9	85	5.7%
Transportation & Warehousing	8	46	3.1%
Accommodation and food services	11	45	3.0%
Public administration	3	33	2.2%
Information and Cultural Industries	4	24	1.6%
Arts, Entertainment & Recreation	5	22	1.5%
Professional, Scientific and Technical Services	6	17	1.1%
Finance & Insurance	1	13	0.9%
Agriculture, Forestry, Fishing and Hunting	3	10	0.7%
Manufacture	1	5	0.3%
Corporate & Business Management	1	5	0.3%
Administrative, Support, Waste Management and Remediation Services	2	2	0.1%
Real Estate and Rental and Leasing Services	1	1	0.1%
Total	91	1,488	100%
Education, health, public administration	14	504	34%
Other sectors	77	984	66%

Note: there were no businesses or jobs recorded in the following sectors: wholesale trade; and utilities.

Note: Due to missing data on employment for a certain number of businesses, a minimum of one employee per firm was supposed as a hypothesis. Therefore, the actual employment could be higher than estimated Table 10-1.

Sources: Processed from DCI (2023a), SPN (2023) and EDOs

Given the geographical location of Mistissini with respect to the LGA study areas, the community would see direct benefits from the road 167 extension. Mistissini is close to mining sites. Rail development would boost the local economy, as demand for local workers is high. With high demand for workers, and better transportation options, there would be new business opportunities for local entrepreneurs during and after construction of new transportation infrastructure. Specifically, local entrepreneurs would be well placed to provide maintenance and monitoring services close to where they are needed, following a construction phase.

Mining, quarrying, and oil and gas extraction: this sector leads the local economy with 500 residents hired by Stornoway Diamonds.

Construction: Mistissini entrepreneurs are known for their experience, capacity, and skills in the construction sector. Several contractors have been actively carried out major projects, including Eskan Company, Makaahiikan, and Construction Eskan who are major contractors for the construction work, while Eenatuk Forestry Corporation

and Tommy Neeposh Forestry Works do earthworks and deforesting. Over the years, they have been hired by HQ and Stornoway Diamonds for the construction of powerhouses and mining site.

Business Projects or Potentials. Using firsthand information gathered by LGA through its CIOs and from EDOs, this study documented questions regarding access to funding, suggestions, and requests for conducting local market studies, and for capacity building for business planning. The specific projects that Mistissini is contemplating, and which LGA infrastructure could help make more economically feasible include:

- Community Hall
- Business incubators
- Tourism cultural camp

10.3.2 LGA EFFECTS ON LOCAL ECONOMY

10.3.2.1 BUSINESS OPPORTUNITIES

Mistissini considers the following LGA proposed infrastructure to be relevant to their community:

- The Mistissini 2nd community access road (Phase I).
- The Mistissini Airport (Phase I).
- The Route 167 upgrade and extension to Trans-Taiga (Phase II).
- The Route du Nord upgrade and paving (Phase I).

The impact of LGA infrastructure was discussed generally during the workshops and is mentioned in Section 3.5.3.4. No further specific information was provided.

10.3.2.2 JCIM RESULTS

Over the years the community has been actively involved in the construction and operation of Hydro-Quebec infrastructure, as well as the construction of the Stornoway Diamonds mining site. During the construction of the Eastmain 1A-Sarcelle-Rupert complex, nearly 900 full-time jobs were created for Mistissini on a yearly basis during five years from 2007 to 2011. This job creation accounts for about 38 % of all Cree jobs, the highest percentage amongst the Cree nations.

For the construction of LGA infrastructure however, it is estimated by the JCIM that 763 FTE jobs will be created for the community which is lower than the 900 FTE-job figures from the Hydro-Quebec Project. This is largely due to the assumption that all Cree first nations will actively participate in the execution of LGA. As a result, Mistissini would have to share the work with others. In terms of contracts, Mistissini contractors would be awarded \$136M per year during 15 years of construction.

For the operation of LGA infrastructure, it was assumed that starting from 2040, Mistissini will participate in the operation and maintenance of Phases II and III, and not Phase I, due to the proximity factor. As a result, 118 FTE jobs would be created for the community workers, and \$6.1M would be awarded to local entrepreneurs on a yearly basis.

Table 10-2 Job Creation and Contract Impacts per Phase for Mistissini, 2030-2074

Impacts	Construction		Operation	
	Lifespan (2030-2044)	Annual Average	Lifespan (30 years)	Annual Average
Contracts (M\$)				
Phase I	790	158	0	0
Phase II	552	92	108	3.6
Phase III	422	70	76	2.5
Total	1,764	136	184	6.1

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Impacts	Construction		Operation	
	Lifespan (2030-2044)	Annual Average	Lifespan (30 years)	Annual Average
Employment (persons-years)				
Phase I	4,441	888	0	0
Phase II	3,101	517	2,080	69
Phase III	2,372	395	1,465	49
Total	9,914	763	3,545	118

10.3.2.3 LONG-TERM SUSTAINABILITY

The JCIM results presented in the above Table 10-2 can be presented graphically in Figure 10-5. Thanks to the increased employment, the standard of living for Mistissini residents would be improved significant from \$25,061 per capita to \$48,842 per capita by 2032, an increase of 95%. This is the highest jump during Phase I’s construction period. During the construction of Phases II and III, the standard of living would decrease to about 37,500\$ per capita which is at least 27% higher than the \$25,500 level.

When the construction period is over and the entire LGA infrastructure is commissioning as of 2045, the participation of Mistissini would allow the standard of living for the community residents to stay at about \$27,553. This is a 7.2% increase as compared to the status quo scenario. By 2074, the impact of LGA on the community’s standard of living is still significant, with a 5.2% discrepancy.

Note that the impact is brought by the construction and operation of the LGA infrastructure only, not by other developments in the territory where Mistissini is attached with. Therefore, the economic benefits for the community are likely to be underestimated, given the strong entrepreneurship culture of the community.



Credit : Marc Beauregard, VEI.

Figure 10-4 Mistissini Bridge

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

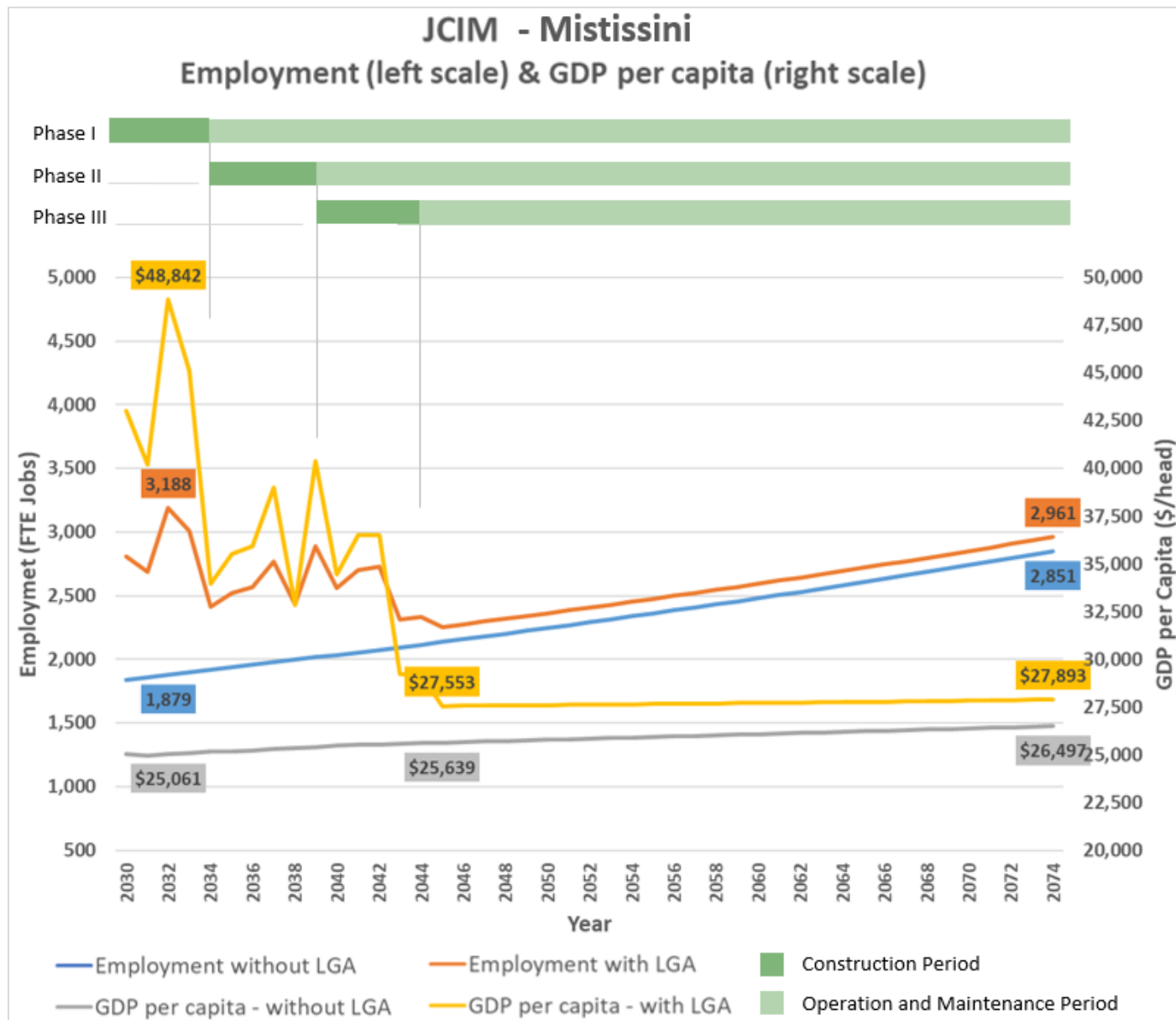


Figure 10-5 Impacts of LGA on Mistissini's Economy and Standard of Living, 2030-2074

10.4 LAND-BASED ECONOMY

10.4.1 OVERVIEW

10.4.1.1 IMPORTANCE OF THE TRADITIONAL LAND-BASED ECONOMY

The section 10.1 relates some of the historic changes on land use economy experienced by Mistissini people. As reported in the Mistissini EPC, the territory plays a central role in the lives of the community members: “in many senses, the built community itself is only a backdrop for the activities on the land, which are the focal point of traditional Cree cultural life. (...) The land is thought of and cared for as part of the family, one of which Crees knowingly depend for subsistence” (EPC Mistissini, 2017).

Indeed, Mistissini’s members are happy to count on their lake, notably, to pursue short gathering activities trips, while staying in the community. They highly value the opportunities that the community and its location provide for the practice of traditional activities. Indeed, in addition to numerous resources, Mistissini Lake offers relatively easy access to many traplines. Also, industrial development activities (mining, forestry, and hydroelectricity) are limited to some parts of the territory (EPC, Mistissini, 2017).

-As mentioned in section 10.2, 358 Mistissini members (representing 197 family units) were enrolled in the ESP for their livelihood, sometimes combined with other occasional jobs in 2021-2022. In total, 47,545 days spent in the bush were paid to the land users for that same year, for an average of \$20,523 per family unit (see Table 10-3). Ten years before (2011-2012), the people enrolled was somewhat lower (345 members, representing 169 family units), but the population rate enrolled was slightly higher (9.5%). In 2000, the family units enrolled were way higher (245). Several factors can affect ESP participation, which varies from year to year depending on, among other things, the economic climate and employment opportunities, or a readjustment of eligibility (CHESB, 2023, CHESB, 2012 and CGW, 2015).

Table 10-3 Beneficiaries of the Economic Security Program (ESP), Mistissini, 2021-2022

Mistissini - Family Units (nb)	Total (adults and children)	Total Days Paid Spent in the Bush	Average per Family Unit (days paid)	Average Allowance per Family Unit (\$)
197	358	47,545	241	\$20,523

Source: Compilation CHESB, Annual Report 2021-2022.

Indeed, 2,637 members (including 252 junior) were enrolled at the CTA in 2021-2022, which is an important increase since the last years (see Table 10-4). The local CTA offers different programs and services to its members. As for, other communities the Gas Subsidy program is the most popular. In 2021-2022 and the year before (2020-2021), more than 350 members benefited from it. (see Table 10-5). To note that in 2020-2021, more than 1500 members benefited from spring airlift. The year after, ESP members were prioritized, and only 40 beneficiaries used it.

As mentioned in section 3.6.3, the price of fur has gradually declined over decades. Even though, some Mistissini members continued to trap different kinds of fur-bearing animals, but the numbers of them is declining since the last years. In 2021-2022, the fur sale by the CTA amounted to \$2,659, which also represent a sharp decline since 2015. The Table 10-4 indicates, for Mistissini, the number of CTA members, the number who sold fur, and the number of these sales, from 2012 to 2020.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 10-4 CTA Membership, Number of Trappers who Sold Fur, and Amount Sold during 2012-2020 in Mistissini

	2012-2013 ^a	2013-2014 ^b	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
CTA Member (n)	-	-	1174	1271	1244	1181	1136	1251
Trapper who sold fur (n)	86	108	68	73	55	30	26	20
Fur sales (\$)	-	-	31 603\$	26 454\$	53 327\$	12 066\$	8 238\$	3 711\$

Note a and b: these annual reports were not available on the CTA website, for this reason some data are missing.

Note c: on this amount, 234 were juniors, which is an inverted ratio compared to the other communities.

Source: Compilation from 2012-2020 CTA Annual Reports.

Table 10-5 Program and Project Offered by the CTA in 2020-2021 and 2021-2022 to Mistissini Members

Program/Project	Number of Members Helped 2020-2021	Number of Members Helped 2021-2022
Cabin insurance	42	41
Cabin building/renovation programs	-	-
Gas subsidy program	438	359
Hunting subsidies and supplies	210	2
Equipment repair or purchase subsidies	-	-
Transportation subsidies – air	1530 ^a	40 ^b

Note a: Spring airlift (1500) and air transportation (30, for ESP members).

Note b: ESP members are prioritized.

Source: Compilation from 2020-2021 and 2021-2022 CTA Annual Reports

In Mistissini, there is a deep concern among certain community members that Crees are not as present on the land as they used to be. The Mistissini EPC reports:

“Fewer people make their living full time from traditional Cree activities like hunting, fishing, and trapping. Those who did so are elderly or passing away, and the younger generations have more difficulty spending time out on the land for many reasons: financial (the income security program is said to not represent enough money to provide for a family, many traplines are expensive to access, fur prices never recovered), educational (children are schooled in the community), cultural (not enough knowledge to live from these activities), etc. Cultural programs and community events out on the land are being developed and expanded in part to compensate for this absence.” (EPC Mistissini, 2017, p. 9)

In short, many Mistissini members take advantage of the opportunities given by the Mistissini Lake to practise short activities trip, but the number of them staying long term and living from the land is decreasing, resulting in a loss of knowledge.

10.4.1.2 COMMUNITY ASPIRATIONS

As stated in the EPC report, to ensure a better future, the Mistissini respondents aim to create more protected areas (especially around Mistissini Lake), to better integrate land users into decision-making, to have more support for the transmission of Cree knowledge and have a better recognition of the Cree governance of the territory (as trapline system, Cree way of life and the use of Cree language). They also aim to prepare the next generation for Cree governance, i.e., to take up the challenge of promoting and defending Cree rights and way of life. Finally, they want to ensure a better, cheaper, and safer access to the land for Crees, and more restricted access for the non-Crees (EPC Mistissini, 2017).

10.4.2 RESOURCE ACCESSIBILITY

Changes in resource accessibility (whether physical access or the quality and abundance of resources) can lead to impacts on the economic and cultural way of life of the Crees. Although these are closely related, this section mainly addresses the physical access, while the quality of resources is covered in the section 10.4.3.

10.4.2.1 CHANGES AND CONSTRAINTS LINKED TO DEVELOPMENT

As mentioned above, the community of Mistissini became accessible by the road in the early 1980s. Over the years, Mistissini was touched by mining, forestry, and hydroelectricity development, but these developments, involving different types of impacts on the land and the families using it, were limited to some parts of the territory.

Regarding hydroelectric development, in the late 1970s, the flooding of the Caniapiscou Reservoir affected the northeast part of the Mistissini territory. Then, the creation of the Paix des Braves Reservoir in 2007, and the Rupert diversion bays in 2009 on Mistissini territory (southwestern section), affected other families from the community by flooding some of their activity areas. These developments also went with the construction of new accesses on the land.

Closer to the study corridor, the Renard mine (Stornoway) and the construction of the road leading to it also changed how the land was used. Several main camps are now located along this road, where hunting (moose and goose), fishing and trapping activities take place. In the area of the mine, noise and vibration have kept the animals away, according to land users.

The EPC report also indicates that there is strong opposition to forestry activities because of the damage they cause to the land without significant returns, the difficulties they cause to fishing, hunting, and trapping activities, and the disruption that traffic causes near the camps. In addition, a general impression of disrespect for rules and community by forestry companies emerges from the consultations conducted in the context of the Mistissini EPC (EPC Mistissini, 2017).

The lack of control over the development of the territory, the presence of non-natives and the accessibility of traplines (since some are difficult to reach and involve high financial costs), are other issues facing the community. There are also concerns about the extension of Route 167 and other accesses because of the opening of the territory that these accesses provide to non-Crees, and the difficulties or conflicts that this situation may create when practising activities (EPC Mistissini, 2017).

Worker activities can frighten wildlife, but the presence of the road to the mine has finally not resulted in an increased presence of non-native users on the land, according to land users during LGA engagement activities.

The climate change is another vector of changes in the harvesting areas used, the periods of activities, and the way of doing activities. According to the LGA engagement activities, the water bodies are freezing later and melting faster, from December to April instead of November to May. There is less time to travel, and this prevents some users from reaching their hunting areas by snowmobile. Some say they hunt earlier than before, in January-February instead of March, and have to be more careful because of the changes in snow and ice cover since the weather is warmer. The roads (Trans-Taiga and Brisay South), from which snowmobile trails start, have however facilitated access to the land, and extended the use of certain traplines, both in terms of sectors and periods of use (ex. fall and winter). Nevertheless, some traplines are only used by few people due to the high cost or difficulty of getting there.

10.4.2.2 IMPACTS OF PROPOSED INFRASTRUCTURES

The project under study on Mistissini territory is the upgrade and extension of the Route 167 to the Trans-Taiga road. This implies the opening of the territory north of the Renard Mine area and, as main positive impacts, an easier access to the land and resources, especially in a context of global warming affecting the snowmobile travels. However, land users interviewed raised many concerns regarding the proposed road.

During the LGA engagement activities, no camps were identified within 4 km of the alignment under study, except along the Trans-Taiga road, and the road to the Renard Mine. Some land users mentioned they wanted to build camp along the road if the project goes ahead. The alignment passes near four valued areas, mainly for fishing, and it crosses moose hunting areas.

The traplines in the northern area of the alignment are used by several families. Some use them all year round, and others more specifically for goose and moose hunting, reaching the traplines by the Trans-Taiga Road. Land users hunt geese and moose, they fish, trap (beaver, marten) and harvest berries such as cranberries. Some other traplines are less used by extensive families, as they are not accessible by the road.

Some land users would be happy to have the extension of the road permitting them to reach their trapline easily. For some people (namely users of trapline M1, M1A, M3, M4, M6 and M7), travel time and costs could be significantly reduced. A 16-hour trip on Trans-Taiga Road could be reduced to 8 hours by using the Route 167, or an expensive airplane or helicopter trip could be undertaken by road. The Elders would be able to access their camps more easily and it would also promote the presence of young people on the territory. It would also allow land users to better monitor their camps which are sometimes subject to theft, as some other hunters arrive by snowmobile or plane. People could also reinvest certain parts of the land that have not been used for 20 years. Indeed, according to land users, better access to the trapline would allow users to build camps on their trapline instead of using the Trans-Taiga Road area, notably. While this proposed access could reduce tensions with some users of the Chisasibi traplines crossed by Trans-Taiga Road, it may, on the other hand, result in the presence of other unwanted users.

In fact, users have expressed concerns regarding the opening of the territory and the growing presence of non-Natives. Some fear losing control of wildlife management on their trapline, due to other users' activities, and would like to be kept informed of their activities. They think barriers should allow control or prevent access to unwanted visitors. They also fear territorial appropriation by non-Native people and the claiming of the territory by the Innu. A land user indicated that since the road to the mine was built, moose hunting is sometimes disturbed in March by the presence of non-native snowmobilers on the territory.

Finally, as for other Cree communities, access to the territory and the resources remains essential to ensure the continuity of the Cree way of life. The prolongation of the road that might be built on the land could facilitate access to different parts of the territory and alleviate the growing difficulties related to climate change, but it could also open the territory to unwanted visitors.

To note that the suggested alignment only crosses Category III land.

The impacts anticipated by Mistissini land users on resources related to potential pollution and wildlife disturbances are addressed at the section 10.4.3.

10.4.2.3 SUGGESTED MEASURES AND OPPORTUNITIES

In Mistissini, some measures or suggestions emerged from the LGA engagement activities, regarding the access to resources, such as:

- Installing signs to indicate the trapline limits to avoid poaching;
- Build a secondary access to the trapline; this would encourage members of the families concerned to visit the territory. It would allow them to access it more often and all year round.

The section 3.6.2 shows general suggestions or opportunities applicable to the Cree communities for a better accessibility to resources.

10.4.3 CULTURAL CONTINUITY

According to Mistissini's EPC report, the declining transmission of language and culture is an issue perceived by some community members in relation to the use of the territory, particularly because fewer people are staying on the territory to support themselves. Cultural programs and community events on the territory try to compensate for this decline. Although, the ease of access to the territory is highly valued and a cause of Mistissini's strong cultural life. (EPC Mistissini, 2017).

In Mistissini, cultural programs and development are undertaken by the Health and Social Department, as wellness and culture are tied together. The journey of wellness, as an example, offers an opportunity to reconnect with culture as part of healing; it is a snowshoeing excursion that takes people to traditional camps and settings on the territory. Moreover: Evening Cultural Workshops at Sabtuan, Cree Language Classes, Annual Traditional Gathering,

Trappers' Cabin Program, Distant Trappers' Program, are some of the activities and programs offered by the Health and Social Department. Cultural recreations (Canoeing, snowshoeing, traditional Cree games) are also undertaken by the Recreation Department and the canoe brigade, by the Youth Department. (CNM, 2020 a and b).

As mentioned in the EPC report, the ESP, the winter walks, and other cultural programs are all seen as important opportunities to teach and acquire Cree knowledge, "and clearly a goal of community members is to build on and multiply these programs in order to ensure that this knowledge continues to be passed on" (EPC Mistissini, 2017).

10.4.3.1 *IMPACTS OF INFRASTRUCTURES ON CULTURAL CONTINUITY*

The proposed infrastructures and the development that may follow might touch the cultural continuity, if it disturbs valued areas, contaminates environment, or bring overexploitation.

The road construction and operation could also affect the water bodies in different ways (vibration, pollution, disturbance, obstruction) and thus impact the cultural activities. It could also impact other cultural activities on the land, not directly linked to water (as notably ceremonies and hunting). Land use and culture are deeply rooted together and the impacts that particularly affect access, water and resources are addressed in the section 10.4.2 and 10.4.4.

Regarding Mistissini's land users, the proposed infrastructures are mainly seen as a way to facilitate the access to the land, which is, as mentioned above, necessary to keep the culture alive.

To note that the closest burial site identified is located at about 3.3 km away from the proposed alignment.

10.4.3.2 *SUGGESTED MEASURES AND OPPORTUNITIES*

The section 3.6.4 shows measures that could be put in place for all the Cree communities to ensure that the infrastructures would not interfere with cultural continuity and to promote the use of the land.

To note that in Mistissini, one tallyman wanted to be involved in archaeological studies related to the road extension.

10.4.4 SYNERGIES AND CONFLICTS

10.4.4.1 *POSITIVE IMPACTS AND SYNERGIES*

In Mistissini, the road could have a positive effect for land users as the access to the land would be facilitated. Accessing the camp would become less expensive if it were no longer necessary to use the airplane. Few land users may even decide to build camps close to the proposed road. Some would like secondary access to their land to be built with barriers, to allow a better control of non-Native activities on the land, particularly during construction work. Land users are generally in favour of the proposed road extension, even if they foresee some impacts.

Part of the land users support the proposed infrastructure because it can generate employment opportunities. While some expect to benefit from jobs related to the road construction, others see development opportunities such as the management of an outfitter (see below, 10.4.5).

People indicate, however, that good communication is essential between the proponent and the users of the land before the beginning of the work to maximize employment opportunities and reduce impacts on land use.

10.4.4.2 *NEGATIVE IMPACTS AND CONFLICTS*

Some concerns were raised by Mistissini people regarding the construction and operation of the road, as overexploitation of wildlife and change in the caribou migration, but major concerns are rather related to mining development and the water pollution that may result from it. Some users are already concerned about pollution from the Renard mine and the existing road, and fears the pollution (dirt, toxic leaks) in the water bodies will drain onto their land.

One land user also recalls a safety issue for hunters who are not familiar with the territory and will come by themselves for hunting activities.

Finally, one land user indicated that disagreements over the boundaries of traplines need to be resolved in order to ease tensions related, in particular, to obtaining contracts or compensation. Changes to the land boundaries following the La Grande Complex have led to tensions and misunderstandings between families, and he is concerned that new tensions will arise in connection with LGA proposed infrastructures.

10.4.4.3 SUGGESTED MEASURES AND OPPORTUNITIES

Mistissini land users specifically mentioned that attention should be given to the opening of the territory and the growing presence of non-Natives or other users. Some say that gates should control or prevent access to undesirable visitors. See the section 3.6.2 for suggestions and measures that concern all Cree communities involved.

10.4.5 ECONOMIC VIABILITY

10.4.5.1 EXPECTATIONS AND OBSTACLES

As already mentioned, the viability of the traditional land-based economic model depends on access to healthy and abundant resources, with the knowledge to manage them properly. Industrial development implies inevitably changes that need to be considered in collaboration with the land users.

For Mistissini land users, the new access could improve the capacity to use the land and get some resources from it for their living, which is also related to the cultural enhancement and well-being. On the other hand, opening up the territory could also lead to changes in resource availability, as well as tensions or insecurity for some members related to unwanted visitors.

Concerns are also raised regarding future mining development on the land and its environmental consequences. In this regard, it should be remembered that Mistissini people, and particularly the youth, were strongly opposed to a uranium mine on their territory because of the risks for the environment and their way of life, for now and the future generations. This led the Cree Nation of Eeyou Istchee to affirm its firm opposition to any uranium mining development within its territory (GCC/CNG, 2021).

As stated in the EPC, many community members are alarmed by the pace of development and the way it is proceeding. “There is a strong sentiment that Crees aren’t getting the say that they deserve and need to have over the changes happening on the land, and that the impacts of much current and prospective developments go against Cree values and the Cree way of life.” (EPC Mistissini, 2017) Project or process has to respect the Cree values and way of life, i.e., their activities on the land, and their ability to make a living from it.

Finally, land-related activities can also be considered in ways other than purely traditional, in particular to ensure a greater viability of activities on the land. In Mistissini, as an example, land users mentioned they foresee economic opportunities with the extension of the road, as to offer outfitting services (see section below).

10.4.5.2 NEW PATHS FOR LAND-BASED ECONOMY

Mistissini people are engaged in the land-based tourism industry since the JBNAQ. It offers outfitting, adventure, and cultural packages, specifically related to the Cree culture. Moreover, Mistissini encourages its members who want to share cultural moments with visitors to register as “Cultural Entrepreneurs” for “Mistissini Moments.” These are cultural experiences hosted by the Cultural Entrepreneurs that aim to provide cultural enrichment, education, and entertainment by, notably, art, cuisine, traditional knowledge, history, dance, or activities out on the land.

During the consultation process of the LGA studies and in the EPC report, members also expressed some ideas and interests for the development of activities or business. These mainly concerns tourism related to the land and culture, and the protection of the land, although they are not specifically related to the road extension:

- Opportunities related to tourism development or outfitting;
- Development of the cultural industry including a community program on Cree culture and language;

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

- Maintaining the tourist market based on, among other things, fishing trips and snowmobile trails;
- Development of conservation and land management projects to protect the most productive and culturally sensitive areas of the Mistissini territory;
- Rehabilitation and protection, by silviculture, of affected areas;
- That the community owns its own helicopter to provide land users for the goose break and for future development on the territory¹⁵.

Archaeological studies are another area in which some Mistissini members have already been involved (for HQ works), and some may be interested in working in this field, as one of the tallymen consulted, or even developing it.

See section 3.6.4 for more considerations regarding business or activities related to the land, that are not all traditional activities, but could, if developed, generate income while remaining connected to the land. Some ideas or interest for small enterprises should be to refine, discussed further, and the possibility to support the creation of these local businesses could be analyzed with the local Economic Development section of the Community. To note that for the “Cultural Entrepreneur”, free Business Support Services related to training and necessary certifications, marketing support, product delivery and refinement, is already existing in Mistissini.

10.5 COST OF LIVING

Mistissini is on the shores of Mistassini Lake, the largest freshwater lake in Québec. Mistissini, with a population of 3,797 (2020, ISQ), is distant some 750 km from Montreal, or about 8 hours driving on the most direct route, Route 155, or a 1-hour flight. Alternative routes include Highway 20-E to Québec City, and Route 113 (longest route). Mistissini is about 500 km from Québec City on the most direct route, Route 167, about 5.5 hours (6 hours via Route 169) by land or a 1-hour flight. Mistissini is near Rivière Temiscamie airport and makes use of a regional airport at Chapais Airport (CYMT), about one hour distance on Route 167, and to the Chibougamau heliport (CSE2). Mistissini can be accessible via a float plane.

Average after-tax income is \$43,880, or about 4% higher than the average for Eeyou Istchee (no income comparison was made with non-Cree communities).

Table 10-6 Commodity Prices, Mistissini, Fall 2023

Item	Mistissini Prices	Cree Average	Difference
Food and beverage			
1 litre of orange juice	\$3.65	\$5.03	-27%
10 pounds potato bag	-	\$11.54	-
12 eggs	\$4.79	\$5.90	-19%
12 Pepsi/Coke cans	\$6.99	\$12.96	-46%
2 litres of 2% milk	\$6.29	\$6.77	-7%
24 water bottle pack	\$8.99	\$12.35	-27%
284 ml Campbell tomato soup can	\$1.59	\$3.24	-51%
500 g lean ground beef	\$8.50	\$9.79	-13%
650 g marble cheese brick	\$14.79	\$16.23	-9%
Club Sandwich with fries at restaurant	\$12.50	\$17.16	-27%
Medium size coffee at convenience store	\$3.25	\$2.80	+16%
Total	\$73.08	\$94.17	-28.8%

¹⁵ This idea was expressed on social media in 2023 (not during LGA engagement or in the EPC report).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Item	Mistissini Prices	Cree Average	Difference
Transport			
1 litre regular gasoline	\$1.74	\$1.94	-11%
Communications			
Monthly Internet (10 Mb/s)	-	\$140	-
Housing			
Average monthly shelter costs (rented)	\$476.00	\$497.78	-4%

Source: based on prices observed at Piimi Plus

Food and gasoline prices, apart from housing, make up a significant proportion of a household's operating expenses. This is why the moderately lower prices for those items, compared to the Eeyou Istchee average, make a significant difference to the cost of living in Mistissini.

Table 10-7 2023 Price Index Comparison, Mistissini

Index	Mistissini Relative to Cree Average	Cree Community Relative to Jamésie	Cree Community Relative to Abitibi-Témiscamingue
Food and beverage	◆0.77	◆0.66	◆0.60
Transport	◆0.90	◆0.85	◆0.82
Communications	-	◆0.34	-
Housing	◆0.96	◆1.31	◆1.45

Note: The index was constructed using prices listed at 1 store in Mistissini, 2 in Jamesie and 2 in Abitibi-Témiscamingue

Mistissini's food prices are about 10 to 15% higher overall than prices in non-Cree locales. Gasoline is priced 10% cheaper in Mistissini than in non-Cree communities and is 11% cheaper compared to the average price in Eeyou Istchee. But another factor in Mistissini's lower costs in relation to other Cree community is that the housing price (rent) is about 4% lower. In relation to the rest of Eeyou Istchee, including non-Cree towns Mistissini sees an advantage of about 30% lower housing costs. A breakdown of this price difference is provided:

- 60.3% of dwellings are owned by the Band, while the average Eeyou communities is about 67% renters (or in other words, 19.7% of dwellings are privately owned);
- Rent in non-Cree areas can be as high as 45% higher than in Mistissini.

It is less likely that the lower cost of living in Mistissini is due to the proximity of the community to a regional hub. Nonetheless, there are 8 retail businesses in the community, and other food and consumer goods retailers in Chibougamau that are supplied by land through Route 167, which permits truck shipments into the community Mistissini. The community is also linked by roads to Oujé-Bougoumou, Chapais, Chibougamau-Chapais airport, and Waswanipi. This proximity to other nearby places could be a factor in further reducing household costs.

10.6 SUMMARY

Despite being located far from the provincial road network, Mistissini appears to be the most developed Cree nation. It is the home of businesses working in almost all the economic sectors considered in this report, except for wholesale trade and utilities. Mistissini has a strong entrepreneurship culture with entrepreneurs and workers extensively involved in mining and renewable energy projects. They have been hired to execute major projects such as Stornoway Diamonds or HQ Projects. As such, they have developed extensive skills in the construction sector, including supporting civil engineering services to carrying out on-site construction.

LGA connectivity would likely reinforce this community's leading position in terms of capacity and experience. The model assumes that all Cree communities would be involved in the construction of LGA infrastructure, but Mistissini would likely take the prize as the one to benefit the most.

Over the years, Mistissini has actively participated in various infrastructure projects, including those led by Hydro-Quebec and the Stornoway Diamonds mining site. During the construction of the Eastmain 1A-Sarcelle-Rupert complex, Mistissini about 38% of all Cree jobs, the highest among Cree nations. However, for the construction of LGA infrastructure, it is estimated that Mistissini will create 763 FTE jobs, lower than the previous Hydro-Quebec project due to the assumption of shared participation among Cree nations. Mistissini contractors would receive approximately \$136M per year during the 15-year construction period. For the operation of LGA infrastructure, Mistissini is expected to participate in Phases II and III from 2040 onward, generating 118 FTE jobs annually and awarding \$6.1M to local entrepreneurs yearly.

The increased employment is projected to significantly improve Mistissini residents' standard of living, rising from \$25,061 to \$48,842 per capita by 2032, marking a 95% increase, the highest during Phase I construction. Following completion, Mistissini's participation in LGA infrastructure is forecasted to maintain the standard of living at around \$27,553, representing a 7.2% increase compared to the status quo scenario, with a notable impact still observed by 2074.

Land users: Engagement in Mistissini showed that good communication between the proponent (CDC) and the land users must happen before the beginning of any work. Currently, Mistissini has a lower percentage of ESP recipients at 9%, compared to the Cree average of 14%. However, between 2014 and 2022, Mistissini saw a stable share of traditional hunters, which is an uncommon trend among Cree communities, where this share typically decreases over time.

The community is all too aware of the impact of heavy industries, like mining. LGA would, like mining, involve road construction. And considering the scale of the construction work that would take place, there would be some level of impact on the land. In Mistissini, trapline boundaries are also an issue to settle before undertaking development which could bring out existing tensions. Concerns about going ahead with LGA projects would mainly cause concern in relation to non-natives coming in to take from the land without any respect for it. Here again, LGA must make a difference. LGA can improve connectivity and promote development, and that is good value. However, the real value of LGA for the community, and for the Crees, is that LGA be an example of development that is built on the foundation of Cree values and respect for the Cree traditional – and adapted to modern Cree way of life. LGA would be judged in part on whether it can support the cultural continuity, at the same time as providing more ways to reach the land and help people who continue to live on it make a living from it. Tourism, industrial services, transportation services, other business ventures, access to education, to more affordable products, etc., require safe, high-standard connectivity infrastructure. But not only that. LGA should be “aligned” not just with land user preferences, but with Cree values. The process that so far LGA has followed has certainly tried to engage everyone in the territory, before any decisions have been made.

11 OUJÉ-BOUGOUMOU

11.1 CONTEXT

Oujé-Bougoumou, meaning “*the place where people gather*”, is located on the north shore of Lake Opelika, 37 km north of Chapais. In the early part of the 20th century, the Oujé-Bougoumou people escorted early prospectors to the territory, and as the mining mineral deposits increased, the Oujé-Bougoumou people were seen as a threat to industrial growth and were relocated from mining activities. A total of dozen mines were operating on Oujé-Bougoumou Cree land and interfering with the pursuit of their traditional way of life. Clear-cutting occurred on so large a scale that a very significant portion of the trees was cut, and along with them, the habitat of the animals on which they depended. During the 20th century, the Crees of Oujé-Bougoumou were relocated eight times, usually once a decade: Hudson Bay Post: 1914 – 1929, Chibougamau Post: 1929 – 1942, Cedar Bay: 1943 – 1951, Hamel Island: 1950 – 1952, Swampy Point: 1952 – 1962, Lac Doré: 1962 – 1974, Six Camp Location: 1974 – 1989 and Lake Opemiska: 1989 to present.



Credit: Julie Roy, WSP.

Figure 11-1 Aanischaaukamikw Cree Cultural Institute

In the early 1980s, the community decided to initiate vigorous efforts to compel governments to address the relocation situation. After extensive deliberation and negotiation, Oujé-Bougoumou reached an agreement in 1989 whereby Quebec would contribute financially toward the construction of a new village and acknowledge their jurisdiction over a portion of the traditional territory of the Crees of Oujé-Bougoumou. In 1992, the Government of Canada accepted to provide funding toward the construction of a new village. The Agreement not only provided for funding for construction but also a process for incorporating the community into the JBNQA. By its design quality and benefit for the population, the United Nations Organization (UNO) awarded the community.

As shown in the Figure 11-3, the Oujé-Bougoumou territory includes 10 568 km² on 14 different traplines.

By road, the Oujé-Bougoumou community is connected to R113 with a 26 km, wider than MTQ standards, paved road. It is located 727 km or 8h23 from Montréal and 59 km or 0h44 from Chibougamau. By plane, from Montreal to Chibougamau-Chapais airport a 1h25 flight duration with a 30 km road distance from the airport to the community. The access road is used by lumber trucking transiting by forestry road from the Route du Nord to the Oujé-Bougoumou access road to the Barrette-Chapais sawmill in agreement with the community.

The LGA infrastructure of interest for Oujé-Bougoumou include:

- The improvement of the Route du Nord that would ease road accessibility to the community and integration to the regional economy and commuting to the coastal Cree communities.
- The recommissioning of the Grevet-Chapais (GCR), Phase I to reintegrate this current snowmobile path to a railway corridor to the external market access and set the use of a potential freight yard potentially located in Chapais.



Credit: Marc Beaugard, VEI.

Figure 11-2 Oujé-Bougoumou Band Office

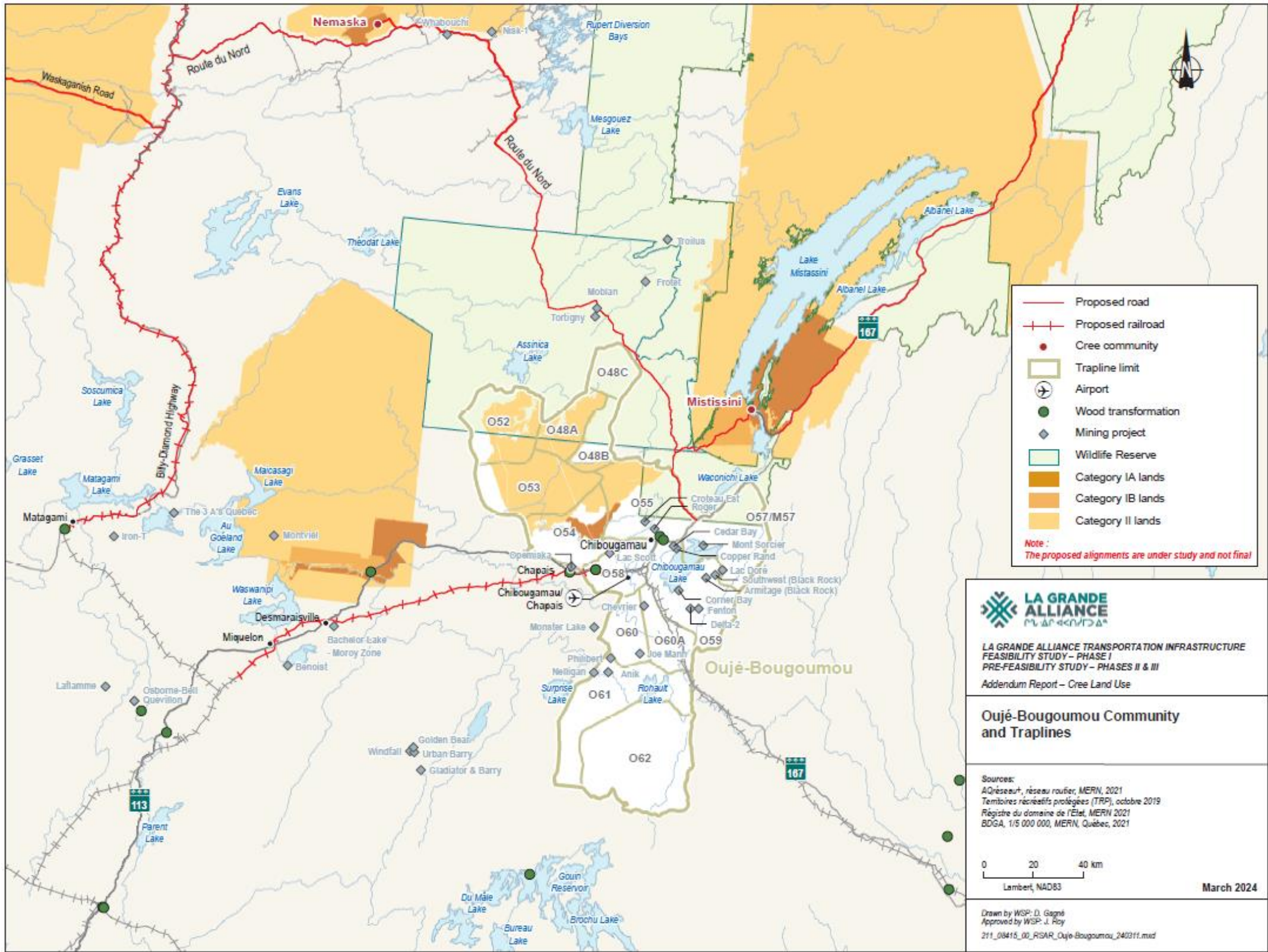


Figure 11-3 Oujé-Bougoumou Community and Traplines

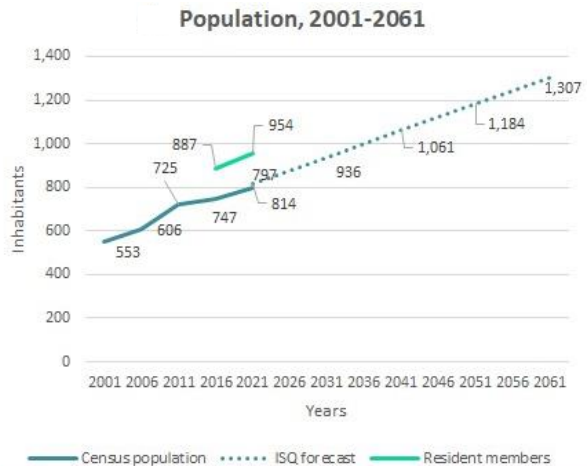
11.2 INDICATORS

The main characteristics of the population living in the community of Oujé-Bougoumou are presented below. Note that the data shown represents the 2021 situation as per the StatCan Census data unless otherwise specified.

Population

The population of Oujé-Bougoumou amounts to 814 inhabitants as of the 2021 Census. There were 954 resident members in the band list in 2021-2022 (CHESB, 2022), or 17% more than the 2021 Census data. Over the past 20 years, according to the Census, the population has experienced a 47% increase or a CAGR of 1.8% per year, which is similar to the rate for all Crees.

According to ISQ (2021) forecasts, the population should reach 1,061 people in 2041 and 1,307 people in 2061. The expected growth rate is similar to that of the Crees in Eeyou Istchee from 2021 to 2061, although the forecast CAGR growth for Oujé-Bougoumou is 1.3% for 2021-2041 slightly higher than Crees at 1.1%. The actual 2021 population was 2% lower than the forecast.



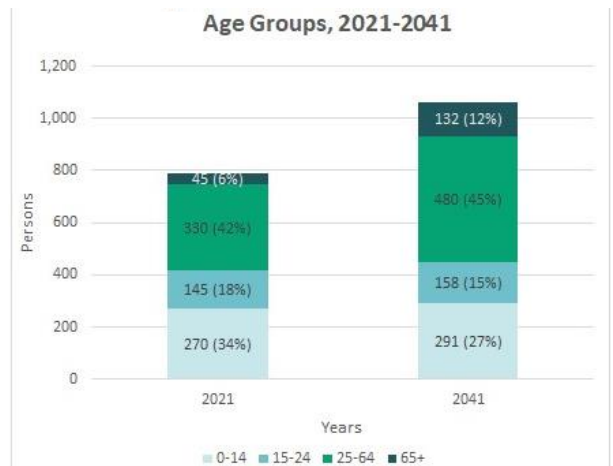
	Oujé-Bougoumou	Crees
Annual population growth (2001-21)	1.8%	1.8%
Annual population growth (2021-41)	1.1%	1.1%
Non-resident members (2021)	41 (4.1%)	1.7%

Source (Members): CHESB (2022).

Age structure

Like all other Cree communities, the population is young, with more than half (52%) aged less than 25 years old in 2021. Oujé-Bougoumou migration rate (14%) was higher than the average of Cree communities (10%).

Until 2041, unlike in other Cree communities, the youngest group (0-14) should slightly increase in numbers. The working age group (15-24, 25-64) should increase at approximately the same rate as the total population and thus, their proportions should remain stable. The population is predicted to get older on average, with the number of seniors 65 years and older will go from 45 people to 132 people. The demographic dependency ratio should remain stable as the increase justified by the growth in young people and seniors is offset by the increase of the people in age of working.



(2016-2021)	Oujé-Bougoumou	Crees
Births	90 (11.3%)	1710 (9.3%)
Incomers	115 (14.4%)	1900 (10.4%)
Deaths and out-migrants	155 (19.4%)	2480 (13.5%)

Source: 2041: ISQ.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

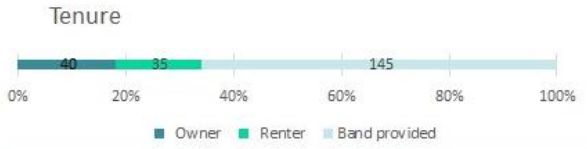
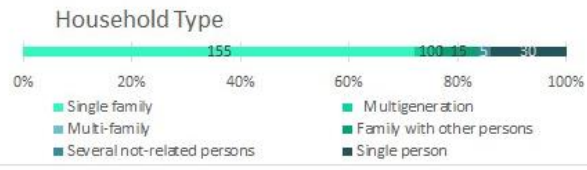
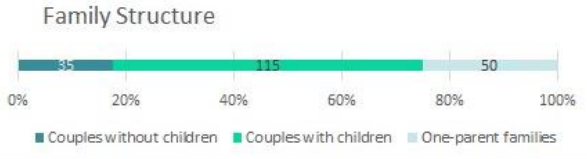
Families, households, and dwellings

Out of the 200 families in the community, 115 (44%) are composed of couples with children and 50 (25%) are families led by a single parent. Proportionally, Oujé-Bougoumou has less one-parent families than the Cree average (33%). The dominant household type in the community is the single-family setup, making up 71% of the households. Following are one-person households, family with non-related multigenerational households and, comprising 14%, 7% and 5% of the total, respectively. The remaining 2% encompasses households with not related persons. Oujé-Bougoumou has more one-family house and less multigenerational households than the Cree average (60% and 17%).

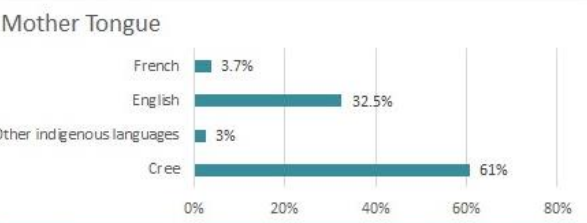
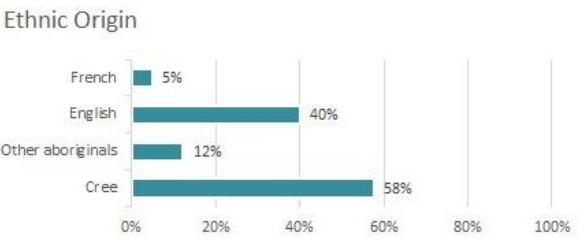
Out of the 220 dwellings in Oujé-Bougoumou, the vast majority (66%) are rented from the band. Oujé-Bougoumou is among the top privately-owned dwellings rate in Cree communities. Two dwellings out of every ten (20%) are overcrowded and the same proportion requires major repairs. This is comparable to the Cree average. This profile is very different from that of Chapais, where 32% are composed of couple-family with children, 0% of dwelling are overcrowded and 5% require major repairs.

Ethnicity and Language

The population of Oujé-Bougoumou is mostly Cree (58%). A share of 76% of the population is fluent in the Cree native language, which makes the lowest rate in Eeyou Istchee. English is the predominant language with 98% people speaking it. In contrast, French is spoken by 31% of the population, significantly higher than the Cree average (22%). The number of Cree-speaking individuals has slightly decreased within the community over the past decade (80%).



	Oujé-Bougoumou	Crees
% overcrowded dwellings	9%	15%
% dwellings with major repairs needed	27%	24%



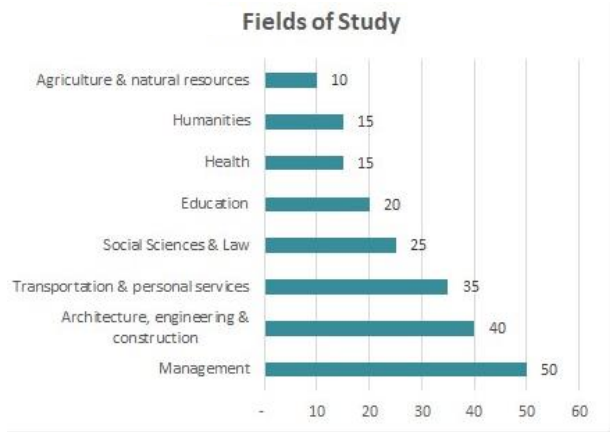
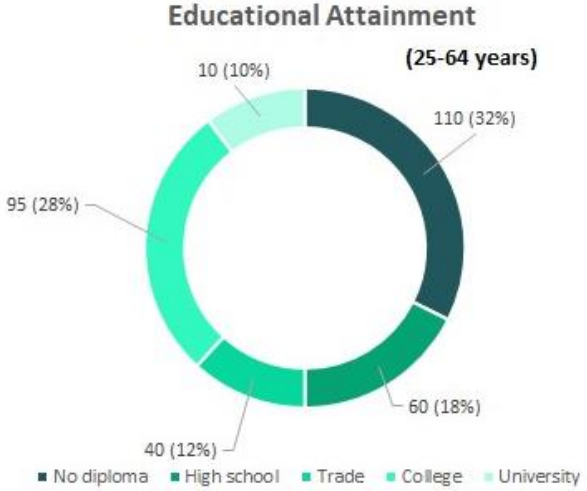
Knowledge of Languages	2011	2021
Cree	80%	76%
English	96%	98%
French	38%	31%

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Education

Two thirds (66%) of the population 25-64 years old has at least a high school diploma, which is less than Jamesians (75%) or Quebecers (88%). The educational profile of Oujé-Bougoumou is similar to the Cree average, although which a combined share of 38% of the Oujé-Bougoumou people have higher education (CEGEP or university), a share higher to Crees and Jamesians, but significantly less than Quebecers in general (52%). Oujé-Bougoumou education metrics has slightly improved with the share of people with no high school diploma declining from 38% in 2006 to 32% in 2021.

Like in other Cree communities, the predominant professional fields in Oujé-Bougoumou are business and management, engineering and construction and personal & transportation services. Those with these qualifications in these sectors number at 125 people or 49% of the local workforce.



Land

The combined land area of 1A and 1B categories amounts to 96 km². The Oujé-Bougoumou territory includes 13 traplines covering 10,568 km². With 101 adults on the ESP in 2021-2022, the share of traditional hunters in Oujé-Bougoumou (23%) is more than the Cree average (18%). Nonetheless, the average trapline area per ESP adult is smaller (105 km² versus a Cree average of 210 km²). The average annual allowance to Oujé-Bougoumou ESP units (\$19,034) is slightly higher than the Cree average.



	Category 1A	Category 1B	Traplines
Land area (km ²)	96	0	10,568
	Oujé-Bougoumou		Crees
Nb/% beneficiaries on ESP Program	131 (14%)		14.3%
Avg. annual ESP unit allowance (21-22)	\$	19,034	\$ 18,580

Source: 1. Traplines: CMEB (2022). 2. ESP: CHESB (2022).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

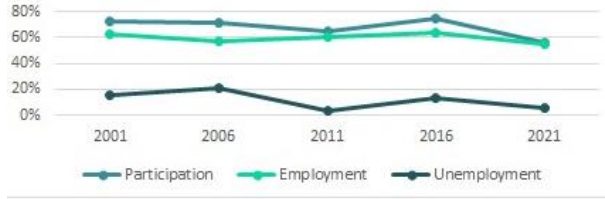
Labour Market

The participation and employment rates in Oujé-Bougoumou (56% and 55% respectively in 2021) are less than the Cree average (61% and 56% respectively), which is less than the Quebec average (64% and 59% respectively). Employment rates remained rather stable over time from 2001 to 2016, but slightly decreased in 2021. Ouje Bougoumou’s participation rate is around five percentage points less than Cree average and eight percentage points less than the Quebec average. Oujé-Bougoumou is the community with the highest concentration of permanent employee’s jobs (80%) among all Cree communities (72% average).

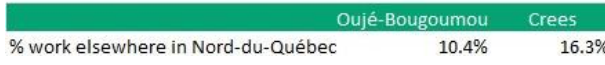
Evolution of Employment

The level of employment, according to the Census, was approximately 280 people employed in Oujé-Bougoumou in 2021. Over the last 20 years, the total available number of jobs in the community had a slow growth, while reaching a peak in 2016. Since 2001, the employment in public administration, health and education has been fairly constant, increasing slightly between 2011 and 2016. The increase observed over this period is mostly due to growth in the private sector (notably retail) although this did not last until 2021. The employed people living in Oujé-Bougoumou work within the community with a share of 90%, above the average of Cree communities (84%).

Labor Rates



Class of Worker



ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Economic Activities

According to the employer consolidated database, health care is the largest sector in number of jobs (88 or a fifth of local employment) which, combined with public administration, and educational services, provide 189 jobs or 44% of the community employment in Oujé-Bougoumou (SPN, 2023). In the private sector, mining, quarrying and oil and gas extraction employs 75 people while the accommodation and food services has 47 jobs or 11% of the community. Oujé-Bougoumou economic structure is somewhat diversified and has room to expand his construction (21 jobs) and retail sector (15 jobs).

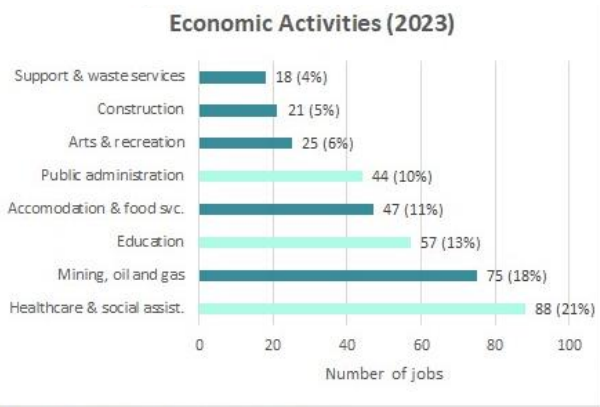
Main Employers

Following the local economic structure, the main public sector employers in the community are the health care centres (53), the elementary and secondary school (51) followed by the public administration (23) and childcare center (22). Main businesses include the Minipro, Staakun entreprise, Oujé-Bougoumou Entreprise, Cassipit Lodge, and the Cree Cultural Centre.

Income

The median and average total individual income in Oujé-Bougoumou fall within the \$36,000-43,000 range which is very comparable to the Cree average. While the average individual employment income in the community in 2019 (\$36,600) was 6% lower than the average in Cree communities (\$38,900), the average after-tax income is (\$42,200), with the former and the latter above the average (\$41,300). The gap with Jamesians neighbourhood is narrow, since the employment income 17% lower compared to Chapais, and the after-tax income is 9% higher than in Chapais.

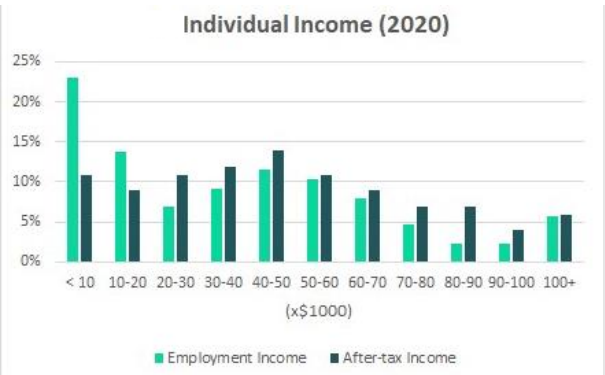
Less than a quarter (23%) of households receive government transfer income. This places Oujé-Bougoumou at 0.35 on the market income Gini index, indicating a lower level of income inequality within the community than the Cree population score (0.39) and the Chapais score (0.41).



Source: DCI-EDO (2023a) and SPN (2023).

Business name	Activity	Jobs
Minipro	Mining, oil and gas	60
Service center (MSDC)	Healthcare & social assist.	53
School	Education	51
Ouje C.N.	Public administration	23
Child care	Healthcare & social assist.	22
Staakun Ent.	Forestry, fishing & hunting	18
O.B. Ent	Support & waste services	18
Lodge Restaurant	Accommodation & food svc.	18
Cree cultural Ins.	Arts & recreation	16
Cassipit hostel	Accommodation & food svc.	15
Large sector		% jobs
Public Sector		54%
Private Sector		46%
Total		428

Compilation from DCI-EDO (2023a) and SPN (2023).



Individual income (2019)	Oujé-Bougoumou	Crees
Median total income	\$ 36,400	\$ 36,300
Average employment income	\$ 36,600	\$ 38,900
Average after-tax income	\$ 42,200	\$ 41,300
Household income (2019)		
% of government transfers in income	23%	24%
Prevalence of low income	6%	5%
Gini index, market income	0.35	0.39

11.3 ECONOMIC OPPORTUNITIES

11.3.1 ENTREPRENEURSHIP/DIVERSIFICATION

The distribution of businesses and jobs by sector is presented in Table 11-1. Public services account for 45% of all jobs in Oujé-Bougoumou¹⁶. For comparison, they represent 2% of Jamesian jobs and 71% if jobs in Quebec.

The distribution of jobs and businesses by economic sector shows a certain diversification. When one excludes the public sector, 48 businesses in 12 sectors create 239 jobs in the community. This corresponds to 78% of the labour force (305). The economic structure of Oujé-Bougoumou is somewhat different and often seen as an outlier from the other Cree communities. Their main private sector is Mining services (75 jobs or 18% of total jobs) and might be due to historically, Oujé-Bougoumou people were helping and guiding mining prospector on their land. The other three main private sectors are, by employment order, Accommodation and food services; Arts, entertainment, and recreation; and Construction. In the meantime, Retail sector is relatively small compared to other Cree communities, might be explained by the size of the community and the proximity of Chapais and Chibougamau, where the retail offer is more attractive.

Table 11-1 Employment per Sector, Oujé-Bougoumou, 2023

Sector	Number of businesses	Number of employees	Number of employees (%)
Health Care and Social Assistance	3	88	20.6%
Mining, quarrying, and oil and gas extraction	5	75	17.5%
Educational Services	3	57	13.3%
Public administration	4	44	10.3%
Accommodation and food services	5	39	9.3%
Arts, Entertainment & Recreation	4	25	5.8%
Construction	7	21	4.9%
Administrative, Support, Waste Management and Remediation Services	2	18	4.2%
Agriculture, Forestry, Fishing and Hunting	2	18	4.2%
Retail	5	15	3.5%
Professional, Scientific and Technical Services	8	9	2.1%
Transportation & Warehousing	5	4	0.9%
Information and Cultural Industries	2	3	0.7%
Other services (except public administration)	2	3	0.7%
Manufacture	1	1	0.2%
TOTAL	58	420	100.0%
Education, health, public administration	10	189	45.0%
Other sectors	48	231	55.0%

Note: No business or job in the following sectors: corporate & business management, finance and insurance, real estate and rental, utilities, and wholesale trade.

Source: Processed from DCI (2023a) and SPN (2023).

¹⁶ According to SPN (2023), the education, health and social assistance, and public administration organizations located in Ouje-employ 189 people. At the StatCan (2021) Census, the estimate was 205 people from Oujé-Bougoumou working in those sectors. The gap between the number of jobs in 2023 obtained from SPN-DCI-EDOs and employed people in 2021 Census is - 24% for Waskaganish, that seem to be explained by the difference in public administration and health and social assistance. The narrower gap among Cree communities.

Mining. The largest private sector of the community includes the largest private business, Minipro (60 jobs). Established since 2015, the business offers labour or factory support has in services for skilled labour, training with diplomas or on the job training and technical support in factory. Their Minopro-Cree division operates exclusively in EIJB with mission to achieve Cree hiring and training. For the mining, Oujé-Bougoumou have agreements with six companies in different development stage: Blackrock Metals, Doré Copper Mining, Northern Superior Resources, Vanadiumcorp Resource, Yorbeau Resources, and QC Copper and Gold. Oujé-Bougoumou is the only community with a Mining Exploration Officer and has develop ties with mining companies (DCI/EDO workshop and CTA meeting).

Forestry. Staakun Enterprises, which provides support activities for forestry and employs 18 people (51 according to SPN). Little information is available online, but this is the only business in Oujé-Bougoumou related directly to the forestry sector. The Oujé-Bougoumou manpower use in wood plants project was initiated by the community and recently received funds from the ministère des Ressources naturelles et des Forêts du Québec (MRNF) to create jobs in the forest sector. The community discussed with Chantiers Chibougamau and Barrette-Chapais regarding hiring Cree workers with customized integration measures and awarding contracts to Cree companies to help their development (Desfor, 2022).

Accommodation and food services. The main employers in this sector are Cassipit lodge and restaurant (25 employees), and ADC, a subsidiary of Creeco. The Cassipit lodge was completely renovated in 2015 with 24 rooms offering and 4 luxurious suites. The lodge has a restaurant and a conference room with a capacity of 250 people. ADC has its head office based in Oujé-Bougoumou and its administrative office in Laval. The company has developed relationships through a joint venture model. The company offers food service and catering management, remote camp management and logistics support, temporary housing, facilities, infrastructure, security, health and safety services, maintenance services, custodial services and cleaning products, retail food, and fast-moving consumer goods such as grocery and convenience store supplies (Creeco, 2022). Its market includes mining construction projects, including Nemaska Lithium, Osisko and Troilus mining permanent camps, and local community and retail projects. The company employs 20 to 70 people. Its capacity and scope to provide support services directly benefit the communities. They hire as many local Cree workers as possible, making agreements with most Cree communities. ADC also develops strategic partnerships for others required services or turnkey solutions (VEI-WSP, 2023).

Retail. There are a few retailers in Oujé-Bougoumou and they are small. The two main businesses in this sector are Casey's Gas Bar and HMA Tires and Accessories (6 employees each). There is no grocery offering in Oujé-Bougoumou, either people from the communities can get limited food supply at their Gas bar's convenience store or they must go to groceries in Chapais or Chibougamau for a larger offering.

Culture and tourism. The A-CCI, within the Arts and culture sector, employs approximately 16 people. Aanischaaukamikw is "a museum, archive, library, teaching centre, and cultural centre, and a virtual hub designed for high-powered interactivity." (CCI, 2023). This institution is one of the most notable tourism attractions in EIJB (QMI, 2022b). Located at the centre of Oujé-Bougoumou, Aanischaaukamikw resides in a modern building heavily inspired by the structure of the traditional Cree saptuan. It has a craft boutique and bookstore where article mainly comes from Whahiya a not-for-profit organization, part of Cree Native Arts and Crafts Association (CNACA). It is a social enterprise that seeks for authentic Eeyou products from producers and through. Wachiya also operate an online store that focus on Cree arts and crafts products from Eeyou Istchee, which aims to preserve, revitalize, and support culture. In the summer 2024, the organization aim to open a physical store in the Old port of Montreal. Beside the A-CCI, other attractions in Oujé-Bougoumou include Nuuchimii Wiinuu Cree cultural ecotourism camp, the "Walking Out Ceremony", Guided Tours, Maamuitaau music festival, and Fishing Derby. There are also Oujé-Bougoumou tourism and voyages EIJB's entities located in the community, with the former having four employees and the latter two employees.

Transport. No major transportation business located in Oujé-Bougoumou, except a few self-employed enterprises like Transport Mianscum. The transportation business offer could increase with or without LGA. Freight transportation is often provided by Kepa Transport. The fuel and diesel transportation are provided by Petronor.

Construction. The construction business sector in Oujé-Bougoumou involves 25 jobs spread across 7 companies: Construction Renovations Eenou Enterprise (CREE) (8 employees), followed by Kagoose Construction and Construction Econord (4 employees each), then René Dixon Construction, Eeyou-Ilnu Construction, Construction Cegercree, and DC Construction with all 3 employees or less. Oujé-Bougoumou has a decent basis for construction activity, it has room for more offering. CGW (2015) shows that among the construction jobs given to Cree contractors in different communities in Eeyou Istchee, perhaps because of the absence of major construction companies, Oujé-Bougoumou was not awarded any value of contracts, but employment accounted for 3% of all jobs occupied by Crees. This is equivalent to an average of 5 monthly jobs, during HQ Eastmain 1A works from 2007 to 2011. Oujé-Bougoumou did not participate in the operations phase from 2012-2016. This shows that the Oujé-Bougoumou community displays an historic low capacity to seize construction and operation opportunities and has to increase their capacity to participate in future major projects in Eeyou Istchee.

Entrepreneurship. Out of the 48 businesses identified by the DCI (2023a), the DCI (2023b) regional funding program supported an average of 1.6 Oujé-Bougoumou businesses per year over the last 12 years, representing 8% of the program. Oujé-Bougoumou comprises 10% of businesses within Eeyou Istchee for 4.4% of the Eeyou Istchee Cree population. As this share and the share in the number of private businesses is more than twice the Oujé-Bougoumou's proportion of Eeyou Istchee population, this community's level of entrepreneurship is above to the Cree average but lower than in Jamesian communities.

According to the discussion with Oujé-Bougoumou CIOs and EDOs during the focus group and the workshop, the organization of the territory, including the transportation network, has historically been driven by the needs of external economic interests, such as from fur trade, the GCR was used to go sell fur in Senneterre and then for the mining activities, copper ore to be shipped in Rouyn smelter. Cree have always been reactive to any development on their lands which is often planned or realized without consultation of the Cree people. The southern Crees lived jointly with forestry and mining development for years (EDOs, 2023).

Business Projects or Potentials. The EDO plays a support role by assisting entrepreneurs in starting up their business. However, funding comes from the Socio-economic development program (SEDP), which had only two programs remaining in 2017. One is a program to finance feasibility studies and business plans, the other is an Equity Assistance Program to help entrepreneurs access bigger loans. The equivalent of a development corporation is Oujé-Bougoumou Enterprise Inc., which manages band-owned businesses but does not support other entrepreneurs (Niska, 2020).

From the EDO's perspective and work, the current projects (requests for funding, market studies, or business plans) in the community include:

- a greenhouse (food production) project;
- a mini mall project;
- a laundromat;
- a bakery;
- a transport trucks company;
- a wood spitting and wood management area;
- an expansion for Minopro.

11.3.2 LGA EFFECTS ON LOCAL ECONOMY

11.3.2.1 BUSINESS OPPORTUNITIES

LGA infrastructures that were considered by Oujé-Bougoumou representatives as the most relevant to their community include the railroad, and the Route du Nord.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Oujé-Bougoumou is the least impacted community on the LGA infrastructure program from all Cree communities. The EDOs mentioned that improving the regional transportation infrastructures such as the recommissioning of the GCR and the improvement of Route du Nord would attract more tourism to the region, therefore the community.

From the community point of view, the missing elements on the LGA program is a tourism route to identify the main attractions and where to practice activities such as camping, fishing, hunting, and outfitting in Eeyou Istchee.

The business opportunities with the upcoming LGA transportation infrastructure program could include those mentioned below:

- The paved and improved Route du Nord will ease the journeys to other Cree communities and thus the access to traditional and economic activities in the region, notably the territory, the forestry sites nearby and the mining sites in the Oujé-Bougoumou area. Access to the community village, may attract more tourists to the attractions and accommodations in Oujé-Bougoumou, and thus may enhance local tourism development.
- Developing the import/export economy with the Chapais transshipment yard/passenger station (near 113 in the industrial zone of Chapais) for tourism, food services and stores, accommodation, arts & crafts, land touring, etc.
- For the community, improvement in infrastructure should help create off the land business opportunities such as wild mushroom production, moose farms, etc.

11.3.2.2 JCIM RESULTS

The LGA proposed transportation infrastructure construction and operation will require workers during a long period of time. Some of these jobs can be fulfilled by workers from Oujé-Bougoumou, such as direct jobs on the railway during operation, but also as workers for companies that are subcontracted for the works during construction or for the maintenance during operations.

Direct Operation

The LGA preliminary studies (VEI, 2023c) reveal that operation of the GCR would create 42 direct jobs for the Oujé-Bougoumou community at the yard and station, located in the Chapais industrial park, 38 km away from the community. We assumed that with the railway operated by Crees, Oujé-Bougoumou residents would fill these positions. The recommissioning of the GCR segment will require at the station/yard for 2 administration staff, 25 staff for yard and siding operations, 3 for rolling stock maintenance, 2 track and signalling maintenance workers, and 10 passenger services workers. The total number of jobs for the yard is 12 and for the station is 30 for a grand total of 42 jobs, as shown in Table 11-2.

Table 11-2 GCR Operations at Chapais

	Chapais-Yard	Chapais-Station
Administration		2
Main Line Operations		
Yard and Siding Operations		25
Rolling Stock Maintenance		3
Track and Signalling Maintenance	2	
Passenger Services	10	
Total	12	30
Grand total	42	

Source: VEI (2023c).

LGA Indirect Job Creation

From the assumptions of the calculation model of the economic impact of the LGA proposed transportation infrastructure described in Section 2.4.3 and developed in Section 3.5.1, Oujé-Bougoumou could obtain a total of \$299M in contracts during all three phases of the construction period from 2030 to 2044, as shown in Table 11-3 On an annual basis, Oujé-Bougoumou entrepreneurs would be awarded \$23M in contracts per year on average, more in Phase I and less in Phases II and III. Over this period, a total of 1,681 person-years could be created in employment, or the equivalent of 129 FTE jobs on average over the 15-year period, for the people of Oujé-Bougoumou.

Table 11-3 Job Creation and Contract Impacts per LGA Phase, Oujé-Bougoumou

Impacts	Construction		Operation	
	Lifespan (2030-2044)	Annual Average	Lifespan (30 years)	Annual Average
Contracts (M\$)				
Phase I	133	27	95	3
Phase II	94	16	0	0
Phase III	72	12	0	0
Total	299	23	95	3
Employment (persons-years)				
Phase I	750	150	1,823	61
Phase II	526	88	0	0
Phase III	404	67	0	0
Total	1,681	129	1,823	61

Note: The total may differ from the sum of terms due to rounding.

Still using the job creation impact model, Oujé-Bougoumou entrepreneurs could obtain \$3.2M of contracts during the operating period, from which is fully from Phase I transportation infrastructure. The job creation benefits for the community represent however both direct and indirect employment, with 61 FTE jobs estimated starting from 2035, every year of operations.

Across the portfolio of Cree communities, the job creation benefits for Oujé-Bougoumou account for about 4% of the total jobs created during the construction period and 8% during the operation period. The results could be changed based on targets and parameters for Cree participation in the projects, which infrastructures of the LGA program are actually built, the importance of the proximity of the community to the location of works or operations, and the dynamism of its entrepreneurs.

11.3.2.3 LONG-TERM SUSTAINABILITY

Based on the Job Creation Model and the GDP data presented in Section 2.4.3, long-term sustainability brought by the LGA was also calculated for the community. With increased participation of Oujé-Bougoumou workers in the construction sector, the local economy is expected to boom during the construction period of the LGA proposed transportation infrastructure. LGA infrastructure would allow the standard of living, estimated using GDP per capita, of Oujé-Bougoumou residents to be 78% higher in 2032 during the peak year of the construction period at \$41,929 per capita than it would be without LGA at \$23,534. When the construction period is over, the impact of LGA on GDP per capita would be maintained to 19% above the GPA per capita without LGA by 2045 (\$27,652 compared to \$23,314, respectively), and 13% higher by 2074. Given that by 2074 local employment would be higher by 10% with LGA, the community GDP would be higher by 24% by then (\$17.4M with LGA versus \$14.0M without LGA).

This calculation reflects the increase brought by the maintenance and operation of the LGA infrastructure only. It does not capture any benefits brought by the development of the community in other sectors such as forestry, mining, local production, territory rehabilitation, and tourism, to name a few potential sectors.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

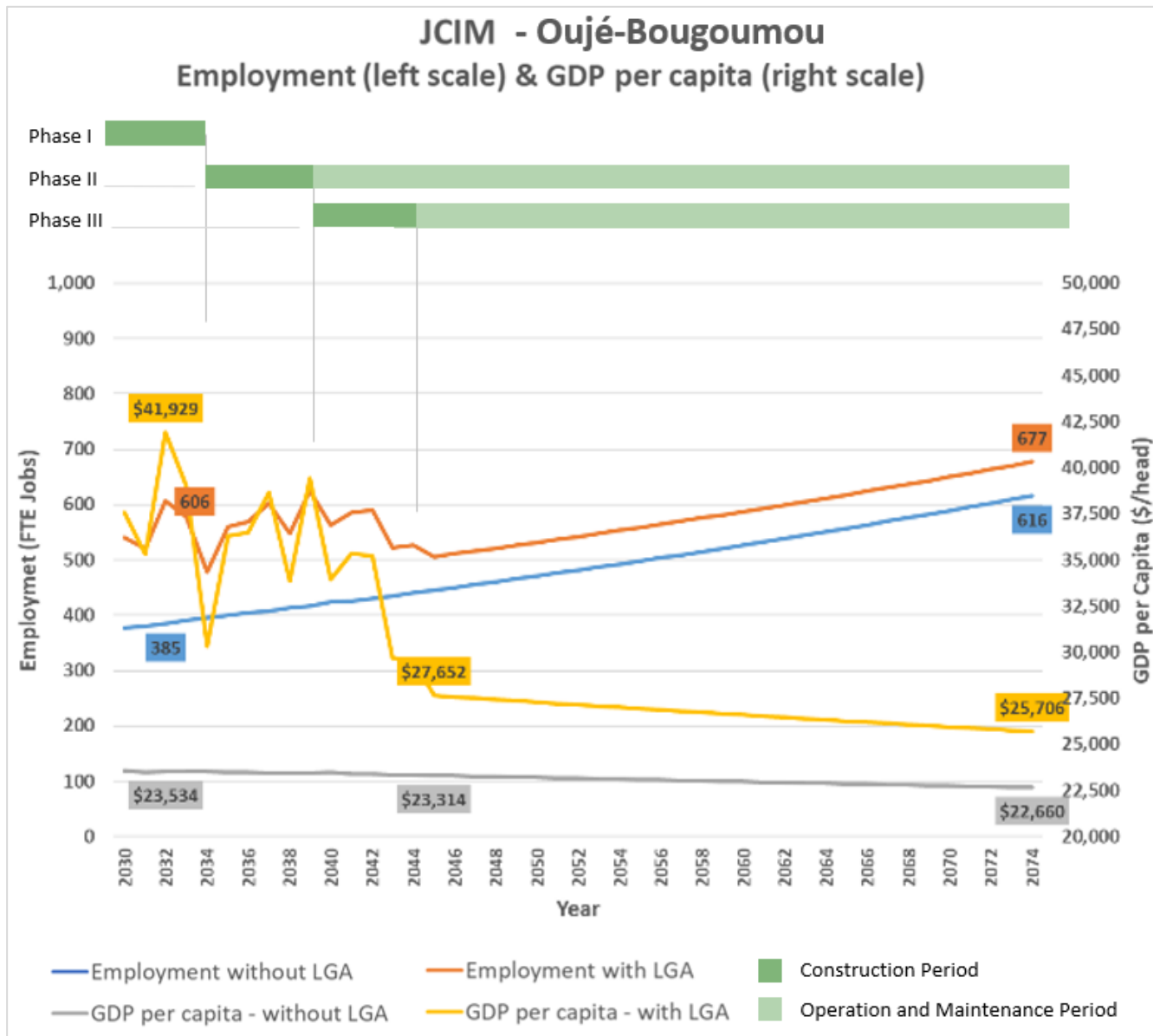


Figure 11-4 Impact of LGA on GDP per capita and Employment, Oujé-Bougoumou, 2030-2074

11.4 LAND-BASED ECONOMY

11.4.1 OVERVIEW

11.4.1.1 IMPORTANCE OF THE TRADITIONAL LAND-BASED ECONOMY

The history of Oujé-Bougoumou is one of displacement, hardship, and resilience. Traditionally, their land was located in a large area centred by Lake Chibougamau. They were mistakenly grouped with the Mistassini band since they frequented to that trading post. When the HBC operated a trading post at Rush Lake (Lake Chevrillon) between 1815 and 1822, Oujé-Bougoumou Cree transferred their trade to the closer trading post. An important peregrination period started in the 19th century with the arrival in the area of mining prospectors, the establishment of the trading post at Lake Chibougamau (1914), as well as the relocation of the post to the Gouin Peninsula (1924) and its closure in 1942. This closure forced the group to start reusing the Mistissini trading post. (Québec, 2012)

Mining and forestry activities lead the Crees of Oujé-Bougoumou members to uproot and move frequently around, never settling in an area for a long period until the 1970, when a group settled on the shore of Lake Opemiska. Between 1920 and 1970, Oujé-Bougoumou people were forced to relocate seven times. The Crees of Oujé-Bougoumou negotiated with the GQ and came to an agreement for the foundation of the village of Oujé-Bougoumou in 1974. But the ordeals were not over since the community had to argue and convince the federal and provincial government to finance the construction of the many infrastructures needed for the community. The new village was constructed in the early 90s, using innovating design and creativity, with the contribution of a renowned Aboriginal architect, Douglas Cardinal.

Oujé-Bougoumou is located on the shore of Lake Opemiska and can be accessed by the highway Route 113, and then using the Oujé-Bougoumou Road on approximately 25 km. Oujé-Bougoumou's territory is divided into 13 traplines covering 10,568 km² (CMEB, 2022).

As of August 2022, the Cree First Nation of Oujé-Bougoumou had a total registered population of 938, with 791 members living on reserve, 126 living off reserve, and 21 living on other reserves or Crown land (CIRNAC, 2022).

The LGA proposed Phase I infrastructures located on Oujé-Bougoumou territory are:

- The eastern end of the potential GCR;
- The southern section of the Route du Nord study area.

Some of the main values that underlie the use of the territory were also mentioned by the Cree participants in the LGA interviews and workshop, such as having a clean environment and healthy wildlife, respecting the animals, having a good knowledge of the language and traditional knowledge. Thus, life on the territory is valued, despite the constraints the community faces in maintaining traditional activities; members are retained in the community for obligations such as work, school, or medical care.

In 2021-2022, about 14% of the population (131 Oujé-Bougoumou members, representing 71 family units) was enrolled in the ESP for their livelihood, sometimes combined with other occasional jobs. In total, 15,485 days spent in the bush were paid to the land users for that same year, for an average of \$19,034 per family unit (see Table 11-4).

As mentioned in section 3.6.3, the price of fur has gradually declined over decades. Several factors can affect ESP participation, which varies from year to year depending on, among other things, the economic climate and employment opportunities, or a readjustment in eligibility (CHESB, 2023, CHTISB, 2012).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 11-4 Beneficiaries of the Economic Security Program (ESP), Oujé-Bougoumou, 2021-2022

Waskaganish - Family Units (nb)	Total (adults and children)	Total Days Spent in the Bush	Average per Family Unit (days paid)	Average Allowance per Family Unit (\$)
71	131	15,485	218	\$19,034

Source: Compilation CHESB, Annual Report 2021-2022.

In 2021-2022, 491 members (including 83 junior) were enrolled at the CTA, which is higher than the previous years (see Table 11-5). The local CTA offers different programs and services to their members. During that year, gas subsidy program, equipment subsidy and cabin building/renovation programs were allowed to the members. The preceding year (2020-2021), no one benefited from the Gas Subsidy program.

As mentioned in section 3.6.3, the price of fur has gradually declined. A beaver fur was worth on average \$12.39 in 2015, while it was only worth \$7.57 in 2022. Table 11-5 shows the number of CTA members in Oujé-Bougoumou, how many sold fur, and the value of these sales between 2012 and 2020. The 2021-2022 report shows that CTA fur sales reached \$12 that year.

Table 11-5 CTA Membership and Fur Sales, Oujé-Bougoumou, 2012-2020

	2012-2013 ^a	2013-2014 ^b	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
CTA Member (n)	-	-	180	239	195	239	283	332
Trapper who sold fur (n)	0	0	0	3	3	0	0	0
Fur sales (\$)	-	-	\$0	\$1,532	\$1,185	0	0	0

Note a and b: these annual reports were not available on the CTA website, for this reason some data are missing.

Source: Compilation from 2012-2020 CTA Annual Reports.

Table 11-6 Number of Members using Programs and Projects Offered by the CTA, Oujé-Bougoumou, 2020-2022

Program/Project	2020-2021	2021-2022
Cabin insurance	-	...
Cabin building/renovation programs	4 cabins ^b	4 cabins ^a
Gas subsidy program	-	...
Hunting subsidies and supplies	-	-
Equipment repair or purchase subsidies	6	6
Transportation subsidies - Air or bush plane	-	-

Note a: Local members or outside if do not have other applicants.

Note b: Trappers' Cabin Project

Source: Compilation from 2020-2021 and 2021-2022 CTA Annual Reports.

11.4.1.2 COMMUNITY ASPIRATIONS

In 2017, the EPC undertook a consultation process with Oujé-Bougoumou community members. The results presented in the “Report on Community Input on Land Use Planning Goals” (EPC Oujé-Bougoumou, 2017) included information on the community’s values, issues and vision for the future and are summarized below.

The challenges and struggles for recognition and the foundation of the settlement on the shore of Lake Opemiska forged a strong sense of self-knowledge and self-confidence within the community. The lessons learned with this rich history is a core value which is reinforced by the strong tie that the Oujé-Bougoumou Crees have with their land, their culture. This culture stems from an intimate understanding of hunting, fishing, gathering and living practices on their traditional land and the transmission of that knowledge throughout the generations.

The location of the community between Chibougamau and Chapais near Oujé-Bougoumou allows the community to build and promote opportunities to collaborate and build partnership with non-Cree and therefore have a proactive stance in their economic development. Their approach enables them to be a proponent in innovative ways to develop projects which are conscientious environmentally while being viable economically.

In partnership with the Cree Nation of Oujé-Bougoumou, the GQ plans to create the Assinica National Park. Located at the north of the community, this site is highly valued, not just by the families who have traditionally hunted there, but by an entire community which sought to protect part of it. This area is valued, among other things, because it is nearly unimpacted by the mining and forestry activities compared to the southern part of its territory where there had been so many impacts.

11.4.2 RESOURCE ACCESSIBILITY

Changes in resource accessibility (whether physical access or the quality and abundance of resources) can lead to impacts on the economic and cultural way of life of the Crees. As these are strongly related, this section mainly addresses the physical access, while the quality of resources is covered in section 10.4.3.

The interviews provided a general idea of the land use taking place along the existing Grevet-Chapais trail and the Route du Nord 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.

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 and non-Cree land users. 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 snowmobiles, ATV or vehicles on some sections.

During the interviews, tallymen and land users explained that when the GCR 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.

The interviews also provided a general idea of the land use taking place along the Route du Nord and in its surrounding areas, rather than a complete picture. While being relatively recent on the territory, modern roads are widely used by the Cree population. In terms of transportation routes, they have overtaken rivers. The RDN is not only important to connect the community of Nemaska with “the south”, but also to facilitate access to the southeastern part of EIJB, and potentially to the Saguenay-Lac-Saint-Jean region, by members of other Cree communities. Additionally, the presence of the RDN provides an easy access to the traplines intersected by it. The fact that most land users do not live from the land anymore and occupy paid jobs partly explains the growth in importance of modern roads, as they provide faster access. Major changes in important rivers’ hydrology and ice cover, following hydroelectric development in the last decades or due to climate change, also contributed to the increase in use of modern roads. Since it is now more dangerous, complicated, or sometimes impossible to navigate on some watercourses as well as to travel by snowmobile, roads offer interesting alternate options.



Credit: Marc Beauregard, VEI.

Figure 11-5 Lake Opémisca

11.4.2.1 CHANGES AND CONSTRAINTS LINKED TO DEVELOPMENT

The study area defined for the potential Grevet-Chapais alignment consisted originally of a five (5) km buffer zone on either side of the existing Grevet-Chapais trail, extending from Franquet to Chapais. It crosses 13 traplines belonging to the Cree communities of Washaw Sibi, Waswanipi and Oujé-Bougoumou. The potential GC railway crosses two traplines in Oujé-Bougoumou (O54, O58).

The Route du Nord is a 407-kilometer, gravel road connecting Route 167 in Chibougamau to the BDH. The road has opened access to the Nemaska community and the forestry industry. It is crossing 22 traplines across the territory of four Cree communities (Mistissini, Nemaska, Oujé-Bougoumou and Waskaganish). RND crosses two traplines in Oujé-Bougoumou (O55 and M57/O57).

Climate change is an important vector of modification regarding the access to resources on the land. There are more frequent forest fires, earlier springs, longer summers, and later winters (winter conditions appear in January rather than December). Thus, each year the season cycle is different. Because of the climate changes, some animals have changed their behaviour and vegetation is growing in new areas. Moose is a new species observed on the land.

Finally, as for other Cree communities, access to the territory and the resources remains essential to ensure the continuity of the Cree way of life, which is closely linked to the activities on the land. The impacts of the return to service of the GCR would have on the access to the territory would be significant if no alternative arrangements are considered.

11.4.2.2 IMPACTS OF PROPOSED INFRASTRUCTURES

The recommission of the GCR has an important impact on the land user. The area along what is now the Grevet-Chapais trail is used by many as an ATV and a snowmobile trail depending on the season. Since it has now become an important artery to access the land, there would be a necessity to create an alternative trail along the axis to allow the same ease of circulation on the territory. Safety measures would also be needed to ensure that the train has a minimal impact on the environment.

Also, as previously mentioned, cabins are also close by and might be impacted by the loss of tranquility. A sound analysis might be necessary along the railway to determine the impact on the soundscape.

With the reactivation of the railway, the territory would also be divided in 2 parts. This would impact the circulation within the territory.

Furthermore, land use and culture are deeply rooted together, these impacts on access, water and resources are addressed in the sections 11.4.3 and 11.4.4.

11.4.2.3 SUGGESTED MEASURES AND OPPORTUNITIES

Some measures or suggestions emerged from the LGA engagement activities in Oujé-Bougoumou regarding the access to resources, and also the access to the community as it would become more easily reachable, such as:

- The improvement of the route du Nord would provide an economic boost by creating development and job opportunity;
- A new ATV and snowmobile trail would have to be built along the GCR since it is used nowadays as an important artery to access the territory.
- Safety feature near the railway need to be taken into consideration to allow circulation along and across allowing fluid access to the territory.
- Some cabins might need to be relocated to ensure the land user tranquility.

See the section 3.5.1 for general suggestions or opportunities applicable to the Cree communities for a better accessibility to resources.

11.4.3 CULTURAL CONTINUITY

As previously mentioned, the relationship between the Crees of Oujé-Bougoumou and the land is a strong one. And since the land and culture are closely intertwined, the health and continuity of one aspect impacts greatly the other. “The Oujé-Bougoumou Cree connection to their land is powerful and sustaining, undimmed by years of displacement and development impacts.” (EPC Oujé-Bougoumou, 2017) The culture derives from the practice of traditional hunting, fishing, gathering, and living on the land, a fluctuation of the ease of access to it has a consequential impact.

Forestry and mining had significant impacts on the community and continue to be a concern for them. For instance, even if there is reforestation done after harvesting wood in an area, the ecosystem is impacted with a diminished biodiversity in wood essences that has repercussions on the resources available to the fauna to feed on and live in. This in turn has a direct incidence to what is available to hunt and gather in this part of the land.

Also, the quality of the water in area where mining and forestry activities took place is affected, if not polluted. Where there were clean and clear water sources available to the land user, now there is often muddy or non-potable water that cannot be used for any consumption. This also has a direct impact on the variability, quality and quantity of fish found in the body of water close to this type of exploitation. Extensive industrial development and resource exploitation have a direct impact on the land and doing so, a direct impact on the cultural practices of the Crees of Oujé-Bougoumou.

11.4.3.1 IMPACTS OF INFRASTRUCTURES ON CULTURAL CONTINUITY

The proposed infrastructures and the development that might follow could affect cultural continuity, if it disturbs valued areas, contaminates environment, or lead to overexploitation. Some fears that the opening of the area would lead to changes in the territory and the dynamics of the region in a negative way, but other foresee it would facilitate connection with other communities.

While the refection of the Route du Nord is seen as a positive improvement assuring safety in traveling with would increase the accessibility by the land user to the territory and resulting in an increase of the opportunity of cultural growth and intergenerational exchange, it is not the case with the GCR. There is a perception of diminution of the accessibility of the land which has a direct impact on cultural transmission.

Notwithstanding the changes that would bring the infrastructure work proposed by LGA, cultural loss is a prior concern for the community. “The less time people spend on the land due to schooling, employment, access or other reasons, the less able they are to develop themselves culturally, which results in loss of culture.” (EPC Oujé-Bougoumou 2017) A reduction of the access to the land would exacerbate this situation.

As land use and culture are deeply rooted together, the impacts on access, water bodies and resources are addressed in section 4.4.2 and 4.4.4.

11.4.3.2 SUGGESTED MEASURES AND OPPORTUNITIES

Since the GCR would remove a main access to the territory, an alternative route needs to be planned along the path. This measure would assure that the traditional territory can be travelled safely and be still accessible to all the land users.

The section 3.6.2 shows other measures that could be put in place for all the Cree communities to ensure that the infrastructures would not interfere with cultural continuity and to promote the use of the land.

11.4.4 SYNERGIES AND CONFLICTS

11.4.4.1 POSITIVE IMPACTS AND SYNERGIES

The proposed infrastructure projects of LGA could be used as an opportunity for a larger role in their governance. Having a greater part in the decision-making regarding what and how project happens on their land would bring a better input on how the projects are implemented. This could also be a golden opportunity for the youth to get education not only as a job opportunity but also from a traditional point of view by having them work with elders who could transmit traditional knowledge of the land. Being a stakeholder within a project would have a positive impact on how they are executed with a more environmental perspective respectful to the traditional way of life.

11.4.4.2 NEGATIVE IMPACTS AND CONFLICTS

Different concerns were raised by Oujé-Bougoumou people regarding the construction of the road and the railroad infrastructures.

Pollution and changes to water bodies

Nuisances are foreseen during the construction and operation phases, such as pollution of air, soil and water, as well as noise pollution.

People are concerned that the construction of infrastructures would impact water bodies and watersheds. There are highly sensitive areas to protect from pollution, but also from changes in the land hydrology by pollution. For example, the impact of calcium used on road maintenance on sturgeons in nearby lakes.

Disturbance

Regarding impacts of infrastructures on wildlife, some fear it could affect their one livelihood. Construction of a road could have a major impact on noise-sensitive wildlife such as beavers, birds, or other animals. Meanwhile, railway operation can also have a large impact on humans and wildlife; he explains that fish is disturbed by noise and vibrations, and that a hibernating bear may be disturbed in its sleep and consequently weakened.

Indeed, the change in animal behaviour due to noise could affect traditional activities, meaning hunting, trapping, fishing, and gathering. The infrastructures could also reduce hunting areas or disrupt the cycle of use of the traditional territory. The loss of tranquility, both for wildlife and for the practice of traditional activities, is the main anticipated impact of the railway.

Social Tensions and Insecurity

The presence of other users may exacerbate social tensions with outsiders and cause overharvesting (hunting and fishing). A new road and rail could have an impact on wildlife, through collisions and abusive and disrespectful hunting of animals. An increased risk of accidents could be caused by more traffic and the increased hunting activities, particularly by non-natives. Psychosocial impacts can also be foreseen due to new people coming on the land, changes in the landscape, lifestyle, and environment (as increased stress, risks of accidents, impact on the health, conflicts). A feeling of insecurity related to the presence of non-Cree workers on the land could increase.

For all phases of the proposed infrastructures, the construction period is deemed to be particularly disruptive for land users who will suffer the inconvenience. Community members recall that there is a decision to be made by the community about its threshold of tolerance (what they are willing to sacrifice).

11.4.4.3 SUGGESTED MEASURES AND OPPORTUNITIES

Oujé-Bougoumou Cree are wary of outsider coming and despoiled them of their land. Any project that would not include them as partners would have a low social acceptability with the community. This goes for any development project but can also be applied to the types of infrastructure proposed by LGA.

“Oujé-Bougoumou has been very much involved with different forms of natural resource development in the past decades, and with that experience comes a certain clarity about the direction in which they want to steer development. Oujé-Bougoumou community members understand that people need opportunities for employment and that some resources may need to be developed, but they are determined that this be done in a way that fully acknowledges, accounts for, and remediates its impacts. Baseline studies emerged as an important tool needed to assess the current state of a trapline and provide a model to which remediation measures post-development should aspire.” (EPC Oujé-Bougoumou 2017)

See the section 3.6.2 for suggestions and measures that concern all Cree communities involved.

11.4.5 ECONOMIC VIABILITY

11.4.5.1 EXPECTATIONS AND OBSTACLES

An important issue related to future development is the availability of borrow materials. Indeed, in addition to the significant presence of wetlands, granular resources are often located further and further away from projected infrastructures. This distance then implies the construction of access roads and longer round trip, sometimes resulting in significant costs. In addition, some resources that may be found nearby are restricted to exploitation. The interactive map from the Geomining Information System (SIGÉOM) shows these mining activities restrictions, which include:

- Protected areas or proposed protected areas;
- Biological refuges;
- Energy transport lines and hydroelectric installations.

11.4.5.2 NEW PATHS FOR LAND-BASED ECONOMY

See section 3.6.4 for more considerations regarding business or activities related to the land, that are not all traditional activities, but could, if developed, generate income while remaining connected to the land.

11.5 COST OF LIVING

The cost-of-living survey in Oujé-Bougoumou was based on the prices of items collected from Casey’s Gas dépanneur, the only convenience store and mini-grocery of the community. Oujé-Bougoumou residents need to travel to Chapais or Chibougamau to have access to a grocery store. Food and beverage prices displayed at Casey’s gas dépanneur, food services at Cassipit lodge restaurant, gas price at Casey’s Gas Station, and internet prices by Starlink during the survey in fall 2023 are given in Table 11-7. The average monthly rent of a dwelling provided by the band as of the StatCan (2021) census also appears in the same table.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 11-7 Commodity Prices, Oujé-Bougoumou, Fall 2023

Item	Price	Cree Community Average	Diff.
Food and beverage			
1 litre of orange juice	\$2.95	\$5.03	-41%
12 eggs	\$4.95	\$5.90	-16%
12 Pepsi/Coke cans	\$9.00	\$12.96	-31%
2 litres of 2% milk	\$7.50	\$6.77	+11%
24 water bottle pack	\$13.55	\$12.35	+10%
284 ml Campbell tomato soup can	\$2.10	\$3.24	-35%
Club sandwich with fries at restaurant	\$13.95	\$17.15	-19%
Medium size coffee at convenient store	\$2.50	\$2.80	-11%
Total	\$56.50	\$66.20	-15%
Transport			
1 litre of regular gasoline	\$1.64	\$1.94	-16%
Communications			
Monthly internet payment (10 Mb/s) - Starlink	\$140	\$140	0%
Housing			
Average monthly shelter costs (rented)	\$510.00	\$497.78	+2%

As shown in Food and gasoline prices, apart from housing, make up a significant proportion of a household's operating expenses. This is why the moderately lower prices for those items, compared to the Eeyou Istchee average, make a significant difference to the cost of living in Misitissini.

Table 10-7, prices from the limited offer of perishable food at Casey's gas dépanneur are still considerably less than Cree communities, except for the milk. The table 11-6 presents the comparison of price indices at Oujé-Bougoumou with other communities. The food and beverage and transport are close to 15% less expensive and communication, and housing is similar to Cree average. Since food and beverage are 19% cheaper in Jamesian communities than Oujé-Bougoumou, justifying the trip to save money and access larger food offer. The transport index for Oujé-Bougoumou is comparable to Jamesian towns nearby.

Table 11-8 Price Indices, Oujé-Bougoumou, 2023

Index	Oujé-Bougoumou Relative to Cree Average	Cree Community Relative to Jamésie	Cree Community Relative to Abitibi-Témiscamingue
Food and beverage	◆0.85	◆0.66	◆0.60
Transport	◆0.84	◆0.85	◆0.82
Communications	◆1.00	◆0.92	.
Housing	◆1.02	◆1.31	◆1.45

Note: Base index 1.00 = Cree average. If index is less than 1, the good is cheaper than the Cree average and if index is greater than 1, the good is more expensive than the Cree average. ◆ Prices higher than Cree average ◆ Prices lower than Cree average.

Source: Compilation from 2023 survey (food and beverage, transport, communications) and StatCan Census (2021) (housing).

The average rent for a dwelling is slightly higher at 2% in Oujé-Bougoumou than the average in Cree communities. The community serves as a barometer to evaluate the housing mortgage and rent price and construction cost which is often used as proxies for to evaluate future dwelling development.

As mentioned in section 11.2, the average after-tax income in Waskaganish is \$42,200 (StatCan, 2021), which is 2% higher than the average in Cree communities. Oujé-Bougoumou resident as similar income and housing cost than the average Cree communities with 15% cheaper cost in groceries and gas which makes a financially comfortable place to live. Also, with geographic location of Ouje-Bougoumu, which is closer to the south and thus closer to major centres communities like Chibougamau help to have access to even more affordable foods and beverages which is about 40% cheaper than Cree Communities.

As observed, when it comes to food, beverages, Ouje Bougoumou's price indices are approximately a fifth higher on average than those in Jamesians and Abitibi while shelter costs are approximately a third lower. This emphasizes the role that dwelling rental by the band plays in controlling the cost of living in Oujé-Bougoumou and in Cree communities in general.

The recommissioning of the Grevet-Chapais line could slightly reduce the travel cost on this section with suppliers from Abitibi and make the journey safer. Nonetheless, Oujé-Bougoumou is the least impacted community from the LGA proposed infrastructure program and in terms of the entire supply chain, it could affect the transportation cost very marginally. Since there is no grocery and transportation mode for food and beverage products, which are perishable, would still be trucking wouldn't see the level of prices show such differences. For the bulk transportation and oil products, we can assess differences in transport costs, but for the supplier the use of the railway with transshipment operation and trucking from the yard to the community complexifies the overall shipment. it is uncertain to what extent the actual price could be reduced, but it would be a marginal decrease if any.

11.6 SUMMARY

Oujé-Bougoumou Cree First Nation is the most impacted community in terms of mining activities (7 relocations). If LGA options go forward, the community would benefit from numerous employment opportunities. The LGA scenario would be substantially different from past development scenarios, because Oujé-Bougoumou played a minimal role in past Hydro-Quebec development on Eeyou Istchee. The two LGA infrastructures of choice for the community are the improvement of the Route du Nord and the lithium mine sites. The Route du Nord improvement would enhance travel to Nemaska and to coastal communities, thus improving social cohesion and economic opportunities for Oujé-Bougoumou. This road improvement would make it easier for local entrepreneurs to provide their services to LGA. Lithium mining activity would benefit from improved connectivity, enhancing travel for workers.

Also, the The proposed recommissioning of the GCR railway will diminish access from outsiders to Oujé-Bougoumou's trap lines. As the main potential users of this railway line will be mining companies (copper and iron ore) which have agreements with the community of Oujé-Bougoumou, this transportation facility would consolidate their operations and consequently their long-term viability. Cree workers in these related activities will benefit form a more stable economic environment.

The GCR transshipment yard and passenger station in Chapais could bring up some economic activities and foster the current in the region, as a strategic pole for the community and Chibougamau-Chapais. The impact of 45 direct jobs at the transshipment yard is major considerable for a small-scale community like Oujé-Bougoumou. However, increasing access to the community via linking with the existing transportation network is not without its impacts. The economic boom from the construction phase period will foster the community GDP and GDP per capita (78% higher with LGA), thus the population's income. During the operation phase, the LGA proposed infrastructure shall make the community GDP higher by 24% and the GDP per capita by 13% will fade-out as Oujé-Bougoumou total GDP shall conin per capita decrease constantly and have no long-term positive impact on their income. This is not to mention numerous other environmental impacts on the territory, mainly during construction, but also during operations as adjacent areas will become less pristine. The impact on the cost of living and the effect on the supply chain is difficult to evaluate and the outcome on the pricing little unpredictable. Furthermore, economic participation by local actors will be essential to ensure the economic benefits to the community members. that the benefits of infrastructure outweigh the cost.

12 WASWANIFI

12.1 CONTEXT

Waswanipi means “reflection on the water” and refers to the tradition of night-time fishing. It is the most southern Cree community in Eeyou Istchee, if one excepts Washaw Sibi. The village of Waswanipi was originally founded in 1819 by the HBC as a trading post, however it closed in 1965.

In 1957, the Grevet Chapais railway allowed for the first train ride to reach the Horne smelter in Rouyn from the Chibougamau-Chapais cooper mines. The CN operated mixed trains combining passenger and freight service on the Chapais subdivision. The closure of the Opemiska mine in 1991 resulted in a significant drop in the demand for rail transport and a loss of income for the CN. In 1993, the section of the Chapais subdivision between Franquet and Chapais was uneconomic, and CN removed the track in 1994, for its official dismantlement.

In 1976, the community of Waswanipi moved from its original trading post location on Waswanipi Island, which is 45 km west of its current location, now across Waswanipi River along R113. Every year, the main cultural summer activity is Chiiwetau means “going home”, a gathering for the community at the old site of the old community on Lake Waswanipi.

Waswanipi lands are located right in the mist of the commercial boreal forest. In the mid-1990s, Mishtuk partnered with Domtar to open a sawmill in the community. In 2006, the sawmill closed due to a sagging lumber market. In November 2022, the sawmill reopened in partnership with Chantiers Chibougamau with a \$19M upgrade investment. In January 2024, the fire destroyed the Cree Lumber sawmill.



Credit: Marie-Hélène Côté, VEI.

Figure 12-1 Waswanipi Cultural Village

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

As shown in Figure 12-3, Waswanipi territory is 37 015 km² split on 62 traplines. About 90 per cent of the forest in the Waswanipi traditional trapping areas has already been logged. The community is fighting to preserve the untouched portion.

The community of Waswanipi is directly connected to R113 by Poplar Street. By road, it is located 122 km north from Lebel-sur-Quévillon and located 93 km west from Chapais. It is located 275 km or 3h05 drive north-east from Val d'Or and 738 km or 8h10 drive from Montreal. By plane, flights are available daily between Val-d'Or on 1h25 duration and on Monday, Wednesday and Friday between Montreal and Chibougamau-Chapais airport on 1h25 duration.

The LGA proposed transportation infrastructures of interest for Waswanipi include:

- The recommissioning of the GCR, in Phase I, reestablishing service in the east-west corridor linking EIJB, Saguenay-Lac-Saint-Jean and Abitibi-Témiscamingue, in an optimized alignment allowing to serve Waswanipi and that maintains the multifunctional (snowmobile, ATVs, trucking) trail currently located in this corridor. This infrastructure would allow for freight and passenger rail service.
- The new BDHR may affect Waswanipi traplines in the western part of the territory.



Credit: Julie Roy, WSP.

Figure 12-2 Waswanipi Cultural Village

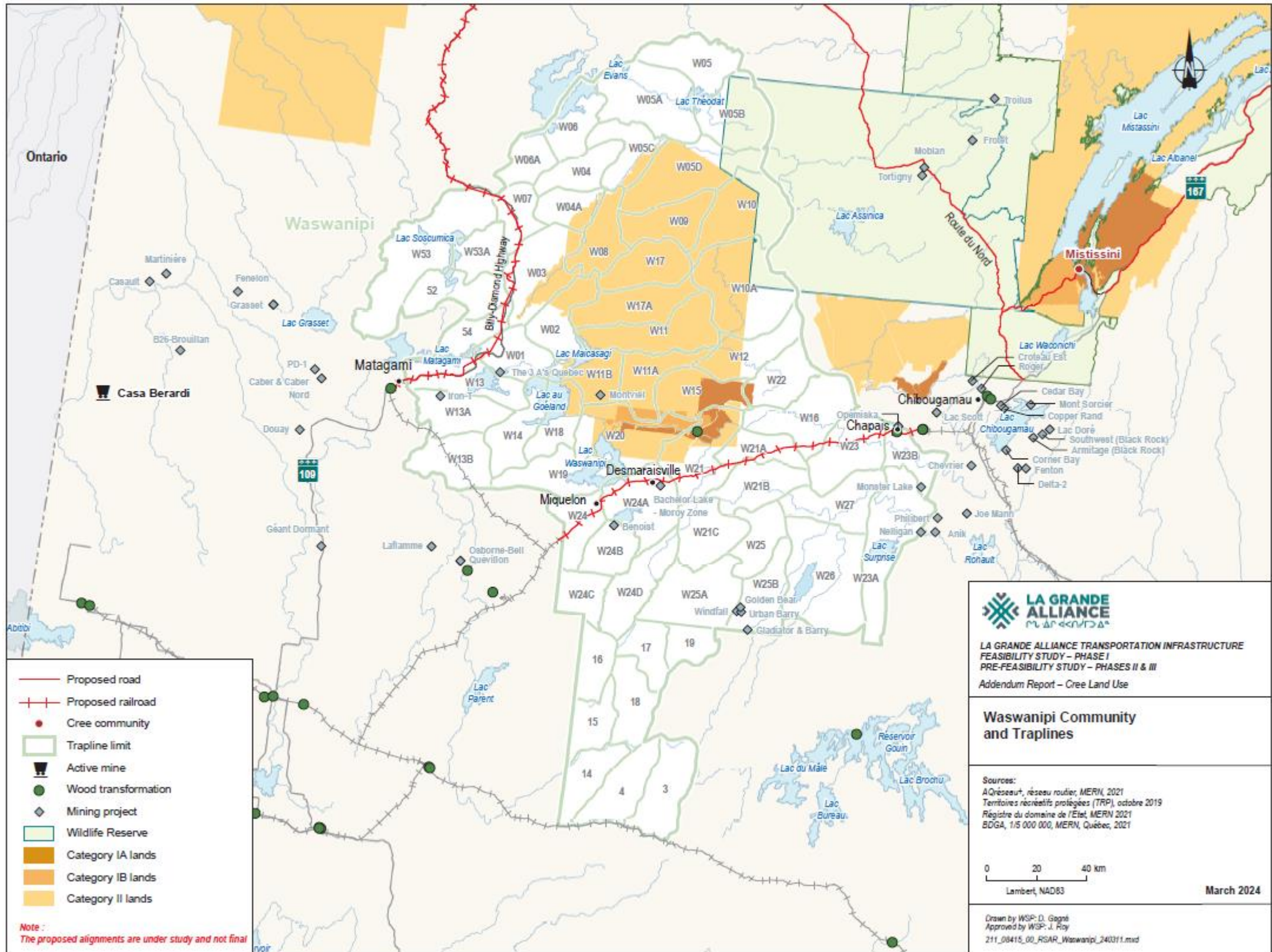


Figure 12-3 Waswanipi Community and Traplines

12.2 INDICATORS

The main characteristics of the population living in the community of Waswanipi are presented below. Note that the data shown represents the 2021 situation as per the StatCan Census data unless otherwise specified.

Population

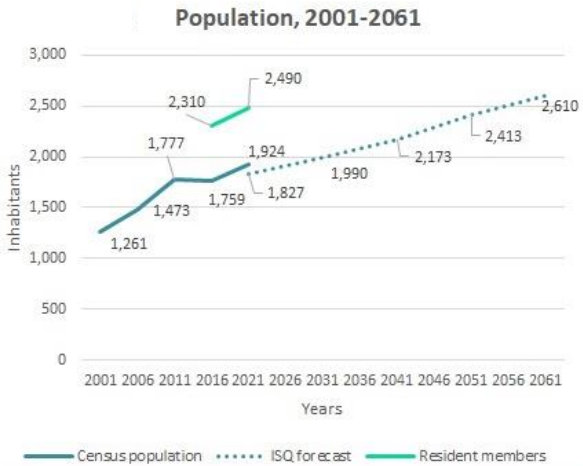
The population of Waswanipi amounts to 1,924 inhabitants as of the adjusted 2021 Census data. There were 2,490 resident members in the band list in 2021-2022 (CHESB, 2022), or 29% more than the estimated Census data. Over the last 20 years, according to the Census, the population has experienced a 53% increase or a CAGR of 2.0% per year, which is slightly more than the rate for Crees in EIJB (1.8%).

According to ISQ (2021) forecasts, the population should reach 2,173 people in 2041 and 2,610 people in 2061. The expected growth rate is slightly less than the Eeyou Istchee region. This is explained by the fact that ISQ forecast was done before the 2021 Census. While Waswanipi displayed a slight negative variation of the population between 2011 and 2016 (thus making the forecast lower), it experienced important growth between 2016 and 2021. The actual 2021 population was 5% higher than the forecast. Thus, one could expect Waswanipi’s future growth in the same range as the general Cree population, at 1.0-1.1% per year instead of 0.8%. Using 1.05% per year as a CAGR, the population would then reach 2,230 inhabitants in 2041 and 2,720 inhabitants in 2061.

Age structure

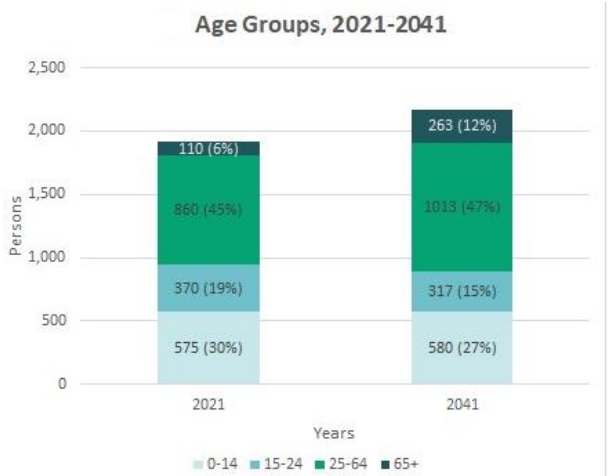
Like all other Cree communities, the population is young, in 2021, with an average age of 22.4 years old, the lowest in Cree communities. Near half (49%) of the population is less than 25 years old.

Until 2041, the size of the youngest group (0-14) should remain constant for Waswanipi, although with the forecast adjustment, it should slightly increase in numbers for the Crees in general. The group in the working age (15-24, 25-64) should increase at approximately at same rate (CAGR,0.9%) as the total population and thus, their proportions should slightly increase and remain stable. The population is predicted to get older on average, with the number of seniors 65 years and older will go from 110 people to 263 people. The demographic dependency ratio will increase as the youth should remain the same combined with an increase in numbers of seniors.



	Waswanipi	Crees
Annual population growth (2001-21)	2.0%	1.8%
Annual population growth (2021-41)	1.5%	1.1%
Non-resident members (2021)	80 (3.1%)	1.7%

Source (Members): CHESB (2022).



(2016-2021)	Waswanipi	Crees
Births	45 (2.3%)	1710 (9.3%)
Incomers	645 (33.5%)	1900 (10.4%)
Deaths and out-migrants	525 (27.3%)	2480 (13.5%)

Source: 2041: ISQ.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

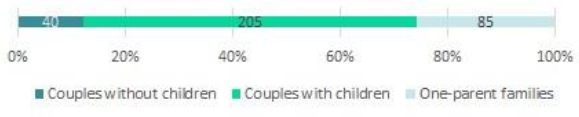
Families, households, and dwellings

Out of the 330 families in the community, 205 (62%) are composed of couples with children and 85 (26%) are families led by a single parent. Proportionally, Waswanipi has fewer one-parent families compared to the Cree average (33%). The dominant household type in the community is the single-family setup, making up 59% of the households. Following are single person, multigenerational and family with other persons households, comprising 14%, 11% and 7% of the total, respectively. The remaining 9% encompasses households with either multi-family or non-related people. Multigenerational households are less prevalent in Waswanipi than for the Crees in EIJB (17%).

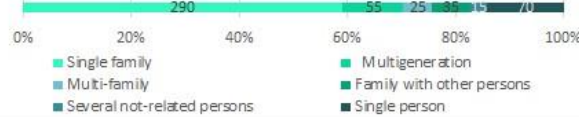
The dwelling tenure is different in Waswanipi compared to other Cree communities. Out of the 490 dwellings in Waswanipi, only 21% are band provided while in most Cree communities they constitute nearly the entire housing stock. In Waswanipi, according to the Census, the majority of dwellings (58%) is rented from the private market. Waswanipi is also the Cree community with the highest share of privately-owned dwellings in Cree communities (21%).

One-third of dwellings (33%) need major repairs and one dwelling out of ten (10%) is overcrowded. More dwellings in Waswanipi need major repairs than the average Cree communities (23%), meanwhile the proportion is five percentage point less for people living in overcrowded dwelling than the average Cree communities. As it is generally the case, these rates are much higher than in Jamesian towns, thus in in Lebel-sur-Quévillon, 0% of dwelling is overcrowded and 9% require major repairs.

Family Structure



Household Type



Tenure



	Waswanipi	Crees
% overcrowded dwellings	10%	15%
% dwellings with major repairs needed	33%	24%

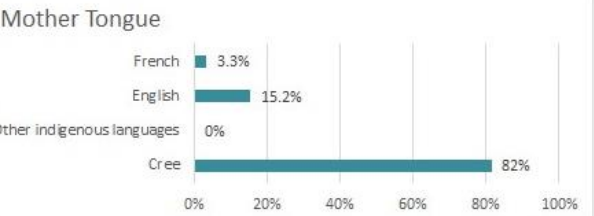
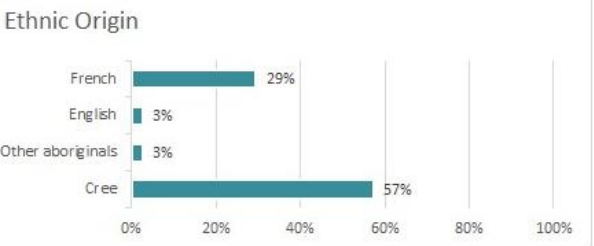
ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Ethnicity and Language

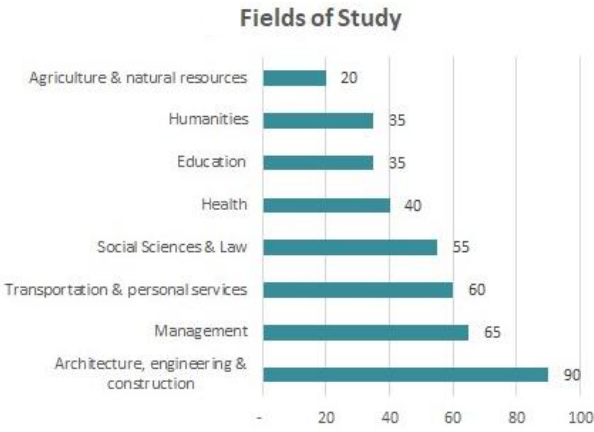
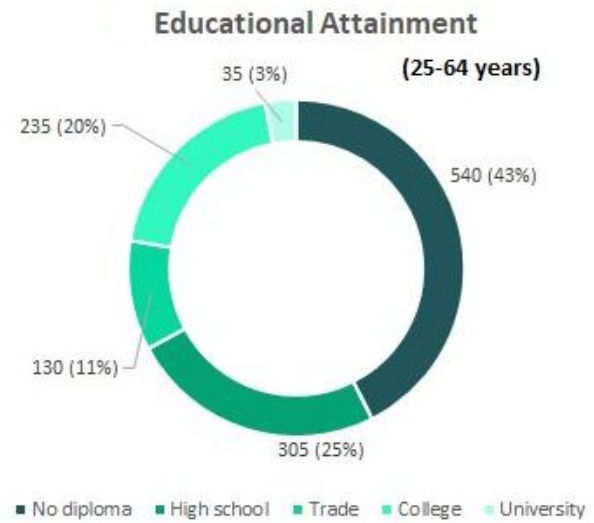
At the 2021 Census, 57% of the Waswanipi population said to be Cree origin and 29% of Quebecer origin. Cree is the mother tongue for 82% of the population. Almost nine people out of ten (89%) of the population is fluent in the Cree language. A higher proportion is fluent in English (95%), while French is spoken by 38% of the population, which is the highest rate in Cree communities. The number of Cree-speaking individuals has decreased by seven percentage point over the past decade.

Education

Almost three people out of five (57%) of the 25–64-year-old population has at least a high school diploma, which is comparable to the Cree average (60%), but less than for Jamesians (75%) or Quebecers (88%). Waswanipi people hold mostly diplomas at the secondary level (25%) and CEGEP (20%) while 11% have an apprenticeship or trade diploma. Like in other Cree communities, the predominant professional fields in Waswanipi are engineering and construction, management, personal & transportation services, and social sciences and law. Those with these qualifications in these sectors number at 270 people or 20% of the local workforce.



Knowledge of Languages	2011	2021
Cree	96%	89%
English	96%	95%
French	40%	38%



ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Land

The combined land area of 1A and 1B categories amounts to 599 km². The Waswanipi territory includes 62 traplines covering 37,015 km². With 369 people on the ESP in 2021-2022, the share of traditional hunters in Waswanipi (15%) is similar to the Cree average (14%). Nonetheless, the average trapline area per ESP adult is slightly less (180 km² versus a Cree average of 210 km²). The average annual allowance per ESP unit was significantly higher (+10%) in Waswanipi compared to the Cree average, but still at a basic level (\$20,435).



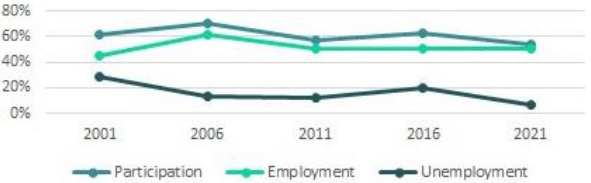
	Category 1A	Category 1B	Traplines
Land area (km ²)	386	213	37,015
	Waswanipi		Crees
Nb/% beneficiaries on ESP Program	369 (15%)		14.3%
Avg. annual ESP unit allowance (21-22)	\$ 20,435	\$ 18,580	

Source: 1. Traplines: CMEB (2022). 2. ESP: CHESB (2022).

Labour Market

The participation and employment rates in Waswanipi (54% and 50% respectively in 2021) are less than the Cree average (61% and 56% respectively), which is less than the Quebec average (64% and 59% respectively). The participation rate has decreased over the last 20 years while employment rates remained rather stable. Waswanipi's participation and employment rates are around six percentage points less than Cree average, the latter around six percentage points less than the Quebec average. Mainly permanent position jobs are offered in Waswanipi (76%) slightly higher than the Cree average (72%).

Labor Rates

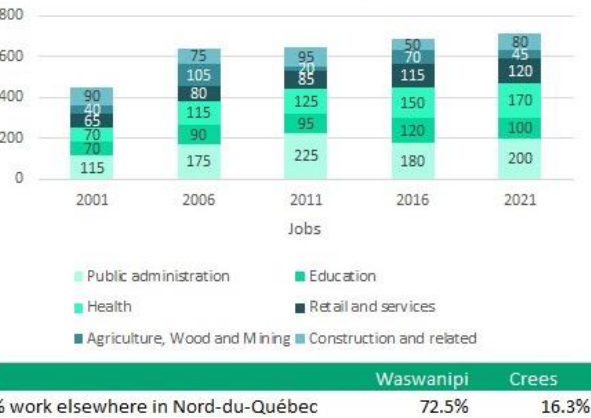


Class of Worker



Evolution of Employment

In 2021, the level of employment, according to the Census, has been approximately 720 people employed in Waswanipi, from a steadily growth since 2001 (450 jobs). In 2021, the public sector (public administration, healthcare, and education) accounts for two thirds (66%) of employment in Waswanipi. Since 2006, the public administration, education and construction sectors have been constant contributors to the economy. The health and retail sectors have been growing and contributing the most to the community growth with 47% and 50% increase in people employed since 2006.

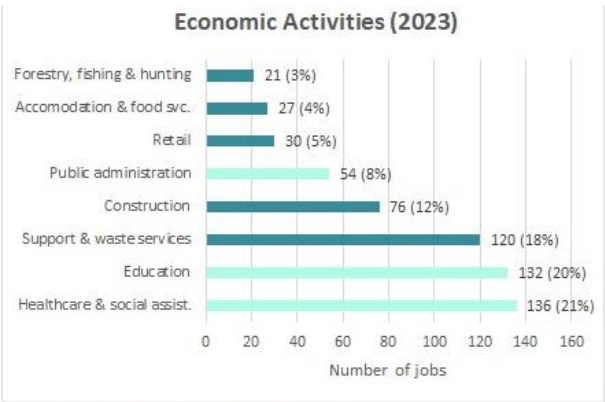


	Waswanipi	Crees
% work elsewhere in Nord-du-Québec	72.5%	16.3%

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Economic Activities

According to the employer consolidated database, health care and social service is the largest sector in number of jobs (136 or a fifth of local employment) which, combined with public administration, and health, and social services, provide 250 jobs or 49% of the community employment in Waswanipi (SPN, 2023). In the private sector, administrative and support services employ 132 people, while the construction, retail and accommodation sectors provide 133 jobs and has to most potential for growth. Although strongly based on public community services, Waswanipi economic structure is somewhat diversified.



Source: DCI-EDO (2023a) and SPN (2023).

Main Employers

Following the economic structure, the main employers are a mix of public and private organizations. The private or mixed corporations Miyuuka corporation and MKC-Fournier are among the top three employers. Several public organizations are large employers, such as the community health centre, the three schools and training centre, and the band council.

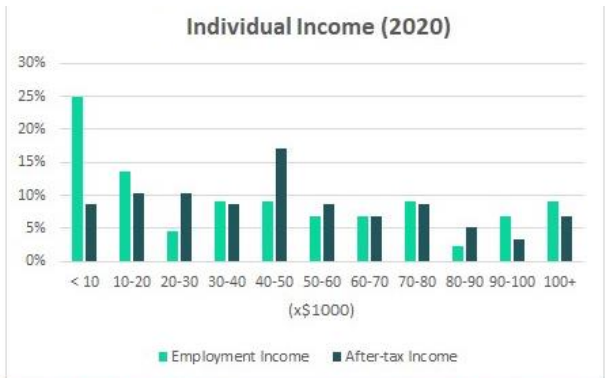
Business name	Activity	Jobs
Miyuukaa Corp.	Support & waste services	120
Service center (MSDC)	Healthcare & social assist.	89
Elem. School	Education	52
MKC-Fournier Inc.	Construction	50
Elementary School	Education	49
Vocational train.	Education	31
Child care	Healthcare & social assist.	30
Waswanipi C.N.	Public administration	25
Fire station	Public administration	16
Cafeteria M.B.R.	Accommodation & food svc.	15
Large sector		% jobs
	Public Sector	53%
	Private Sector	47%
Total		655

Compilation from DCI-EDO (2023a) and SPN (2023).

Income

The median and average total individual income in Waswanipi fall within the \$34,000-40,000 range which is approximately similar Cree average. The average individual employment income (\$33,600) and the average after-tax income (\$40,000) are 7% and 3% lower than the Cree communities (with average of \$38,900 and \$41,300 respectively). The gap with Jamesians is significant, since the employment income 27% lower compared to Lebel-sur-Quevillon, and the after-tax income is 5% lower than in Lebel-sur-Quevillon.

Less than a quarter (22%) of households receive government transfer income. This places Waswanipi at 0.44 on the market income Gini index, indicating a higher level of income inequality within the community than the Cree population score (0.40) and the Lebel-sur-Quevillon score (0.38).



Individual income (2019)	Waswanipi	Crees
Median total income	\$ 33,600	\$ 36,300
Average employment income	\$ 40,000	\$ 38,900
Average after-tax income	\$ 40,000	\$ 41,300
Household income (2019)	Waswanipi	Crees
% of government transfers in income	22%	24%
Prevalence of low income	6%	5%
Gini index, market income	0.44	0.39



Credit: Marie-Hélène Côté, VEI.

Figure 12-4 Rainbow Elementary School

12.3 ECONOMIC OPPORTUNITIES

12.3.1 ENTREPRENEURSHIP/DIVERSIFICATION

The distribution of businesses and jobs by sector is presented in Table 12-1. Public services account for almost half (49%) of all jobs in Waswanipi, for on-reserve and off-reserve band members¹⁷. For comparison, they represent 61% of Jamesian jobs and 71% if jobs in Quebec.

The distribution of jobs and businesses by economic sector shows some diversification in terms of base sectors – industries providing products or services mainly outside of Waswanipi – and induced sectors, those that meet demand within Waswanipi. The latter are represented by administrative, construction, retail, accommodation and food, forestry, and professional and technical services, with 19-120 jobs each. When one excludes the public sector – education, band administration, health care and social assistance – there are 45 businesses in 14 sectors, signifying 333 jobs in the community. This corresponds to 46% of the labor force (725).

¹⁷ According to SPN (2023), the education, health and social assistance, and public administration organizations located in Waswanipi employ 322 people. At the StatCan (2021) Census, the estimate was 470 people from Waswanipi working in those sectors. The gap between the number of jobs in 2023 obtained from SPN-DCI-EDOs and employed people in 2021 Census is - 31% for Waswanipi, that seem to be explained by the difference in public administration and health and social assistance. The difference might also be due to the aggregation process of Census data and the distinction between on-reserve people and off-reserve people.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 12-1 Employment per Sector, Waswanipi

Sector	Number of Businesses	Number of Employees	Number of Employees (%)
Health Care and Social Assistance	5	136	20.8%
Educational Services	3	132	20.2%
Administrative, Support, Waste Management and Remediation Services	1	120	18.3%
Construction	8	76	11.6%
Public administration	5	54	8.2%
Retail	2	30	4.6%
Accommodation and food services	6	27	4.1%
Agriculture, Forestry, Fishing and Hunting	4	21	3.2%
Professional, Scientific and Technical Services	9	19	2.9%
Other services (except public administration)	5	13	2.0%
Arts, Entertainment & Recreation	2	10	1.5%
Mining, quarrying, and oil and gas extraction	2	7	1.1%
Transportation & Warehousing	2	2	0.3%
Finance & Insurance	1	5	0.8%
Manufacture	1	1	0.2%
Wholesale trade	1	1	0.2%
Real Estate and Rental and Leasing Services	1	1	0.2%
TOTAL	58	655	100.0%
Education, health, public administration	13	322	49.2%
Other sectors	45	333	50.8%

Note: No business or job in the following sectors: corporate & business management, real estate and rental, utilities.

Source: Processed from DCI (2023a) and SPN (2023).

Retail and food services in Waswanipi include a few businesses employing approximately 15 people each. These are a gas station, a grocery store, and a restaurant. Bedabin Gas Esso is located along the R113 and offers fuel/diesel and prep meal in their convenience store. It is the only gas station in the community and between the towns of Lebel-sur-Quévillon and Chapais. Cafeteria M.B.R. is the only restaurant in the community and Waswanipi Grocery G.P. is located at the entrance of the community on Poplar Street. Karens's video depanneur provides some food items.

A new commercial building is scheduled to open in 2024. The structure is being built by Nordic Structures and will be operated by Mishtuk Corporation (Nordic Structures, 2023). There will be a grocery store (Waswanipi grocery G.P.) on the first level, bigger than the existing one in the community, and Mishtuk office on the 2nd floor.

Considering this information, an opportunity to build a rest area with food and coffee service, and car and truck parking, is visible, as a future project for the community.

Tourism. This sector only has one business, Dreamcatchers Outfitting Camp (1 job). Currently in Waswanipi there exists no accommodation or lodge, even though the community's attractions and events include a Cultural Village with traditional activities and cuisine, Waswanipi History Day, Chiwehtau Gathering, and a Fishing Derby. It is evident that Waswanipi has significant potential for tourism to take advantage of current activities, and its strategic location.

Construction and project management. Miyuukaa, the largest business in the community with 120 jobs, is an economic driver, creating business opportunities and employment for the community of Waswanipi. It was selected by Osisko Mining at the end of 2022 to finance, build, own, and operate a 69 kV power line from the Waswanipi substation to the Windfall project site, which is approximately 85 km long (Scales, 2022).

The construction sector is developed in Waswanipi and includes several companies. The MKC-Fournier partnership, whose biggest project involves landscape work at the Osisko Windfall mining site, employs 25 people for that project alone out of a total of 50 employees (Fournier-fils, 2023). Other companies include Eenou Eeyou Construction, with 15 employees and with an office in Amos, Construction Cooper-Gilbert, Amiisk Excavation, and Waswanipi Eenouch, with 3 or 4 employees each. Eenou Eeyou construction specializes in commercial building construction and other civil engineering works and has offices in Amos and in Waswanipi. For a medium-size community, Waswanipi has a strong basis for construction activity.

CGW (2015) shows that among the construction jobs given to Cree contractors in different communities in Eeyou Istchee, Waswanipi was awarded 0.2% of the total value of contracts and accounted for 5.4% of total employment in those contracts, equivalent to an average of 9.8 monthly jobs during HQ Eastmain 1A works from 2007 to 2011. For the operation phase 2012 to 2016, Waswanipi was awarded 0% of the value of Cree contracts and accounted for 1.8% of Cree employment in those projects, equivalent to 0.4 monthly jobs. This data shows that Waswanipi has missed many opportunities to seize construction and operation contracts. However, its workforce has participated in these major projects in Eeyou Istchee.

Education. The community is home of Sabtuan Regional Vocational Training Centre (SRVTC) which offers 9 programs in various domains such as carpentry, computing support, construction business management, construction equipment mechanics, driving class 2, northern heavy equipment operations, pastry making, recreation leadership, and welding and fitting. Over 700 Crees have built their careers from SRVTC. LGA would present the opportunity for the SRVTC to offer new training and increase the existing programs' capacity.

Mining. Waswanipi has private agreements with the Osisko Mining company for their Windfall site located south of the community. There is an Environmental Monitoring Committee involving Osisko Mining and the community. Bonterra Ressources is engaged in liaison activities with the community.

Forestry. The Cree Forestry sector is the most developed in Waswanipi, which harvests 70% of the total produced, since the Paix des Braves, on Category II land. Waswanipi is allocated an annual allowed cut in category 2 lands of 225,000 m³. The largest share of the allowable cut which is not harvested is the potential allocated to Nabakatuk, because the sawmill in Waswanipi has not been operating for long. On the other hand, 90% of Eenatuk Mistissini and Waswanipi PRAU's allowable cut is harvested.

Mishtuk, along with Eenou Forestry, is a Cree harvesting company in Waswanipi. Mishtuk employs 15 people and Eenou Forestry 4 according to the SPN database. Mishtuk offers services in construction management and other forestry operations. It has a 51% ownership in Cree Lumber in a partnership with Chantiers Chibougamau. Unfortunately, a fire caused destroyed its facilities in January 2024. The assessment of the possibility to resume the sawmill has not been completed and it is not clear if it will be rebuilt.

Waswanipi has one of the few Cree forestry companies. Like its counterparts in other Cree communities, Waswanipi's forestry operation does not own the necessary equipment. Given persistent barriers to access to capital, purchasing equipment is a challenge. Silviculture entrepreneurship is historically significant in Waswanipi, but while it produced good revenues, other circumstances limit the operation's impact as a catalyst of labour and business spinoffs (VEI-WSP, 2013).

Entrepreneurship. According to Waswanipi CIOs and its EDO, the organization of the territory, including the transportation network, has historically been driven by the external economic interests, from the fur trade to forestry, to the mining sector. Cree have not been part of any development project on their lands (EDOs, 2023). The sawmill represented a successful example of what Cree entrepreneurial drive can achieve. It was a living demonstration of how one Cree community can have regional impact through its own business initiative. The sawmill was a Cree solution contributing to resolving the housing demand in Eeyou Istchee by sending 20% of its lumber output to other Cree communities.

Out of the 45 businesses identified by the DCI (2023a), the DCI (2023b) regional funding program supported an average of 2.2 Waswanipi businesses per year over the last 12 years, representing 11% of the program. This business share in Waswanipi is higher than its population, amounting to 14% of all businesses in Eeyou Istchee. The private sector also generates a large share of employment, more than the Cree average, but lower than in Jamesian communities.

Business Projects or Potentials. From the EDO's perspective, the current long-term project in the community is the Osisko mining, Bonterra, and Cree Lumber and the integration of smaller scale projects. The current projects (requests for funding, market studies, or business plans) in the community include:

- a new gas station project;
- a Eeyou storage project;
- a museum project;
- support for SM tires business;
- support for Anisk excavation business;
- support for Rate enterprises business;
- the creation of Creefit and Jolly tours;
- assisting of a car wash;
- assisting material/fabrics business.

12.3.2 LGA EFFECTS ON LOCAL ECONOMY

12.3.2.1 BUSINESS OPPORTUNITIES

According to Waswanipi's EDO and other authorities engaged through this study, the most relevant LGA infrastructure would be the railway. A railway would bring back the ridership service Waswanipi used to have through GCR before it was dismantled in 1994. The revived railway, should it be aligned on the former railbed, would reduce access to traplines, as currently the Grevet-Chapais access is a federated snowmobile path. On the other hand, the return of the railway would resolve in part the road safety problem on Route 113, which has significantly deteriorated between Lebel sur-Quévillon and Waswanipi. The railway would also remove several trucks from the road, further improving safety. The alignment of the proposed recommissioned GCR has been optimized to serve Waswanipi and other potential users.

From the community point of view, the missing elements on the LGA program are the paving of the road between Lebel-sur-Quévillon and Matagami to ease access to relatives on the James Bay coast. The connection out east to Schefferville should also be considered by LGA.

The business opportunities through LGA could include:

- Connecting the sawmill or other factories to the railway network will ease the import goods and export of lumber either to southern market or other Cree communities.
- For the community to develop a warehouse station whether from the railway or the road 113, because his location is best to serve Abitibi, inland communities (Chibougamau, Mistissini) and coastal communities (Matagami, Waskaganish). This opportunity would translate in more transportation business to be created and transiting in Waswanipi.
- Developing a hub with the railway passenger station, with the enhance the following sectors tourism, food services and stores, accommodation, gas/battery-charging stations, arts & crafts, land touring, etc.

12.3.2.2 JCIM RESULTS

LGA would need workers during a long period of time. Some of these jobs can be fulfilled by workers from Waswanipi, such as direct jobs on the railway during operation, but also as workers for companies that are subcontracted for the works during construction or for the maintenance during operations.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Direct Operation

The LGA studies (VEI, 2023c) reveal that operation of the GCR would create 22 direct jobs for the Waswanipi community at the yard and station, located possible near the community and/or in Desmaraisville at the junction of the proposed railway and the route 113. With a Cree provision of the railway service, the yard and station jobs could be filled by Waswanipi members. The recommissioning of the GCR segment will create demand at the station, one resource for track and signalling and one for the passenger services. It would create twenty jobs at the Waswanipi yard used for Cree lumber and other factories for a grand total of 22 jobs, as shown in Table 12-2.

Table 12-2 GCR Operations at Waswanipi

	Chapais-Yard	Chapais-Station
Administration	-	-
Main Line Operations	-	-
Yard and Siding Operations	20	-
Rolling Stock Maintenance	-	-
Track and Signalling Maintenance	-	1
Passenger Services	-	1
Total	20	2
Grand total	22	

Source: VEI (2023c).

LGA Indirect Job Creation

From the assumptions of the calculation model of the economic impact of the LGA transportation infrastructure described in Section 2.4.3 and developed in Section 3.5.4, Waswanipi could obtain a total of \$612M in contracts during all three phases of the construction period from 2030 to 2044, as shown in Table 12-3. On an annual basis, Waswanipi entrepreneurs would be awarded \$47M in contracts on average. Over this period, a total of 3,441 person-years could be created, or the equivalent of 265 FTE jobs on average over the 15-year period, for the people of Waswanipi.

Table 12-3 Job Creation and Contract Impacts per LGA Phase, Waswanipi

Impacts	Construction		Operation	
	Lifespan (2030-2044)	Annual Average	Lifespan (30 years)	Annual Average
Contracts (M\$)				
Phase I	280	56	49	2
Phase II	189	32	0	0
Phase III	143	24	0	0
Total	612	47	49	2
Employment (persons-years)				
Phase I	1,572	314	933	31
Phase II	1,063	177	0	0
Phase III	806	134	0	0
Total	3,441	265	933	31

Note: The total may differ from the sum of terms due to rounding.

Still using the job creation impact model, Waswanipi entrepreneurs could obtain around \$49M of contracts during the operating period, from which all comes from the Phase I infrastructure program. The job creation benefits for the community represent however both direct and indirect employment, with 31 FTE jobs estimated starting from 2035 for every year in operations.

Across the portfolio of Cree communities, the job creation benefits for Waswanipi account for about 9% of the total jobs created during the construction period and 4% during the operation period. The results could be changed based on targets and parameters for Cree participation in the projects, which infrastructures of the LGA program are built, the importance of the proximity of the community to the location of works or operations, and the dynamism of its entrepreneurs.

12.3.2.3 LONG-TERM SUSTAINABILITY

Based on the Job Creation Model and the GDP data presented in Section 2.5.5, long-term sustainability brought by the LGA was also calculated for the community. With increased participation of Waswanipi workers in the construction sector, the local economy is expected to boom during the construction period of the LGA infrastructure. LGA infrastructure would allow the standard of living, estimated using GDP per capita, of Waswanipi residents to be 80% higher in 2032 during the peak year of the construction period at \$42,641 per capita than it would be without LGA at \$23,664. When the construction period is over, the impact of LGA on GDP per capita would be maintained to 5% above the GPA per capita without LGA by 2045 (\$24,521 compared to \$23,357, respectively), and 4% higher by 2074. Given that by 2074 local employment would increase by 3% with LGA, the GDP would increase by 7% by then (\$25.9M with LGA versus \$24.1M without LGA). Meanwhile, Waswanipi GDP per capita remains stable after the construction period and the LGA effect is altogether limited. This could be explained that no forecast operation jobs for phases II and III offset by the growth of the medium size community.

This calculation reflects the increase brought by the maintenance and operation of the LGA infrastructure only. It does not capture any benefits brought by the development of the community in other sectors such as forestry, mining, local production, territory rehabilitation, and tourism, to name a few potential sectors.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

JCIM - Waswanipi Employment (left scale) & GDP per capita (right scale)

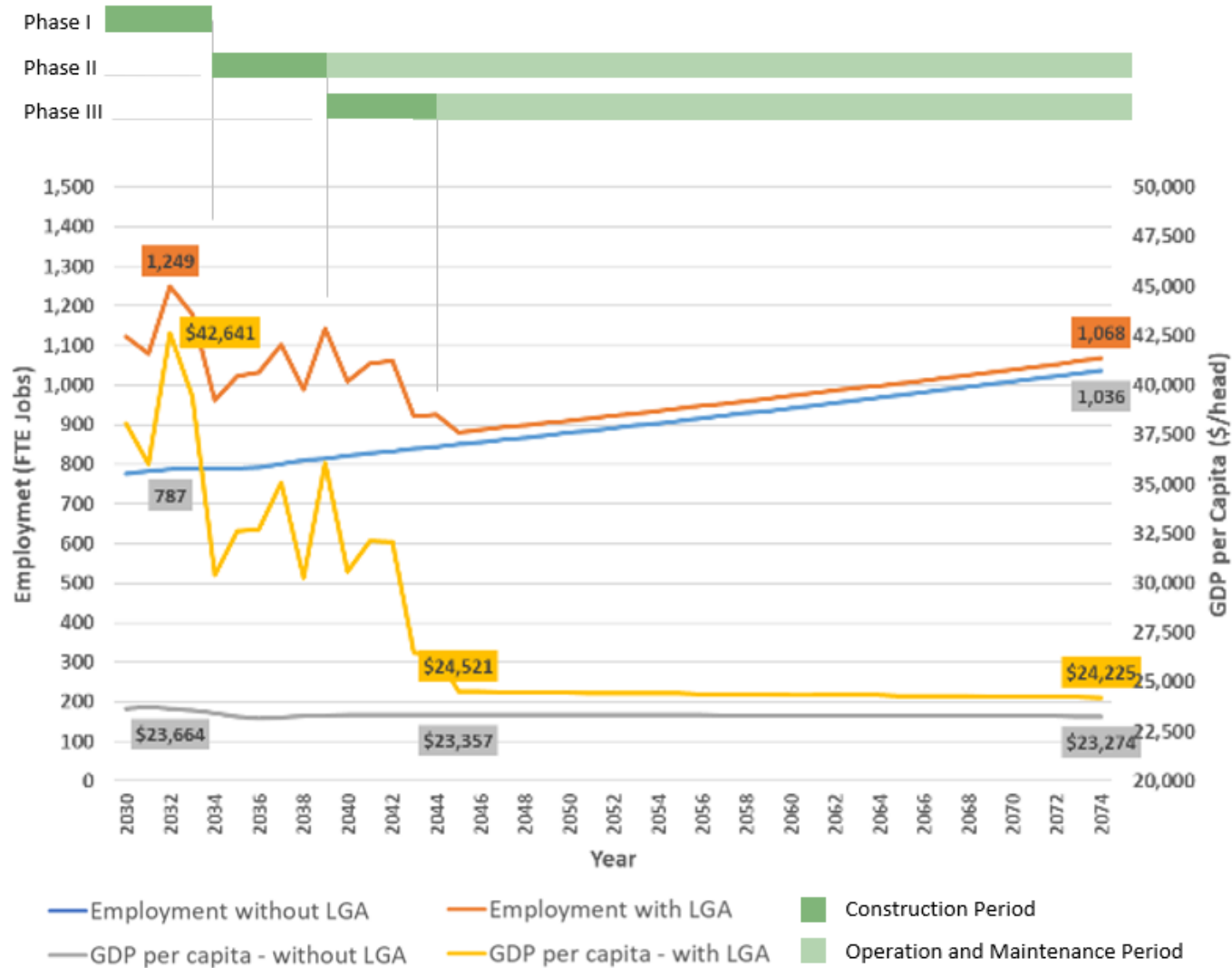


Figure 12-5 Impact of LGA on GDP per capita and Employment, Waswanipi, 2030-2074

12.4 LAND-BASED ECONOMY

12.4.1 OVERVIEW

12.4.1.1 IMPORTANCE OF THE TRADITIONAL LAND-BASED ECONOMY

The traditional land of the Waswanipi community is a vast area that was occupied well into the prehistoric era. NWC and HBC started trading post in the area in 1799 and 1819 respectively. An Anglican mission was founded later in 1846 on an island north of the Lake Waswanipi. When the HBC trading post closed in 1965, in conjuncture with the completion of the road linking Chibougamau and Senneterre and the development of the mines in the surrounding areas, the Waswanipi community disperse. Since a large part of the traditional way of occupying the land is articulated around the harmonious exploitation of the resources and the caring of the land, Waswanipi Cree decided to come back in the area and found the actual village in 1978 (Commission de Toponymie, 2024).

Waswanipi is located near the confluence of the Opawica, Chibougamau and Waswanipi Rivers. The village was built in 1978 approximately 45 km upstream the Waswanipi River from the former location (CFNW, 2022). It is the southernmost Cree community and can be accessed by Route 113. Waswanipi’s territory is divided into 62 traplines covering 37,015 km² (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).

As stated in the EPC report (EPC Waswanipi 2017), a core value of Waswanipi is a deep connection to the land. This value is reflected in their everyday life and in the way they envision their relationship with the land and other users of the land such as the individuals, the governments and the mining or forestry industries. Since they see themselves as steward and caretaker of the land, the negative impacts that forestry and mining exploitations are causing on the traditional land goes against their traditional value of caring about the health of the land.

In 2021-2022, about 15% of the population (272 Waswanipi members, representing 135 family units) was enrolled in the ESP for their livelihood, sometimes combined with other occasional jobs. In total, 32,041 days spent in the bush were paid to the land users for that same year, for an average of \$20,435 per family unit (see Table 12-3).

As mentioned in section 3.6.3, the price of fur has gradually declined over decades. Several factors can affect ESP participation, which varies from year to year depending on, among other things, the economic climate and employment opportunities, or a readjustment in eligibility (CHESB, 2023, CHTISB, 2012).

Table 12-4 Beneficiaries of the ESP program, Waswanipi, 2021-2022

Waswanipi - Family Units (nb)	Total (adults and children)	Total Days Spent in the Bush	Average per Family Unit (days paid)	Average Allowance per Family Unit (\$)
135	272	32,041	237	\$20,435

Source: Compilation CHESB, Annual Report 2021-2022.

In 2021-2022, 1,120 members (including 103 junior) were enrolled at the CTA, which is lower than in 2019-2020 and 2018-2019 (see Table 44). The local CTA offers different programs and services to its members. In 2021-2022 in Wawanipi, the most popular was the Gas Subsidy program, as 427 members benefited from it (see Table 12-4). The previous year (2020-2021), there were more programs but the most important was also the Gas Subsidy distributed to 443 members.

As mentioned in section 3.5.2, the price of fur has gradually declined. A beaver fur was worth on average \$12.39 in 2015, while in 2022, it was \$7.57. Table 44 shows, for Waswanipi, the number of CTA members, how many sold furs, and the value of these sales between 2012 and 2020. The 2021-2022 report shows that CTA fur sales reached \$37.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Table 12-5 CTA Membership and Fur Sales, Waswanipi, 2012-2020

	2012-2013 ^a	2013-2014 ^b	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
CTA Member (n)	-	-	672	678	724	1,089	1,127	1,152
Trapper who sold fur (n)	33	42	35	32	13	10	7	2
Fur sales (\$)	-	-	\$10,276	\$5,473	\$3,797	\$2,703	\$1,044	\$162

Note a and b: these annual reports were not available on the CTA website, for this reason some data are missing.

Source: Compilation from 2012-2020 CTA Annual Reports.

Table 12-6 Number of Members Helped by CTA Programs and Projects, Waswanipi, 2020-2022

Program/Project	2020-2021	2021-2022
Cabin insurance	15	N/A
Cabin building/renovation programs	2 cabins	-
Gas subsidy program	443	427
Hunting subsidies and supplies	6	-
Equipment repair or purchase subsidies	17 ^b	16 ^a
Transportation subsidies - Air or Bush plane	-	-

Note a: 7 members for Equipment assistance repairs + 9 Equipment repairs.

Note b: 9 land users for equipment assistance and 8 for equipment repairs.

Source: Compilation from 2020-2021 and 2021-2022 CTA Annual Reports.

12.4.1.2 COMMUNITY ASPIRATIONS

In their vision of the future, the Crees of Waswanipi who participated in the EPC survey in 2017 intended to strengthen the Cree role in development, governance, and land management to ensure that Cree values and the Cree way of life is respected. The vision also includes the protection of land and water notably the Broadback River.

With a Cree-led development, the Crees of Waswanipi expect to create more opportunities in their development and to be able to create partnerships in projects. They desire to take ownership of their development in their own terms. These terms include keeping the land healthy and the Cree culture strong.

12.4.2 RESOURCE ACCESSIBILITY

Changes in resource accessibility (whether physical access or the quality and abundance of resources) can lead to impacts on the economic and cultural way of life of the Crees. As these are strongly related, this section mainly addresses the physical access, while the quality of resources is briefly covered in section “Cultural Continuity”.

12.4.2.1 CHANGES AND CONSTRAINTS LINKED TO DEVELOPMENT

Forestry activities are ongoing on Waswanipi’s territory since some 40 years. Participants from Waswanipi of the EPC (2017) and from LGA consultation (VEI) noticed several phases of forestry, or of encroachment. The first cycle of logging was done with horses and logs were removed manually. An old logging area is located on the north side of the Grevet-Chapais trail from the 1st wave of commercial logging activities. Logging activities also took place further north from the Grevet-Chapais trail around 10 to 20 years ago, and now the forestry industry have expanded in a grid pattern on both sides of a stretch of 1 km of the trail. Forestry activities are also occurring between Houghton and Mechamego Lakes. There used to be brook trouts in Grenier Lake and some of its small tributaries, but it disappeared due to the forestry activities as the lake and streams dried up. Participants also indicated that the forestry companies made a clear-cut the size of a community, and some tallymen are beginning to

see the effects on their hunting activities. Some tallymen consider that their ancestral trails are impacted by this industry. In the EPC report for Waswanipi (2017), the vision regarding future development, especially forestry, should integrate better Cree perspective.

12.4.2.2 IMPACTS OF PROPOSED INFRASTRUCTURES

The LGA infrastructures proposed within the Waswanipi' territory are the potential GCR and the BDHR.

One of the main concerns related to the return of service of the GCR is the loss of access to and within traplines, and consequently the use of the land. Indeed, the Grevet-Chapais trail is used by some land users as an artery to access the territory. The Cree land use study participants shared that they had been using the Grevet-Chapais trail for 12 years and are still using it as an artery to travel by ATV and by snowmobile, though most of that part is practicable by vehicle.

Travelling could be expensive (fuel cost for example) to reach camps by vehicle, so travelling by ATV on the Grevet-Chapais trail represents an effective mean of accessing the traplines. However, some land users mentioned that it is dangerous on the trail when crossing forestry trucks. Some parts of the trail are narrow, while others are wide. Furthermore, some embankments are high with 30-40 feet slopes in some parts.

As for the potential BDH railway, one of the main concerns with the construction are the potential contamination of the watercourse and fish that are consumed during and after the construction. The presence of train would also be a nuisance to the camps in proximity to the rail. Also, smaller traplines could be more impacted by the proposed alignment as their territory would be fragmented furthermore and every part is vital to the tallymen land use.

The impacts anticipated by Waswanipi land users on resources related to potential pollution and wildlife disturbances are addressed in section "Negative impacts and conflicts with land-based economy". Furthermore, land use and culture are deeply rooted together, these impacts on access, water and resources are addressed in the sections 12.4.3 and 12.4.4.

12.4.2.3 SUGGESTED MEASURES AND OPPORTUNITIES

Some measures or suggestions emerged from the LGA consultation interviews in Waswanipi regarding the access to resources such as:

- Building a path/access road adjacent to the potential railway could be a solution for a safe access to the land;
- Relocation of some camps close to the railway might be needed to ensure tranquility of land users.
- The compensation model should be different than the Niskamoon model.
- Cree youth should be more involved in the decision and implementation process.

See the section 3.5.1 for general suggestions or opportunities applicable to the Cree communities for a better accessibility to resources. Furthermore, land use and culture are deeply rooted together, these impacts on access, water and resources are addressed in the sections 12.4.3 and 12.4.4.

12.4.3 CULTURAL CONTINUITY

The people of Waswanipi place great importance on the health of their land as a whole, an interconnected unit in which animals, trees, water and the Cree are part of and mutually affect each other. The physiological, cultural and spiritual health of the Crees, are linked to the health of the land, hence the importance of keeping the land intact for future generations to occupy, care for and benefit from. Waswanipi community also highly value the Cree knowledge that the Elders held. This knowledge is deeply connected to the land, what to hunt and how to sustainably harvest. Participants from Waswanipi of the EPC (2017) and from LGA consultation (VEI) also expressed that the Cree occupation of the land and cultural activities are important to maintain and improve. With contemporary way of life and the impacts of development, it was stated that it can be difficult to spend time out on the land, especially for the youth.

12.4.3.1 IMPACTS OF INFRASTRUCTURES ON CULTURAL CONTINUITY

The potential BDH Railway will be located along the BDH between Matagami and Waskaganish (KM 257 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.

The potential GCR 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 GCR crosses ten traplines in Waswanipi.

The proposed infrastructures and the development that might follow could affect cultural continuity, if it disturbs valued areas or contaminates the environment.

The fact that most land users do not live from the land anymore and occupy paid jobs partly explains the growth in importance of modern roads, as they provide faster access. Forestry exploitation of the land had already reduced the usable land for the Waswanipi community so the addition of infrastructure on the smaller trapline could affect harvesting.

Also, land users access the land by ATV and snowmobile trails. Participants noted that the GCR is a main artery, and the construction of the rail would conduct to the loss of this trail.

As land use and culture are deeply rooted together, the impacts on access, water bodies and resources are addressed in section 12.4.3 and 12.4.4

12.4.3.2 SUGGESTED MEASURES AND OPPORTUNITIES

During the interviews regarding the LGA proposed infrastructures, land users expressed measures such as:

- Protect valued area between de BDH (approximately from km 25 to km 28) and Lake Olga.
- Select alternate alignment to avoid highly sensitive area (approximately from km 122 to km 132 of the BDH)
- Protect the creeks along the GCR as there is not a lot of places to relocate the activities.
- Relocate the camps as per tallymen's preference.
- Monitor water quality in Lake Opawica.

The section 12.5.3 shows other measures that could be put in place for all the Cree communities to ensure that the infrastructures would not interfere with cultural continuity and to promote the use of the land. Furthermore, land use and culture are deeply rooted together, these impacts on access, water and resources are addressed in the section 12.4.3 and 12.4.4

12.4.4 SYNERGIES AND CONFLICTS

12.4.4.1 POSITIVE IMPACTS AND SYNERGIES

As mentioned for other communities, if Crees have facilities to use the train (e.g., affordable price, possibilities of on-demand stops, transportation to reach and leave from the train stop), and if they have a road to access the land, it could encourage activities on the land and land-based economy. Harvesting, including fishing, could be done more easily throughout the year.

In sum, several people from Waswanipi foresee more accessible traditional activities due to reduced costs of goods and equipment such as hunting material, and an easier access to the land.

12.4.4.2 NEGATIVE IMPACTS AND CONFLICTS

Different concerns were raised by Waswanipi people regarding the construction of the Grevet-Chapais and the BDHR.

Nuisances are foreseen during the construction and operation phases, such as pollution of air, soil, and water, as well as noise pollution. People are concerned that the construction of infrastructures would impact water bodies and watersheds. There are highly sensitive areas to protect from pollution, but also from changes in the land hydrology.

Regarding impacts of infrastructures on wildlife, some fear it could affect their one livelihood. They say the construction of rails could have a major impact on noise-sensitive wildlife such as beavers, birds, or other animals, while caribou are not disturbed by noise, dust, or odors. Land users also states that the resources decreased since forestry industries harvested the land. They added that the ongoing development such as the proposed project could lead to a decrease of wildlife in the territory.

Indeed, the change in animal behaviour due to noise could affect traditional activities, meaning hunting, trapping, fishing, and gathering. The infrastructures could also reduce hunting areas or disrupt the cycle of use of the traditional territory. For a land user, the loss of tranquility, both for wildlife and for the practice of traditional activities, is the main anticipated impact of the railway.

The presence of other users may exacerbate social tensions with outsiders and cause overharvesting (hunting and fishing). Some also mentions a new road and rail could have an impact on wildlife, through collisions and abusive and disrespectful hunting of animals. There is also a feeling of insecurity related to the presence of non-Cree workers on the land. According to the EPC report, Waswanipi has one of the highest rates of non-Cree occupation of Eeyou Istchee because of the proximity of non-Cree communities and easy access from many forestry roads. It is also noted that a large number of non-Cree cabins could disrupt sensitive habitat areas and land use activities such as hunting and harvesting.

The relation between project developer also needs to be clear on mutual understanding. Previous experiences could have created insecurities or doubt regarding future development. Forestry, mining, and other forms of industries have impacted the Cree way of life in Waswanipi, which left the community suspicious of new development. For example, the forestry road network has radically transformed the landscape in many Waswanipi traplines and impact their way of life by changing the landscape and the ecosystem by changing the species of trees. Moreover, the EPC report states that the cumulative impacts of forestry and other industrial activities have serious impacts on the traplines and the ability of hunters to live from the land and be successful.

For all phases of the proposed infrastructures, the construction period is deemed to be particularly disruptive for land users who will suffer the inconvenience. Community members recall that there is a decision to be made by the community about its threshold of tolerance (what they are willing to sacrifice).

12.4.4.3 SUGGESTED MEASURES AND OPPORTUNITIES

Regarding the BDH railways alignment, concerns were expressed with both the optimized and the preliminary alignment. In small traplines, every part of it is vital. As a result, participants recommend during LGA engagement activities to build the railway outside of those traplines. Tallymen expressed that they have already been impacted by the construction of the highway and forest activities. It was also stated to pave the road before building a railway.

According to the EPC, Waswanipi community members need to live in a healthy land that provides for them. To be able to do so, they need to be a part of the decision-making and the main actor the governance of the territory. This can be by creating development partnerships with proponents or by being the main promoter in the projects. By doing so, they will assure that the land is taken care of in a traditional and meaningful way for their way of life and culture. This stronger role in governance passes through more Cree activities and presence on the land, and the authority that confers. Some initiatives for governance work involve the leadership of Elders and implementing a land use plan which sets out what the Crees want for their lands. (EPC Waswanipi, 2017).

12.4.5 ECONOMIC VIABILITY

12.4.5.1 EXPECTATIONS AND OBSTACLES

As in other Cree communities, at Waswanipi, some of the main values that underlie the use of the territory are having a clean environment and healthy wildlife, respecting the animals, and having a good knowledge of the language and traditional knowledge.

An important issue related to future development is the availability of borrow materials. Indeed, in addition to the significant presence of wetlands, granular resources are often located further and further away from projected infrastructures. This distance then implies the construction of access roads and longer round trip, sometimes resulting in significant costs. In addition, some resources that may be found nearby are restricted to exploitation. The interactive map from the Geomining Information System (SIGÉOM) shows these mining activities restrictions, which include:

- Protected areas or proposed protected areas;
- Biological refuges;
- Energy transport lines and hydroelectric installations.

12.4.5.2 NEW PATHS FOR LAND-BASED ECONOMY

See section 3.5.3 for more considerations regarding business or activities related to the land, that are not all traditional activities, but could, if developed, generate income while remaining connected to the land.

It should also be noted that, according to Waswanipi EPC, the importance and challenge of increasing the hunting economy with wage employment figures prominently in Waswanipi vision for land use and development.

Indeed, Waswanipi Crees also envision to play a bigger role in governance of territory which mean take initiative with government and proponents and integrate Elders to ensure Crees partnership. (EPC Waswanipi, 2017).

12.5 COST OF LIVING

The cost-of-living study in Waswanipi was based on grocery prices at Waswanipi grocery red'g and Karen's depanneur. In 2024, Waswanipi will have a large grocery store. Currently, Waswanipi residents need to travel to Chibougamau or Val d'or to access larger scale grocery stores. Food and beverage prices displayed at Waswanipi grocery red'g, food services at cafeteria MBR, gas price at Esso Station, and internet prices by Starlink and Eeyou communication/Distributel during the survey in fall 2023 are given in Table 12-7. The average monthly rent of a dwelling provided by the band as of the StatCan (2021) census also appears in the same table.

Table 12-7 Commodity Prices, Waswanipi, Fall 2023

Item	Price	Cree Average	Diff.
Food and beverage			
1 litre of orange juice	\$6.25	\$5.03	+24%
10 pounds potato bag	\$6.85	\$11.54	-41%
12 eggs	\$5.00	\$5.90	-15%
12 Pepsi/Coke cans	\$12.00	\$12.96	-7%
2 litres of 2% milk	\$5.65	\$6.77	-17%
24 water bottle pack	\$10.00	\$12.35	-19%
284 ml Campbell tomato soup can	\$2.65	\$3.24	-18%

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Item	Price	Cree Average	Diff.
500 g lean ground beef	\$10.70	\$9.79	+9%
650 gr marble cheese brick	\$12.50	\$16.23	-23%
Total	\$71.60	\$83.81	-15%
Transport			
1 litre of regular gasoline	\$1.65	\$1.94	-15%
Communications			
Monthly internet payment (10 Mb/s) – Starlink	\$169.60	\$140	+21%
Monthly internet payment (10 Mb/s) – Eeyou communication/ Distributel	\$110.46	.	.
Housing			
Average monthly shelter costs (rent)	\$560.00	\$497.78	+13%

All the prices of grocery articles appear to be slightly lower than the Cree average. Just like Oujé-Bougoumou, Waswanipi residents have access to cheaper food and beverages for the southern communities versus the coastal ones. Table 12-8 presents the comparison of price indices at Waswanipi with other communities. The food and beverage, transport and communications are 15% cheaper for Waswanipi, while communication and housing cost account for 21% and 13% higher cost than Cree average. In the same way, the Internet monthly fees were \$110 from the Eeyou communication local provider and \$170 from Starlink, a 35% difference. The higher cost of housing can be in part explained with the sector of the construction companies based in Waswanipi, do land scaping and commercial building activities, rather than residential housing activities where contractors and subcontractor come from elsewhere.

Table 12-8 Price Indices, Waswanipi, 2023

Index	Waswanipi Relative to Cree Average	Cree Community Relative to Jamésie	Cree Community Relative to Abitibi-Témiscamingue
Food and beverage	◆0.85	◆0.66	◆0.60
Transport	◆0.85	◆0.85	◆0.82
Communications	◆1.21	◆0.92	.
Housing	◆1.13	◆1.31	◆1.45

Note: Base index 1.00 = Cree average. If index is less than 1, the good is cheaper than the Cree average and if index is greater than 1, the good is more expensive than the Cree average. ◆ Prices higher than Cree average ◆ Prices lower than Cree average.

Source: Compilation from 2023 survey (food and beverage, transport, communications) and StatCan Census (2021) (housing).

As mentioned in section 12.2, the average after-tax income in Waswanipi is \$40,000 (StatCan, 2021) or 3 percent lower than the average in Cree communities. The slightly lower incomes of Waswanipi residents and the negative effects of higher housing mortgage and rent are compensated with cheaper food, beverages, and transport. Higher monthly rent costs do not mean higher dwelling quality for tenants, as a third of dwellings need major repair. This is the second highest rate among Cree communities.

When it comes to food and beverages, Waswanipi's prices are higher on average than those in Jamésie (19%) and Abitibi (19%). Gasoline remains the same and shelter costs are lower. This emphasizes the role that dwelling rental plays in controlling the cost of living in Waswanipi and in Cree communities in general, but also the importance lower prices for groceries. In general, lower grocery costs are available through cooperatives or Cree communities-owned stores.

The recommissioning of the GCR with the Waswanipi transshipment yard could help transport bigger goods close to the community at a slightly marginal lower cost. In terms of the entire supply chain, it could affect the transportation cost very minimally, but make the journey safer. The creation of a business park could attract manufacturing if the park is close to a transshipment yard. The potential railway would be a transportation cost-saving for manufactured goods and supplies. A transshipment operation would make shipping overly complex, as there is only one retailer in the community. It is uncertain to what extent the actual price of shipping could be reduced, but it would be a marginal decrease if any. Moreover, in the case of perishable food and beverage products, the fact that a monopoly is setting the price means shipping savings would likely not translate into consumer price reductions.

12.6 SUMMARY

Located along the R113 in between Chapais and Lebel-sur-Quevillon, Waswanipi is the southernmost Cree community. Waswanipi is accessible from the Abitibi and Lac St-Jean. Waswanipi. The community boasted a sawmill, recently lost to fire.

All things considered, LGA could create the most significant economic benefits for the community if a transshipment yard is built near the community. However, the railway alignment would reduce access to traplines.

If LGA options go forward, Waswanipi would gain leverage as a transportation hub or at least be able to position itself as an active part of the railway network's operations and maintenance. Given enough time to prepare, any Waswanipi entrepreneur could benefit as a service provider to LGA-linked infrastructure works, because Waswanipi people are mobile to work in other communities (Shown has the migration rate). The LGA infrastructure is expected to bring numerous employment opportunities.

Waswanipi stands to gain \$612M in LGA contracts over three construction periods, averaging \$47M annually. This could create 3,441 person-years of employment or 265 FTE jobs over 15 years. During operation, Phase I contracts could reach \$49M, creating 31 FTE jobs annually from 2035. These benefits represent 9% of total construction jobs and 4% during operation across Cree communities. LGA significantly boosts Waswanipi's standard of living, with GDP per capita estimated to be 80% higher in 2032 during peak construction (\$42,641 per capita) compared to without LGA (\$23,664). By 2045, GDP per capita remains 5% higher with LGA (\$24,521 versus \$23,357 without). By 2074, with 3% more local employment, GDP would rise by 7% (\$25.9M with LGA versus \$24.1M without), reflecting limited operation jobs for Phases II and III. However, post-construction, the effect on GDP per capita stabilizes.

LGA would enhance forestry harvesting as far as land preservation and the cultural activities of Cree can accommodate. The economic boost from the construction phase would be relatively limited, ending when construction ends. In effect, GDP per capita remains flat in the operation phase. The effects on prices are unknown. Because of its proximity with Abitibi, the community supply chain might be already settled, and the impact would be marginal on the goods being shipped, even from longer distances (e.g., Lac-Saint-Jean). This means it is impossible to predict any increase in the standard of living (increase in incomes) for Waswanipi. This is apart from the numerous environmental impacts that would ensue during construction and operations, as adjacent areas will be impacted. Extensive communications and engagement with community members, with land users, their families, elders, women, and youth, is required to increase the possibility of real and effective mitigation of anticipated and unforeseeable negative impacts.

13 WASHAW SIBI

13.1 CONTEXT

Washaw Sibi was recognized as the 10th Cree nation in 2003 at the annual general assembly of the CNG. The community's name means "the river that runs into the bay". This community is currently an association and has no Category I land designation. The association is currently located in Pikogan and Amos. Recently, the location of the community is envisioned adjacent to Matagami on the west side of the BDH (Guindon, 2023).

The LGA proposed transportation infrastructure of interest for Washaw Sibi include:

- The BDHR, Phase I to enhance the external market access and set the use of a potential freight yard at Matagami-Station on route 109 and where the BDHR alignment starts.
 - The railway in the alignment of the Grevet-Chapais (GCR), Phase I to reintegrate this current snowmobile path to a railway corridor, in which all the rolling stock maintenance will be done at the Matagami yard.
-

13.2 INDICATORS

Since Washaw Sibi is not an official municipality or official band with land, it is not a census subdivision. Consequently, no census data are available on this community. The Washaw Sibi association did not send any data regarding the community.

13.3 ECONOMIC OPPORTUNITIES

13.3.1 LGA EFFECTS ON LOCAL ECONOMY

13.3.1.1 BUSINESS OPPORTUNITIES

Due to insufficient data, economic opportunities cannot be definitively identified. Nonetheless, Washaw Sibi could benefit from job creation of LGA proposed transportation infrastructure, notably the BDHR during the construction and operating periods. If they are relocated near Matagami, the community and workers could be involved in the construction of the BDHR and GCR, as well as in the operation of the BDHR and of the installations (yard and station) in Matagami.

From the community's point of view, the missing elements on the LGA program are the four lanes on the BDH, which could be a solution to overtake slow traffic and trucks on a safer way.

The business opportunities with the proposed LGA transportation infrastructure program could include those mentioned below:

- For the community to use the potential transshipment yard at the Matagami-Station and Route 109 has a tool to receive bulk shipment to build and develop the new community location.
- Develop a specialized employees crew in railway operation such as transshipment operations and rolling stock maintenance as they represent most of the jobs in the Matagami yard accounting for 52 jobs total.
- Develop the business park surrounding the BDHR transshipment yard, located at Matagami-Station on Route 109 and the import/export sector of goods, storage of equipment, management of recycled materials, etc.
- Develop a hub near Matagami passenger station for tourism, food services and stores, accommodation, gas/battery-charging stations, arts & crafts, land touring, etc.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

13.3.1.2 LGA JOB CREATION

The LGA proposed transportation infrastructure construction and operation will require workers during a long period of time. Since there is low chance of the community to be ready by the construction period of the potential LGA infrastructure, we assigned only operation jobs to be fulfilled by workers from Washaw Sibi, such as direct jobs on the railway during operation, but also as workers for the maintenance during operations.

Direct Operation

The LGA preliminary studies (VEI, 2023c) reveal that operation of the BDHR would bring 99 direct jobs at the Matagami yard and station and timber siding. Matagami yard and station is located at less than 10 km near the potential Washaw Sibi site location. Since the railway would be operated by a Cree business, we assumed that Washaw Sibi residents would fill these positions. This new Phase I BDHR segment shall require for 3 administration staff, 10-yard operators, 42 rolling stock maintenance personnel and 10 passenger services at the Matagami yard, for a total of 65 jobs. 1 track and signalling maintenance resource at the station, 5-yard operators at the timber siding, for a total of 71 resources, as shown in Table 13-1.

Table 13-1 BDHR Operations at Matagami

	Matagami Yard	Matagami-Station	Timber Siding
Administration	3	-	-
Main Line Operations	-	-	-
Yard and Siding Operations	10	-	5
Rolling Stock Maintenance	42	-	-
Track and Signalling Maintenance	-	1	-
Passenger Services	10	-	-
Total	65	1	5
GRAND TOTAL	71		

Source: VEI (2023c).

LGA Indirect Job Creation

From the assumptions of the calculation model of the economic impact of the LGA proposed transportation infrastructure described in Section 2.4.3 and developed in Section 3.5.1, Washaw Sibi community has a low probability scenario that it would be ready the construction period from 2030 to 2044, as shown in Table 13-2, no jobs are forecast.

Table 13-2 Job Creation and Contract Impacts per LGA Phase, Washaw Sibi

Impacts	Construction		Operation	
	2030-2044	Annual Average	Lifespan (30 years)	Annual Average
Contracts (\$M)				
Phase I		0	157	5
Phase II		0	0	0
Phase III		0	0	0
Total		0	157	5

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

Impacts	Construction		Operation	
	2030-2044	Annual Average	Lifespan (30 years)	Annual Average
Employment (persons-years)				
Phase I		0	3,011	100
Phase II		0	0	0
Phase III		0	0	0
Total		0	3,011	100

Note: The total may differ from the sum of terms due to rounding.

Still using the job creation impact model, Washaw Sibi entrepreneurs could obtain \$3M of contracts during the operating period, from entirely the Phase I infrastructures. The job creation benefits for the community represent however both direct and indirect employment, with 100 FTE jobs estimated starting from 2035 every year of operations.

Across the portfolio of Cree communities, the job creation benefits for Waskaganish account for about 0% of the total jobs created during the construction period and 13% during the operation period. The results could be changed based on targets and parameters such as the future location of the Washaw Sibi community, but also for Cree participation in the projects, which infrastructures of the LGA program are built, the importance of the proximity of the community to the location of works or operations, and the dynamism of its entrepreneurs.

13.4 COST OF LIVING

Since Washaw Sibi is currently based in the Amos-Pikogan area in Abitibi, the cost-of-living was estimated on the prices of items collected from the Maxi store located in Amos. There are many groceries store in Amos, including Super C, IGA, Maxi, food services at Coq Roti, gasoline stations. Since Amos is in Abitibi and has different Internet and housing prices, this study does not integrate their prices as proxies. The price compilation for our survey took place during the fall 2023. Results are given in Table 13-3.

Table 13-3 Commodity Prices, Washaw Sibi (Amos), Fall 2023

Item	Price (Amos)	Cree Average	Difference
Food and beverage			
1 litre of orange juice	\$1.49	\$5.03	-70%
10 pounds potato bag	\$5.99	\$11.54	-48%
12 eggs	\$4.49	\$5.90	-24%
12 Pepsi/Coke cans	\$6.79	\$12.96	-48%
2 litres of 2% milk	\$6.29	\$6.77	-7%
24 water bottle pack	\$3.49	\$12.35	-72%
284 ml Campbell tomato soup can	\$1.69	\$3.24	-48%
500 g lean ground beef	\$7.49	\$9.79	-24%
650 gr marble cheese brick	\$3.49	\$16.23	-78%
Club sandwich with fries at restaurant	\$13.75	\$17.15	-20%
Medium size coffee at convenient store	\$2.25	\$2.80	-20%
Total	\$57.21	\$103.76	-45%
Transport			
1 litre of regular gasoline	\$1.58	\$1.94	-19%

Source: Compilation from 2023 survey (food and beverage, gasoline, Internet) and StatCan Census (2021) (dwelling rent).

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

As shown in Table 13-4, All the prices of grocery articles seem to be slightly lower than the Cree average, but also cheaper than the Abitibi average. Thus, can be explained by the choice of the different grocery chain choice in Amos versus in Val d’Or. The collected price at Val d’Or grocery were at Super C and IGA grocery chains. The price difference might be reflected from marketing pricing strategies from the different grocery chains rather than different geographical location. The overall price difference from Amos and the Cree average is significantly. The table 13-2 presents the comparison of price indices at Washaw Sibi (Amos) with other communities. The food and beverage are 5% cheaper for Washaw Sibi than Abitibi, mainly due to the choice of grocery chain, while it is 45% than the Cree average mainly due to geographic location and the absence of monopoly in Amos. Transport cost is cheaper in Pikogan than Abitibi and Jamesians meaning gas at the pump is a couple cent cheaper in Pikogan. It is also around a fifth cheaper than Cree communities.

Table 13-4 Price Indices, Washaw Sibi (Amos), 2023

Index	Washaw Sibi Relative to Cree Average	Cree Community Relative to Jamésie	Cree Community Relative to Abitibi-Témiscamingue
Food and beverage	◆0.55	◆0.66	◆0.60
Transport	◆0.81	◆0.85	◆0.82
Communications	.	◆0.92	.
Housing	.	◆1.31	◆1.45

Note: Base index 1.00 = Cree average. If index is less than 1, the good is cheaper than the Cree average and if index is greater than 1, the good is more expensive than the Cree average. ◆ Prices higher than Cree average. ◆ Prices lower than Cree average.

Source: Compilation from 2023 survey (food and beverage, transport, communications) and StatCan Census (2021) (housing).

Since Washaw Sibi is not a built community and that Pikogan community host Algonquins and Crees, there is no available data on only the Washaw Sibi Cree resident from the community on the average monthly shelter costs and on the average after-tax income in Washaw Sibi.

Based on the geographic location of Washaw Sibi community, which is currently located in Abitibi, the cost is lower due to the well-structured supply chains of big grocery stores, the town's population density and the efficient distribution of goods to consumers. Thus, this economic benefit on the basket of good pricing will diminish when the community will be relocated up north, closer to the Matagami area. It would also consolidate the entire supply chain and used of a safer transportation mode. On the other hand, in the case of food and beverage products, which are perishable, the level of prices may show increases in pricing, due to the result of longer distance increasing transport costs, slightly compensated by the economy of scale by increasing significantly Matagami region in population.

The upcoming transshipment yard consolidated operation at Matagami could help the future Washaw Sibi community for their construction. Many materials helping the build like lumber, oil, concrete, machinery coming from the south, would surely help on cost saving, safer transport, and time consuming to build the future community. Overall, Matagami has experience in operating a transshipment yard, which help reducing risk of transshipment operations, which are currently increasing their capacity and creating 15 to 20 new employments (Systra, 2023).

13.5 SUMMARY

Since the future potential location of the Washaw Sibi community might be around Matagami area, the benefits and impacts of the LGA proposed transportation infrastructure could be incredibly beneficial for the new coming community, such as for the operation phase employment and for the transport of bulk materials to build the community.

14 CONCLUSION AND RECOMMENDATIONS

This addendum's primary objective is to discern the value of an inclusive transportation infrastructure program, empowering Cree communities to forecast economic development and seize regional growth opportunities regarding LGA. More specifically, it delves into the social and economic implications of the transportation components studied, aiming to understand how they may affect Cree communities. Driven by Cree inputs in various reports, the report aims to gain a deeper understanding of economic landscapes, provide insights for decision-making, and integrate Cree traditional practices, particularly land-based activities, into the analysis as much as possible into each Cree community, but also acknowledging the importance of regional development for Eeyou Istchee.

This addendum provides an extensive array of data, including descriptive details and analytical observations concerning the effects of the LGA across the region and its various communities. Firstly, this conclusion will summarize the essential points outlined in this document. Secondly, we will recall the limitations of the report. Finally, recommendations will be offered for future endeavors aimed at comprehensively understanding the Cree economy in correlation with traditional land-based practices.

14.1 REGIONAL CREE DEMOGRAPHY AND EMPLOYMENT

A notable aspect of the Cree economy is its demographic trajectory, with the Cree population increasing significantly faster than the Quebec average. Projections indicate that by 2041, the Cree population will reach approximately 23,632 individuals, comprising 66% of the Eeyou Istchee Bay James region's population, up from 58% in 2021. Additionally, the working-age population (15-64) is expected to grow by 28% by 2041, reaching 14,674 individuals. Consequently, the Cree economy will need to create job opportunities at a compound annual growth rate of 1.3% over the next two decades to accommodate this demographic shift.

In Eeyou Istchee, the public sector, including public administration, healthcare, and education, employs 63% of the workforce, while the private sector employs 37% of which construction is by far the main category with approximately 18% of private employment. This public and private employment ratio contrasts sharply with Quebec, where around 63% of workers are employed in the private sector, indicating the need to stimulate private entrepreneurship in Eeyou Istchee in the years to come.

14.1.1 LGA IMPACTS ON CREE EMPLOYMENT

If all phases I, II, and III of LGA ever proceed, the impact on job creation would be substantial. The combined CAPEX for the three phases during the construction period is estimated at \$11.4 billion, with 60% (\$6.8 billion) designated to be directly awarded to Cree entrepreneurs between 2030 and 2044. This proportion is based on the experience of the HQ EM-1A/Rupert Diversion Project, which resulted in 40% of the total project envelope awarded to Crees and Cree businesses. Thus, underlying the assumption is the belief that results from this past project can be significantly improved with the LGA infrastructures. The resulting investment has the potential to generate 38,551 full-time equivalent (FTE) jobs over the course of 15 years, equating to an average of 2,570 jobs per year. During the maintenance phase, another 799 FTE will be created from 2045 to 2074.

The projected growth in employment for Cree workers is ranging from 9,000 jobs in 2030 to 15,000 by 2074. Notably, during the construction phase from 2030 to 2044, employment is expected to peak at 14,000 FTE jobs by 2032, leading to a substantial 77% increase in the standard of living for Cree communities to \$43,000 per capita. Even after Phase III construction would conclude, in 2044, employment levels are expected to remain stable at 11,000 jobs by 2045, resulting from ongoing operation and maintenance of LGA infrastructures. Overall, the LGA would result in a 7.7% increase in sustained employment compared to the scenario without LGA. This would result in an increase in the standard of living by 9.2% compared to the status quo situation. By 2074, the estimated increase in employment would be 5.4%, with a concurrent increase of 6.5% in per-capita income by 2074.

As discussed, the public sector dominates employment in all communities. However, this sector will be unlikely to grow at the same rate as the population, which already has a high percentage of unemployed or underemployed

people. The construction industry, especially local demand, is growing. The construction phase of many proposed infrastructures would likely build on this demand. The non-forest resource extraction sector remains relatively small, apart from Wemindji, Oujé-Bougoumou and, to a lesser extent, Mistissini. Cree companies will likely grow in this sector, especially in areas that complement the land-based economy. Finally, manufacturing and regionally oriented services remain sectors that could demonstrate important growth, especially considering increased regional economic integration. However, many of these factors will depend on capacity building and training, so as to strengthen Cree entrepreneurship.

14.1.2 COST OF LIVING

In general, the current cost of living in Cree communities is higher than in neighboring Jamesian communities. Despite the cost of housing being less expensive due to band-owned homes that follow a social housing model, other goods such as food and beverage, transport and communication are more expensive.

The proposed LGA transportation infrastructure is expected to have a minimal impact on food and beverage prices for most communities, except for potentially shortening distribution routes to Nemaska and northern coastal communities if the Route du Nord is improved. However, the extension of the road to Whapmagoostui could have a greater impact on its cost of living, as it would reduce transportation costs and diversify the offer of goods. Gasoline prices, the basis for the transport price index, vary across Cree communities, with coastal communities experiencing higher prices on average than inland communities. The proposed LGA railway may reduce the transportation costs of oil products. Additionally, the construction of a road up to Whapmagoostui is projected to lower overall transportation costs.

Typically, it is anticipated that enhanced transportation systems, improving logistics and the volume of goods transported, would notably lower the cost of living. However, various factors influence prices of goods, such as current retail structure. It is very difficult to accurately predict the effects of the infrastructure for the end user/consumer. While improved transportation networks enhance the efficiency of goods transport, they may not necessarily lead to a reduction in the cost of living. But a better transportation network would at least secure a better supply of goods. Monitoring how the prices of goods and the cost of living evolve will be of paramount importance.

14.1.3 TRADITIONAL CREE LAND-BASED ECONOMY

Our analysis focused on the potential impacts of proposed infrastructure development on the land-based economy within Cree communities, highlighting the need to better understand this multifaceted concept from various perspectives, including resource accessibility, cultural continuity, traditional harvesting practices, sharing and gift economy dynamics, anticipated economic synergies and conflicts, as well as the economic viability of land-based activities.

A significant challenge faced in this task was the lack of a comprehensive, present-day overview and a precise definition of the concepts involved, which are seldom explored in the existing literature. While our analysis explored avenues for sustaining the land-based economy through modern approaches, such as land rehabilitation and cultural tourism, arts and crafts, non-timber forest products, etc., the scarcity of quantitative data led to a predominantly qualitative examination. Consequently, there were repetitions in the discussions as Cree views and aspirations echoed across different communities.

The primary quantifiable data available were derived from the ESP, which revealed a decline in recent years, particularly evident in inland communities, from 2781 participants or 20% in 2014 to 2499 participants or 14% in 2022. However, this decline does not directly indicate a threat to the Cree way of life and cultural continuity, although there are concerns. While the fur commerce downturn has reduced the number of individuals living on the land, approximately 15-19% of Crees in coastal communities still maintain this lifestyle, underscoring its enduring significance. Even those unable to engage in land-based activities extensively aspire to return later in life, reflecting a core Cree value. Insights from discussions with the CTA shed light on the complexity and paramount importance of traditional land-based activities to Cree traditional spirituality, medicine, knowledge transmission through families, and cultural values. Despite evolving dynamics and adaptations, the deep connection to the land remains a

fundamental aspect of Cree life. For instance, utilizing helicopters or snowmobiles to reach remote traplines does not diminish one's Cree identity. Nevertheless, concerns have been raised regarding the youth critical responsibility in upholding cultural continuity.

Further in-depth analysis and comprehensive studies are imperative to fully understand and develop the land-based economy in Eeyou Istchee. Gaining deeper insights into the Cree perspective on land-based activities will facilitate striking a balance between mainstream economic endeavors and the intrinsic value of traditional land-based practices.

14.1.4 COMMUNITY PORTRAITS

Each Cree First Nations is unique, and the effects of LGA will be different for each of them, presenting both advantages and disadvantages. While LGA holds the potential for positive economic outcomes, it also raises concerns about increased access to the land by outsiders and by large-scale resource exploitation. Therefore, it is crucial to approach LGA engagement thoughtfully and proactively, with extensive dialogue, before any action is taken. The following summaries offer a glimpse into the unique context of each community.

WHAPMAGOOSTUI

Whapmagoostui, as the sole Cree community that is disconnected from Eeyou Istchee's current road network, faces significant economic challenges compared to other Cree communities. Factors such as a higher cost of living, limited services, and an undiversified economy contribute to these challenges, creating financial constraints for residents. Proposed LGA infrastructure offers potential solutions, including projected cost-savings of up to 66% for travelers, and reduced transportation costs for consumer goods. If implemented, LGA infrastructure could position Whapmagoostui as a transportation hub or an active part of the road network, providing opportunities for local entrepreneurs to benefit from associated infrastructure works and operations.

The anticipated employment opportunities from LGA infrastructure projects could significantly improve the standard of living for its residents, potentially reducing the community's high cost of living to levels comparable to southern Cree communities in the long term. Whapmagoostui stands to gain \$426M in contracts during the construction period from 2030 to 2044. This could create 2,396 FTE jobs across all three phases. Annually, entrepreneurs could secure \$33M in contracts, resulting in 184 FTE jobs for the community. Some other 16 to 35 FTE jobs would be added during the later maintenance period. This means the standard of living is higher by 69.3% in 2032, reaching \$44,476 at the peak year of the construction period, from \$26,278 without LGA,

However, better access to the community through the transportation network may lead to challenges, including the potential weakening of Whapmagoostui's unique identity as an isolated community, or the threat of intrusion into traplines by outsiders. Moreover, the environmental impacts of harbour construction and road network extension could extend to river mouth silting and permafrost melting. Environmental impact management would demand careful monitoring, and the involvement of the community through an engagement process. Effective communication and engagement with community members, particularly land users, are essential to mitigate anticipated impacts and address unforeseen challenges, thereby preserving cultural continuity for future generations.

Ensuring economic participation by local actors and the equitable distribution of benefits to the Inuit community of Kuujuarapik, and other northern communities, is crucial for the success of LGA initiatives. Obtaining and maintaining a Social License to Operate is imperative for the LGA to be positively viewed by Whapmagoostui residents.

CHISASIBI

Chisasibi, despite being the most populous Cree community and playing a vital role in supporting governmental infrastructure and institutions, faces more challenges than the rest of the Cree Nation. This is mainly attributed to its lower participation rate and employment rate among Cree communities. With among the lowest cost of living, especially among the coastal communities, Chisasibi could capitalize on the opportunities presented by LGA to further develop its economy.

However, when considering the expected impact of LGA proposals, Chisasibi's prospects appear promising. Positioned at the center of proposed LGA Phase II and III infrastructure, Chisasibi could take the lead in the construction and operation of these projects. Estimated economic benefits for the community are significant, including over \$2 billion in contracts for local entrepreneurs, and 867 FTE jobs annually during the construction phases. Furthermore, during the operational period, local entrepreneurs could secure \$8.6 million in contracts, supporting 166 FTE jobs per year. Consequently, the LGA is expected to transform Chisasibi's economy, fostering diversification and increased wage-earning opportunities.

While the expected positive effects of proposed infrastructure were explored with the community, opinions regarding the proposed infrastructures vary. Some land users express support for road construction, citing its potential to facilitate access to the land, especially amid evident climate change challenges affecting traditional travel methods. They believe that such infrastructure could help sustain the Cree way of life by providing safe, cost-effective access for future generations. However, others are concerned about the potential negative impacts of infrastructure. A particular concern is that better access to the land also means opening the territory to mining activities. These concerns extend to wildlife preservation, resource stability, and environmental degradation. Many community members emphasize the importance of decision-making processes being led by and for the Cree people, with development initiatives subject to stringent environmental assessment to garner community acceptance. Previous Hydro-Québec development projects have had lasting negative consequences for Cree community members. Chisasibi lost about 10% of its traplines to flooding. Today, there is concern about the physical erosion along the La Grande River.

WEMINDJI

Situated strategically at the heart of LGA, Wemindji has the potential to evolve into a versatile hub for goods destined for northern communities. Enhancements to the access road by paving it would further bolster transportation links, particularly along the existing barge freight corridor from its port to northern Nunavik communities, particularly if no other LGA infrastructures north of Chisasibi are constructed. During the construction phase from 2030 to 2044, local entrepreneurs stand to benefit from over \$573 million in contracts and the creation of 248 FTE jobs annually for 15 years in addition of 47 FTE during the maintenance period. With LGA, the household income would be higher by 74% and 7,4% respectively during the construction and maintenance periods.

It is imperative for the LGA to prioritize the preservation of Eeyou traditional land uses and cultural values. By safeguarding these aspects, LGA can inherently align its objectives with the protection of both Cree culture and the natural environment that sustains it. In Wemindji, concerns have been raised by land users regarding the proposed railway, particularly regarding its potential impacts on wildlife habitats and social dynamics. Many community members fail to see any direct benefits in the proposed rail transportation infrastructure, in part because there is no explicit possibility to utilize the train for their own purposes.

Yet, in Wemindji, people have ideas for business development, and many of these ideas centered around land-based activities. Community members do see potential synergies that collaboration between communities could materialize to support sustainable economic diversification. This is one perspective that fits well with proposed infrastructure development. By facilitating greater connectivity among CFNs, local entrepreneurs would feasibly be able to leverage traditional land-based activities in collaboration with entrepreneurs in nearby or more distant communities. In this way, the LGA would enable economic development in the realms of traditional land use, helping to ensure the preservation of Cree culture and the natural environment for future generations.

EASTMAIN

Eastmain will partake in all three LGA phases, garnering \$740 million over the project's duration, averaging \$57 million annually. During construction, around 127 FTE jobs are forecasted yearly from 2030 to 2044. However, in the operational phase, Eastmain will oversee Phase II infrastructure from 2040, creating 18 FTE jobs annually. This heightened employment could elevate the standard of living for residents by 71% to \$46,221 per capita by 2032. During Phases II and III, the standard of living is estimated to be 27% higher than without LGA. Additionally, with 80% of Band-owned dwellings, Eastmain boasts the lowest lodging costs, standing at 30% lower shelter costs compared to the Cree average.

The implementation of LGA initiatives would necessitate local conservation and land management capacity to protect environmental health and cultural continuity, tasks that constitute legal obligations under various Agreements and their corresponding Acts, which apply to the LGA process itself. Various tasks are required to fulfill these legal obligations, including environmental monitoring, animal population management, land use licensing, and the training and employment of Cree individuals. Strengthening local capacity to undertake these responsibilities would directly benefit the local labor force.

Land users in Eastmain express growing concerns regarding resource accessibility, and this concern relates directly to the obligations referred to earlier, as they are linked to cumulative impacts on land and resources, such as increased pressure on wildlife. Adding to this is the fact of already present climate change impacts. Many community members fail to see how their land-based activities could benefit from the proposed infrastructures. Yet others view the possibility of infrastructure along the bay as directly beneficial to interconnected communities. Concerns should be properly addressed, and not be displaced by the voices of those who perceive LGA proposals more positively. Addressing concerns would require extensive communication and collaboration with land users to develop mitigation measures and aid with the identifying and building opportunities for local economic initiatives.

Eastmain Cree First Nation shows strong interest in conservation and land management to ensure sustainable land activities. It is important to define long and short-term approaches, including capacity development. Conservation needs could be managed by community members if capacity building is stepped up. In this regard, LGA can generate momentum to foster this local capacity for land management, generating sustainable, well-paid employment, and ensuring the preservation of cultural and environmental resources for future generations.

WASKAGANISH

Waskaganish stands to benefit in many ways from proposed LGA infrastructure development. Enhanced connectivity to other Cree communities, mining sites, Matagami, and Abitibi would create opportunities for local entrepreneurs to participate in works across the region. Additionally, improved access would attract tourists to Waskaganish, giving local entrepreneurs the chance to develop tourism attractions and hospitality services, boosting the local economy.

The construction and operation of Phase I infrastructures such as the upgrade of the access road and the addition of the Billy Diamond Highway Railway (BDHR) represents an opportunity for Waskaganish to develop construction companies and expertise, as well as railway management, operation, and maintenance jobs for the long-term. There is potential to establish logistics and tourism hubs at Waskaganish Junction, leveraging the community's strategic location in relation to Phase I railway operations. The presence of LGA infrastructure is expected to significantly enhance local GDP and employment opportunities in Waskaganish.

Waskaganish stands to secure contracts totaling \$426M over the three construction phases from 2030 to 2044, averaging \$63M annually. This could create an average of 352 FTE jobs yearly over the 15-year period. With LGA, Waskaganish's GDP per capita would be higher by 90% in 2032 during construction, reaching \$38,219 compared to \$20,167 without LGA. Post-construction, GDP per capita is expected to be 23% higher than without LGA by 2045 and 17% higher by 2074. By 2074, LGA is expected to provide 12% more local employment, resulting in a GDP 31% higher than without LGA.

In the current situation, the proposed infrastructure would marginally alter supply chains for Waskaganish, for example the potential for oil products to be transported by railway with transshipment via the access road, so no significant changes in other local prices are anticipated. However, if infrastructures are built, new projects and development could occur, bringing more people and increased economic activities that could bring down local prices and cost of living more significantly. Overall, improved access roads and new railway infrastructure would offer promising economic growth prospects in Waskaganish.

NEMASKA

Nemaska stands as a strategically positioned community at the intersection of coastal and inland Cree communities, with historical involvement in significant developments such as the Hydro-Quebec Eastmain-1/1A/Rupert Diversion projects and current engagement in hard rock lithium mining developments. Proposed LGA infrastructure holds the potential to significantly improve local access roads, particularly the Route du Nord, offering safer, quicker, and more reliable journeys to and from the community. This enhancement would not only better connect Nemaska to

other Cree communities but also improve access to work sites within the region, including those related to LGA infrastructure projects, Hydro-Québec infrastructures maintenance and development, and other mining ventures.

Should the LGA options proceed, Nemaska stands to benefit greatly, leveraging its experience in supporting major developments through its construction sector. Entrepreneurs and suppliers in Nemaska could enhance their capacity to serve as providers for LGA-linked infrastructure works, particularly with the presence of railways facilitating more affordable transportation to lithium mining sites, which have partnerships with the community. This would unlock the economic potential of the community, leading to numerous employment opportunities and ultimately improving the standard of living for residents.

Nemaska stands to secure \$316M in contracts over three construction phases from 2030 to 2044. On average annually, the entrepreneurs would earn \$27M in contracts. This could generate 1,774 person-years of employment, equivalent to 136 FTE jobs over the 15-year period. By 2032, GDP per capita could be 64% higher at \$45,388 compared to \$27,234 without LGA. After construction, LGA's impact would maintain GDP per capita 10% above the scenario without LGA by 2045, reaching \$30,476 versus \$27,656. By 2074, GDP could rise by 12% with 5% more local employment (\$29.8M with LGA versus \$26.7M without).

However, the upgrading and paving of Route du Nord may attract outsiders, imposing upon community members the need to closely manage or control access to traplines. Additionally, there are concerns about cumulative environmental impacts, particularly with the concurrent development of lithium mining projects alongside LGA construction. Effectively managing these impacts will require extensive communication and engagement with community members, especially land users, to mitigate anticipated and unforeseen consequences. The way this dynamic is handled will directly impact cultural continuity for future generations. Moreover, ensuring economic participation by local actors will be crucial to reassuring community members that the benefits of infrastructure outweigh any associated costs.

MISTISSINI

Mistissini has been actively involved in various infrastructure projects, contributing significantly to job creation, especially during the construction of the Eastmain 1A-Sarcelle-Rupert complex, where it accounted for 38% of all Cree jobs. For LGA infrastructure construction, Mistissini is expected to create 763 FTE jobs, with contractors receiving about \$136 million annually over 15 years. Participation in LGA operation from 2040 onward is projected to generate 118 FTE jobs annually and award \$6.1 million to local entrepreneurs yearly. This increased employment is expected to raise the standard of living, to be 95% higher to \$48,842 per capita by 2032 during Phase I construction, with a continued impact observed through 2074, maintaining a 7.2% higher compared to the status quo scenario.

Mistissini land users emphasize the importance of effective communication between project proponents and the community before any work commences to maximize economic opportunities and minimize impacts on land use. Like other communities, concerns revolve around issues such as mining development, environmental pollution, and the over-exploitation of wildlife. Additionally, the delineation of trapline boundaries is identified as an important issue to address before embarking on any development projects, as unresolved tensions may arise.

This study underscores that the people of Mistissini have been actively involved in the land-based tourism industry since the signing of the JBNQA and continue to express interest in business development opportunities related to tourism and the preservation of land and culture. This sector can generate income while maintaining a strong connection to the land. LGA studied infrastructures such as the second access road from Mistissini to the Route du Nord as well as an airport will improve connectivity and enhance present economic activity. The businesses in Mistissini are also strongly oriented towards activities such as LGA. The R167 will connect with the Trans-Taiga road allowing a better redundancy and access to traplines but it will open new territory. In fact, there are growing concerns about the increasing presence of non-natives and other users in the area, prompting land users to emphasize the importance of respecting Cree values and way of life. This includes the ability to make a living from the land, which may depend on the implementation of control measures to regulate activities within the territory. It is crucial that any projects or processes align with and respect Cree values and traditions to ensure sustainable development and preservation of the land for future generations.

OUJÉ-BOUGOUMOU

Oujé-Bougoumou, historically the most affected community by mining activities with seven relocations, stands to benefit significantly if LGA options move forward. The LGA infrastructure program is expected to create numerous employment opportunities for Oujé-Bougoumou, which played a minimal role in past Hydro-Quebec developments in Eeyou Istchee. The community's preferred LGA infrastructure options include improving the Route du Nord to enhance travel to Nemaska and coastal communities, thereby boosting social contacts and economic opportunities for Oujé-Bougoumou residents. Additionally, the recommissioning of the GCR will reduce access from outsiders to Oujé-Bougoumou's traplines, while the GCR transshipment yard in Chapais could stimulate economic activities and serve as a strategic hub for the community and Chibougamau-Chapais. The prospect of 45 direct jobs at the transshipment yard is significant for a small-scale community like Oujé-Bougoumou. The construction phase is expected to see the GDP per capita 78% higher than the status quo without LGA. However, the impact on cost of living and the supply chain is challenging to assess, with pricing outcomes being unpredictable. Local economic participation will be crucial for ensuring community members benefit economically.

However, to increase access to the community through linkage with the existing transportation network would pose challenges. While the construction phase may bring an economic boom, long-term sustainability is uncertain, as Oujé-Bougoumou's GDP per capita is projected to decrease constantly without a lasting positive impact on revenue. Environmental impacts, particularly during construction, and potential effects on the cost-of-living and supply chain are difficult to evaluate and may have unpredictable outcomes. Therefore, ensuring economic participation by local actors is the way to ensure that the benefits of infrastructure development outweigh the costs, especially regarding long-term sustainability and environmental preservation.

WASWANAPI

Waswanipi is the southernmost Cree community. It is situated along the R113 between Chapais and Lebel-sur-Quevillon and enjoys accessibility from both the Abitibi and Lac St-Jean regions. With a longstanding history of economic development centered around forestry and its sawmill, the community is well placed to gain significant advantages from LGA infrastructure development, particularly if a transshipment yard is established nearby. The proposed railway alignment, which was studied in collaboration with land users, could also reduce outsider access to traplines, preserving traditional land use.

If LGA options proceed, Waswanipi has good potential to emerge as a transportation hub or to actively participate in railway network operations and maintenance. The sawmill would experience advantages from an interconnection with the GCR, even though the road scenario has the lowest CAPEX to transport wood. As of the time of this report, we are not aware of the developments regarding the sawmill that was recently destroyed by fire.

Waswanipi is poised to gain \$612M in LGA contracts over three construction phases, averaging \$47M annually. This could generate 3,441 person-years of employment or 265 FTE jobs over 15 years. During operation, Phase I contracts could amount to \$49M, creating 31 FTE jobs annually from 2035. These benefits represent 9% of total construction jobs and 4% during operation across Cree communities. LGA significantly enhances Waswanipi's standard of living, with GDP per capita estimated to be 80% higher in 2032 during peak construction (\$42,641 per capita) compared to without LGA (\$23,664). By 2045, GDP per capita remains 5% higher with LGA (\$24,521 versus \$23,357 without). By 2074, with 3% more local employment, GDP would rise by 7% (\$25.9M with LGA versus \$24.1M without), reflecting limited operation jobs for Phases II and III. However, post-construction, the effect on GDP per capita stabilizes.

Entrepreneurs in Waswanipi stand to capitalize on opportunities linked to LGA infrastructure projects, supported by the community's mobility for work in other areas, as indicated by migration rates. The anticipated employment opportunities from LGA infrastructure are considerable.

However, "opening" the territory with a transportation network raises questions about forestry, presenting a crucial decision point for the community regarding preservation versus further economic development. The effects on prices are uncertain, given the established supply chain proximity with Abitibi, potentially marginalizing the impact on shipped goods even from longer distances such as Lac St-Jean, thus questioning the potential improvement in Waswanipi's standard of living. Environmental impacts, particularly during construction and operation, may compromise the pristine nature of adjacent areas, and mitigation for such major impacts would require extensive

engagement with community members, especially land users, as this is the way to address anticipated and uncertain impacts. The depth and quality of community and land user engagement will directly influence cultural continuity for future generations.

WASHAW SIBI

Washaw Sibi envision its future location near Matagami, along the BDH. The proposed LGA transportation infrastructure for Washaw Sibi includes enhancing external market access via Phase I of the BDHR and reintegrating the GCR alignment to facilitate rolling stock maintenance at the Matagami yard. The yard stands to aid the future Washaw Sibi community by streamlining the transport of construction materials, cutting expenses, enhancing safety, and speeding up construction. Matagami's proficiency in managing such facilities mitigates operational risks, with upcoming expansions expected to generate 15 to 20 additional jobs.

The proposed LGA transportation infrastructure could offer significant benefits and impacts. This includes employment opportunities during the operation phase and facilitating the transport of bulk materials for building the community. But due to limited information, specific economic opportunities for Washaw Sibi cannot be outlined. However, relocation near Matagami could enable involvement in LGA transportation infrastructure projects like the BDHR and GCR construction and operation. The community also sees potential in four-lane expansion of the BDH for safer travel.

14.2 LIMITATIONS OF THIS REPORT

Due to time constraints, this addendum relied substantially on secondary data sources, including the 2021 census, the SPN database, the CNG's Industry and Commerce Department database, and available local data. However, their accuracy and comprehensiveness are not consistent. While we gathered primary data with CIOs, EDOs, and the CTA, these were partial and limited in quantity and quality, limiting the precision of our community profiles. In summary, there are two primary limitations to consider.

First, there are gaps in terms of sturdy and up-to-date secondary data at the community and regional levels. This affected the accuracy of desired deliverables, including business and job numbers, cost of living components, etc. Secondly, certain concepts and aspirations within this study would benefit from standalone analysis and field studies to gather primary data. For instance, understanding the sharing or gift economy in Eeyou Istchee or analyzing the viability of the land-based economy under the Cree worldview would require dedicated studies.

It is a fact that understanding present community situations and their evolution hinges on the reliability of available data, which can be inconsistent due to variations in community size and discrepancies between census and employer data. There is, as a result, uncertainty about initial economic states. The implication is that our insights, which were gathered during the early stages of the LGA study, may have shifted over time. Updating perspectives may be required.

Given LGA's long-term scope, uncertainties loom regarding future technological, economic, social landscapes, developments in the forestry and mining sectors, and in labor market structures. Proactive engagement of Cree communities and individuals, along with external economic factors like those driven by Quebec's initiatives or industry trends, will significantly shape future outcomes. While transport infrastructure can facilitate social and economic progress, local and regional capacity and initiative, entrepreneurship, innovation, and administrative effectiveness remain pivotal factors in driving sustainable development.

14.3 RECOMMENDATIONS

Despite its limitations, this addendum study represents an important first step in documenting community economic development that includes the land-based aspects. To ensure a more comprehensive portrait of the Cree economy, we recommend the following actions:

1. KEEPING AN UP-TO-DATE PRICE INDEX AND COST-OF-LIVING FOR EYYOU ISTCHEE.

Doing so requires recording or tracking prices for specific categories of goods – basket of goods – in a consistent manner, in each Cree First Nation. Having an Eeyou Istchee price index would give the territory the ability to determine more accurately the cost-of-living in each community. Tracking prices in each community would allow local and regional analyses of price changes and their relationship to LGA infrastructure. Similarly, such data collection would help communities understand the effect of their local market structures on prices and on the cost of living. For instance, community-level analyses could explore the effect of entry barriers on entrepreneurship, and the significance of this to competition and price levels.

Similarly, it would be advisable to perform a thorough analysis of the relationship between prices and the quasi-monopolies that commonly result within protected remote markets like those of CFNs. This analysis should identify the extent to which specific entry barriers exist, such as any that are imposed by Band Councils, competition from established businesses, or the lack of access to business loans or capital to start a business.

Data collection about entry barriers could allow in-depth analyses of the difference between LGA employment demand in each community and jobs offered by local businesses. The same is true regarding demand for capacity building programs offered by Cree entities in the territory.

2. INVESTIGATE ENTREPRENEURSHIP IN EYYOU ISTCHEE.

A study could examine the underlying factors contributing to low levels of entrepreneurship in Eeyou Istchee, evidenced by low private sector employment. With or without LGA, entrepreneurship is key for economic development. Cultural, economic, and structural influences that may inhibit entrepreneurial activity, such as barriers of entry, competition from band-owned economic corporations, etc., should be considered. Through qualitative and quantitative analysis, the study can explore barriers to entrepreneurship such as access to financing, regulatory hurdles, infrastructure limitations, and cultural attitudes towards risk-taking and innovation. The study should aim to identify existing successful entrepreneurial ventures and analyze the factors contributing to their success. Recommendations stemming from this research should focus on implementing targeted initiatives to foster entrepreneurship.

3. CONDUCT THE FIRST COMPREHENSIVE STUDY ON ECONOMIC LEAKAGE OF CREE EXPENDITURE WITHIN CREE COMMUNITIES AND THE CREE CONSUMPTION FOOTPRINT IN JAMESIAN MUNICIPALITIES AND IN ABITIBI-TEMISCAMINGUE AND SAGUENAY LAC ST-JEAN MUNICIPALITIES.

This should include public expenditures and public businesses. Despite assumptions of significant economic leakage and footprint, these aspects have not been thoroughly studied. Such a study would offer valuable insights into the potential for economic retention within Cree communities and overall market size. By understanding the flow of money within and outside Eeyou Istchee, the study can identify opportunities to promote local entrepreneurship and economic development. By documenting the economic interactions between Cree communities and surrounding municipalities the study could provide leverage for the Cree Nation in negotiations and partnerships with external entities. Given the lack of prior research in this area, undertaking such a study would fill a crucial knowledge gap and provide actionable insights to inform economic strategies and policy decisions moving forward.

4. STUDY IN-DEPTH THE PROJECTED EMPLOYMENT DEMAND GAP BETWEEN LGA AND COMMUNITY BUSINESSES.

This analysis should focus on the specific job opportunities expected to arise from LGA initiatives and compare them with the existing employment landscape within Cree communities. The study should assess the training capacities of Cree entities in the area to meet the anticipated demand for skilled labor. By identifying gaps between projected employment needs and current workforce capabilities, the study can help these entities

develop targeted training programs to equip community members with the necessary skills to capitalize on emerging job opportunities. Apitsiwiin Skills Development and Cree School Board would most probably have to collaborate as partners, as vocational training and education in Eeyou Istchee is below Jamesian and Quebec standards. Strategic planning to align workforce development initiatives with the evolving demands of LGA projects would need robust data and interpretations, which the study should aim to provide. Strategic planning for capacity development would help ensure that Cree entities are well-positioned to maximize employment benefits and foster sustainable economic growth within the region.

5. DESIGN AND IMPLEMENT RELEVANT STUDIES ABOUT THE CREE PERSPECTIVE ON THE LAND-BASED ECONOMY IN ITS VARIOUS FORMS.

This addendum lacked the time to adequately refine this key concept and to determine how to measure its different elements. Cultural continuity, heritage, harvesting, the gift and sharing economy, are all part of the Cree way of life. The development of Cree-owned businesses is rooted in cultural practices, and economic initiatives such as cultural tourism, the Cree arts and crafts market, etc., have more than an economic purpose, they are key to Cree culture knowledge transfer. A holistic approach to its study is called for. But this is an immense task requiring measuring what is measurable, quantifying or qualifying what is possible. Understanding land-based economic practices and their modern adaptations still depends on access to Cree knowledge. Thus, the design of studies on the Cree land-based economy should yield a holistic, interdisciplinary and complementary approach bringing together Indigenous and non-Indigenous experts, under the leadership of a Cree or Indigenous expert.

Indigenous or Cree scholars, cultural practitioners, and knowledge keepers should lead or at least be closely involved in research about Indigenous or Cree matters. Interpretations of findings in a study featuring Cree knowledge and Cree priorities must be built from the invaluable insights of Cree and Indigenous experts. It is essential to prioritize Cree leadership in research to ensure the adequate management and protection of Cree knowledge, and because the research should serve Cree needs and aspirations. Moving away from the historical trend of non-Indigenous researchers analyzing Cree culture is possible when Cree take the lead in exploring and documenting their own culture. Cree research leadership and protocols are the way to ensure that research outcomes will be more authentic, respectful, and reflective of Cree perspectives and priorities.

6. INVESTIGATE FOOD SECURITY AND HARVESTING FROM THE LAND.

On this addendum study, food security has only been touched upon superficially. Food security should be considered in depth, especially given persistently high food prices across Eeyou Istchee. To begin with, food security should consider what "bush" food contributes, alongside cultural transmission and well-being factors. As pertains to LGA proposals, food security based on "bush" harvesting is a key concern, as new transportation infrastructure may jeopardize it by opening the land to development. For such development to not cause resource and environmental degradation, the land's food security role must be fully understood. The cost of living on the land and the cost of harvesting food are part of that understanding. A study of this kind could provide practical recommendations concerning the ESP as well.

7. LGA CONVERSATION SHOULD CONTINUE SINCE ITS UNDERSTANDING IS STILL LOW IN EEYOU ISTCHEE, COVER MORE LAND USERS AND EXPAND DATA COLLECTION TO YOUTH AND WOMEN WHEN DOCUMENTING LGA, COMMUNITY ECONOMICS, AND LAND-BASED ECONOMY:

- i. Involving youth in the engagement sessions and decision-making process, and enhancing their capacities, is a necessity raised by some community members. For example, organizing focus-group activities exclusively for young people can be beneficial for understanding their needs, aspirations, and reality, and can be motivating for them. Engaging with the youth must find the right tone and being youth friendly by creating a safe space, using humor, memes and games. Engagement should avoid being overly formal even if the subject is serious.
- ii. Women may have a different perspective from men, which is often less recognized. It is important and urgent to continue including them, along with elders, in discussions surrounding projects and the future of their communities. Moreover, involving women in research and discussions will result in a more adequate, comprehensive understanding of the issues at hand.
- iii. Encouraging consultants or other experts to travel to communities and engage on the ground is essential if they are to gain a better understanding of the reality, the possibilities, challenges, interests, and values that are involved in any development activity within a Cree community.

- iv. Time is a significant factor in economic development. However, taking the necessary time to develop projects collaboratively, rather than imposing them, leads to better acceptance because such collaboration will produce a better project, one that integrates into the context and its priorities. Partnering with local experts, like elders, the tallymen, women's groups, youth groups, and with local leaders, should be central to research design.

8. THE CREE LIVING ENVIRONMENT IS TO BE PROTECTED AND SHOULD TAKE PRECEDENCE OVER ECONOMIC BENEFITS; THERE IS A GROWING RECOGNITION OF THE NEED TO BALANCE BOTH IN COMMUNITIES.

In Eeyou Istchee, when there is tension between development projects and concerns about environmental impacts, there are two perceptions. The first is: no matter what we say, they will build it, as it is already decided in advance. The second is: environment always wins in the Cree world. Project discussion workshops or individual/community projects can help better capture aspirations and possibilities by identifying more substantial measures to promote economic activities. Such measures can include business incubators, training, and capacity building in various communities or collaboratively. Intercommunity meetings/workshops can also serve as catalysts for projects and economic activities.

9. DATA COLLECTION ABOUT THE LAND-BASED ECONOMY.

In Eeyou Istchee, community economic development requires a holistic frame, where cultural, social, and economic development go together, and land users and land-based economic activities are at the centre, not the periphery, of economic planning.

To ensure that the economic value of land-based activities is adequately considered, Cree knowledge keepers must be engaged. The recommendations we offer regarding the land-based economy and its continued development defer to Cree land users' ecological and cultural knowledge about what the land provides, and the challenges that are present, such as the impacts that climate change and large-scale projects have had and are having on biodiversity, and on Cree practices.

Being that holistic economic development involves a degree of complexity, we recommend that data collection efforts do two things: one, gather and store information for future analysis and two, use data collection as an opportunity to involve the community in evaluating progress (changes) and setting goals.

For community engagement to take place, regional and community staff can collaborate to create a data collection strategy contemplating all the aspects that will ensure robust data collection and careful data management (data processing, storing, sharing). In such a potential strategy, gathering land-based economic activity data could be linked or be part of price-index (cost of living) work. For example, the same team could perform both data gathering efforts, and contribute to its interpretation and analysis. As with any effort to sustain a new capacity, such as to record data, a strategy is advisable, which should be determined by the needs and priorities of each community.

10. BUILD LOCAL CAPACITY FOR DATA COLLECTION AND MANAGEMENT.

The Cree Nation is currently working on building a Cree regional research center. This new asset will advance Cree capacity to collect and manage data for the needs and priorities of the Cree Nation. The Cree regional research centre emerged from the recognized need to provide Cree control over sensitive information. With this new capacity, Eeyou Istchee will vastly improve its ability to design data-informed policies at the regional and at the local level. In other words, the territory will be able to better respond to present needs and advance its hopes for the future.

As is frequently noted in past research reports, data gaps are commonly documented in several fields, including community economic development. Data that has been missing relates to indicators we have used in this addendum study, such as entrepreneurship, employment (formal and informal), demand and usage of various programs like income, capacity development, and others. Data such as social exclusion, cultural development, environmental or ecological health are also not consistent or missing. In general, we are optimistic that Cree data collection capacity should improve with time, enabling communities to address better specific policies and programs by relying on more robust data than currently. The idea is that if we have better data in Cree communities and within the Cree nation, those managing programs and services can better plan, implement and evaluate outcomes, improving services to the population and accountability. and unique policy.

BIBLIOGRAPHY

- AG (2016). *Socio-economic profile of the Cree Nation of Eastmain*. AG Consulting, 2016-02-18.
- AIR CREEBEC (2023). aircreebec.ca/. Accessed 2023-11-20.
- ALLKEM (2023). Sedar plus document, Technical Report on the James Bay Lithium Project, Québec, Canada Report for NI 43-101 James Bay Lithium, 420 pages, accessed 2024-01-12.
- ANON, (2024). Website, Memories of Old Nemaska Post. <http://www.nationnewsarchives.ca/article/memories-of-old-nemaska-post/>, accessed 2024-03-25.
- ANON, (2024). Website, Waswanipi sawmill closed – again. <http://www.nationnewsarchives.ca/article/waswanipi-sawmill-closed-again/>, accessed 2024-03-25.
- ASD (2021). *2019 Community Employment Needs Assessment Study for the nine Cree communities of Eeyou Istchee*. Apatisiwin Skills Development, 2021-10, 24 pages.
- ATLAS (2023). *Carte sur les ressources minérales et l'activité minière du gouvernement du Canada*. atlas.gc.ca/mins. Accessed 2024-02-13.
- AUGER, M. D. (2016). “Cultural Continuity as a Determinant of Indigenous Peoples’ Health: A Metasynthesis of Qualitative Research in Canada and the United States.” *The International Indigenous Policy Journal*, 7(4).
- AWASHISH Philip (2018). “Une brève introduction au système traditionnel de gouvernance Eeyou des territoires de chasse (Gouvernance Traditionnelle Eeyou Indoh-Hoh Istchee)”. *Anthropologica* 60 (1): 5-8.
- BELL S. (2022). *The long road for 2 northern Québec towns to break a dependence on diesel*. CBC News. Posted on February 2022. Online: <https://www.cbc.ca/news/canada/north/cree-inuit-hydro-quebec-wind-power-diesel-environment-indigenous-economic-development-1.6361480>. Accessed 2024-03-07.
- BELL, S. (2024). Website, Fire destroys recently opened Waswanipi Cree Lumber sawmill. CBC. Available at: <https://www.cbc.ca/news/canada/north/cree-waswanipi-fire-sawmill-forestry-economic-development-1.7093866>, accessed 2024-03-25.
- BERNIER, A. (2021). Canadian National Railway’s Chapais Subdivision (1957-1994), accessed 2024-02-12.
- CANADA (2006). *Évaluation environnementale du projet hydroélectrique Eastmain-1-A et dérivation Rupert*. Gouvernement du Canada.
- CBHSSJB (2016). *Background summary statistical profile of health and health determinants in Eeyou Istchee for the Health Assembly*. SERC Team of the Public Health Department, 2016-03-11, 43 p.
- CBHSSJB (2023). *Cree Board of Health and Social Services of James Bay*. creehealth.org Accessed 2023-10.
- A-CCI (2023). “About”. *Cree Cultural Institute*. <https://creeculturalinstitute.ca/about/>. Accessed 2023-12-08.
- CDC (2021a). *Feasibility Study – Phase I – Transportation Infrastructure LGA, Request for Engineering Services, RFP Document, Cree Development Corporation*. 2020-01, 2021-01-27, 117 pages.
- CFNW - Cree First Nation of Waswanipi. 2022. About Waswanipi. Online. <https://www.waswanipi.com/en/about-waswanipi>. Accessed 2023-12-08.
- CGW (2015). *Centrales de l’Eastmain-1-A et de la Sarcelle et dérivation Rupert – Suivi 2012 des déterminants de la santé des Cris*. Consortium GENIVAR-Waska pour HQ Production. Pagination multiple et annexes.
- CGW (2020). *Complexe de l’Eastmain-Sarcelle-Rupert – Suivi de l’utilisation du territoire par les Cris 2015-2016*. Consortium Genivar-Waska pour HQ. Pagination multiple et annexes.
- CHANDLER, LALONDE et al. (2003) *Personal persistence, identity development, and suicide: a study of Native and Non-native North American adolescents*. National Library of Medicine.

- CHANDLER, LALONDE et al. (1998). « Cultural Continuity as a Hedge Against Suicide in Canada’s First Nations”. University of British Columbia. Online: https://reviewboard.ca/upload/project_document/Chandler_and_Lalonde_1998_Paper__1265041839.PDF
- CHAPAIS (2017). *Plan de diversification économique 2017-2020 / Voir haut Voir grand pour Chapais*, Ville de Chapais et Corporation de développement économique de Chapais, 42 +7 pages.
- CHERNOFF, A., AND CHEUNG, C. *An Overview of the Indigenous Economy in Canada*. Bank of Canada. Staff Discussion Paper/Document d’analyse du personnel, 2023-25. October 13, 2023.
- CHESB (2012-2023). *Rapport annuel/Annual Report*. Cree Hunters Economic Security Board, previously Cree Hunters and Trappers Income Security Board (CHTISB), Quebec City. Périodes 2011-2012 à 2022-2023.
- CHISM, J. (1988). *17th Century Events at Waskaganish : A Preliminary Historical Report within an Archeological Perspective*.
- CIRNAC. 2022. Registered population – First Nation Profile. Online. <https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Search/SearchFN.aspx?lang=eng>. Accessed 2024-03-14.
- CL (2023). Source: <https://creelumber.com/en/benefits>
- CMEB (2022). Geotrapline Maps. Online. <http://www.cmeb.org/index.php/maps>. - Cree Mineral Exploration Board. Accessed 2024-01.
- CNC (2024). *History and geography*. Cree Nation of Chisasibi. Online <https://chisasibi.ca/about-chisasibi/history-geography/>. Accessed 2024-03.
- CNC (2020). *Comprehensive community plan*. Project draft in progress. Cree Nation of Chisasibi. 2020-10-07.
- CNM (2020a). *Mistissini Through History and Band Departments*. Cree Nation of Mistissini. Online <https://mistissini.com/>. Accessed 2024-01.
- CNM (2020b). *Annual report*. Cree Nation of Mistissini. 2019-2020. Online:<https://mistissini.com/download/annual-report/> Accessed 2024-01.
- CNN. 2022. “About us. Online. <https://nemaska.com/about-us/> Accessed 2024-01.
- CNW (2023). *Who we are. And Mission-Vision*. Cree Nation of Wemindji. Online <https://wemindji.ca/community/about/mission-vision.html>. Accessed 2023-11.
- COLLETTE Vincent and LARIVIÈRE Serge (2010). “The Income Security Program. Sustaining the Domestic Economy in Eastern James Bay”. *Cahiers du CIERA*, 6, 2010-11, p. 123-145.
- COMEX (2024). *Whapmagoostui Kuujjuaraapik Hybrid Power Plant Project - Project Summary and Documents*. Online: <https://comexqc.ca/en/fiches-de-projet/centrale-denergie-hybride-de-whapmagoostui-kuujjuaraapik/>. Accessed 2024-03-07.
- CÔTÉ Félix (2022). “Quelle épicerie affiche les prix les moins chers?” *Infobref*.
- CREECO (2022). *We are CreeCo*, website, 2022-01.
- CRI (2023). *Canadian Royalties Inc.* canadianroyalties.com. Accessed 2024-02-13.
- CRITICAL ELEMENTS (2022). *Sedar plus document, rose-lithium tantalum project, feasibility study NI 43-101 technical report*. Critical Elements Lithium Corporation, 438 pages, 2024-01-10.
- CSMO (2023). *Estimation des besoins de main-d’œuvre du secteur minier au Québec*. 2023-06-30, 46 pages.
- CTA (2009). “Eeyou Indoh-hoh Weeshou-Wehwun. Traditional Eeyou Hunting Law”. Cree Trappers Association

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

- CTA (2014-2022). *Annual Reports*. Cree Trappers Association. Online: <https://creetrappers.ca/about/annual-report> Accessed 2024-01.
- CTQ (2024). *Banque des noms de lieux du Québec*. Commission de toponymie du Québec. <https://toponymie.gouv.qc.ca/ct/accueil.aspx> Accessed 2024-02..
- DAGOOHEKAN (2019). *Cost of Living Study*. Dagoohekan Group, Whapmagoostui Eeyou Enterprise Development Corporation, 2019-05.
- DCI (2023a). *Private companies, by community*. Cree Nation Government, Department of Commerce and Industry. 2023-08, xls.
- DCI (2023b). *Snapshot of DCI Programs Data (2012-2023)*. Cree Nation Government, Department of Commerce and Industry. 2023-08, 1 page.
- DESFOR (2014). *Profile of the Forest Industry in Eeyou Istchee Territory*. For the Regional Standing committee on Cree employment in the forest sector, Quebec City, 10313024, 2014-06, 52 pages.
- DESFOR (2022). *Forestry Profile Review & Update, Eeyou Istchee James Bay Territory: Professional Review*. For the Cree Nation Government, Quebec City, 10,320,063, 2022-01, 30 pages.
- DESJARDINS (2023). *Wildfires: Now That the Initial Economic Shock Is Over, It's Time to Rebuild the Forest*. 2023-10-30, 9 pages.
- DOUGERTY K. (2020). "Waswanipi Cree of Northern Quebec make last stand to save their forest". *Montreal Gazette*, 2020.
- DUBUC, André (2022). "Les Cris rouvrent la scierie de Waswanipi avec Chantiers Chibougamau". *La Presse*, 2022-11-24.
- DUHAIME G., et GRENIER, J. (2012). *Coût de la vie dans la région de Schefferville*. Rapport de recherche. Université Laval.
- EIJBRG (2022). « Governance ». *Eeyou Istchee James Bay Regional Government*. <https://greibj-eijbrg.com/en/regional-government/governance>. Accessed 2023-11.
- EPC CHISASIBI (2017). Report on community input on Land Use planning goals. Chisasibi Eeyou Planning Commission. Online: <https://eeyouplanningcommission.ca/wp-content/uploads/Chisasibi-Long-report-on-community-input-on-land-use-planning-2017-12.pdf>. Accessed January 2024.
- EPC EASTMAIN (2017). Report on community input on Land Use planning goals. Eastmain Eeyou Planning Commission. [Online]: <https://eeyouplanningcommission.ca/wp-content/uploads/Eastmain-Long-report-on-community-input-on-land-use-planning-2017-12.pdf>. Accessed November 2023.
- EPC MISTISSINI (2017). Report on community input on Land Use planning goals. Mistissini Eeyou Planning Commission. Online: <https://eeyouplanningcommission.ca/wp-content/uploads/Mistissini-Long-report-on-community-input-on-land-use-planning-2017-12.pdf>. Accessed January 2024.
- EPC WEMINDJI (2017). Report on community input on Land Use planning goals. Wemindji Eeyou Planning Commission. Online: <https://eeyouplanningcommission.ca/wp-content/uploads/Wemindji-Long-report-on-community-input-on-land-use-planning-2017-12.pdf>. Accessed November 2023.
- EPC WHAPMAGOOSTUI (2017). Report on community input on Land Use planning goals. Whapmagoostui Eeyou Planning Commission. Online: <https://eeyouplanningcommission.ca/wp-content/uploads/Whapmagoostui-Long-report-on-community-input-on-land-use-planning-2017-12.pdf>. Accessed December 2023.
- FEIT, Harvey (2016). "Creating Jobs and an Eenu Social Economy". In *Together we survive*. Ethnographic Intuitions, Friendships, and Conversations, édité par John S. Long et Jennifer S. H. Brown, 45-70. Montreal, Kingston, London, Chicago: McGill-Queen's University Press.
- FNB (2023). *First Nations Bank*. fnbc.ca. Accessed 2023-12-15.
- FRANCOEUR, Louis-Georges (2009). « HQ dérive la Rupert aujourd'hui ? » *Le Devoir*.

<https://www.ledevoir.com/environnement/274408/hydro-quebec-derive-la-rupert-aujourd-hui?>

FOURNIER (2023). “Fournier et fils : Services” and “Travaux pour la préparation de terrain. *fournier-fils.com*. Accessed 2023-12-12.

FT (2024). *Financial times*. [ft.com/content/0fb27a1a-d149-4d66-87cf-a1e3feecb5e5](https://www.ft.com/content/0fb27a1a-d149-4d66-87cf-a1e3feecb5e5). Accessed 2024-02-14.

GCC-CNG (2021). ‘Cree Nation of Eeyou Istchee affirms its continuing steadfast opposition to uranium mining development within its territory of Eeyou Istchee’. Grand Council of the Crees, Cree Nation Government, Press release. Nemaska. May 28, 2021. Online: <https://www.cngov.ca/wp-content/uploads/2021/05/may-27-2021-press-release.pdf>. Accessed January 2024.

GLENCORE (2023). *Glencore Canada*. [glencore.ca/careers](https://www.glencore.ca/careers). Accessed 2024-02-13.

GUINDON Martin (2023). « Les Cris de Washaw Sibi choisissent de s’établir près de Matagami », *Radio-Canada*, 2023-08-16.

HILTON, C. A. (2021). *Indigenomics: taking a seat at the economic table*. New Society Publishers.

HQ Production (2015). *Centrales de l’Eastmain-1-A et de la Sarcelle et dérivation Rupert – Suivi 2012 des déterminants de la santé des Cris*. Rapport présenté par le Consortium GENIVAR-Waska à HQ Production. Pagnation multiple et annexes.

HQ (2004). *Eastmain-1-A Powerhouse and Rupert Diversion: volume 1: Chapters 1 to 9. 294 p., volume 2: Chapters 10 to 12, volume 3: Chapters 13 to 15 and volume 4: Chapters 16 to 25 . 517 p.*, HQ Production.

IEA (2023), *Global EV Outlook 2023*, Paris. Retrieved online March 2024: <https://www.iea.org/reports/global-ev-outlook-2023>

ISQ (2021). *Population totale et population par groupe d’âge et projections de population, municipalités du Québec (500 habitants et plus)*. Institut de la statistique du Québec, Quebec City, xls.

ISQ (2023a). *Entrants, sortants, solde migratoire interne et taux correspondants, MRC du Québec (classées par régions administratives), 2001-2002 à 2021-2022*. Institut de la statistique du Québec, Quebec City, xls, 2023-0-11.

ISQ (2023b). *Naissances, décès, accroissement naturel et mariages par MRC, Québec, 2002-2022*. Institut de la statistique du Québec, Quebec City, xls, 2023-05-24.

LAROCQUE, E. (2011). “Reflections on Cultural Continuity through Aboriginal Women’s Writings.” In *Restoring the Balance: First Nations Women, Community, and Culture*, edited by Gail Guthrie Valaskakis et al., University of Manitoba Press, pp. 151–174.

LÉVESQUE, S. (2022). *Construction of Nunavik Price Indices: Methodology and Preliminary Results*. Université Laval, 2022.

MAHEUX (2023). *Horaires Agences Terminus, Abitibi-Témiscamingue*. Transport Maheux, 2023-10-18, 12 pages.

MARCHAND, D (1994). *Détermination du revenu des Indiens Cris du Québec : Étude empirique sur les revenus provenant d’activités modernes et d’activités traditionnelles*. Mémoire, Université du Québec à Montréal.

MORANTZ, T. (2002). *The White Man’s Gonna Getcha: The Colonial Challenge to the Crees in Quebec*. McGill-Queen’s Native and Northern Series #30. Montreal: McGill-Queen’s University Press, 2002

NEMASKA (2023). “Business Directory” *Nemaska First Nation*. Accessed 2023-12-12.

NEMASKA LITHIUM (2019). *Sedar plus document, NI 43-101 Technical Report Report on the Estimate to Complete for the Whabouchi Lithium Mine and Shawinigan Electrochemical Plant*, 563 pages, 2019.

NISKA [2020]. *Profile of the Entrepreneurial Support System in Eeyou Istchee*. Coopérative de solidarité Niska, Sherbrooke, 21 p.

NORDIC (2023). *Facebook post*, www.facebook.com/NordicStructures. Nordic Structures, 2023-10-26.

OECD (2020). ‘Chapter 3. The importance of land for Indigenous economic development’. *Linking Indigenous*

Communities with Regional Development in Canada. Organization for Economic Cooperation and development, OECD iLibrary.

- PC (2023). « Lithium en territoire cri : une mine qui divise et ravive de vieilles blessures. » *Radio-Canada*. La Presse canadienne, 2023-02-06.
- PÉLOQUIN Claude (2012). « Turbulences et complexité environnementale : points de vue de l'écologie culturelle crie » in *Les Autochtones et la modernité*, pp. 91-111. Sous la direction d'Alain Beaulieu et de Stéphanie Béreau CREQTA (Chaire de recherche du Canada sur la question territoriale Autochtone).
- QMI (2022b). « 3 incontournables pour une virée dans le Nord-du-Québec ». *Journal de Montréal*, 2022-09-21.
- QUÉBEC (2012). *Commission de la toponomie*. Oujé-Bougoumou.
https://toponymie.gouv.qc.ca/ct/ToposWeb/fiche.aspx?no_seq=280619, Accessed 2024-03-22
- READING, C.L, WIEN, F. (2009). *Health inequalities and social determinants of Aboriginal people's health*. National Collaborating Centre for Aboriginal Health, Prince George, BC.
- ROBITAILLE, J. et al. (2016). *The cost of living in Nunavik in 2016*. Research report: Revised and expanded version. Université Laval.
- ROBITAILLE, J., et al. (2018a). *Coût de la vie au Nunavik. Phase II. Rapport d'Analyse* Numéro 3. Université Laval. [April 2018].
- ROBITAILLE, J. et al. (2018b). *The Cost of Living in Nunavik. Phase II Analysis Report Number 1*, Revised Edition. Université Laval. [May 2018].
- SAYONA (2024). *Sedar plus document, NI 43-101 Feasibility Study Report for the Moblan Lithium Eeyou Istchee James Bay Territory, Quebec, Canada*, 559 pages, accessed 2024-02-20.
- SCALES, Marilyn (2022). “Osisko Mining chooses Miyuukaa to supply hydro power for Windfall gold project” *Canadian Mining Journal*, 2022-12-08.
- SNOWDON Nicholas and FORCELESE Lavinia (2024). *Lithium: The short trade must go on*.
<https://www.gspublishing.com/content/research/en/reports/2023/11/30/781bb7c9-e771-4413-a6f3-e3ae9bd33327.html>. Golden Sachs. 2023-11-30.
- SIGÉOM. (2024). Interactive Map. https://sigeom.mines.gouv.qc.ca/signet/classes/I1108_afchCarteIntr. Accessed 2024-02-14.
- SNOWSHOE A., CROOKS, C.V., TREMBLAY, P.F., CRAIG, W. M., HINSON, R. E. (2014). *Development of a cultural connectedness scale for First Nations*. American psychological Association 27(1), p. 249-259.
- STANIFORTH (2016). “Iced culture: Eastmain camp offers new rink”. *The Nation By*.
<http://formersite.nationnewsarchives.ca/iced-culture-eastmain-camp-offers-new-rink/>. 2016-02-03.
- STATCAN (2001, 2006, 2011, 2016, 2021). *Census Profile. Census of Population*. Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Years indicate the census data collection. Results are usually published 2 years after the year census.
- STATCAN (2022). *Income and Expenditure Accounts Technical Series – Indigenous Peoples Economic Account: Methodology and Preliminary Results*, Statistics Canada.
- STEWART, D. (2021). “Efforts move forward to protect Cree language in Quebec”. For CBC. December 10, 2021. Online: <https://www.cbc.ca/news/canada/north/cree-language-jamie-moses-commissioner-committee-james-bay-1.6265418>. November 2023.
- SYM (2023). *Development of a Circular Land-Based Economy within the Cree Nation of Eeyou Istchee. Phase 1 - Market Research and Identification of Suppliers for the Land. Revitalization Industry*. SYM Consulting, for the Cree Nation Government – Commerce and Industry. Project report. 2023-03-31.

- TBJ-TEI (2022). *Guide touristique officiel, Eeyou Istchee Baie-James 2023-2024*. Tourisme Baie-James / Tourisme Eeyou Istchee. 84 pages.
- TREMBLAY Caroline (2024). “Quelle épicerie est la moins chère en 2024 ?” *Milesopedia*. 2023-09-23.
- TROTAVO Franck, Pedersen and all (2011). “Economic conditions of Indigenous Peoples in Canada” in *The Canadian Encyclopedia*. Published online October 31, 2011 : <https://www.thecanadianencyclopedia.ca/en/article/aboriginal-people-economic-conditions>
- Vaillancourt, P. 2003. Etude archéologique et ethnohistorique d’un site rupestre (EiGf-2) à tracés digitaux au lac Némiscau, territoire cri, Jamésie. Master’s thesis. History Department, Université Laval, Québec City. Online. HYPERLINK <http://hdl.handle.net/20.500.11794/17801><http://hdl.handle.net/20.500.11794/17801>. Accessed 2024-03-14.
- VC (2024). *Visualizing the World’s Largest Lithium Producers*. Visual Capitalist. Accessed 2024-02-14.
- VEI (2023a). *Transportation Infrastructure Program Feasibility Study, Phase I. Executive Summary*. Vision Eeyou Istchee (Stantec-Desfor-Systra) for the Cree Development Corporation. LGA-1-GN-F-FEX-RT-0001-02_en, 2023-04-16, 93 pages.
- VEI (2023b). *Transportation Infrastructure Program Feasibility Study, Phase I. Volume 1 – Introduction*. Vision Eeyou Istchee (Stantec-Desfor-Systra) for the Cree Development Corporation. LGA-1-GN-F-FRN-RT-0001_03_en, 2023-04-14, 22 pages.
- VEI (2023c). *Transportation Infrastructure Program Feasibility Study, Phase I. Volume 2 – Technical*. Vision Eeyou Istchee (Stantec-Desfor-Systra) for the Cree Development Corporation. LGA-1-GN-F-FRN-RT-0002_02_en, 2023-04-14, 246 pages.
- VEI (2023d). *Transportation Infrastructure Program Feasibility Study, Phase I. Volume 3 – Environment*. Vision Eeyou Istchee (Stantec-Desfor-Systra) for the Cree Development Corporation. LGA-1-GN-F-FRN-RT-0003_01_en, 2023-04-28, 288 pages.
- VEI (2023e). *Transportation Infrastructure Program Feasibility Study, Phase I. Volume 5 – Economic, Risk and Financial*. Vision Eeyou Istchee (Stantec-Desfor-Systra) for the Cree Development Corporation. LGA-1-GN-F-FRN-RT-0005-03_en, 2023-12-20, 115 pages and appendices.
- VEI (2023f). *La Grande Alliance. Étude de faisabilité – Phase I, Étude route Billy-Diamond*. Vision Eeyou Istchee (Stantec-Desfor-Systra) pour la Société de développement cri, LGA-1-BD-T-HGN-RT-0001_00, 2023-10-26, 26 pages.
- VEI-WSP (2023). *Transportation Infrastructure Program Feasibility Study, Phase I. Prefeasibility Study, Phases II-III. Volume 4 – Market Study*. Vision Eeyou Istchee (Stantec-Desfor-Systra) for the Cree Development Corporation. LGA-1-GN-F-FRN-RT-0004-03_en, 2023-11-03, 198 pages.
- WASKA (2021). *Waska Resources*. Website.
- WASKAGANISH (2023). *Website*, Waskaganish First Nation, 2023-11-01.
- WATTEZ (2024), *L’alternative patrimoniale des Iyiyiwch. Savoir-faire, territoire et autonomie*. Presses de l’Université du Québec (PUQ) – Société recherches autochtones au Québec (SRAQ), coll. Peuples autochtones et enjeux contemporains, 276 pages.
- WATTEZ (forthcoming), “Iyiyiwch territorialities of intimacy: walking, paddling, and hunting on nocimic and iyiniw astchee”: pp-pp, in Blaser Mario, Sylvie Poirier and Penelope Anthias (ed.), *Territories of Life: Equivocations, Entanglements, and Endurances*, University of Alberta Press.
- WHITFORD, Jacques (2009). *Waskaganish Permanent Road – Biophysical Environment Follow-Up Study*. 180 p.
- WSP (2016). *Projet de réfection de la route de la Baie-James : Analyse des parties prenantes*. Étude réalisée pour la Société de développement de la Baie-James, 2016, 42 pages.

ADDENDUM - COMMUNITY SOCIAL ECONOMIC BENEFITS AND IMPACTS

WSP (2023a). *La Grande Alliance, Pre-Feasibility Study – Phases II & III – Transportation Infrastructure. Technical Note 3 – Land Use*. For the Cree Development Corporation. March 2023. 100 pages and appendices.

WSP (2023b). *La Grande Alliance, Pre-Feasibility Study – Phases II & III – Transportation Infrastructure. Technical Note 5 - Impacts on the Communities in the Study Area*. For the Cree Development Corporation. March 2023. 77 pages.

WSP (2023c). *La Grande Alliance, Pre-Feasibility Study – Phases II & III – Transportation Infrastructure. Technical Note 17 – Economic Impact Assessment*. For the Cree Development Corporation. April 2023. 39 pages.

WSP (2023d). *La Grande Alliance, Pre-Feasibility Study – Phases II & III – Transportation Infrastructure. Technical Note 20 – Economic Impact Assessment*. For the Cree Development Corporation. April 2023. 15 pages.

WSP (2023e). *La Grande Alliance, Pre-Feasibility Study – Phases II & III – Transportation Infrastructure. Technical Note 11 - Roads*. For the Cree Development Corporation. March 2023. 65 pages.

WSP (2023f). *La Grande Alliance, Pre-Feasibility Study – Phases II & III – Transportation Infrastructure. Final Report*. For the Cree Development Corporation. April 2023. 96 pages.

ZHANG, A. et al. (2005). *Towards estimating the social and environmental costs of transportation in Canada: A report for Transport Canada*. Centre for Transportation Studies, Sandec School of Business, University of British Columbia (March 2005).

APPENDIX

A

METHODOLOGICAL NOTES

METHODOLOGICAL NOTES

Indicators - Waswanipi Adjustment from 2021 Census Data

The data from the Census displays a population in Waswanipi of 1,759 inhabitants in 2016 and only 459 in 2021 while the population in the Eeyou Istchee James Bay Regional Government (EIJBRG) territory (which corresponds to EIJB outside the Cree and Jamesian communities) amounts to 1,579 inhabitants in 2016 and 2,638 inhabitants in 2021. So, the difference between the two Census years is of -1,300 inhabitants in Waswanipi and +1,059 inhabitants in EIJBRG). This leads to think that the loss in Waswanipi mostly corresponds in the increase in EIJBRG and there are people in the Waswanipi who are recorded in EIJBRG. The data in 2021 were thus adjusted for Waswanipi by adding the indigenous population in EIJBRG to that of Waswanipi. By doing so, the population in 2021 would be 1,924 inhabitants in Waswanipi and 1,173 inhabitants in EIJBRG. Since most socio-economic indicators are available for the indigenous population in EIJBRG, figures have been adjusted for Waswanipi. This estimate could lead to a slight overestimation of the population in Waswanipi, as the indigenous actually living in the EIJBRG and not in the Waswanipi community would be included in Waswanipi. There were 100 people living in EIJBRG who were indigenous at the 2016 Census; this could give an insight of the overestimation, On the other hand, as the missing people in Waswanipi are more than the extra people in EIJBRG, the population in Waswanipi could be underestimated by approximately 150 people. When the data was not available for the indigenous population in EIJBRG, the rates for the incomplete population of Waswanipi were used.

The characteristics of the Cree population were computed by adding the data of the nine Cree communities, including Whapmagoostui and excluding Washaw Sibi. For 2021, these results were compared to the data of the health region of Les Terres-Cries-de-la-Baie-James (which includes the nine Cree communities but with partial population in Waswanipi).

Cost of Living – Fall 2023 Survey

Items included in the basket of goods

Group 1 - Food and Beverages

- 1 litre of orange juice
- 12 eggs
- 12 Pepsi/Coke cans
- 2 litres of 2% milk
- 24 water bottle pack
- 284 ml Campbell tomato soup can
- 500 g lean ground beef
- 650 g marble cheese brick
- Club Sandwich with fries at restaurant
- Medium size coffee at convenience store

Group 2 – Transportation

- 1 litre of regular gasoline

Group 3 - Housing

- Average monthly shelter costs (rented) (not asked since available from the Census)

APPENDIX A

Cost of Living – 2010 Survey (Collette et Larivière, 2010)

	WHAP.		CHISASIBI		WEMINDJI		EAST.	WASK.	NEM.	WASW.	MIST.	QUEB.
	NORTH.	COOP	NORTH.	COOP	NORTH.	COOP	NORTH.	NORTH.			Axep©	Metro©
Flour (10 kg, Robinhood©)	---	\$18.99	\$20.89	\$26.15	\$24.10	\$17.99	---	\$15.49	\$26.95	\$16.85	\$19.99	\$14.99
Flour (5 kg)	\$24.99	---	---	---	---	---	\$15.89	---	---	---	---	\$11.59
Flour (10 kg, cheaper brand)	\$21.99	\$18.99	\$26.19	\$26.75	\$24.10	\$10.19	---	\$21.69	---	---	---	\$11.99
Eggs (18 units)	\$5.99	\$6.19	\$4.45	\$3.85	\$4.39	\$4.49	\$4.45	\$4.49	\$4.00	\$4.65	\$4.59	\$4.49
Sugar (2 kg)	\$5.29	\$4.99	\$3.09	\$3.45	\$3.10	\$3.39	\$3.39	\$3.39	\$3.90	\$3.29	\$2.85	\$2.99
Tenderflake© (1.36 kg)	\$9.99	\$11.09	\$7.34	---	\$9.10	\$3.35 / 1 lbs.	\$8.45	\$8.95	\$10.90	\$8.39	\$7.99	\$7.59
Condensed Milk (12 bottles, Grand-Pré©)	---	\$45.48	\$29.99	\$30.15	\$26.99	\$28.99	\$35.99	\$29.99	\$36.00	\$35.00	\$31.49	\$31.16
Tea (1 lbs. Salada©)	\$13.89	\$13.49	\$12.29	\$11.00	\$10.09	\$12.49	\$6.35 / 2 lbs.	\$12.49	\$13.45	\$9.03	\$7.09	\$7.49
Corn-Beef (Klik©, 1 lbs.)	\$4.79	---	\$3.89	\$4.05	\$3.95	\$4.02	\$4.69	\$4.39	\$5.15	\$3.79	\$3.09	\$4.65
Potatoes (10 lbs.)	\$10.99	\$8.39	\$6.99	\$5.60	---	\$7.59	---	---	\$8.50	\$3.65	---	\$3.99
(5 lbs.)	\$7.69	---	---	---	---	---	\$6.35	---	\$3.50	\$6.65	---	\$2.99

Job Creation Impact Model (JCIM) – Hydro-Quebec Experience

During the construction period from 2007 to 2011, Cree entrepreneurs were awarded a total of \$1,024 million dollars (M\$) in contract which accounted for about 27% of the entire Hydro-Quebec Project Capital Expenditures. Nemaska was awarded the highest value of contracts (\$267.7M) followed by Waskaganish (\$213.8M), Mistissini (\$127.1M), and Eastmain (\$92.8M). No entrepreneur from Whapgoostui or Oujé-Bougoumou participated in the project. In addition, a certain number of Cree entrepreneurs alone and some joint ventures were registered as regional entities. Together, they were awarded a total amount of \$293.5M.

During that period, 2,196 FTEs jobs for Cree workers were created, which accounted for 9.8% of the total job creation, including non-Cree employment. Mistissini provided the highest number of workers for the project (834 jobs), followed by Waskaganish (489 jobs), Nemaska (219 jobs), and Eastmain (163 jobs). Although Eastmain is the closest community to the Project site, economic benefits were not the highest ones due to, perhaps, the limited capacity of its entrepreneurs and workers. Mistissini and Waskaganish, both located farther away from the Project site though, were well positioned due to their developed capacity and experience in this type of project over the years. Although some jobs were created by the project for residents of Whapmagoostui and Oujé-Bougoumou, no entrepreneur from these two communities was involved in the construction of the project.

APPENDIX A

Contracts Received and Job Creation per Community, Construction of Hydro-Quebec Project, 2007-2011

Community	Contracts (\$M)	%	FTE Jobs	%
Whapmagoostui			14	0.6%
Chisasibi	6.4	0.6%	141	6.5%
Wemindji	20.4	2.0%	88	4.0%
Eastmain	92.8	9.1%	163	7.5%
Nemaska	267.7	26%	219	10%
Waskaganish	213.8	21%	489	22%
Mistissini	127.1	12%	834	38%
Oujé-Bougoumou			57	2.6%
Waswanipi	2.5	0.2%	118	5.4%
Regional	293.5	29%	74	3.4%
Cree Total	1,024	100%	2,196	100%
Project Total	3,793		22,416	
Share of Cree	27%		9.8%	

Source: CGW (2015).

During the operation period from 2012 to 2016, Cree entrepreneurs were given higher shares of contracts and employment than during the construction period, 55% and 17% of the total contract and employment respectively. Mistissini and Waskaganish were still given the largest proportions of contracts (5.4 and 12.8%) and jobs (27.9% and 30.8%). To a lesser extent, Nemaska and Eastmain provided significant shares of employment (17.9% and 9.6%) perhaps due to the proximity of the community to the Hydro-Quebec site. Unsurprisingly, not a single worker or entrepreneur from Whapmagoostui participated in the operation of the power station due to the long distance between the latter and the community.

Contracts Received and Job Creation per Community, Operation of Hydro-Quebec Project, 2012-2016

Community	Contracts (\$M)	%	FTE Jobs	%
Whapmagoostui				
Chisasibi	0.14	0.6%	1.3	0.7%
Wemindji	0.51	2.0%	5.0	2.9%
Eastmain	0.66	2.6%	16.4	9.6%
Nemaska	1.16	4.6%	30.6	17.9%
Waskaganish	3.21	12.8%	52.7	30.8%
Mistissini	1.35	5.4%	47.8	27.9%
Oujé-Bougoumou				
Waswanipi			7.2	4.2%
Regional	18	71.7%	10.2	5.9%
Cree Total	25.1	100%	171.2	100%
Project Total	45.6		1,016	
Share of Crees	55%		16.8%	

Source: CGW (2015).

Long-Term Sustainability Data

Ranked by the Employment column, the table shows that the majority of the indigenous workers works in the public administration sector, which accounted for about 17 % of total employment. Healthcare and social assistance ranked second with 15% of total employment, while the retail trade ranked third with 10%. In the fourth position, the construction sector employed 8% of the workforce, comparable to the education sector. To a lesser extent, the accommodation and food services sector and the manufacturing sector each employed 6% of the total workforce.

The GDP per job shows how much value each sector contributes to the economy per employed person.

Unsurprisingly, the real estate sector surpasses all other sectors in terms of value-added as each worker in that sector generated on average \$392,021 of goods and services for the economy. To a lesser extent, other high value-added sectors include mining, utilities, construction, manufacturing, finance and insurance, wholesale, and information and cultural industries. Those sectors had a GDP per employed person above \$70,000 per year.

In general, those high value-added sectors also provided high employment income from \$48,423 per worker in the manufacturing sector to \$79,361 per worker in the mining sector. It is worth noting that although the real estate sector ranked first in terms of GDP per employment, income per employment in this sector was not the highest. This means that the profits generated in this sector flowed mostly back to developers rather than to workers.

Indigenous Gross Domestic Product and Employment Data per Industry, Quebec, 2019

Ranking	Sector	GDP		Employment		GDP per employment	Employment Income	Employment Multiplier
		M\$	% of Total	Persons	% of Total	\$/person	\$/person	FTE Jobs/\$1M Output
1	Public administration	892	17%	15,665	17%	56,921	45,754	6.2
2	Health care and social assistance	681	13%	13,700	15%	49,705	38,828	6.6
3	Retail trade	270	5%	9,550	10%	28,244	21,917	10.8
4	Construction	557	10%	6,990	8%	79,742	56,180	5.6
5	Educational services	360	7%	6,950	8%	51,857	42,706	4.2
6	Accommodation and food services	146	3%	5,930	6%	24,558	21,201	9.1
7	Manufacturing	435	8%	5,825	6%	74,732	48,423	21.6
8	Administrative and support waste management and remediation services	153	3%	4,060	4%	37,761	32,893	8.7
9	Other services	147	3%	3,920	4%	37,553	33,870	7.5
10	Transportation and warehousing	222	4%	3,815	4%	58,170	46,255	7.9
11	Agriculture forestry fishing and hunting	171	3%	2,590	3%	66,098	33,078	1.8
12	Professional scientific and technical services	132	2%	2,175	2%	60,742	48,123	10.1
13	Wholesale trade	141	3%	1,995	2%	70,676	52,922	8.9
14	Arts entertainment and recreation	70	1%	1,850	2%	37,909	33,435	15.7
15	Finance and insurance	120	2%	1,695	2%	70,888	57,872	11.1
16	Real estate and rental and leasing	574	11%	1,465	2%	392,021	44,597	11.6
17	Mining quarrying and oil and gas extraction	109	2%	1,170	1%	92,887	79,361	14.7

APPENDIX A

Ranking	Sector	GDP		Employment		GDP per employment	Employment Income	Employment Multiplier
		M\$	% of Total	Persons	% of Total	\$/person	\$/person	FTE Jobs/\$1M Output
18	Information and cultural industries	78	1%	1,085	1%	71,526	47,964	19.8
19	Utilities	95	2%	1,055	1%	89,947	63,754	21.5
20	Management of companies and enterprises	12	0%	205	0%	57,015	55,201	8.5
	All Sectors	5,365	100%	91,690	100%	58,516	40,916	6.2

Source: Statistics Canada, 2022. *Income and Expenditure Accounts Technical Series - Indigenous Peoples Economic Account: Methodology and Preliminary Results.*

Additionally, the construction industry ranked fourth in term of GDP per employment at almost \$80,000 per worker, behind the real estate, mining, and utilities sectors. This means that LGA itself is expected to generate more value for the Cree economy than most other sectors. Due to high employment income in the construction sector, the number of jobs generated per \$1M of output (5.6) is relatively lower in this sector as compared to others such as retail trade and accommodation and food services (10.8 and 9.1 respectively), as seen in the last column of the table. Manufacturing and utilities sectors exceptional as both pay high salaries and hire lot of workers.

APPENDIX

B

FACILITATION PLAN
COMMUNITY PULSE
FOCUS GROUP

Facilitation plan: Oct. 31 – Nov 2, 2023

INTENTION:

Understand what is Cree Economy from a grass root lenses / local perspective

DESIRED OUTCOMES:

- Present an overview of LGA
- Exchange and share views on how we understand and foresee Cree Economy in the future
- Help the study team to define the relevant methodology
- Ignite the interest to connect with CIOs

AGENDA: How will we get there:

- 9:00 Welcoming & introduction
CONTEXT
 - Brief intro to LGA
 - Present the new mandate
- 10:00 Break
- 10:15 Journey into: Past | Present | Future
- 11:30 Summarize our journey: What is Land-Based Economy?
- 12:00 End of Focus Group

NOTES:

- Duration: 3.5 hours, 3 sessions: Oct 31, Nov 1 & 2 from 9am to noon
- Tools:
 - Kahoot
 - Zoom Breakout rooms (4 people each – 2 minute each – max 10 minutes)
 - Google Docs
 - Microsoft
- Resources
 - Facilitator (Manon)
 - Presenter: (Julie)
 - Percolab: Drawing (Paul) – Popping in + Lori Techh support
 - LGA Team
 - CIO / CLO
 - Study team technical expert: Economics, Anthropologists

Facilitation Plan

Time	GOAL	Description	Responsible/Tools
9:00am	Welcoming of participants and introduction	Welcoming word <ul style="list-style-type: none"> • I DO ART Presentation of participants - Who is here? <ul style="list-style-type: none"> - IT practice: Title & Community 	Manon Kahoot
9:20	Setting the table: context About LGA & Addendum (Macro & Micro)	<ul style="list-style-type: none"> - What do you know about LGA and what have you heard about it so far? - PPT on LGA + Q&A - PPT on Addendum 	Kahoot Julie
10:00	Break	10 minutes	
10:15	Breakout Activity # 1: Thinking of the PAST 4 people per team, 2 minutes each 10 minutes max	<ul style="list-style-type: none"> - What images come to mind that represent Cree Economy? - Why those images? - What type of activities/services/products did it consist of? 	Participants & google doc
10:30	Plenary	What has Shifted since then? The Internal & external Factors	
10:45	Activity 2: Looking at the PRESENT	<ul style="list-style-type: none"> - Who from your family circle is earning a living from land resources? - What type of services/products do they offer? - Have you heard of any Business ideas that are in relation to land resources? 	Participants & google doc
10:55	Break	5 minutes	
11:00	Plenary	What seems to be shifting at this time? Which Internal and external factors are forcing this?	
11:15	Activity 3: Imagining the FUTURE	<ul style="list-style-type: none"> - How do you see our Cree Economy evolving toward? - What can it look like? What will it include? - How can LGA proposed infrastructure make a difference? 	Participants & google doc
11:30	Plenary	With all that was said, what can be said about land-based economy? What else...?	
11:50	Summary in Image		
11:55	Check out question:	In one (1) word...What is your takeaway	Kahoot Word Cloud
11:57	Closing words	Next step of the projects <ul style="list-style-type: none"> - Cost of living survey 	Send link

GOOGLE DOC (4 people per team – 10 minutes max)

Activity # 1 Break out room: THINKING OF THE PAST

What images come to mind that can represent Cree Economy?	Why that image?	What type of activities/service/product did it consist of?

Plenary debrief: Now that we have a common understanding of Cree Economy, What has shifted since then? What internal and external factors have played into the shift?

Activity # 2 Break out room: LOOKING AT THE PRESENT

Who from your family circle, Is earning a living from land resources?	What type of services/product they offer?	Business ideas that are in relation to land resources?

Plenary debrief: What seems to be shifting at this time? Internal and external factors are forcing this?

Activity 3 Break out room: IMAGANING THE FUTURE

How do you see our Cree Economy evolving toward?	What can it look like? What will it include?	Can the LGA proposed transportation infrastructures make a difference?

Plenary debrief: With all that was said...what can be said about land-based economy or what else needs to be said?

APPENDIX

C

FACILITATION PLAN DCI-EDO WORKSHOP

Facilitation plan

INTENTION:

Collaborate with key Cree Actor to look into LGA effects onto Cree Community Economy

DESIRED OUTCOMES:

- Share factual overview on the LGA proposed infrastructure study & present mandate of addendum.
- Establish a comprehensive portrait of the actual Cree Community Economy
- Envision what the future can be with and without proposed infrastructure.
- Plan a seed about land based and collect data on monthly expense.

AGENDA: How will we get there:**Tuesday November 28**

- 12:00 Lunch with DCI & EDO
- 1:00 LGA Facts and Context
 - LGA study outcome
 - New mandate
- 3:00 Break
- 3:15 Community Portrait
- 4:30 End of day

Wednesday November 29

- 9:00 Envisioning the Future & Effects of Infrastructures.
- 10:00 Break
- 10:45 Land-Based Economy
- 11:15 Cost of living – Monthly expenses
- 11:30 Debriefing our time together.
- 12:00 Lunch

NOTES:

- Forestel: Arrival: 27 | Departure: 30th
- Tools:
 - Paper & Microsoft Form
- Resources
 - Facilitator (Manon)
 - Presenter: (Reggie, Ian & Julie)
 - CIO: Reporters
 - Technical: Note recorder
 - LGA Team
 - CIO / CLO
 - Study team technical expert: Economics, Anthropologists

Facilitation Plan

DAY 1	GOAL	Description	Responsible/Tools
1:00pm (15min)	Connection and introduction of participants -	15 min Welcoming word <ul style="list-style-type: none"> I DO ART 	Manon
(20min)	18 EDO/TO 8 CNG DCI 15 LGA Team	Presentation of participants 30 Seconds of less Who you are, what you do and why are you here?	
(10min) (10min)		<u>Check-in Question! (Impromptu Networking)</u> What do you know about LGA and what have you heard about it so far and from whom? Debrief (4 interventions) Good pulse of the room in terms of knowledge	ALL DCI & EDO
2:00	LGA Context and Facts + Addendum Economic Study Mandate (Macro & Micro)	PPT Context: Reggie Main Study: Ian Addendum: Dennis	Julie
2:45 (30min)	CIO = Harvesting and documenting the conversation 5 min/questions	Looking at this list 1. Which ones would be more relevant to your community? And why? 2. Which ones would not be relevant to your community? And why? 3. Is there anything missing? If yes, explain	Manon Cluster team + Plenary 18 EDO/TO 8 DCI
3:15	Break	15 minutes	
3:30	Cree Economic Portrait	Manon Intro +	Manon
3:45 (30min)		Questionnaire TEAM by community	CIO, lead facilitators
4:15	Plenary 3-5 intervention / questions	How was this exercise for you? Biggest learning from this Exercise? What came out from # 7 ?	Manon
4:25	Debrief of day 1 & Closing	Take away from this afternoon?	Kahoot

DAY 2	GOAL	Description	Responsible/Tools
9:00	Welcoming	Check-in Question! Has anything bubbled up since yesterday? By team LGA Circle Personal interpretation + brief explain	
9:30	Envisioning the FUTURE In 2 Steps Overall, looking at what exists now and observing the current economic trends, in your opinion, what kind of new patterns will take roots in the future?	TEAM of 6 - How do you see our Cree Economy evolving? - What can it look like? What will it include? - Any new emerging industries?	
9:45 (45min)	Now lets look at the future with LGA How can LGA proposed infrastructure make a difference?	1. How this transport infrastructure might stimulate economic growth, create jobs, and foster sustainable development in alignment with your community's goals? Explain. 2. How will this specific potential proposed infrastructure change the current network of producers, suppliers, and distributors of goods and services close to the community? 3. How can the community benefit and be impacted from this infrastructure study? Explain. (Portait) 4. In your opinion, do your local entrepreneurs have the capacity to participate in the construction of such infrastructure? Explain.	
10:30	Break		
10:45	Plenary	First Round: Without LGA Second round: With LGA	
11:15	Land-Based Economy example	MSC	
11:30	Monthly expense	Online monthly survey	
11:45	Closing words	What are you starting to unpack based on what you have heard and experienced in the last two days?	CIOs

these EDO's don't want to be told about what their communities are like now and what they want for the futures, they've talked about that forever... but the question is, how can the railway, and good roads change or improve the economies of the communities, how can they be a part of the mining boom, and where does this infrastructure development contribute to the building of the Cree Communities and Nation?

APPENDIX

D

COMMUNITY PULSE
FOCUS GROUP REPORT



CONNECT. DEVELOP. PROTECT | CONNECTER. DÉVELOPPER. PROTÉGER. | ᓴᓴ·ᐃᓴᓴᓴᓴᓴ·ᐃᐸᓴᓴᓴᓴ, ᓴᓴᓴᓴᓴᓴᓴ

COMMUNITY PULSE -

CREE ECONOMY FOCUS GROUP

October 31, November 1-2, 2023

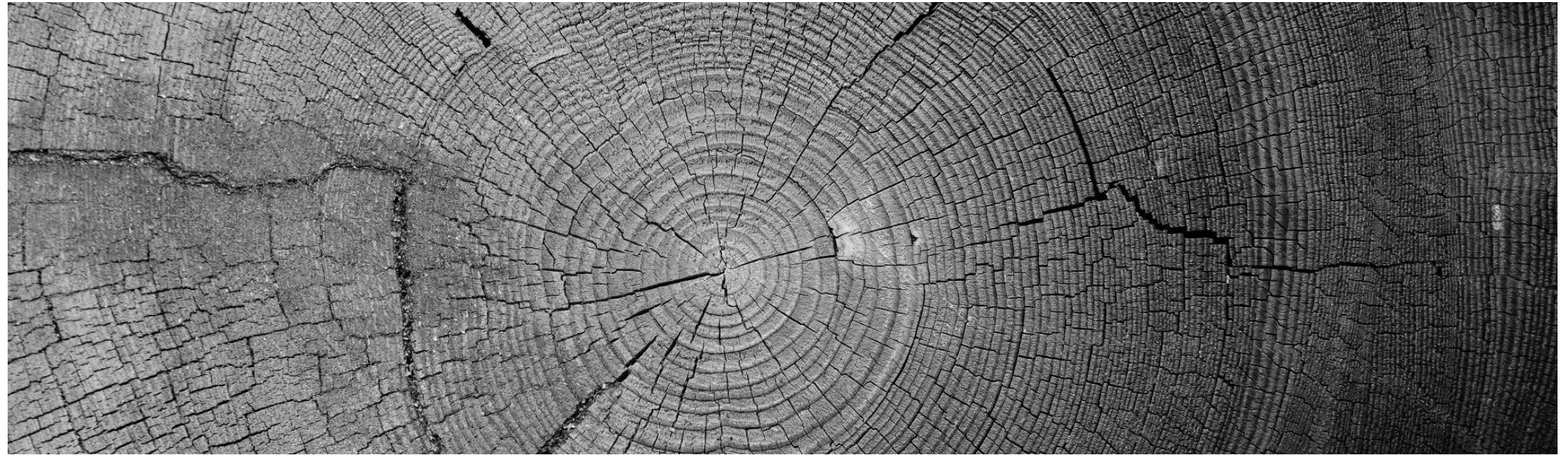
THE INTENTION WAS TO

COLLABORATE TO BETTER UNDERSTAND WHAT IS CREE ECONOMY

YOUR INSIGHT WAS MOST VALUABLE

TO HELP US ANSWER LEADERSHIP REQUEST TO STUDY
COMMUNITY SOCIAL ECONOMIC BENEFITS & IMPACTS

MEEGWETCH



SESSIONS DEBRIEF

Overall Summary

October 31 Workshop

November 1 Workshop

November 2 Workshop

Conclusion

Appendices

ACTIVITY 1
**Thinking of the
PAST**

What images come to mind that represent Cree Economy?
Why those images?
What type of activities/services/products did it consist of?

ACTIVITY 2
**Looking at the
PRESENT**

Who in your family is lives off land resources?
What type of services/products do they offer?
Any Business ideas that are in relation to land resources?

ACTIVITY 3
**Imagining the
FUTURE**

How do you see our Cree Economy evolving?
What can it look like?
What will it include?
How can LGA proposed infrastructure make a difference?



OCTOBER 31

THINKING OF THE PAST

- Beaver pelts
- Trading
- Traditional transportation such as canoes and dog sled
- Historical activities such as Hunting and trading, especially with Hudson Bay Company (HBC)

LOOKING AT THE PRESENT

- Employment highly dependent on governmental organizations.
- Need to transition towards a more self-sustaining local economy.
- Challenges in fostering an **entrepreneurial** culture.
- Varied economic activities, including blueberry harvesting, arts and crafts, lumber, and more.



IMAGINING THE FUTURE

- Embrace sustainable options beyond resource extraction.
- Bring essential services to local communities.
- Improve infrastructure like roads for better access.
- Encourage local businesses and self-reliance.
- Preserve Cree culture and language while adapting to modern technology.

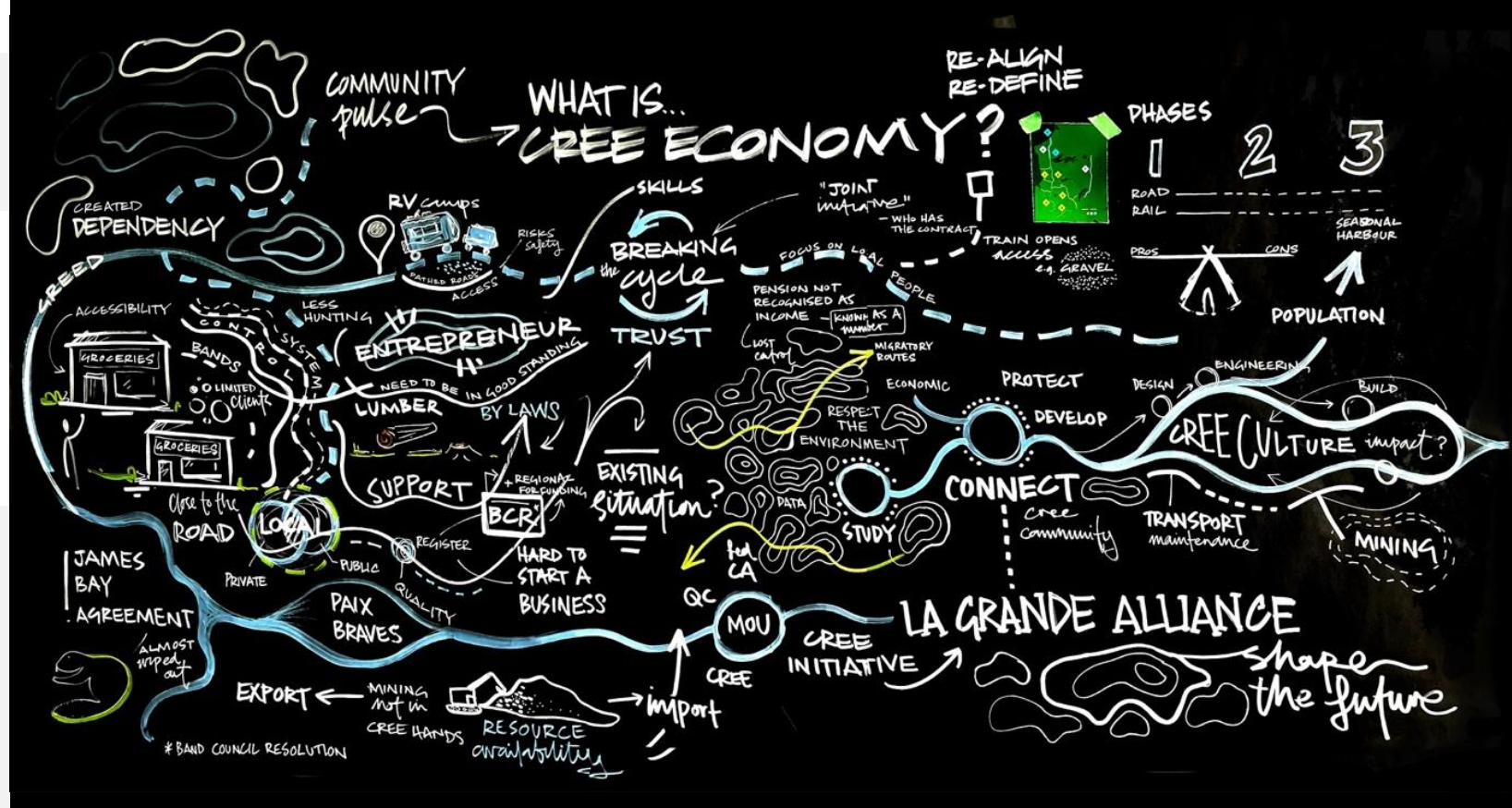
NOVEMBER 1

IMPACT OF LGA PROPOSED INFRASTRUCTURES

- Improved infrastructure will benefit access for tourism, road quality, risk management and emergency responses

LOOKING AT THE PRESENT

- Proximity to road access is a plus-value.
- Sufficient clients is a challenge.
- Need to focus on local businesses, too dependent on imports.
- Band council and CNG control over territories.
- Small entrepreneurs facing support issues from development corporations or bands.
- The need for more independence and self-sufficiency.
- Challenges related to band control approvals & permits.
- Trend to transition from living off the land to working in the local economy.
- Challenges related to band's influence on both private and public sectors.



IMAGINING THE FUTURE

- Reduce gravel road maintenance costs by improving roads.
- The role of the train in import-export and construction.
- The desire for local control of financing and addressing issues related to contracting with non-natives.
- Emphasis on sharing and mutual benefit in wealth creation.
- Discussion of business regulations and balanced framework.
- Building the Cree people to build the nation.

NOVEMBER 2

THINKING OF THE PAST

- Traditional exchange practices, where hides or tools were traded for more modern, useful items
- Interactions with early explorers
- Cree's role in the development of other nations, such as France, through fur trade

LOOKING AT THE PRESENT

- Emphasis on managing natural resources sustainably.
- Cree economy has modernized with increased use of machinery and transportation services.
- Use of local resources in exploration, forestry, construction, transportation, and other.
- Coexistence of traditional practices with modern economic activities.
- Growing population and expansion of local businesses.
- Efforts to develop tourism and engage youth in economic activities.
- Can modern activities be considered as land-based economy.



IMAGINING THE FUTURE

- Focus on becoming more self-sufficient in economic sectors where Cree communities are not heavily involved.
- The importance of Cree participation in contractual work through LGA.
- Preparing to respond to future economic needs and opportunities.

SUMMARY

THINKING OF THE PAST

- Cree Economy was centered around beaver pelts fur trading, hunting, and traditional exchanges
- The economy was heavily influenced by external factors like Hudson Bay Company greed demand for furs
- Traditional skills, like snowshoes, crafting and canoes, were essential

LOOKING AT THE PRESENT

- Modern Cree Economy is more industrialized.
- Exploitation of natural resources, forestry and mining, is prominent.
- Lifestyle is changing due to technology and transportation influence.
- Efforts are being made to manage natural resources sustainably.
- Local construction and transportation businesses are growing.
- Challenges include dependency on external funding and the need for more support from local leadership.
- The importance of supporting local businesses and shifting away from dependency on import of southern goods.



IMAGINING THE FUTURE

- Cree economy transition toward greater self-sufficiency and diversification, beyond minerals and land-based resources, is desirable.
- Infrastructure projects can improve access.
- Focus on supporting local businesses and entrepreneurship to break the dependency cycle.
- Exploring untapped resources and considering land reservation for mineral exploration.

SWOT ANALYSIS

STRENGTHS

- Rich cultural heritage and traditional practices that can be preserved and leveraged.
- Growing local construction and transportation businesses.
- A focus on sustainable management of natural resources.
- Potential for economic diversification and self-sufficiency.
- Strong sense of community and shared values.

WEAKNESS

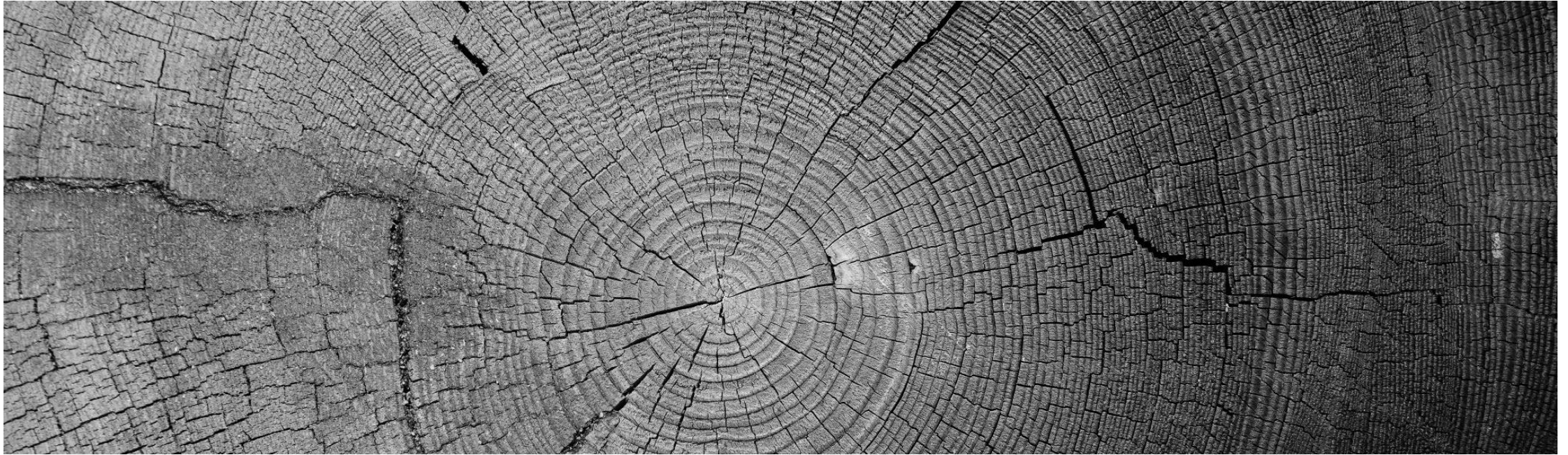
- Dependence on external funding and support.
- Challenges in trusting and supporting local entrepreneurs.
- Impact of technology and changing lifestyles on traditional practices.
- Limited control over financing and economic decision-making.
- Need for greater economic diversity and resilience.

OPPORTUNITIES

- Infrastructure projects like roads and railways can reduce costs and improve access.
- Economic diversification beyond minerals and land-based resources.
- Support for community-based businesses and entrepreneurship.
- Exploration of untapped resources and potential for land reservation.
- Growing interest in tourism and cultural preservation.

THREATS

- Potential natural resources over-exploitation.
- Competition from external businesses and lack of trust in local entrepreneurs.
- Cultural erosion due to technology and changing lifestyles.
- Continued dependence on external funding and agreements.
- Environmental and economic risks associated with mining and resource extraction.



APPENDICES

Guest List

List of Participants

Raw Notes

APPENDIX

E

CREE COMMUNITY ECONOMIC PORTRAIT



DAY 1: CREE COMMUNITY ECONOMIC PORTRAIT:

1. **Communities:** No data for Washaw Sibi, Wemindji and Chisasibi

2. **Community plans**

	Eastmain	Waskaganish	Nemaska
Economic Development Strategy/Plan	N, IDK	Y	Mathew Tanoush/Erika Moar
Housing and Infrastructure development Plan	N, IDK	Y	Erika Moar
HR or employment development Strategy/Plan	N, IDK	Y	unsure
Social Development Strategy/Plan	N, IDK - Co-op	Y	unsure
Others		It's on its way in a unified document as the strategic planing was just completed	
	Mistissini	Oujé-Bougoumou	Waswanipi
Economic Development Strategy/Plan	On-going	William Paddy	Chief and Council/Jacob Ottereyes
Housing and Infrastructure development Plan	On-going	Minnie Wapachee	Flora Gull/Chief and Council
HR or employment development Strategy/Plan	On-going	Stephanie B Mianscum	Patricia Trapper/Chief and Council
Social Development Strategy/Plan	On-going	Janie Wapachee	Aaron Happyjack/Chief and Council
Others			Director of Community Services, Director Health and Safety

3. Who are the top 5 biggest employers in your community right now?

PUBLIC

Whapmagoostui	Eastmain	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi
Cree Board of Health and Social Services	CNE	CNN	CNG	OBCN	Cree First Nation of Waswanipi
Whapmagoostui First Nation	CHB	CNG	CSB	Enterprise	Cree Health Board
Cree School Board	CSB	Nemaska Development Corp	CHB	Cree School Board	Cree School Board
CHTA		Cree School Board	CNM	Cree Health Board	
CNG				Daycare	

PRIVATE

Whapmagoostui	Eastmain	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi
Minheku Construction	Northern Store	Depanneur (sequins)	Meechum Grocery	Native Exploration	Waswanipi Grocery
	Spencer	TSM Restaurant	Nisk Construction	Seshkatuuk	Cree Lumber
	H. Transpot	VCC Construction	Cree Source for Sport	Wapachee Woodworks	
			Benac	Nuuchimi Wiinuu	
			Adel Resto	Niibuush Consulting	

4. Do you know if your local Corporation and/or Leadership are working on any long term business project? If yes, are they involved with external partners?

Eastmain	Waskaganish	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi
Mining project, starting	Green House Project, Market Analysis, Grocery Store Expansion	Yes, multiuser building for entrepreneur support, hotel expansion (new), hardware store expansion	Eskan + Sayona, Waseskun Airways + Air Tunitik	No, waiting on new leadership	Osisko Mining, Bonterra, Cree Lumber

5. What new project business are alive right now ?

Upcoming community lead businesses projects

Eastmain	Waskaganish	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi
Auto service & cleaning Co-op Store Mini mall	No business projects underway but there are studies being conducted.	Multiuser building, Greenhouse (redirect)	Greenhouse Community Hall Helicopter Business	Food Production (Greenhouse) Wood Management Area Tree Nursery Mini Mall	Gas Station Eeyou Storage Museum

Promising new business by local entrepreneurs

Eastmain	Waskaganish	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi
Woodshop Bating Cage	Heavy Machinery Garage and Creffit - Health and Fitness Mining Services Snow Plow (Small Scale)	JR's Garage Etuuda Distribution Diamond Carwash SD Mines TAC Eeyou Mart (Costco) Outfitting Camp Greenhouse	Eenou reno Impund lot + towing Chief Essential Oils Chipstand 144	Laudromat Fishing/hunting Store Army Surplus Store Mini Sawmill	SM Tires Anisk Excavation Ratte Enterprises

6. How many aspired project ideas are you accompanying ?

What are their projects/business ideas about and how are you assisting them?

Whapmagoostui	Eastmain	Waskaganish	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi
Hotel with restaurant	Green House	Arts-Crafts Store	JR's Garage	Community Hall	Laundromat	Car Wash
Local convenience and grocer store	Small engine repair	Creefit	Etuuda Distribution	Business incubators	Bakery	Material/Fabric
Tourism products		Hester Transport	Diamond Carwash	Trourism cultural camp	Wood Splitting	
Land based health centers		Erless Woodworks	TAC Eeyou Mart (Costco)		Transport Truck	
Energy production		Jolly Tours	SD Mines		Minopro	
Garage services including heavy equipment		Food Truck	Outfitting Camp		Solutions/Consulting	
Security company			Greenhouse			
Audio visual productions						
Arts center						
Petroleum services						
Aircraft company						
Transport – land and sea						
Storage facilities						
Food production						
Fish processing						
Non timber forest product (NTFP) company						
World class education facilities						
IT and technical services companies						
Eco-recycle services						
Traditional Technology company						
3D printshops						
3D manufacturing of residences and buildings						



7. What factors help or limit business development in your community? Explain

Eastmain	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi
Money, lack of funding quests outside source, Business knowledge, accounting, lack of support to local entrepreneurs	Helps - building of infrastructure (multiuser building), awareness, Limits - Lack of equity, lack of commitment, lack of training, intimidation, Competition - needs a council for business decisions	Political interference limits. Nepotism, Favoritism, Conflict of interest. Young population. Lack of space and land. Lack of equity. Lmistissini Opportunity Fund: lots of capacity	Politics in business, lack of service knowledge, lack of funding, lack of skills	Lots, no equity, no experience

Financial requests received in that last 5-years?

Whapmagoostui	Eastmain	Waskaganish	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi
Start up Training	Equity Start up Expansion	Startup/expansion Grant Funding Loans	Startup Expansion Training (Business Plan)	Startup Expansion Training	Business Plan Funding Equity Assistance Training Funding	Startup Expansion Training

Overall, looking at what exists now and observing the current economic trends, in your opinion, what kind of new patterns will take roots in the future?

Eastmain	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi
training, coaching, partnership, co-op, arts and crafts	Digital is trending and uprising, app building techs for businesses	Online business, AI, Migrant Workers	Business using the internet to grow, using the internet to create new type of businesses, AI	Funding sources from federal provincial governments (ex.: Government funds, CNG, because people want to start businesses, projected tourism increasing in the future

DAY 2: ENVISIONING THE FUTURE...

SOCIO-ECONOMIC EFFECTS, IMPACTS, OPPORTUNITY & BENEFITS of infrastructures

Job creation | Diversification | Entrepreneurship | Local supply chain | Long-Term Sustainability

1. How this transport infrastructure might stimulate economic growth, create jobs, and foster sustainable development in alignment with your community's goals? Explain.

What kind of new business can emerge from there proposed infrastructures ?

Tourism
Accommodations
Casino
Beer store
Dispensaries
We own the railroad, and everything associated with it.
Transport
Warehousing
Construction enterprises
We should be the MTQ
Heavy equipment maintenance and operation
Construction
Operations
Cree "Uber"
Garage, mechanics
Tow trucks
Car dealers
Food, accommodations (hotel) !
Fuel, gas station turnoff
Tourism activities, circuit
Education, training, cultural relations
Security, safety, communication network

Focus on involving youth
Strong leadership support to develop Category III lands
Partnerships with Inuit and non-Native
Innovative ideas: blackberry, mushrooms, wild produce
Tourism
Greenhouses, food [unintelligible] moose, fawn, transportation
community markets
Social activity
Construction
Sustainability of wildlife
Civil works company and civil engineering -> drilling
Slashing [?] companies -> safety, security
Mechanics
Transportation -> roads
Environmental resources
Archaeologist
Concrete, crusher, paving
Ownership -> operations
Maintenance camps
Transshipment yard -> operation (lift, crane)
Drilling
Station (Rupert)



LA GRANDE ALLIANCE
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CREE DEVELOPMENT CORPORATION

Respect · Collaboration · Strength

Are there positive outcomes to your communities ?

Create companies that are more respectful of the environment

Conciliate productivity with family/social

Women in business

2. How will this specific potential proposed infrastructure change the current network of producers, suppliers, and distributors of goods and services close to the community?

Lower the cost of groceries and gas

Lower the cost of lumber and living

Maintenance to employment opportunities

Road safety

Population boom, inter-community

Improve the economies for the communities

Access to better services

Increase tourism and job creation

Transportation from community to the sites

Creates business opportunity for community members

Some might have trouble meeting requirements, but solution they could come together to create an association to meet requirements

Create businesses to feed the needs of the mines.

3. In your opinion, do your local entrepreneurs have the capacity to participate in the construction of such infrastructure? Explain.

4. In relations to the potential rail, what should be the usage fee for land user?

\$36 average

APPENDIX

F

ECONOMIC INDICATORS

Appendix F - Socio-economic Indicators

Indicator	Year	Whapmagoostui	Chisasibi	Wemindji	Eastmain	Waskaganish	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi	Crees	Jamesians	Quebec
Population and ethnicity													
Total Population													
Historic total population (2001)	2001	778	3 467	1 095	613	1 699	566	2 597	553	1 261	12 629	16 607	
Historic total population (2006)	2006	812	3 972	1 215	650	1 864	642	2 897	606	1 473	14 131	14 944	
Historic total population (2011)	2011	874	4 484	1 378	767	2 206	712	3 427	725	1 777	16 350	14 248	
Historic total population (2016)	2016	1 016	4 872	1 444	866	2 196	760	3 523	747	1 759	17 183	14 030	
Historic total population (2021)	2021	1 022	4 985	1 562	924	2 536	832	3 731	797	1 924	18 313	13 377	
Forecasted total population (2021)	2021	1 088	5 356	1 557	972	2 349	843	3 858	814	1 827	18 664	13 377	
Forecasted total population (2031)	2031	1 303	6 335	1 708	1 199	2 542	989	4 338	936	1 990	21 340	12 577	
Forecasted total population (2041)	2041	1 494	7 143	1 806	1 378	2 772	1 128	4 677	1 061	2 173	23 632	12 032	
Forecasted total population (2051)	2051	1 660	8 087	2 030	1 575	3 057	1 260	5 300	1 184	2 413	26 566	11 428	
Forecasted total population (2061)	2061	1 845	8 989	2 200	1 772	3 303	1 396	5 803	1 307	2 610	29 224	10 854	
Gap, forecast versus census (2021)	2021	6,5%	7,4%	-0,3%	5,2%	-7,4%	1,3%	3,4%	2,1%	-5,0%	1,9%	.	
% of population of Cree communities (2021)	2021	5,6%	27,2%	8,5%	5,0%	13,8%	4,5%	20,4%	4,4%	10,5%	100,0%	...	...
Growth in Population													
Compound annual growth rate (2001-2021)	2001-202	1,3%	1,7%	1,7%	2,0%	1,9%	1,9%	1,7%	1,8%	2,0%	1,8%	-1,1%	0,8%
Compound annual growth rate (2016-2021)	2016-202	0,1%	0,4%	1,3%	1,1%	2,4%	1,5%	1,0%	1,1%	1,5%	1,1%	-0,9%	
Compound annual growth rate (2021-2041)	2021-204	1,6%	1,4%	0,7%	1,8%	0,8%	1,5%	1,0%	1,3%	0,8%	1,1%	-0,5%	
Compound annual growth rate (2041-2061)	2041-206	1,0%	1,0%	0,9%	1,1%	0,8%	1,0%	0,9%	1,0%	0,9%	1,0%	-0,5%	
Membership													
Total number of members (2016)	2016	972	4 386	1 511	781	2 817	823	3 782	855	2 288	18 215	...	...
Total number of members (2021)	2021	1 074	4 977	1 614	918	3 142	932	4 185	995	2 570	20 407	...	...
Members residents (2016)	2016	987	4 524	1 493	800	2 871	836	3 813	887	2 310	18 521	...	...
Members residents (2021)	2021	1 072	4 923	1 597	895	3 092	916	4 122	954	2 490	20 061	...	...
Members non residents (2016)	2016	9	40	44	19	86	16	37	19	68	338	...	...
Members non residents (2021)	2021	2	54	17	23	50	16	63	41	80	346	...	...
Compound annual growth rate, residents (2016-2021)	2016-202	1,7%	1,7%	1,4%	2,3%	1,5%	1,8%	1,6%	1,5%	1,5%	1,6%	...	...
Gap, members residents versus census (2016)	2016	-2,9%	-7,1%	3,4%	-7,6%	30,7%	10,0%	8,2%	18,7%	31,3%	7,8%	...	...
Gap, members residents versus census (2021)	2021	4,9%	-1,2%	2,2%	-3,1%	21,9%	10,1%	10,5%	19,7%	29,4%	9,5%	...	...
Treaty Indians (2021)	2021	955	4 700	1 500	890	2 450	800	3 240	720	1 815	17 070	...	...
Gap, members residents versus Treaty Indians (2021)	2021	12,3%	4,7%	6,5%	0,6%	26,2%	14,5%	27,2%	32,5%	37,2%	17,5%	...	...
Ethnicity/origin (2021)													
Aboriginal ancestry	2021	84,9%	87,5%	93,6%	91,9%	93,1%	92,2%	82,3%	58,1%	61,3%	84,0%		
Aboriginal and non-aboriginal ancestry	2021	13,7%	7,4%	3,5%	2,7%	4,3%	4,2%	7,1%	31,9%	36,6%	10,7%		
Non-aboriginal ancestry	2021	1,5%	4,9%	2,6%	5,9%	2,6%	3,0%	10,9%	9,4%	1,8%	5,3%		
Cree origin	2021	94,6%	93,4%	93,6%	93,2%	96,2%	95,8%	85,7%	57,6%	57,2%	86,9%		
Other aboriginal origin	2021	13,8%	8,2%	3,5%	4,1%	1,3%	3,0%	5,3%	12,3%	2,6%	5,8%		
French origin	2021	1,7%	6,0%	2,0%	4,7%	1,5%	1,8%	8,3%	4,8%	29,4%	8,8%		
Other origins (excluding aboriginal, anglo-saxon anc)	2021	0,0%	2,8%	3,0%	0,0%	1,6%	3,6%	6,6%	12,0%	10,3%	4,4%		
Mixed origin	2021	24,6%	17,8%	7,8%	6,8%	4,9%	8,4%	18,0%	26,7%	2,1%	13,4%		
Cree mother tongue	2021	89,8%	81,3%	78,8%	82,6%	85,4%	87,3%	74,4%	48,1%	67,4%	78,1%		
Other aboriginal mother tongues	2021	2,4%	0,1%	0,0%	0,0%	0,4%	0,6%	0,0%	2,5%	0,0%	0,4%		
English mother tongue	2021	6,8%	8,4%	14,1%	11,4%	7,1%	8,5%	13,0%	31,9%	14,1%	11,3%		
French mother tongue	2021	0,0%	3,2%	1,3%	1,6%	1,6%	1,8%	5,4%	3,7%	3,3%	3,0%		
Other languages, mother tongue	2021	0,0%	0,7%	0,0%	0,5%	0,8%	0,0%	0,9%	0,6%	0,0%	0,5%		

Indicator	Year	Whapmagoostui	Chisasibi	Wemindji	Eastmain	Waskaganish	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi	Crees	Jamesians	Quebec
Age													
Median age (2001)	2001	22,7	24,1	26,2	23,3	22,9	22,8	24,1	25,3	22,4	23,8		
Median age (2021)	2021	26,0	26,6	28,6	26,6	25,0	28,6	29,0	24,2	25,1	26,8		
Average age (2021)	2021	30,1	31,0	32,3	29,9	30,5	31,2	31,7	30,3	29,5	30,9		
Average age (2041)	2041	33,3	34,4	37,8	34,6	33,8	34,5	36,6	33,8	33,9	34,9		
0-14 years (2021)	2021	335	1 550	455	295	855	260	1 045	270	575	5 640		
15-24 years (2021)	2021	165	845	250	155	415	115	640	145	370	3 100		
25-64 years (2021)	2021	480	2 225	755	420	1 100	390	1 780	330	860	8 340		
65 years + (2021)	2021	45	370	105	50	160	70	270	45	110	1 225		
0-14 years (%) (2021)	2021	32,8%	31,1%	29,1%	31,9%	33,7%	31,3%	28,0%	34,0%	30,0%	30,8%	19,1%	
15-24 years (%) (2021)	2021	16,2%	16,9%	15,9%	16,7%	16,4%	13,8%	17,2%	18,2%	19,3%	16,9%	11,0%	
25-64 years (%) (2021)	2021	47,1%	44,5%	48,2%	45,3%	43,2%	46,8%	47,6%	41,5%	44,9%	45,5%	53,8%	
65 years + (%) (2021)	2021	4,4%	7,4%	6,7%	5,4%	6,3%	8,4%	7,2%	5,7%	5,7%	6,7%	16,0%	
0-14 years (2041)	2041	390	1 862	369	330	748	299	1 042	291	580	5 911		
15-24 years (2041)	2041	245	1 095	240	197	450	172	677	158	317	3 551		
25-64 years (2041)	2041	700	3 266	933	696	1 208	520	2 307	480	1 013	11 123		
65 years + (2041)	2041	159	920	264	155	366	137	651	132	263	3 047		
0-14 years (%) (2041)	2041	26,1%	26,1%	20,4%	23,9%	27,0%	26,5%	22,3%	27,4%	26,7%	25,0%		
15-24 years (%) (2041)	2041	16,4%	15,3%	13,3%	14,3%	16,2%	15,2%	14,5%	14,9%	14,6%	15,0%		
25-64 years (%) (2041)	2041	46,9%	45,7%	51,7%	50,5%	43,6%	46,1%	49,3%	45,2%	46,6%	47,1%		
65 years + (%) (2041)	2041	10,6%	12,9%	14,6%	11,2%	13,2%	12,1%	13,9%	12,4%	12,1%	12,9%		
Migration													
5-year Migrants (moved from outside the community) (2006)		35	270	50	35	90	70	215	85	140			
5-year Migrants (2011)		40	250	100	45	110	85	230	95	155			
5-year Migrants (2016)		80	330	90	65	100	65	305	110	130			
5-year Migrants (2021)		70	360	125	65	130	80	310	115	645			
Migration rate (Migrants/end-of-period population) (2006)		4,3%	6,8%	4,1%	5,4%	4,8%	10,9%	7,4%	14,0%	9,5%	7,0%		
Migration rate (2021)		6,8%	7,2%	8,0%	7,0%	5,1%	9,6%	8,3%	14,4%	.	7,7%		
% migration in gross growth (migrants/(0-4 years+migrants) (2006)		26,9%	34,8%	27,8%	33,3%	29,5%	50,0%	35,8%	53,1%	.	34,6%		
% migration in gross growth (2021)		37,8%	41,6%	48,1%	43,3%	29,2%	43,2%	49,6%	56,1%	.	42,8%		
Family and Household													
Families (2021)													
Average family size		3,7	3,7	3,5	3,6	3,7	3,4	3,6	3,8	3,6	3,6	2,9	2,8
Couples without children		15,7%	11,8%	12,7%	11,1%	13,4%	20,5%	20,1%	17,5%	11,9%	14,9%	47,9%	44,5%
Couples with children		62,7%	50,0%	48,1%	44,4%	44,1%	45,5%	52,9%	57,5%	62,6%	52,1%	37,6%	38,9%
One-parent families		21,2%	38,5%	38,8%	43,5%	42,9%	34,1%	27,1%	25,6%	27,3%	33,2%	14,5%	16,5%
Households (2021)													
Average household size		4,5	4,7	3,9	4,1	4,5	3,7	3,6	3,7	4,0	4,1	2,3	2,2
One-family		67,4%	52,1%	60,0%	53,3%	54,9%	63,6%	65,7%	70,5%	59,3%	59,4%	63,4%	57,8%
Multigenerational		15,2%	26,1%	13,8%	24,4%	23,0%	15,9%	9,8%	4,5%	11,3%	17,0%	1,2%	1,4%
Mutli-family		0,0%	1,9%	2,5%	0,0%	0,9%	0,0%	1,5%	0,0%	5,1%	1,7%	0,5%	0,2%
Family with non-related persons		6,5%	6,6%	6,3%	2,2%	6,2%	6,8%	5,9%	6,8%	7,0%	6,2%	1,4%	1,8%
Not related persons		0,0%	3,8%	3,8%	4,4%	2,7%	4,5%	2,9%	2,3%	3,0%	3,2%	2,3%	3,7%
One-person		4,3%	9,5%	12,5%	13,3%	10,6%	11,4%	14,2%	13,6%	14,2%	11,8%	31,2%	35,1%
Dwellings (2021)													
Overcrowded dwelling		22,2%	22,7%	10,0%	18,2%	19,5%	9,1%	10,3%	9,1%	9,5%	15,2%	0,1%	1,3%
Major repair needed		48,9%	16,6%	31,3%	29,5%	21,2%	25,0%	21,1%	27,3%	33,0%	24,3%	1,4%	6,3%

Indicator	Year	Whapmagoostui	Chisasibi	Wemindji	Eastmain	Waskaganish	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi	Crees	Jamesians	Quebec
Owner		8,9%	15,2%	16,3%	11,4%	4,4%	4,5%	19,6%	18,2%	.	14,7%	71,5%	59,9%
Renter		22,2%	15,2%	8,8%	6,8%	8,0%	18,2%	20,6%	15,9%	.	20,1%	28,6%	39,9%
Band dwelling		68,9%	69,7%	75,0%	84,1%	87,6%	75,0%	60,3%	65,9%	.	65,4%	0,0%	0,2%
Education and Labor Force													
Knowledge of languages (2021)													
Cree		95,6%	93,1%	89,1%	91,9%	94,5%	92,1%	88,7%	75,5%	89,4%	90,9%		
English		96,1%	94,8%	97,7%	96,8%	94,9%	95,2%	96,9%	98,1%	95,3%	95,9%		
French		3,4%	25,2%	4,8%	14,6%	21,6%	17,6%	22,1%	31,4%	38,4%	21,8%		
Educational attainment, 20-64 years													
No high school diploma (2006)		39,1%	49,6%	47,5%	29,6%	55,4%	43,3%	48,6%	38,9%	31,0%	46,1%		
High school diploma (2006)		14,1%	11,4%	12,7%	11,1%	13,1%	15,0%	8,9%	9,3%	13,3%	11,6%		
Apprenticeship/trade diploma (2006)		18,8%	12,8%	19,5%	22,2%	7,1%	13,3%	14,4%	22,2%	20,4%	14,9%		
CEGEP diploma or equivalent (2006)		14,1%	13,4%	11,9%	22,2%	12,5%	13,3%	18,7%	20,4%	26,5%	16,1%		
University degree (2006)		6,3%	4,0%	2,5%	7,4%	4,2%	6,7%	2,7%	3,7%	5,3%	4,1%		
No high school diploma (2021)		37,1%	45,6%	31,1%	24,7%	36,7%	34,6%	43,1%	32,4%	42,6%	39,8%	25,0%	11,9%
High school diploma (2021)		20,6%	11,8%	19,8%	17,6%	16,1%	15,4%	12,1%	17,6%	24,5%	16,1%	18,5%	17,1%
Apprenticeship/trade diploma (2021)		9,3%	12,7%	17,2%	16,5%	18,4%	16,7%	8,1%	11,8%	10,5%	12,7%	26,0%	19,0%
CEGEP diploma or equivalent (2021)		23,7%	21,9%	22,6%	31,8%	21,6%	25,6%	24,0%	27,9%	19,4%	22,9%	20,1%	22,3%
University degree (2021)		9,3%	8,1%	9,3%	9,4%	7,2%	7,7%	12,6%	10,3%	3,0%	8,5%	10,4%	29,7%
Field of study (2021)													
Education		20	115	50	35	75	25	100	20	35	475	435	292 470
Visual and performing arts, and communications technologies		0	15	0	0	0	0	10	0	10	35	100	166 900
Humanities		10	75	20	15	35	0	45	15	35	250	155	228 770
Social and behavioural sciences and law		45	150	70	40	70	15	150	25	55	620	390	430 845
Business, management and public administration		70	240	60	40	105	50	190	50	65	870	1 050	950 820
Physical and life sciences and technologies		0	10	0	0	10	0	25	0	0	45	170	158 655
Mathematics, computer and information sciences		10	20	10	0	0	0	25	0	0	65	100	177 780
Architecture, engineering, and related trades		30	220	100	55	120	35	125	40	90	815	2 105	866 885
Agriculture, natural resources and conservation		0	15	0	10	10	10	20	10	20	95	265	99 230
Health and related fields		10	120	35	30	45	20	95	15	40	410	865	515 215
Personal, protective and transportation services		35	160	60	65	105	50	110	35	60	680	715	291 295
Education		2,9%	3,4%	4,5%	5,6%	4,5%	4,4%	3,7%	3,8%	2,6%	3,8%	3,7%	7,0%
Visual and performing arts, and communications technologies		0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,7%	0,1%	0,8%	4,0%
Humanities		1,4%	2,2%	1,8%	2,4%	2,1%	0,0%	1,7%	2,9%	2,6%	2,0%	1,3%	5,5%
Social and behavioural sciences and law		6,5%	4,4%	6,3%	6,3%	4,2%	2,7%	5,6%	4,8%	4,1%	4,9%	3,3%	10,3%
Business, management and public administration		10,1%	7,0%	5,4%	6,3%	6,3%	8,8%	7,1%	9,5%	4,8%	6,9%	8,9%	22,7%
Physical and life sciences and technologies		0,0%	0,0%	0,0%	0,0%	0,6%	0,0%	0,9%	0,0%	0,0%	0,3%	1,4%	3,8%
Mathematics, computer and information sciences		1,4%	0,6%	0,9%	0,0%	0,0%	0,0%	0,9%	0,0%	0,0%	0,5%	0,8%	4,3%
Architecture, engineering, and related trades		4,3%	6,4%	9,0%	8,7%	7,2%	6,2%	4,7%	7,6%	6,7%	6,5%	17,8%	20,7%
Agriculture, natural resources and conservation		0,0%	0,0%	0,0%	1,6%	0,6%	1,8%	0,7%	1,9%	1,5%	0,6%	2,2%	2,4%
Health and related fields		1,4%	3,5%	3,2%	4,8%	2,7%	3,5%	3,6%	2,9%	3,0%	3,2%	7,3%	12,3%
Personal, protective and transportation services		5,1%	4,7%	5,4%	10,3%	6,3%	8,8%	4,1%	6,7%	4,5%	5,4%	6,0%	7,0%
Development of skills													
n/a													
Labor population and dependency ratio													
Working age population (15-64 years) (2021)		645	3 065	1 005	575	1 520	510	2 415	480	1 230	11 445	8 675	5 356 945
Working age population (15-64 years) (2041)		945	4 361	1 173	893	1 658	692	2 984	638	1 330	14 674	....	....

Indicator	Year	Whapmagoostui	Chisasibi	Wemindji	Eastmain	Waskaganish	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi	Crees	Jamesians	Quebec
Growth in working age population (2001-2021)		48,3%	44,2%	36,7%	57,5%	47,6%	45,7%	44,6%	39,1%	65,1%	46,7%	....	....
Growth in working age population (2021-2041)		46,5%	42,3%	16,7%	55,3%	9,1%	35,7%	23,6%	32,9%	8,1%	28,2%	....	....
Dependency ratio (2021)		0,59	0,63	0,56	0,60	0,67	0,65	0,54	0,66	0,56	0,60	....	....
Dependency ratio (2041)		0,58	0,64	0,54	0,54	0,67	0,63	0,57	0,66	0,63	0,61	....	....
Employment													
Workforce (2021)													
15 years and over		690	3 430	1 110	630	1 670	570	2 675	525	1 345	12 645	11 830	6 918 730
Employed		430	1 900	645	385	805	370	1 510	290	675	7 010	7 370	4 435 465
Unemployed		35	165	55	45	100	30	100	15	50	595	350	4 100 450
Not in the labour force		230	1 360	405	205	760	170	1 060	225	630	5 045	4 115	335 015
Participation rate		67,4%	60,2%	62,6%	67,5%	54,5%	70,2%	60,4%	56,2%	53,5%	60,2%	65,2%	64,1%
Employment rate		62,3%	55,4%	58,1%	61,1%	48,2%	64,9%	56,4%	55,2%	50,1%	55,5%	62,3%	59,3%
Unemployment rate		7,5%	8,0%	7,9%	10,6%	11,0%	7,5%	6,2%	5,1%	6,9%	7,8%	4,6%	7,6%
Occupations (2021)													
Number of workers as for occupation		445	2015	680	415	885	410	1595	300	690	7 435	7 660	4 344 905
Education, Law, Social, Community and Government Services		33,3%	19,6%	23,0%	28,2%	25,8%	29,1%	26,4%	26,7%	26,2%	24,7%	13,9%	12,9%
Sales & Service		24,7%	24,9%	24,5%	21,2%	26,4%	21,5%	22,4%	15,0%	22,8%	23,5%	22,2%	24,5%
Business, Finance & Administration		7,5%	17,7%	18,0%	17,6%	14,8%	22,8%	18,0%	21,7%	16,4%	17,1%	13,3%	17,9%
Trades, Transportation, Equipment Operators and Related Oc		17,2%	17,2%	19,4%	15,3%	14,8%	15,2%	15,2%	13,3%	14,8%	16,1%	21,3%	16,2%
Healthcare sector		4,3%	5,8%	2,2%	3,5%	2,7%	2,5%	5,9%	3,3%	3,7%	4,5%	7,8%	8,3%
Natural Resources, Agriculture and Related Production		0,0%	6,8%	2,2%	0,0%	4,9%	2,5%	3,1%	3,3%	6,3%	4,3%	5,2%	2,0%
Arts, Culture, Sports and Recreation		4,3%	2,4%	2,9%	4,7%	2,7%	2,5%	4,0%	10,0%	2,8%	3,4%	1,9%	3,4%
Natural and Applied Sciences and Related Fields		2,2%	1,7%	2,2%	2,4%	1,6%	2,5%	2,2%	3,3%	1,5%	2,0%	5,6%	8,3%
Members of Legislatures and Senior Managers		2,2%	0,7%	1,4%	2,4%	1,6%	2,5%	0,6%	3,3%	2,2%	1,4%	1,0%	1,8%
Manufacturing & Utilities		0,0%	0,7%	2,2%	2,4%	1,6%	2,5%	1,2%	0,0%	1,5%	1,2%	7,1%	4,8%
Class of workers (2021)													
Full-time + part-time/not full year workers		480	1 960	680	445	1 015	405	1 640	310	725	7 660	8 140	4 476 045
Nb of workers as for classes		450	2 020	685	420	880	395	1 585	300	695	7 430	7 105	4 344 910
Permanent employee		360	1 425	490	315	600	270	1 200	240	.	5 487	.	3 190 685
Contract employee (more then a year)		25	125	55	25	40	25	95	10	.	442	.	217 905
Casual, seasonal, short-term employee		50	320	125	70	215	90	230	45	.	1 250	.	405 605
Self-employed		15	145	20	0	20	15	65	0	20	300	460	530 720
Permanent employee		77,4%	69,0%	70,5%	74,1%	65,9%	68,4%	74,5%	80,0%	75,7%	71,7%	78,5%	73,4%
Contract employee (more then a year)		5,4%	6,1%	7,9%	5,9%	4,4%	6,3%	5,9%	3,3%	5,4%	5,8%	4,9%	4,9%
Casual, seasonal, short-term employee		10,8%	15,5%	18,0%	16,5%	23,6%	22,8%	14,3%	15,0%	13,5%	16,4%	9,2%	9,1%
Self-employed		3,2%	7,0%	2,9%	0,0%	2,2%	3,8%	4,0%	0,0%	2,9%	4,0%	6,5%	12,2%
Commuting destination (2021)													
Work in the community		84,0%	96,3%	74,5%	91,0%	93,4%	94,3%	83,3%	89,6%	.	82,8%	85,1%	53,6%
Work elsewhere in same CD (for Crees and Jamesians in Nord		16,0%	3,7%	24,5%	7,5%	5,8%	3,8%	16,7%	10,4%	.	16,3%	9,5%	15,2%
Work elsewhere in Quebec (not in same CD)		0,0%	0,0%	2,0%	0,0%	1,5%	3,8%	0,0%	0,0%	6,1%	1,1%	5,1%	29,9%
Work outside Quebec		3,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,2%	1,3%
Economic structure													
Employment by economic sector (2021)													
Agriculture, Forestry, Fishing and Hunting		0	140	15	0	35	0	30	0	10	230	185	79050
Mining, quarrying, and oil and gas extraction		0	25	15	0	10	10	55	15	35	165	695	24890
Utilities		0	20	10	10	10	0	20	0	0	70	160	31005
Construction		20	190	45	20	55	15	90	10	40	485	350	296035

Indicator	Year	Whapmagoostui	Chisasibi	Wemindji	Eastmain	Waskaganish	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi	Crees	Jamesians	Quebec
Manufacture		0	10	0	0	0	0	15	0	10	35	1055	449115
Wholesale trade		0	15	0	0	0	0	0	0	0	15	75	147340
Retail		40	175	40	20	60	15	105	10	30	495	845	514090
Transportation & Warehousing		15	30	10	10	10	10	25	0	0	110	240	209445
Information and Cultural Industries		10	25	10	10	10	0	20	0	0	85	50	94130
Finance & Insurance		0	0	0	0	10	10	0	0	10	30	115	169985
Real Estate and Rental and Leasing Services		10	10	10	0	10	0	30	0	10	80	50	63030
Professional, Scientific and Technical Services		10	25	20	0	10	10	25	0	20	120	235	345345
Corporate & Business Management		0	0	0	0	0	0	10	0	0	10	0	5605
Administrative, Support, Waste Management and Remediation Services		15	50	45	30	15	0	35	0	30	220	195	171345
Educational Services		40	270	105	70	155	50	240	35	100	1065	515	340885
Health Care and Social Assistance		125	565	150	95	190	85	440	70	170	1890	1290	617200
Arts, Entertainment & Recreation		15	30	25	20	0	10	25	20	20	165	90	72700
Accommodation and food services		20	90	40	15	45	15	65	10	10	310	380	232480
Other services (except public administration)		15	25	15	10	15	15	35	10	20	160	335	190470
Public administration		125	315	145	100	250	155	325	100	200	1715	750	290765
Agriculture, Forestry, Fishing and Hunting		0,0%	6,8%	2,2%	0,0%	3,8%	0,0%	1,9%	0,0%	1,4%	3,1%	2,4%	1,8%
Mining, quarrying, and oil and gas extraction		0,0%	1,2%	2,2%	0,0%	1,1%	2,5%	3,4%	5,0%	4,9%	2,2%	9,0%	0,6%
Utilities		0,0%	1,0%	1,4%	2,4%	1,1%	0,0%	1,2%	0,0%	0,0%	0,9%	2,1%	0,7%
Construction		4,3%	9,2%	6,5%	4,7%	6,0%	3,8%	5,6%	3,3%	5,5%	6,4%	4,5%	6,8%
Manufacture		0,0%	0,5%	0,0%	0,0%	0,0%	0,0%	0,9%	0,0%	1,4%	0,5%	13,7%	10,3%
Wholesale trade		0,0%	0,7%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,2%	1,0%	3,4%
Retail		8,6%	8,5%	5,8%	4,7%	6,6%	3,8%	6,5%	3,3%	4,2%	6,6%	11,0%	11,8%
Transportation & Warehousing		3,2%	1,5%	1,4%	2,4%	1,1%	2,5%	1,6%	0,0%	0,0%	1,4%	3,1%	4,8%
Information and Cultural Industries		2,2%	1,2%	1,4%	2,4%	1,1%	0,0%	1,2%	0,0%	0,0%	1,1%	0,6%	2,2%
Finance & Insurance		0,0%	0,0%	0,0%	0,0%	1,1%	2,5%	0,0%	0,0%	1,4%	0,4%	1,5%	3,9%
Real Estate and Rental and Leasing Services		2,2%	0,5%	1,4%	0,0%	1,1%	0,0%	1,9%	0,0%	1,3%	1,0%	0,6%	1,5%
Professional, Scientific and Technical Services		2,2%	1,2%	2,9%	0,0%	1,1%	2,5%	1,6%	0,0%	2,7%	1,6%	3,0%	7,9%
Corporate & Business Management		0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,6%	0,0%	0,0%	0,1%	0,0%	0,1%
Administrative, Support, Waste Management and Remediation Services		3,2%	2,4%	6,5%	7,1%	1,6%	0,0%	2,2%	0,0%	4,2%	2,9%	2,5%	3,9%
Educational Services		8,6%	13,1%	15,1%	16,5%	17,0%	12,7%	14,9%	11,7%	14,1%	14,1%	6,7%	7,8%
Health Care and Social Assistance		26,9%	27,4%	21,6%	22,4%	20,9%	21,5%	27,3%	23,3%	23,8%	25,0%	16,7%	14,2%
Arts, Entertainment & Recreation		3,2%	1,5%	3,6%	4,7%	0,0%	2,5%	1,6%	6,7%	2,7%	2,2%	1,2%	1,7%
Accommodation and food services		4,3%	4,4%	5,8%	3,5%	4,9%	3,8%	4,0%	3,3%	1,4%	4,1%	4,9%	5,4%
Other services (except public administration)		3,2%	1,2%	2,2%	2,4%	1,6%	3,8%	2,2%	3,3%	2,9%	2,1%	4,3%	4,4%
Public administration		26,9%	15,3%	20,9%	23,5%	27,5%	39,2%	20,2%	33,3%	28,1%	22,5%	9,7%	6,7%
Employment by large sector (2021)													
Private		155	835	285	135	280	95	550	65	225	2 625	4 720	2 905 590
Public		305	1 175	415	275	610	305	1 040	215	490	4 830	2 890	1 439 320
Private		36,6%	41,8%	43,3%	34,3%	32,2%	27,7%	36,4%	24,9%	34,1%	36,8%	61,2%	71,3%
Public		62,4%	55,8%	57,6%	62,4%	65,4%	73,4%	62,4%	68,3%	65,9%	61,6%	37,5%	28,7%
Legal structures of companies (DCI) (2021)													
Business corporation (corporation)		6	13	6	10	10	14	19	16	5	99		
Cooperative		0	1	0	0	1	0	0	0	0	2		
General partnership (G.P.)		2	8	2	0	4	14	8	1	2	41		
Joint venture (or undeclared partnership)		0	0	0	0	0	0	0	0	0	0		
Sole proprietorship		10	18	5	6	16	12	32	8	13	120		

Indicator	Year	Whapmagoostui	Chisasibi	Wemindji	Eastmain	Waskaganish	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi	Crees	Jamesians	Quebec
Non-profit legal person		0	3	1	1	1	0	2	4	1	13		
Unknown		2	24	0	1	12	2	4	8	29	82		
Total		20	67	14	18	44	42	65	37	50	357		
Entrepreneurship													
Private sector/initiate companies													
% of employees in private sector (Census 2021)		36,6%	41,8%	43,3%	34,3%	32,2%	27,7%	36,4%	24,9%	34,1%	36,8%	61,2%	71,3%
Projects funded by DCI per year (average 2012-2023)		0,9	3,6	1,0	1,8	2,8	1,3	5,6	1,6	2,2	20,7		
Income													
Individual levels of income, among recipients (\$, 2019)													
Median total income		38 000	36 400	39 200	40 400	30 800	34 000	37 600	36 400	33 600	36 300	44 696	38 400
Average total income		42 900	42 040	43 500	44 800	38 400	43 200	45 360	43 600	41 600	42 700	52 308	48 600
Average after-tax income		41 600	40 920	42 400	43 800	37 680	42 200	42 880	42 200	40 000	41 300	42 663	39 600
Average employment income		35 600	40 400	39 800	40 400	33 300	38 600	41 120	36 600	40 000	38 900	51 229	46 240
Sources of income (\$, 2019)													
% of income from employment		71,5%	70,0%	77,6%	79,5%	71,6%	78,5%	78,0%	75,0%	76,0%	74,2%	77,3%	70,0%
% of income from various sources		1,5%	1,4%	1,0%	1,3%	0,8%	0,7%	1,8%	2,4%	2,0%	1,4%	8,5%	15,1%
% of income from government transfer benefits		27,0%	28,6%	21,4%	19,2%	27,6%	20,8%	20,2%	22,6%	22,0%	24,4%	14,1%	14,9%
Low income and income inequality (\$, 2020)													
Prevalence of low income based on the Low-income measure		5,6%	4,3%	3,7%	2,2%	5,0%	4,8%	7,7%	6,4%	6,4%	5,2%		
Gini index on adjusted household market income		0,402	0,388	0,338	0,302	0,455	0,363	0,42	0,345	0,442	0,395	0,402	0,456
Gini index on adjusted household after-tax income		0,264	0,22	0,217	0,21	0,292	0,248	0,267	0,23	0,246	0,246	0,252	0,280
Health and social services (2021)													
Health and social services in the communitis					CMC MSDC	CMC MSDC RN	CMC MSDC		CMC MSDC	CMC MSDC RN			
Services offered					A U C D P H Y	CU A U C D P H Y	CU A U C D P H Y		CU A U C D P H Y	MCU A U C D P H Y	M	MSDCS AHS RNS	
Land-based economy													
Income security program, hunters and trappers													
ESP beneficiaries, people (2021)		70	380	155	65	275	70	380	50	25	1 470		
ESP % of members (2022)		169	974	149	88	218	43	358	131	369	2499		
ESP beneficiaries, adults (2022)		139	739	143	56	156	40	271	101	206	1 931		
ESP beneficiaries, % adults (2021)		23,5%	25,2%	14,9%	10,5%	10,9%	7,9%	11,8%	23,3%	18,4%	17,9%		
Average ESP benefits (\$, 2019)		18 028	17 003	13 391	17 092	16 785	18 010	19 661	17 363	19 108	17 417 ...		...
Average ESP unit allowance (\$, 2022)		22 490	17 893	14 886	17 334	17 798	18 697	20 523	19 034	20 435	18 580		
Land area (km2)													
Category 1A-1B lands		312	1 305	556	467	771	146	1 296	96	599	5 548		
Population density on 1A-1B (inhab/km2) (2021)		3,28	3,82	2,81	1,98	3,29	5,70	2,88	8,30	3,21	3,92		
Number of Traplines affected from LGA		8	19	12	10	12	9	26	3	17	116		
Total number of traplines		26	37	21	15	36	15	76	13	62	301		
Total area of traplines (km2)		67 327	82 198	29 819	15 240	29 711	14 929	117 844	10 568	37 015	404 651		
Average trapline area per ESP adult (km2)		484	111	209	272	190	373	435	105	180	210		
Cost of living													
Monthly rent, dwelling owned by the band (\$, 2020)		590	446	456	348	554	540	476	510	560	490 ...		449
Food price index		1,04	1,09	0,95	1,10	1,12	1,00	0,77	0,85	0,85 ...	...		...
Gasoline (Regular \$/L)		2,59	1,79	2,31	1,95	1,90	1,91	1,74	1,64	1,65	1,88 .		.

APPENDIX

G PRICES

PRICES

These tables display the prices such as reported by CIOs during Fall 2023 survey.
Exception: shelter monthly rent is from the 2021 Census.

Prices, Cree Coastal Communities, 2023

Good/Index	Whapmagoo stui	Chisasibi	Wemindji	Eastmain	Waskagani sh	Waskagan ish	Average Coastal
Food and Beverages	Northern	Northern	Communi ty store	Northern	Smokey Hill	Northern	
1 litre of orange juice	\$6.30	.	\$3.39	\$5.09	\$ 3.29	\$ 7.19	\$5.01
10 pounds potato bag	\$14.79	\$9.99	\$8.99	\$13.99	\$ 8.49	\$ 20.39	\$12.42
12 eggs	\$5.01	\$6.29	\$6.89	\$5.06	\$ 8.99	\$ 5.99	\$6.15
12 Pepsi/Coke cans			\$11.99	\$17.39	\$ 14.49	\$ 16.29	\$14.92
2 litres of 2% milk	\$4.09	\$7.89	\$7.69	\$8.19	\$ 3.49	\$ 10.89	\$7.01
24 water bottle pack		\$13.99	\$10.49	\$12.69	\$ 8.99	\$ 21.00	\$13.04
284 ml Campbell tomato soup can			\$5.39	\$3.69	\$ 3.49	\$ 3.49	\$4.19
500 g lean ground beef	\$11.50	\$11.90	\$7.00	\$12.11	\$ 6.00	\$ 10.45	\$10.15
650 g marble cheese brick	\$15.26		\$15.69	\$11.49	\$17.85*	\$ 23.99	\$16.09
Club Sandwich with fries at restaurant	\$18.50	\$19.50	\$18.80	\$20.95	\$15.95	...	\$18.74
Medium size coffee at convenience store		\$2.73	\$2.00	\$3.89	\$2.45	...	\$2.77
Price index - Food and beverage	1.04	1.09	0.95	1.10	0.90	1.35	1.06
Gasoline	FCNQ Petro	Pétronor	Sibi Gas	Stajune gas bar	Waskaganish gas station		
1 litre of regular gasoline	\$2.59	\$1.79	\$2.31	\$1.95	\$1.90	...	\$2.11
Price index - Gasoline	1.33	0.92	1.19	1.00	0.98		1.09
Communications	Internet – Starlink provider						
Monthly internet payment (10 Mb/s)	\$140	\$120	\$148	\$130	\$121	\$170	\$141
Price index - Communications	1.00	0.86	1.06	0.93	0.86	1.21	1.01
Housing	(As of June 2021 Census)						
Average monthly shelter costs (rented)	\$590	\$446	\$456	\$348	\$554		\$479
Price index - Rent	1.19	0.90	0.92	0.70	1.11		0.96

Price index: Base 100 = Average of Cree communities. * Actual price of

APPENDIX G

Prices, Cree Inland Communities, 2023

Good/Index	Nemaska	Mistissini	Oujé-Bougoumou	Waswanipi	Inland Average	Global Average	Standard Deviation
Food and Beverages	Nemaska grocery	Meechum	Convenience store	Grocery Red'g			
1 litre of orange juice	\$5.99	\$3.65	\$2.95	\$6.25	\$4.71	\$5.03	\$1.26
10 pounds potato bag	\$8.99			\$6.85	\$7.92	\$11.54	\$2.95
12 eggs	\$5.99	\$4.79	\$4.95	\$5.00	\$5.18	\$5.90	\$0.93
12 Pepsi/Coke cans	\$15.49	\$6.99	\$9.00	\$12.00	\$10.87	\$12.96	\$3.47
2 litres of 2% milk	\$5.99	\$6.29	\$7.50	\$5.65	\$6.36	\$6.77	\$1.25
24 water bottle pack	\$11.49	\$8.99	\$13.55	\$10.00	\$11.01	\$12.35	\$1.98
284 ml Campbell tomato soup can	\$3.49	\$1.59	\$2.10	\$2.65	\$2.46	\$3.24	\$1.15
500 g lean ground beef	\$9.99	\$8.50		\$10.70	\$9.73	\$9.79	\$1.78
650 g marble cheese brick		\$14.79		\$12.50	\$13.65	\$16.23	\$3.35
Club Sandwich with fries at restaurant		\$12.50	\$13.95		\$13.23	\$17.16	\$2.87
Medium size coffee at convenience store		\$3.25	\$2.50		\$2.88	\$2.80	\$0.61
Price index (food and beverage)	1.00	0.77	0.85	0.85	0.87	1.00	0.13
Gasoline	Nemaska gaz bar	Harnois	Casey's gas and depanneur	Esso			
1 litre of regular gasoline	\$1.91	\$1.74	\$1.64	\$1.65	\$1.73	\$1.94	\$0.30
Price index (Gasoline)	0.98	0.90	0.84	0.85	0.89	1.00	0.16
Communications	Starlink internet provider						
Monthly internet payment (10 Mb/s)	\$129		\$140		\$135	\$140	\$15
Housing	(As of June 2021 Census)						
Average monthly shelter costs (rented)	\$540	\$476	\$510	\$560	\$522	\$498	\$71
Price index (Rent)	1.08	0.96	1.02	1.13	1.05	1.00	0.15

Price index: Base 100 = Average of Cree communities.

APPENDIX G

Price Levels and Indices, Jamesian and Abitibi Communities, 2023

Good/Index	Chibougamau	Chibougamau	Chapais	Jamesian Towns	Val-d'Or	Val-d'Or	Amos	Abitibi Towns	Cree Comm.
Food and Beverages	Maxi	IGA	Traditions		Super C	IGA	Maxi		
1 litre of orange juice	\$1.29	\$2.29	\$2.49	\$1.99	\$1.99	\$2.29	\$2.14	\$1.97	\$5.03
10 pounds potato bag	\$5.99	\$5.99	\$6.99	\$6.49	\$5.99	4.99	6.14	6.07	11.54
12 eggs	\$4.99	\$5.49	\$4.19	\$4.34	\$3.95	4.69	4.15	4.69	5.90
12 Pepsi/Coke cans	\$6.99	\$7.99	\$8.49	\$7.64	\$6.99	7.99	7.49	7.49	12.96
2 litres of 2% milk	\$4.99	\$5.49	\$4.41	\$5.35	\$4.59	5.49	5.04	5.14	6.77
24 water bottle pack	\$4.49	\$5.79	\$5.79	\$4.64	\$5.99	5.79	5.89	5.52	12.35
284 ml Campbell tomato soup can	\$2.79	\$2.49	\$2.69	\$2.19	\$1.59	2.49	2.04	2.34	3.24
500 g lean ground beef	\$7.00	\$9.00	\$8.99	\$8.24	\$6.12	8.99	8.99	8.50	9.79
650 g marble cheese brick	\$7.49	\$7.99	\$8.99	\$6.24	\$6.29	7.99	7.57	7.65	16.23
Club Sandwich with fries at restaurant	\$15.95			15.95	13.75			13.75	17.16
Medium size coffee at convenience store	\$2.19			2.19	2.25			2.19	2.80
Price index (food and beverage)	0.65		0.63	0.66	0.59		0.55	0.60	1.00
Gasoline	Harnois		Petro-Canada		Shell	Ultramar	Crevier		
1 litre of regular gasoline	\$1.67		\$1.61	\$1.60	\$1.59	\$1.60	\$1.60	\$1.64	\$1.94
Price index (Gasoline)	0.86		0.83	0.85	0.82		0.81	0.82	1.00
Communications	Distributel (local) and Starlink internet provider								
Monthly internet payment (10 Mb/s)	\$47.48								\$140.00
Housing	(As of June 2021 Census)								
Average monthly shelter costs (rented)	\$733		\$670	\$702	\$630		\$710	\$670	\$498
Price index (Rent)	1.27		1.35	1.31	1.43		1.47	1.45	1.00

Price index: Base 100 = Average of Cree communities.

APPENDIX

H

COST OF LIVING
SURVEY

La Grande Alliance Cost of Living Survey

The purpose of this survey is to understand the current cost of living in Eeyou Istchee. Please fill out the survey as honestly as possible. This survey is completely confidential and anonymous. This survey is strictly for study and research purposes.

Thank you for taking the time to fill out this survey.

* Required

A little bit about you

1. Are you currently living in an inland or coastal community? *

Yes

- Inland
- Coastal
- Not applicable

2. What's your current work status? *

- Employed
- Self-employed
- Part time/Seasonal or Contractual
- Unemployed - looking for work
- Unemployed - not looking for work/unable to work
- Studying
- Retired
- Other

3. What is your **annual** total household income? *

Housing

4. Please indicate if you currently rent, own a home, share living or living outside of the community. *

- Band housing/renting
- Home owner
- Roommate/shared living
- Other

5. Please select which best describes your household (if applicable)

- single family
- multi-generational (includes grandparents and extended relatives)
- 2 or more families (related persons such as siblings with dependents)
- Prefer not to say

6. Please indicate how many persons are living within the same household.

7. What is the **monthly** rent or mortgage amount spent from the total household income?

8. What is the **monthly** cost of Hydro (electricity and heating) spent from the total household income?

9. What is the **monthly** cost of internet/TV spent from the total household income?

10. What is the **monthly** cost of home maintenance and/or snow removal?

Goods and Services Availability

11. Please indicate which goods and services are **currently available** in your community *

Check all that apply.

- Grocery store
- Financial institution/Bank
- Gas station
- Garage/Car maintenance
- Restaurant
- Sports & leisure activities
- Clothing stores
- Major household appliances (fridge, stove, washer, dryer etc.)
- Small household appliances (microwave, toaster, coffee maker etc.)
- Household furniture (sofa, bed, table, desk, chairs etc.)
- Specialty or artisanal products
- Pharmacy/medicine
- Education (primary, elementary, high school & continuing education)
- Healthcare (clinic, emergency)
- Childcare
- Traditional activities (hunting, fishing, boating, camping, harvesting etc.)
- ATM
- Construction materials and supplies

12. Please indicate what other types of goods and services you **like to see available** in your community. *

Check all that apply.

- Grocery store
- Financial institution/Bank
- Gas station
- Garage/Car maintenance
- Restaurant
- Sports & leisure activities
- Clothing stores
- Major household appliances (fridge, stove, washer, dryer etc.)
- Small household appliances (microwave, toaster, coffee maker etc.)
- Household furniture (sofa, bed, table, desk, chairs etc.)
- Specialty or artisanal products
- Pharmacy/medicine
- Education (primary, elementary, high school & continuing education)
- Healthcare (clinic, emergency)
- Childcare
- Traditional activities (hunting, fishing, boating, camping, harvesting etc.)
- ATM
- Construction materials and supplies
- Farming
- Shipping
- Mining

13. By moving the choices below, rank in order of importance where you go to purchase goods and services. *

Abitibi towns
Jamesian towns
Gatineau/Ottawa area
Montreal area
In your community area
Online Shopping

MONTHLY spending on goods and services.

14. How much do you spend on groceries **per month**? *

15. How much do you spend on restaurants **per month**? *

16. How much do you spend on childcare **per month**? *

17. How much do you spend on vehicle payment and vehicle insurance **per month**? *

18. How much do you contribute to help and support your community members **per month**?
(gift, donation, fundraising) *

ANNUAL spending on other goods and services

19. How much do you spend **annually** on vehicle maintenance and registration/license fees?

20. How much do you spend **annually** on traditional activities costs? (hunting, fishing, cultural break, arts & crafts etc.)

21. How much do you spend **annually** on sports and leisure activities?

22. How much do you spend **annually** on clothing?

23. How much do you spend **annually** on self-care? (massage, facial, mani-pedi, haircut and specialty products)

24. How much do you spend **annually** on household furniture or small household renovations?

25. How much do you spend **annually** on education costs? (tuition, supplies, continuing ed etc.)

26. How much do you spend **annually** on non-insured healthcare costs? (dentist, travel to specialist appointments, prescription, prescription glasses etc.)

27. What other types of goods and services do you spend on? How much do you spend on those goods **annually**?

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 Microsoft Forms

La Grande Alliance Cost of Living Survey

8

Responses

12:43

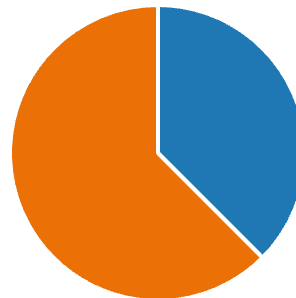
Average time to complete

Active

Status

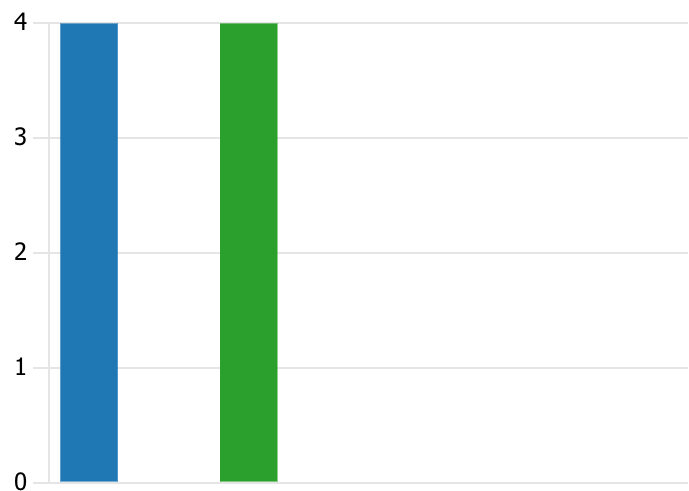
1. Are you currently living in an inland or coastal community?

● Inland	3
● Coastal	5
● Not applicable	0



2. What's your current work status?

● Employed	4
● Self-employed	0
● Part time/Seasonal or Contractual	4
● Unemployed - looking for work	0
● Unemployed - not looking for w...	0
● Studying	0
● Retired	0
● Other	0



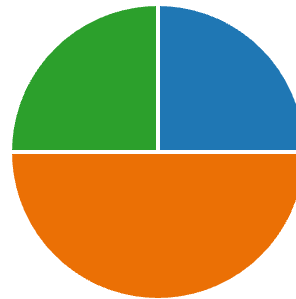
3. What is your **annual** total household income?

8
Responses

Latest Responses
"approximately 60000"
"150,000."
"65 000"

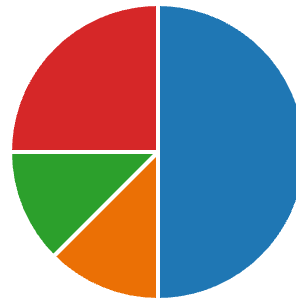
4. Please indicate if you currently rent, own a home, share living or living outside of the community.

- Band housing/renting 2
- Home owner 4
- Roommate/shared living 2
- Other 0



5. Please select which best describes your household (if applicable)

- single family 4
- multi-generational (includes gra... 1
- 2 or more families (related pers... 1
- Prefer not to say 2



6. Please indicate how many persons are living within the same household.

8
Responses

Latest Responses
"none"
"4"
"3"

7. What is the **monthly** rent or mortgage amount spent from the total household income?

8
Responses

Latest Responses

"none all paid for"

"378.00"

"0"

8. What is the **monthly** cost of Hydro (electricity and heating) spent from the total household income?

8
Responses

Latest Responses

"1200"

"110.00"

"150"

9. What is the **monthly** cost of internet/TV spent from the total household income?

8
Responses

Latest Responses

"98"

"120.00"

"150"

10. What is the **monthly** cost of home maintenance and/or snow removal?

8
Responses

Latest Responses

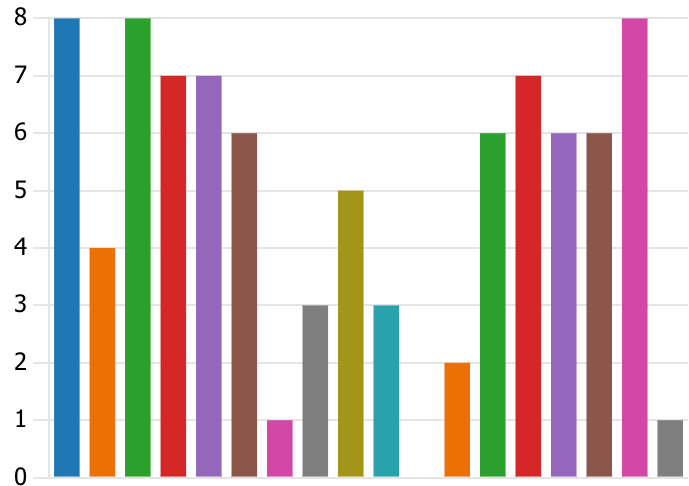
"Depends on breakdowns --approximately 50"

"200.00"

"n a"

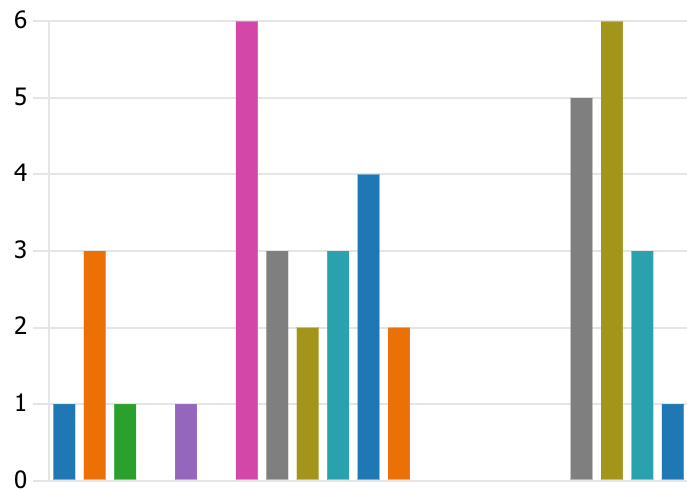
11. Please indicate which goods and services are **currently available** in your community

- Grocery store 8
- Financial institution/Bank 4
- Gas station 8
- Garage/Car maintenance 7
- Restaurant 7
- Sports & leisure activities 6
- Clothing stores 1
- Major household appliances (fri... 3
- Small household appliances (mi... 5
- Household furniture (sofa, bed, ... 3
- Specialty or artisanal products 0
- Pharmacy/medicine 2
- Education (primary, elementary, ... 6
- Healthcare (clinic, emergency) 7
- Childcare 6
- Traditional activities (hunting, fis... 6
- ATM 8
- Construction materials and sup... 1



12. Please indicate what other types of goods and services you **like to see available** in your community.

● Grocery store	1
● Financial institution/Bank	3
● Gas station	1
● Garage/Car maintenance	0
● Restaurant	1
● Sports & leisure activities	0
● Clothing stores	6
● Major household appliances (fri...	3
● Small household appliances (mi...	2
● Household furniture (sofa, bed, ...	3
● Specialty or artisanal products	4
● Pharmacy/medicine	2
● Education (primary, elementary, ...	0
● Healthcare (clinic, emergency)	0
● Childcare	0
● Traditional activities (hunting, fis...	0
● ATM	0
● Construction materials and sup...	5
● Farming	6
● Shipping	3
● Mining	1



13. By moving the choices below, rank in order of importance where you go to purchase goods and services.



14. How much do you spend on groceries **per month**?

8
Responses

Latest Responses

"100'
"400."
"700'

15. How much do you spend on restaurants **per month**?

8
Responses

Latest Responses

"100'
"240'
"400'

16. How much do you spend on childcare **per month**?

8
Responses

Latest Responses

"N/A"
"0"
"0"

17. How much do you spend on vehicle payment and vehicle insurance **per month**?

8
Responses

Latest Responses

"1200'

"800'

"600'

18. How much do you contribute to help and support your community members **per month**? (gift, donation, fundraising)

8
Responses

Latest Responses

"250'

"100'

"100'

19. How much do you spend **annually** on vehicle maintenance and registration/license fees?

8
Responses

Latest Responses

"8100'

"800'

"200'

20. How much do you spend **annually** on traditional activities costs? (hunting, fishing, cultural break, arts & crafts etc.)

8
Responses

Latest Responses

"7500'

"15,000'

"0'

21. How much do you spend **annually** on sports and leisure activities?

8
Responses

Latest Responses

"250"
"3,000"
"0"

22. How much do you spend **annually** on clothing?

8
Responses

Latest Responses

"100"
"3,000"
"100"

23. How much do you spend **annually** on self-care? (massage, facial, mani-pedi, haircut and specialty products)

8
Responses

Latest Responses

"50"
"2000"
"100"

24. How much do you spend **annually** on household furniture or small household renovations?

8
Responses

Latest Responses

"None"
"300."
"300"

25. How much do you spend **annually** on education costs? (tuition, supplies, continuing ed etc.)

8
Responses

Latest Responses

"N/A"
"0"
"0"

26. How much do you spend **annually** on non-insured healthcare costs? (dentist, travel to specialist appointments, prescription, prescription glasses etc.)

8
Responses

Latest Responses

"3500 to drive my grandkids for their appointments"
"5,000."
"0"

27. What other types of goods and services do you spend on? How much do you spend on those goods **annually**?

8
Responses

Latest Responses

"Gas mostly"
"Airplane 5,000."
"0"

APPENDIX



EDO WORKSHOP COMMUNITY PORTRAIT

3.7.3 Case Studies and Pricing Factors

[What's in the case studies, and what are the pricing factors identified therein]

Previous cost-of-living studies in Schefferville region – including Schefferville, Matimekush, and Kawawachikamach (Duhaime and Grenier, 2012), in Nunavik (Robitaille, 2018; Duhaime, et al., 2016 and 2022), and in Whapmagoostui (WeedCo, 2019) were not a source of pricing data in our analysis, as prices are out of date and not comparable. The studies give an idea of how of transportation costs affect prices for businesses and consumers.

Schefferville

The Schefferville study documented prices for a food basket containing 159 products that, relative to Sept-Îles, costs 64% more when bought in the Schefferville region compared to Sept-Îles and 61% more compared to Quebec. This means that prices of products in Sept-Îles and Quebec were similar. But, the study points out, this similarity was largely explained by the fact that Sept-Îles had a major retailer – Walmart – providing cheaper prices. This, apart from subsidized maritime shipping to Sept-Îles. In all, when using 2011 prices¹:

- Fruits were 100% more expensive in Schefferville region than in Sept-Îles.
- Vegetables were 25% more expensive.
- Dairy products were 25% more expensive.
- Groceries were 25% more expensive.
- The price gap for frozen products was 75% between Quebec and Schefferville and 90% between Sept-Îles and Schefferville. Frozen products demand extra facilities, this means they will have higher prices.

The Schefferville study (Duhaime and Grenier, 2012) estimates the proportion of freight costs that may partly explain those price differences. Using income and expenditure statements of public establishments and businesses to isolate transportation expenses, the study says that freight costs accounted for 30 to 50% of the cost to suppliers. An estimate of the “Percentage of Total Expenses Allocated to Transportation” by suppliers showed 20% to 32% (in 2009). Business expenses in Schefferville were more than 15% than in Sept-Îles.

Rail Freight and Transshipment Costs

In the Schefferville study, Tshiuetin Railway freight costs to Schefferville region (2011) were analysed using the following data:

- Railway Length (Schefferville to Emeril Junction) is 200 kilometers
- Railway Length (Schefferville to Sept-Îles) is 626 kilometers
- Annual Passenger Transport was approximately 17,000 passengers since operations began in 2005.
- Annual Freight Transport (in 2010) reached 19,000 tons of goods carried by 550 semi-trailers (wagons).
- Estimated Deficit (in 2010) of the railway was \$3 M.
- Federal subsidies exist and are variable year-to-year. In 2009-2010 subsidies equaled \$2.3 M, and \$1.5 M the following fiscal year.

¹ Not accounting for price subsidies under the recently announced (also in 2011) federal *Nutrition North* food subsidy program.

- Freight rates (2010) were approximately \$77 per metric ton, or \$1,645 for a full semi-trailer wagon, and \$519 to transport an empty semi-trailer.
- The railway was charging \$275 per unit to transport snow vehicles and ATVs.
- Passenger fares for a round trip Schefferville-Sept-Îles were between \$113 and \$173 per person.

Multimodal transportation and transshipment costs were estimated considering the steps involved in getting goods shipped to Schefferville region. That is, goods are transported by truck to Sept-Îles station, may be stored, then loaded onto train wagons, then unloaded and stored or delivered as smaller shipments, low-weight, and low-volume items.

As of the time of this report, Services Naskapi Adoschaouana, a subsidiary of Naskapi Development Corporation, still offers transshipment services. At the time of the Schefferville study, rates were as follows:

- Weight-Based Rates: \$10 to \$18 per 100 pounds
- Volume-Based Rates (per pallet): \$187 to \$198 (varies by total number of pallets shipped)
- Transportation for Snowmobiles, ATVs, or Canoes: \$275 per unit

Transshipment services provided by this company (in 2024) include²:

- Transport of dry or refrigerated pallets
- Rental of 48' flatbed, *drybox* and refrigerated trailers
- Transport of dangerous goods
- Transport of parcels or envelopes
- Transport of construction materials
- Transport of motor vehicles (trucks, snowmobiles, ATVs)
- Pick-up of merchandise at Schefferville/Kawawachikamach to bring back to Sept-Îles
- Transport of personal items between Sept-Îles and Schefferville/Kawawachikamach

The Schefferville study concluded that transshipment expenses significantly impact operating costs of businesses and of public services, explaining a large proportion of the higher prices paid by consumers in these remote communities. Given the income gaps between First Nations and non-Indigenous residents of Schefferville region, basic basket prices have a larger effect on the cost-of-living of the First Nations households. No analysis regarding other pricing factors, such as the relative absence of economies of scale, market size, etc., is provided.

Household incomes in Schefferville are around \$50,000 per person, with about 85% obtained from salaried work. In contrast, First Nations residents in Matimekush and Kawawachikamach have significantly lower incomes, averaging just over \$11,300 per person, where 42% of those incomes came from salaries, often part-time, seasonal, or at or near minimum wage, giving a major role to employment insurance, training allowances, retirement benefits, family allowance.

Maritime Shipping

The Schefferville study mentions the port in the Basse-Côte-Nord that links with the railway. Specifically, the study speculates that subsidized maritime shipping appears to have a positive impact on reducing consumer prices. This element is relevant to Eeyou Istchee, given

² Information from company website (February 2024): <https://www.transportservicesnaskapi.com/services>

Waskaganish's part ownership of Moosonee Transport Limited (maritime shipping), and the potential for a harbour and rail link in Whapmagoostui.

Nunavik

Cost-of-living studies in Nunavik (2022, 2018, and 2016) conclude that federal and territorial (Nunavik) price subsidies for grocery items reduce to about half the total price difference with Québec City. In other words, the basic food basket is the largest expense for a Nunavik household.

Cost-of-living indices were calculated using price data collected from households in Nunavik. Indices are grouped into two areas: Hudson (Strait), and Ungava (Bay), whereby the comparative cost of living index in Ungava shows price levels for the communities of Kuujuaq, Kangiqsualujuaq and Tasiujaq, and for Hudson the communities of Puvirnituq, Salluit and Umiujaq. Household spending data came from a sample of 448 households.

Price data was processed using an adaptation of the *Paasche* consumer price index (International Labour Organization, 2004) to calculate a synthetic weighted cost-of-living index for Nunavik, with Quebec City as the reference. In 2016 the price index for Nunavik was 128.7. Without subsidies for groceries the price index would jump to 144, meaning that the basic basket of goods and services costs 44% more than in Québec City. The price index of this basket is broken down into household expense subcategories, including:

- The index of a basic food basket (groceries), at 154.6.
- The index for household maintenance (utilities, etc.), at 148.7.
- The index for recreation (entertainment, etc.), at 131.1.

By 2018, in Nunavik, the largest expenses in relation to prices in Québec City are: food (41.9% higher); shelter (21.6%); and transportation (10.8%). This differs from the rest of Quebec, where a lower percentage of household spending goes towards food and shelter. Nunavik households spend a much higher proportion of their income on food and shelter (63% in Nunavik vs. 41.3% in Quebec). In 2022, revised price data (Duhaimé, 2022) produced a price index for Nunavik of 131.2, meaning that the cost-of-life in Nunavik comparison with a large urban centre (Québec City) is just over 30% higher.

The caveat in the Nunavik cost-of-living estimates over the years, at least in the studies reviewed, is that price data is not robust, and therefore earlier estimates can at best provide a general idea of the actual cost-of-living in Nunavik. As in Nunavik, price data collection in Eeyou Istchee generally presents a challenge. This challenge is worth overcoming to gain the ability to autonomously monitor the household impact of economic development in the territory.

Whapmagoostui

Whapmagoostui is considered an isolated community as there is no road or rail link to a highway or to any other Cree First Nations (CFNs). The reviewed study concludes that freight costs have major impact on food, hunting equipment, fuel, and construction materials. However, Whapmagoostui benefits from Québec and Canadian food price subsidy programs available, since 2011, to Kuujuarapik food retailers, who pass savings onto consumers. Savings available to Cree via Kuujuarapik reduced food prices dropped by over 30% compared to prices before the subsidies, meaning that Whapmagoostui's grocery bills are lower than those for Wemindji, Mistissini, and Chisasibi, the cost-of-living is still higher in Whapmagoostui than in other CFNs.

Ultimately, Kuujjuarapik's subsidies are not meant for Whapmagoostui. Therefore, the study advocates for additional subsidies, grants, and allowances to mitigate high prices for fuels, construction materials, and food products.

Transportation costs explain the high prices, as "some products are trucked to Chisasibi or Wemindji, then either shipped by air or [maritime container] to Whapmagoostui". Air freight has obvious limits and is expensive. Hazardous products (i.e., flammable) cannot be shipped by air. This is a situation in which having two airline options for transporting goods, Creebec and Air Inuit, does not translate into a sufficient advantage. Shipping a regular size crate (60 pounds) to Wemindji by land costs about half of what it costs to deliver the same crate to Whapmagoostui by air. In the case of Chisasibi the difference 89% cheaper.

Canada Post provides mail services across Eeyou Istchee. At the time of the study (2019) the cost of sending a parcel from Wemindji, Mistissini, and Chisasibi was fixed (\$41.77). Sending a parcel to Whapmagoostui cost 230% more than sending it to another CFN (\$138).

An item that stands out in the study, apart from grocery prices, is energy. While Kuujjuarapik residents rely on the economy of scale achieved by the territorial (Nunavik) FCNQ Petrol Company for their energy needs (gasoline, mazut, diesel, other petroleum products), no such economy of scale is available to CFNs. As a result, the study estimates, Wemindji pays 28% more than Chisasibi for fuel, and Whapmagoostui pays 60% above Montreal prices for its gasoline.

In the final analysis, the study concludes that the cost-of-living is higher in Whapmagoostui because of the challenges related to lack of adequate infrastructure for transporting and storing goods. The study uses the term "supply chain distortions" to highlight that prices depend to a large extent on efficient transportation.

What the studies mean

In the general context, the research into the price factors of the cost-of-living of Schefferville, Nunavik, and Whapmagoostui emphasize transportation costs as the key pricing factor. Whereas in most CFNs the cost-of-living is somewhat mitigated by lower housing prices – the large majority are renters of CFN-owned housing – transportation and fuel costs represent a bigger challenge. The conclusion is that more efficient transportation, in terms of logistics (including storage) and volume of transported goods could bring down the cost-of-living more significantly, assuming that savings in cost of transportation are passed down to the consumer.